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Multidisciplinary Journal of School Education

**Skills, Competences, Values
in Education: New Perspectives**

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Editorial

(pp. 9–10)

The current global challenges (economic and ecological crises, epidemics, wars, etc.) prompt a deep rethink and search for ways to address them. In this context, education should become a key driving force for achieving sustainable recovery and further intensive development of society. That is why the discussion of scientists and educators around the world is focussed on reassessing knowledge and skills and on the development of common values necessary for the success and self-realisation of individuals in the face of rapid socioeconomic changes and crises anywhere in the world. This determines the topic of the issue *“Skills, Competences and Values in Education: New Perspectives”*.

The changes taking place in society not only transform organisations and social institutions, but also affect the consciousness, behaviour and values of individuals. Education, which has a pronounced value component (Ognevyuk, 2003), plays a crucial role in the formation and development of human values. The first section of our issue ‘Value orientations in education’ is devoted to the study of this problem. In their articles, the authors consider values to be the basis of the sustainable development of society, focussing on respect for the cultural otherness of participants in the educational process and on the regulation of the upbringing and education of children from national minorities. The researchers emphasise the need for a cross-cutting education aimed at forming values common to citizens of different countries (democracy, equality, freedom, tolerance, respect for different cultures, non-discrimination, peace and international understanding, etc.) Such an approach will promote the development of a harmonious educational environment (real and virtual) at different levels of education; it will improve the quality of education, teacher training and professional development at universities.

Other important priorities of today’s education policy are to strengthen the development of cross-cutting (transferable) skills and key lifelong

competences, and to introduce a competence-based education paradigm – from preschool to adult education (Recommendation on Key Competences for Lifelong Learning, 2018). In order to achieve professional success and remain competitive in the labour market, professionals must constantly acquire new skills, which require flexibility, creativity and a positive attitude towards continuous self-improvement. The second section in this issue, 'The practice of developing skills and competences throughout life', is devoted to research on the peculiarities and conditions of developing and improving various competences (social and emotional) and skills (communicative, linguistic, reflective, etc.). For example, the authors emphasise the need to develop teachers' reflective skills, which will make their professional activity, and consequently, the quality of education for effective.

Ensuring the quality of modern education is not possible without innovations in the process of teaching and learning. That is why a number of authors offer their vision of how to address this issue in the third section, 'Innovations in education for developing skills and competences'. The authors discuss the issue of developing a digital educational environment, where competences and skills of students are formed, and of ensuring cybersecurity in this space. The authors also prove the effectiveness of ICT in developing students' writing skills and its impact on the development of reflexes and manual coordination in children and adolescents. The theme of the issue continues in the last section, 'Challenges and perspectives of modern education', which examines the problems of developing skills and competences in the context of the challenges existing in modern society. The authors focus on the threats to education posed by the COVID-19 epidemic, climate change, etc., and suggest ways to overcome these challenges.

The articles presented in this issue are the result of independent and thorough research, which reveals a certain part of the issue under study. It should be noted, however, that the problem of developing competences, skills and values in education requires further attention from scientists and educators.

Olena Protsenko

Value Orientations in Education



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Knowledge and Values: The Importance of Personal Social Responsibility for Education, Management, and Sustainable Development

(pp. 13–37)

Abstract

Social responsibility is a multidimensional construct which manifests itself in many areas of human life – in both the private and professional spheres. In business, people’s individual attitudes are often the starting point for organizational activities. Even the most ethical business behavior, if not matched by changes on the part of individuals, will not create a change on a larger scale. Thus, personal social responsibility can be defined as a key element of corporate social responsibility (CSR), because the implementation of this idea in business depends on the behavior of the individuals working in the company.

The main purpose of the article is to investigate published knowledge concerning the concept of personal or individual social responsibility (PSR or ISR) and the personal or individual social responsibility scale. The authors

made a systematic literature review, analyzing full-text scholarly articles published between 2000 and 2021. International databases and journal libraries – EBSCO, JSTOR, Mendeley, Wiley Online Library, Web of Science, and Scopus – were searched using the logical phrases “personal social responsibility,” “individual social responsibility,” “personal social responsibility scale,” and “individual social responsibility scale.”

The analysis shows that the concept of individual/personal social responsibility is considered in the literature in various contexts, though few works are available on this concept and even fewer describe its indicators. Using keywords relevant to the area, 14 publications were selected for analysis. This leads to the conclusion that there is a research gap in this area, which the authors intend to fill in the course of further research.

Keywords: personal social responsibility, individual social responsibility, personal social responsibility scale, measuring responsibility, responsibility in education

1. Introduction

Corporate social responsibility (CSR) is an extremely broad concept and is defined in various ways. Due to its multifaceted nature and complexity, it should be interpreted holistically. One of the areas of CSR is the personal responsibility of individuals. In this approach, social responsibility is the responsibility of not only organizations (in accordance with the idea of CSR), but also individuals. Viewed in this way, social responsibility is an ethical concept according to which an individual, organization, or institution has a duty to act for the benefit of society. Although some authors interpret it simply as a passive attitude (not engaging in socially harmful activities), the idea represents an active obligation to perform activities that directly contribute to the achievement of social goals (Dieguez, 2021). The authors believe that the undisputed importance of this goal is a reason to nourish this attitude in the educational process. As a development of education, reforms require measurement tools to show their reliability and efficiency (Tchorzewski, 2017). However, in order to measure something, the construct itself should be well defined.

Social responsibility consists of three components that ideally should be closely related to each other in order to maximize impact (Venugopala, 2015):

1. government social responsibility (GSR), whose primary responsibility is to create the best environment for citizens through large social assistance programs;
2. corporate social responsibility (CSR), a form of corporate self-regulation integrated with the business model and the company's sense of responsibility toward the community and the environment;
3. personal social responsibility (PSR), understood as the main responsibility of each individual toward the family, workplace, community and environment.

CSR is a widespread idea in both research and practice (Aguinis & Glavas, 2012; Fiechter et al., 2020). According to the European Commission, CSR is the responsibility of enterprises for their impact on society (EU, 2011). The growing need for genuine and sincere social responsibility of businesses has also resulted in a growing emphasis on the social responsibility of individuals, including a reflection on the interpenetration of personal and organizational concepts of social responsibility (Bénabou & Tirole, 2010). A company is not only a single legal entity, but also a group of morally responsible individuals who may be held responsible for the immoral actions of the company (Takala & Pallab, 2000). As Collier and Esteban (2007) note, it is employees who bear the main responsibility for implementing ethical corporate behavior and its success will largely depend on the employees' willingness to cooperate.

In the philosophical dimension, humans are relational and social beings. Therefore, individual responsibility is realized socially, which then takes on the meaning of social responsibility. Co-responsibility is a necessary and inevitable consequence of an individual's life, education, and activity in a community. Social responsibility is the individual responsibility of a given person for all contexts of being, living, and acting in a community. Thus, the simple and obvious conclusion is that the basic

postulate of social responsibility is building an awareness that we are all responsible for everyone (Drożdż, 2019). Thus, PSR is the primary responsibility of each individual toward the family, workplace, local community, and environment.

Personal social responsibility is a broader concept than the widely studied consumer social responsibility (CnSR), which can be defined as a conscious and deliberate choice to base consumption choices on personal and moral beliefs (Devinney et al., 2006). Personal social responsibility goes far beyond being responsible as a consumer, as it also applies to co-responsibility for the environment (e.g., separating waste) or local communities (financially supporting charity campaigns or joining NGOs). People who feel responsible toward society will be concerned about solving and eliminating the problems of others, even if such behavior is not profitable for them (see Davis et al., 2017). PSR is the moral duty of every citizen to do what is right. It is voluntary and derives from personal integrity, ethics, and commitment. Moreover, it is about giving and taking as well as striving for continuous improvement in the society (Venugopala, 2015).

There is a great deal of research into the nature and practice of CSR and related to social expectations in different economies and industries (see Jamali & Mirshak, 2007; Young & Marais, 2012; Sharma, 2019). The concept of PSR has been less explored. Researchers state that the idea of PSR is a response to the growing demand of societies for individuals who behave more responsibly toward their families, workplace, community, and the environment (Tuzlukova et al., 2020). However, many authors emphasize the lack of comprehensive research into socially responsible behavior at the individual level (see Rahimah et al., 2018; Păceșilă, 2018; Mallory et al., 2020).

The goal of the article is to present a systematic literature review on the concept of personal and individual social responsibility and the scale of personal and individual social responsibility. The authors analyzed full-text scholarly articles from 2000 to 2021 found in international databases: EBSCO, JSTOR, Mendeley, Wiley Online Library, Web of Science, and Scopus.

The article presents the first stage in the development of the Personal Social Responsibility Scale (PSRS), which can be used to evaluate

the educational process and in business. The process consisted of expert method, validity examination, and a survey on a large sample of 3,019 respondents and factorial analysis. The tool distinguishes scales such as “Care for Natural Resources,” “Care for Animals,” “Care for Friends and Family,” “Care for the Future of the World,” “Activism,” and “Self-Responsibility.” The results of the broad research will be published in a series of articles.

2. Methodological procedure – systematic literature review of the concepts

The systematic literature review is considered the “new standard” in management (Hiebl, 2021) and has been defined as the cornerstone of the research process (Tranfield, et al., 2003; Williams, et al., 2021). It is helpful in assessing the state of knowledge, existing publications, or a specific topic or research problem (Tranfield et al., 2003). It also provides information on who has conducted similar studies and what has been found in them (Moher et al., 2010). It can be used, for example, to create a research agenda, identify research gaps, or discuss a specific issue (Snyder, 2019). A systematic literature review should be structured, transparent, and comprehensive (see Denyer & Tranfield, 2009; Rojon et al., 2011; Jesson et al., 2011; Okoli, 2015; Williams et al., 2021; Hiebl, 2021).

The authors wanted to answer the following research questions: How are PSR and ISR understood? Are these single or multidimensional constructs? What are the tools used to measure them?

For a better understanding of the concept of PSR, including its measurement tool – the PSRS – and due to the conceptual convergence of the terms “personal” and “individual,” the authors decided to review the literature regarding both PSR and ISR. However, due to the large number of publications on “social responsibility” and “corporate social responsibility” (see Table 1), these keywords were excluded from the literature review at an early stage.

**Table 1. Publications from 2000 to 2021 containing the terms
 “social responsibility” and “corporate social responsibility”
 in the title, abstract, or keywords**

	Social Responsibility	Corporate Social Responsibility
EBSCO	89,062	60,969
Wiley Online	22,617	11,199
JSTOR	25,858	13,395
Mendeley (*)	52,683	37,329
Scopus	33,016	21,629
Web of Science	39,519	27,405

Legend: (*) only 2014–2021 due to software limitation

Due to the goal of the article, the following keywords were selected: “personal social responsibility,” “individual social responsibility,” “personal social responsibility scale,” and “individual social responsibility scale.”

In the process of investigating publications related to PSR and ISR, the available strategies of searching the literature were used: based on databases, complementary, and alternative (Lenart-Gansiniec, 2021). The process of creating a literature database was based on international, electronic databases and journal libraries: EBSCO, JSTOR, Mendeley, Wiley Online Library, Web of Science, and Scopus. The subject of the analysis was titles, topics, and abstracts containing the above-mentioned terms (see Tables 2 and 3). The resulting set of studies was supplemented with peer-reviewed articles from the online database Google Scholar and bibliographic items obtained with the “snowball” technique, that is, those found in the references of the publications from the search (Greenhalgh & Peacock, 2005).

Filters were used when searching the databases, including:

- Topic – the following terms in the title and/or summary: “personal social responsibility,” “individual social responsibility,” “personal social responsibility scale,” and “individual social responsibility scale”

- Year of publication – works published between 2000 and December 2021
- Publication status – only international, full-text publications were considered to ensure their accuracy
- Language – publications in English, in order to obtain publications in a commonly used and widely available language
- Area – management, business administration and social sciences

3. Results

The results of the analysis are presented in the tables below. Table 2 shows the number of articles identified using “personal social responsibility” and “individual social responsibility” in the title, abstract, or keywords (see Table 1). The selected articles were limited by the search criteria indicated above.

Table 2. Overview of the literature base for the terms personal social responsibility and individual social responsibility, by database

Search criteria	EBSCO		Wiley Online Library		JSTOR		Mendeley		Scopus		Web of Science	
	PSR	ISR	PSR	ISR	PSR	ISR	PSR	ISR	PSR	ISR	PSR	ISR
Title, abstract, or keywords	29	34	48	42	34	62	86	67	36	34	23	26
Year of publication (2000–2021)	27	34	36	35	21	38	67	45	30	33	22	26
Scholarly journals	19	20	32	23	20	34	52	45	25	26	22	19
Language	18	17	3	10	20	34	n/a	n/a	23	25	21	17
Scientific area	9	10	2	10	3	15	n/a	n/a	23	15	3	8
After verification of abstracts and titles	5	4	1	2	0	7	3	5	6	4	3	4
Total	5	4	1	2	0	7	3	5	6	4	3	4

It can be concluded that the concept of PSR still constitutes a research gap. Articles on this topic began to appear in the last decades of the 20th century, with more publications being observed since the beginning of this millennium (Păceșilă, 2018). The data in Table 1 show that this issue is still of relatively low importance in the academic community. There is a lack of comprehensive research on PSR and the number of available publications on this subject is very limited.

It is noteworthy that there are more articles on the concept of PSR on Mendeley, which acts as a free manager of scholarly publications and an academic social network. For example, in the field of PSR, there are articles analyzing the concept very thoroughly and reliably which were not indicated in other databases due to their being published in unindexed journals. For example, “Introducing personal social responsibility as a key element to upgrade CSR” is a publication by S. L. Davis et al. (2017) in the *Spanish Journal of Marketing-ESIC* and Păceșilă’s “The individual social responsibility: Insights from a literature review” is an article from the Romanian journal *Management Research and Practice*.

The analysis of full-text scholarly articles published between 2000 and 2021 in scientific databases using the phrases “personal social responsibility,” “individual social responsibility,” “personal social responsibility scale,” and “individual social responsibility scale” returned 51 articles. After the authors and titles were verified, 24 non-repeating publications were distinguished (see Table 3); these were then subjected to a preliminary content analysis.

Table 3. Extracted publications, the final stage of the systematic literature review

	PSR	ISR	PSRS	ISRS
EBSCO	Kamal, Y. (2015). Brown, K. et al. (2019). Tourigny, L. et al. (2019). Davis, S. L. et al. (2021). Schiff, D. S. et al. (2021).	Păceșilă, M. (2018); Rahimah, A. et al. (2018); Secchi, D., & Bui, H. T. (2018); Antonetti, P. et al. (2020)	Davis, S. L. et al. (2021).	–
Wiley Online	Davis, S. L. et al. (2021).	Davis, S. L. et al. (2021); Rahimah, A. et al. (2018).	Davis, S. L. et al. (2021).	–

JSTOR	–	Maignan, I. (2001). Secchi, D. (2009). Bénabou, R., & Tirole, J. (2010). Oliver, J. D., & Rosen, D. E. (2010). Tietz, M. A., & Parker, S. C. (2014). Haski-Leventhal, D. et al. (2017). Secchi, D., & Bui, H. T. (2018).	–	–
Mendeley	Davis, S. L. et al. (2017). Bugdayci, S. (2019). Davis, S. L. et al. (2021).	Päcešilā, M. (2018); Secchi, D., & Bui, H. T. (2018); Ebrahim, A. H., & Buheji, M. (2020); Musa A. A. et al. (2021). Körükcü, M., & Tangülü, Z. (2021).	Davis, S. L. et al. (2021).	Körükcü, M., & Tangülü, Z. (2021).
Scopus	Davis, S. L. et al. (2017). Bugdayci, S. (2019). Tourigny, L. et al. (2019). Davis, S. L. et al. (2021). Schiff, D. S. et al. (2021). Syed, A., & Shanmugam, M. (2021).	Secchi, D., & Bui, H. T. (2018). Antonetti, P. et al. (2020). Körükcü, M., & Tangülü, Z. (2021). Lu, M. et al. (2021).	Davis, S. L. et al. (2021).	Körükcü, M., & Tangülü, Z. (2021).
Web of Science	Tourigny, L. et al. (2019). Davis, S. L. et al. (2021). Syed, A., & Shanmugam, M. (2021).	Rahimah, A. et al. (2018). Secchi, D., & Bui, H. T. (2018). Jang, S. (2021). Silva, R et al. (2021)	Davis, S. L. et al. (2021).	–
Not repeated (in column)	8	17	1	1
Not repeated (total)	24			

Despite the relatively small number of articles ultimately selected for analysis, over the past few years there has been a noticeable increase in publications in this area.

Figure 1. Number of publications in particular years

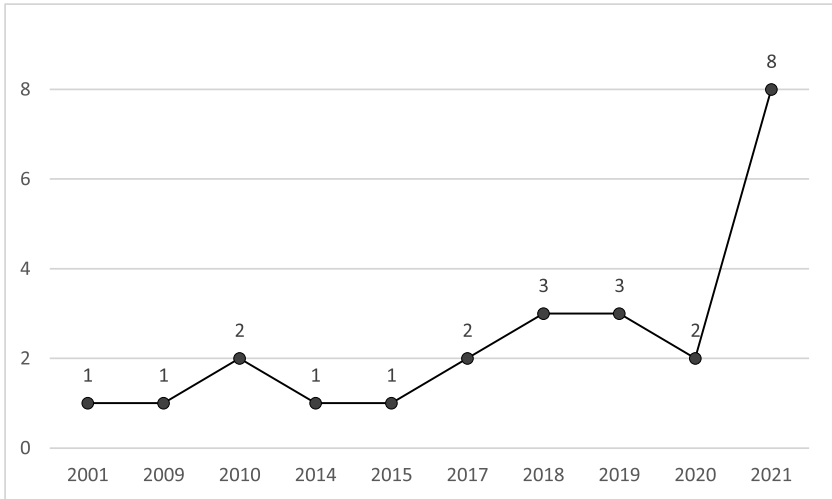


Figure 1 shows the evolution of scholarly publications on PSR in the study period. Since 2017, the number of these articles has increased significantly: 75% of the 24 articles identified in the 21st century have appeared in the last five years.

The authors also decided to examine in which scholarly journals there were publications devoted entirely to the concept of PSR. For this purpose, these journals were verified as being on the Academic Journal Guide (AJG) 2021, a list of recognized (leading) journals prepared by the Chartered Association of Business Schools ("ABS list"). The ABS list is based on an analysis of bibliometric indicators and expert assessments and it includes journals of both the highest and moderate international reputation in the area of business and management research. It shows the quality of journals using a ranking system from 1 to 4+, with those with a 4+ ranking being the highest rated titles. This guide clearly shows which journals publish the best work in a given field (TU Dublin Library Service, 2022).

Table 4. The leading journals according to the Academic Journal Guide (AJG) of the Chartered Association of Business Schools (CABS, 2021)

Journal Title	Publisher Name	Field	Profile Links		Rankings							
			Scopus	Web of Science	AJG 2021	AJG 2018	AJG 2015	AJG 2010	Journal Citation Reports rank	SNIP rank	SJR rank	CiteScore rank
Economica	Wiley – Blackwell	ECON	x	x	3	3	3	3	94	79	68	97
Small Business Economics	Springer Nature	ENT-SBM	x	x	3	3	3	3	8	6	5	7
Journal of Business Ethics	Springer Nature	ETHICS-CSR-MAN	x	x	3	3	3	3	16	17	15	16
Journal of Business Research	Elsevier	ETHICS-CSR-MAN	x	x	3	3	3	3	15	11	14	11
Social Responsibility Journal	Emerald	ETHICS-CSR-MAN	x	–	1	–	–	–	–	41	45	41
Journal of Consumer Behaviour	Wiley - Blackwell	MKT	x	x	2	2	2	2	–	32	29	28
Journal of Marketing Theory and Practice	Taylor & Francis	MKT	x	–	2	2	2	–	–	19	25	33
Corporate Social Responsibility and Environmental Management	Wiley - Blackwell	REGIONAL STUDIES, PLANNING AND ENVIRONMENT	x	x	1	1	1	1	3	3	5	2

Source: based on the Academic Journal Guide 2021 (<https://charteredabs.org/academic-journal-guide-2021>)

Table 4 lists the journals named in the ABS list. Next to the journal title, there is also the name of the publisher, field, and profile links (Scopus and/or Web of Science). Data from five different rankings were considered: the Academic Journal Guide (AJG) (for 2010, 2015, 2018, and 2021), the Journal Citation Reports (JCR) from Clarivate, the Source Normalized Impact per Paper (SNIP), the SCImago Journal Rank (SJR), and the CiteScore (Academic Journal Guide, 2021).

The analysis showed that the Academic Journal Guide 2021 list includes eight out of 20 scholarly journals that publish articles on PSR: *Corporate Social Responsibility and Environmental Management*, *Economica*, *Journal of Business Ethics*, *Journal of Business Research*, *Journal of Consumer Behavior*, *Journal of Marketing Theory and Practice*, *Small Business Economics*, and *Social Responsibility Journal*. If we take into account the fact that five articles were published in the *Journal of Business Ethics*, it turns out that exactly half of the publications in Table 4 appeared in reputable scholarly journals. Thus, it can be assumed that the concept of PSR is an important and topical area of contemporary scholarly research.

4. Discussion

A thorough analysis of abstracts, introductions, keywords, and summaries of the selected 14 articles distinguished several characteristic themes.

1. General, conceptual articles with a literature review of the PSR concept (Davis et al., 2017; Păceșilă, 2018; Davis et al., 2021)

In the most comprehensive work so far, “Introducing personal social responsibility as a key element to upgrade CSR,” Davis et al. (2017) initiated a discussion which was based on qualitative research on the construct of PSR and its justification and definition and which considered previous research on ethical or responsible consumption and CnSR. The authors view PSR as a new concept, based on corporate and consumer social responsibility, providing a theoretical framework as a starting point for future empirical research. The authors discuss this concept as “the way a person performs in his daily life as a member of the society – and not only as a consumer – basing his decisions on a desire to minimize negative impacts and maximize positive impacts on social, environmental and economic environment in the long run” (Davis et al., 2017). They then emphasize how the concept of social responsibility relates to the prospects

of it being researched in the future, including education and overall development. According to the authors, PSR “should describe the individual’s behavior toward and the effects on his/her social and ecological environment through his/her daily decisions.” Consequently, individual decisions will “pursue better relationships with their stakeholders through their responsible behaviors” (Davis et al., 2017).

2. **Publications highlighting the role of government, employers/managers, and their impact on employees** (Kamal, 2015; Haski-Leventhal et al., 2017; Tourigny et al., 2019; Lu et al., 2021) **and on CSR and financial performance** (Jang, 2021), **or their influence on developing pro-social attitudes in young people** (Brown et al., 2019; Schiff et al., 2021)

Haski-Leventhal and co-authors (2017) analyze patterns of identity and behavior and the determinants and levels of compliance linking employees and employers. They provide the basis for a multidimensional, dynamic model of CSR and employee social responsibility (ESR) compliance. The proposed approach improves the understanding of employee–employer compliance, thereby expanding the range of opportunities for positive organizational outcomes based on CSR. The relationship between CSR and PSR was also studied by Kamal (2015). He found that the PSR of entrepreneurs in selected organizations (successful in Bangladesh), had a certain impact on their CSR. Tourigny et al. (2019) showed that ethical leadership has a positive effect on CSR at the individual level and that CSR has a positive effect on trust in organizations at the individual level, which in turn significantly and positively affects organizational citizenship behavior (OCB) through the mediating effect of taking personal social responsibility. In contrast, Jang (2021) examined the mediating effect of the CSR of Korean firms on the relationship between Korean managers’ religiosity, their ISR, and financial performance. The results of this study suggest that Korean managers’ personal values, such as their religiosity and ISR, may influence a firm’s CSR activities or financial performance. In turn, the results

of a study by Schiff et al. (2021) emphasize the key individual and institutional impact and barriers for scientists and practitioners interested in nurturing pro-social attitudes among engineering students. The role of higher education institutions in building socially responsible attitudes among students was also emphasized by Brown et al. (2019). The authors, at one of the research universities in New Zealand, investigated how three specific attributes of a graduate are achieved: a global perspective, knowledge of the environment, and those aspects of ethics related to PSR. These attributes are important because, in addition to knowledge and skills, they can include students' values, attitudes, and future behaviors.

3. **Articles examining the impact of individual factors (including education) on PSR** (Secchi, 2009, Bénabou & Tirole, 2010; Tietz & Parker, 2014; Secchi & Buy, 2018; Tourigny et al., 2019; Bugdayci, 2019; Antonetti et al., 2020; Körükcü & Tangülü, 2021; Schiff et al., 2021)

Bénabou and Tirole (2010) combined the achievements of psychology and the economics of pro-social behavior to shed light on the trend of individual and corporate social responsibility and its underlying mix of motivations. Interesting research questions were also posed by Secchi (2009), who was investigating the role and impact of social responsibility on the mental and cognitive processes of individuals, especially those who manage enterprises. The author describes how the distributed cognition approach (cognition transferred to the environment through social and technological measures) provides a real explanation for social responsibility in human thinking. In turn, Tietz and Parker (2014) analyzed an important aspect of social behavior and, using the theory of social identity, studied the determinants and goals of charity among the self-employed in the USA.

Issues related to ISR were investigated in the context of the influence of group dynamics on individually socially responsible attitudes. The results show that group involvement increases the individual attitude to social responsibility. Respondents with an initially low

attitude to social responsibility were more likely to change their opinion when group members showed a more positive attitude to social responsibility. Conversely, the attitudes of people with a positive attitude do not change much from the beginning, regardless of the characteristics of the group (Secchi & Bui, 2018). This shows that there is a potential for developing socially responsible attitudes in young people, students, or employees, for example, if they are part of a group of people positively related to this idea. Young people were also of interest to Schiff and co-authors (2021), who – under the influence of the Professionals' Social Responsibility Development Model (PSRDM) – studied the relationship between the personal attitudes of (engineering and computer science) students' social responsibility and developing professional attitudes of social responsibility. A wide range of inhibitory factors were analyzed, those occurring at university and at an earlier stage, including early influences from parents, religious values, collegiate social interaction, students' limited familiarity with their future profession, and the social/technical divide and meritocratic ideology in engineering culture. In turn, Körükcü & Tangülü (2021) examined the level of ISR of candidates for teachers of the social sciences. They found that there was a significant difference in the level of individual and global social responsibility in terms of gender in favor of female teachers for job training, while there was no significant difference in terms of age.

4. **Texts linking PSR with a pro-environmental attitude and conscious consumerism** (Maignan, 2001; Oliver & Rosen, 2010; Rahimah et al., 2018; Musa et al., 2021; Syed & Shanmugam, 2021)

Based on consumer research conducted in France, Germany, and the United States, Maignan (2001) investigated the willingness of consumers to support socially responsible organizations and analyzed their assessment of the economic, legal, ethical, and philanthropic responsibility of the company. In the context of PSR, the results of a study carried out by Oliver and Rosen (2010) can also be used. As a result, US drivers could be segmented based on individual

environmental values and consumer self-efficacy in protecting the environment. The environmental propensity framework (EPF) of consumers can significantly influence personal socially responsible decisions within, for example, care for natural resources, care for animals, and/or care for the future of the world.

The original research was undertaken by Rahimah et al., who proposed a framework for examining ecological consumption behavior from the perspective of fear of death and ISR. On the other hand, Syed and Shanmugam (2021) conducted research aimed at analyzing the influence of demographic groups (i.e., gender groups, marital status, age groups, income groups, experience groups, education groups, and occupational groups) on behaviors related to socially responsible consumption.

5. Articles indicating/describing scales for measuring PSR, of various design and nomenclature (Bugdayci, 2019; Wong et al., 2019; Jang, 2021; Davis et al., 2021; Körükcü & Tangülü, 2021)

According to Davis et al., it is necessary to develop the concept of personal social responsibility (PSR). The authors developed a reliable scale to measure PSR, a concept that encompasses individual behavior from the perspective of the individual as a citizen. Their analysis suggests that PSR is a multidimensional construct consisting of the economic, legal, ethical, philanthropic, and environmental dimensions of individual behavior. In turn, Körükcü and Tangülü (2021) used the following data collection tools for the study: the Demographic Information Form, the Individual Social Responsibility Scale, and the Global Social Responsibility Scale. Syed and Shanmugam (2021) used a socially responsible purchase and disposal scale to measure socially responsible consumption behavior among consumers. Jang (2021), on the other hand, used confirmatory factor analysis to test the proposed hypotheses.

6. Publications highlighting the local aspect of the research, with the possibility of extending it internationally (Maignan, 2001; Tietz

& Parker, 2014; Kamal, 2015; Wong et al., 2019; Jang, 2021; Lu et al., 2021; Musa et al., 2021)

The various results of US, French, and German consumer research provide useful guidance for the effective management of cross-border social responsibility initiatives and for future research involving consumers from other countries and regions (Maignan, 2001). Tietz and Parker (2014) confirmed the hypotheses on the US data and found that American self-employed people more often show social responsibility toward their community and donate more funds to charity than the general US population. This study can be used for other countries to investigate the ISR of entrepreneurs toward the society. The local aspect relating to the CSR–PSR relationship was studied in the context of how some successful organizations in Bangladesh practice CSR and how their entrepreneurs maintain their PSR (Kamal, 2015). Kamal’s study was probably the first of its kind in the context of developing countries. The publication by Lu et al. (2021) can be cited in the context of studying the relationship between CSR and ISR in China. This article deals with the role of government in defining ethical behavior and the influence of Chinese celebrities on developing individual, socially responsible attitudes among society. It draws particular attention to the role of the government as a facilitator and agenda-setter. It also highlights the discrepancy between societal expectations and the findings of the report on the social responsibility of Chinese influential personalities, which can be largely explained by the lack of consensus on what constitutes “ethical” behavior among individuals. These studies consider the local context, cultural factors, and China’s unique institutional environment.

7. Texts on the current world situation, the COVID-19 pandemic (Ebrahim & Buheji, 2020; Silva et al., 2021)

In times of uncertainty, there is a great need to protect and enhance the well-being of societies around the world. CSR and ISR underlie these needs. These studies propose a holistic strategic

framework for social responsibility and attempt to answer the questions of how and where to direct the intentions of social responsibility in order to help achieve the best possible effect in the fight against the COVID-19 pandemic. The topic of ISR and social entrepreneurship in times of pandemic was also addressed by Silva et al. (2021), who examined how and why different actors reacted to the crisis caused by the pandemic.

The set of publications used in the systematic literature review was supplemented with other publications obtained through the snowball technique (Greenhalgh & Peacock, 2005). By analyzing them, we confirmed that the concepts of individual and personal social responsibility in the literature is considered in various contexts and configurations. These texts explored, inter alia, competences related to CSR, including individual competences based on values and personal views and experiences in the field of CSR (Reflecting on personal CSR views and experiences) (Osagie et al., 2016). Other authors have examined specific aspects of employee's personality that influence whether employees will engage in socially responsible activities at work (and outside of it). The research also emphasized the role of individuals, especially employees of small and medium-sized enterprises, who perceive moral responsibility for CSR and the strength of their commitment or lack of involvement in the implementation of CSR strategies in the company (Sendlhofer, 2020). ISR is not an act of charity performed at the time or in communities where individuals have a direct interest and in which they feel best. It is individually, ethically, and philanthropically assumed behavior that manifests itself constantly – not a momentary fascination, acting for show, but a real-life attitude covering all aspects of life. It is the behavior of an activist/volunteer/lobbyist always aligned with community problems and interested in solving them (Păceșilă, 2018).

Păceșilă (2018) thoroughly and thematically analyzed the content of articles on ISR, identifying the following main trends:

- Each person has a responsibility to the community or society at large to promote or support a balance between the economy and ecosystems.
- Each person is responsible for the economic, social, and environmental impact of their actions or decisions.
- People should be aware of the values and principles that guide their lives and decisions and should act not only for their own good, but also for the good of the community.
- Cultivating individual social responsibility among children and adolescents requires promoting pro-social behavior as well as creating opportunities to exercise civic skills.

The need to develop responsible attitudes from an early age has also been emphasized by Pozo et al. (2018), who postulated that children, regardless of their country of origin, should be taught universal values: care for the welfare of others (social responsibility), independence, and care for one's own things (individual responsibility).

5. Conclusions

The systematic literature review on PSR and ISR was a challenge. Articles on this topic are scattered across many journals, often unavailable in open databases. The authors of these publications perceive the concept in different ways. The results of the analysis show that there is little scholarly work available on PSR, and even less on ways of measuring it. Ultimately, only 24 publications were identified with the use of appropriate keywords in this field of study. Research must be continued in order to emphasize the importance of this issue at the local, national, and global levels. Our research also proved that knowledge concerning the subject is scattered, there are no meta-analyses, and only a few texts can be classified as systematic literature reviews.

Considering the theoretical contribution in the search for research directions, it can be concluded that the results of this article are consistent

with previous research and contribute to the further promotion of PSR and ISR as the scope of recommended future research. Once ISR is recognized as part of everyday life, change and progress worldwide will no longer be a problem (Păceșilă, 2018). Understanding the construct of PSR better also enables us to create measurement tools which can be used not only during the educational process, but also in a business context, for example, when companies or NGOs conduct recruitment.

The choices human beings make today will determine the world in which they live tomorrow (Des Jardins, 2007).

* * *

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Foreign Minors in Poland: Legal and Educational Aspects

(pp. 39–57)

Abstract

The author takes up the problem of foreign minors living in Poland, which was first noticed in this country at the beginning of the 1990s. In the Polish literature on the subject, the problem of migration and minors is most often discussed in the context of labour migration of Poles and problems related to the absence of parents in Poland. The problem of foreign minors living in Poland fits into a wider European context. The objective of this article is to understand the legal and demographic aspects of foreign minors as well as the dilemmas and challenges faced by Polish schools in the area of education. To pursue this cognitive objective, the author conducted an analysis of the relevant literature. In order to investigate the topic, two research questions were formulated: a) What is the Polish migration policy towards foreign minors from the legal perspective? b) What is the situation of foreign minors in Polish schools, including legal norms and problems connected with their education and upbringing?

In conclusion, it should be stated that Poland lacks a broad strategy and holistic policy from the government and non-governmental institutions on the integration of foreigners. Nevertheless, Polish law and institutional practices are aimed at safeguarding the interests of foreign minors and respecting children's rights, their subjectivity, and national and cultural identity. The upbringing of minor foreigners living in Poland poses new challenges for schools and teachers, who should acquire new competences

in intercultural education and educational practices aimed at students from other cultures. It should also be noted that there are no specialised centres capable of providing adequate care and assistance to such children, who are often victims of violence, crime and exploitation. Educational authorities and schools tend to incline towards the paradigm of inclusion and acknowledging the 'Other' when it comes to children from other cultures, rather than discrimination and opposition to the process of multiculturalism.

Keywords: foreign minors, school, Poland

Introduction

This article will address the issue of foreign minors who live in the Republic of Poland. It is worth noting that European researchers focus primarily on minors who come to the EU on their own (unaccompanied minors). On the other hand, in the American context, authors focus their research more on undocumented minors (Bhabha, 2014; Menjívar & Perreira, 2017). The problem of foreign minors was first noticed in Poland at the beginning of the 1990s, when migration increased and led to a situation in which Poland ceased to be only a country of transit, but also a destination country for many immigrants. In the Polish literature on the subject, the problem of migration and minors is most often discussed in the context of labour migration of Poles and problems related to the absence of parents in Poland (Trusz, 2018). Interesting research on the acceptance and integration of foreign minors and children of Poles who return from abroad can be seen in the Polish literature (Ogrodzka-Mazur, 2018). Nevertheless, the problem of foreign minors is still somewhat neglected in the Polish literature (Albański, 2020, p. 10).

It must be admitted that the problem of foreign minors in Poland fits into a wider European context (Università Telematica Internazionale Uninettuno, 2020). Peri (2016, pp. 641–643) observes that the EU's response to the pressing need to solve the problem of foreign minors is insufficient, and that the number of deaths of migrants in the Mediterranean

Sea is constantly increasing, while the public interest in the migration of minors is gradually decreasing.

Although the statistics on migration in Poland differ considerably from those in Western Europe, the country has also been witnessing a continuous increase in the number of foreign minors. Taking this fact into consideration, the aim of this article is to outline the problem of educating foreign minors in Polish schools. Based on an analysis of the literature on the subject, the author discusses legal and demographic aspects of the issue as well as dilemmas and challenges faced by Polish schools in the education of foreign minors. In this article, due to the dynamic migration situation in Poland related to the war in Ukraine (starting in March 2022), the author does not consider the situation of foreign students who have recently arrived in Polish schools.

In order to investigate the topic, two research questions were formulated:

- a) What is the Polish migration policy towards foreign minors from the legal perspective?
- b) What is the situation of foreign minors in Polish schools, including legal norms and problems connected with their education and upbringing?

1. An outline of the child in international and Polish law

In European countries the process that has led to full recognition of the rights of the child began several decades ago. Since the end of the 20th century, many countries have introduced legislation primarily focussing on the protection of children's interests. An analysis of the relevant international documents reveals that a holistic approach to children's rights was gradually developed. Initially, only their rights to care and protection were granted, but with time these were extended by a reflection on children's rights and their personal freedom (Błęszyński & Rodkiewicz-Ryżek, 2012, p. 100). The holistic approach to the rights

of the child is reflected in the UN Convention on the Rights of the Child of 1989, which states that the welfare of children, i.e. care, assistance, and support, is the responsibility not only of parents, but also of state institutions. Other important documents include the Convention for the Protection of Human Rights and Fundamental Freedoms, issued by the Council of Europe, and the European Convention on the Exercise of Children's Rights (1996). The main aim of the latter was to promote children's rights, including granting them the right to proceedings before judicial authorities (Ryng & Zegadło, 2007, p. 48).

It is worth mentioning at this point that the issue of protecting the rights of children was not addressed in Poland until after the First World War (Golczyńska-Grondas, 2014, p. 54). Moreover, Poland does not have a single legal act that holistically regulates the status of unaccompanied foreign minors. The situation of such children in Poland depends on whether their stay is considered legal (Krajowy Punkt Kontaktowy Europejskiej Sieci Migracyjnej, 2009, p. 5).

In Poland the issue of protecting the welfare of the child forms the foundations of family law, which is explicitly stated in Article 72 of the Constitution of the Republic of Poland (Konstytucja Rzeczypospolitej Polskiej, 1997). In family law 'the best interest of the child' is understood as a set of immaterial and material values which are necessary for the proper physical and spiritual development of a child (Łukasiewicz, 2019, pp. 64–68). The Ordinance of the Minister of Labour and Social Policy on foster care also applies to foreign children. Apart from the aforementioned legal regulations concerning foreigners, two other acts related to unaccompanied minors living in Poland are worth mentioning. Unaccompanied foreign minors who apply for refugee status, victims of human trafficking and foreign children in foster care may benefit from many specific solutions adapted to minors' needs (the Act on Family Support and Foster Care System and the Act on Foreigners).

2. The child in a multicultural context

Bogusław Śliwerski (2007), who often addresses the issue of the child in Polish pedagogy, argues that it is the 'child' who is the central figure in pedagogy and social change (pp. 101–133). Child rearing is based on the model of the relationship between a child and an adult (Jeziorański, 2015, pp. 43–64). The multicultural context implies educational activities for the pupils to get to know each other. Intercultural education is aimed at promoting new attitudes towards the 'Other'; it should foster the mutual enrichment of cultures, bring people closer together, shape commonly recognised values and develop attitudes of tolerance and acceptance of differences (Lewowicki, 2001, p. 161). The authors who investigate multicultural contexts mention the development of intercultural identity in children, which takes place through the so-called additive identity. It is based on building identity by adding knowledge and skills typical for the new community. Through this process, the child acquires points of reference for their old cultural and social identity (Goffman, 2007, p. 114). According to Sussman (2000, pp. 365–368), such additive identity is a necessary initial phase that leads to the development of new identity, called intercultural identity. Her model of the development of intercultural identity primarily emphasises the necessity to interactively build the awareness of identity, which only becomes possible when children come into contact with a culture other than their own.

For foreign children, the particularly important identities are cultural, national and ethnic ones. These are basic areas that testify to the very existence of a child/person. Cultural identity is based on a person's individual sense of belonging to the cultural heritage of a given culture (Nęcka, 2014, pp. 85–88). National identity is an equally important issue in the upbringing of children from migrant families, and, according to Kurczewska (1999, p. 288), particular attention in this process should be paid to developing a sense of community, language, traditions, national symbols and history. The authors observe that distortions and negative perceptions based on stereotypes and prejudices may lead to conflicts and antagonisms in children (Nikitorowicz, 2005, p. 105).

In many cases children experience a kind of trauma associated with living in a new environment (fear, anger, helplessness or sadness). In her studies on refugee children, Grzymała-Moszczyńska (1998) observed that they were 'half dead' (passive, apathetic, quiet and still) (pp. 172–173). Even if the sense of identity does not reach its apogee before adolescence, the child's early experiences of 'self' as a separate being are a necessary and fundamental element for building a future sense of inner stability (Latoszewska, 2012, p. 6). Researchers observe that the most important condition for foreign minors to 'feel at home' in Polish schools and in their new sociocultural reality is knowledge of the Polish language, which allows them to develop other communicative competences (Młynarczuk-Sokołowska & Szostak-Król, 2016, p. 152). Moreover, researchers indicate that integration is the best way to enter the culture of a new country after experiencing a 'culture shock'; integration is forged through an encounter and dialogue between the culture of the host country and the culture of immigrants/refugees (Grzymała-Moszczyńska, 2000, p. 18). In the context of migration, it is also important to pay attention to children's ethnic identity, understood as the maintenance of tradition, regional customs, religion and dialect. Nikitorowicz (1997, p. 170) is of the opinion that the stronger a sense of ethnic identity is, the easier the integration and acquisition of a secondary identity linked to new culture is. Research indicates that if young people are not rooted in their culture, they are more likely to encounter barriers which adversely affect the process of their integration (Grzymała-Moszczyńska, 1998).

3. Statistics and legal aspects of the situation of foreign minors in Polish schools

At this point of the article, it might be useful to define the term *migration policy*. In recent years Polish political scientists have made several attempts to define migration policy. Rajkiewicz (2004, p. 8) defines migration policy as a complex set of legal and institutional guidelines and regulations which affect migration trends. According to Duszczyk (2012),

‘migration policy covers all activities of the state related to the spatial movement of people’ (p. 32); thus, he refers to both the immigration policy and migration policy of a given country. In my analysis, I adopt the broader definition of migration policy proposed by Stefańska (2008), for whom it is ‘a set of measures implemented by the state authorities to create conditions and solutions conducive for the integration of immigrants into the various spheres of life of the host society’ (pp. 123–156). The measures the state can use within its migration policy include various regulations concerning foreigners (e.g. acquisition of citizenship), education policy, assistance to immigrant organisations and aid with housing and employment (Stefańska, 2008, p. 125).

Statistics show that in 2004–2005 there were over 6,000 foreign children in Polish schools, while in 2013–2014 their number had increased to about 7,500 (Markowska-Manista & Januszewska, 2016, p. 181). According to the data provided by the Educational Information System (*System Informacji Oświatowej*), in the 2018–2019 school year approximately 44,000 foreigners were enrolled in Polish schools, including post-secondary schools. This number included 206 students with refugee status, 778 applicants for international protection and 1,747 applicants for other forms of international protection (e.g. tolerated stay for humanitarian reasons) (Gov.pl., 2021).

We should also include statistics regarding the issue of unaccompanied foreign minors in Poland: in the mid-2000s there were only 318 of them. This number covered children in various types of institutions (i.e. care facilities and foster families). In terms of the number of such children, Mazowieckie Voivodeship was the leader (152 minors), with the smallest number being recorded in Łódzkie Voivodeship (1 minor) (Kukołowicz, 2021).

Several European documents should be mentioned in the context of foreign minors. One of them is the Council of the European Communities Directive on the Education of the Children of Migrant Workers, adopted on 25 July 1977 (77/486/EEC), which states that EU Member States should ensure that children are taught the language of the host country free of charge and should try to ensure that they are taught and

informed about the culture of their home country. Another important document regarding migrant children's right to education is the Charter of Fundamental Rights of the European Union of 14 December 2007 (OJ EU 2010 C 83). The third document that addresses the problem of migrant children's education (Rezolucja z dnia 2 kwietnia 2009 r. w sprawie kształcenia dzieci imigrantów, 2009) stresses that in order to integrate positively into the host society, migrant children must be provided with the opportunity to learn the language of the host country and to learn the language and culture of their home country.

In Poland, the amendment to the Social Welfare Act of 16 February 2007 was a breakthrough (Journal of Laws No. 48, item 380), as it provided a legal framework to offering support to foreign minors. According to Polish law (Article 10 of the Civil Code and Article 2 of the Act on foreigners), a foreign child is a person under 18 years of age who does not have Polish citizenship. From the legal perspective, the key factor for a minor foreigner living in Poland is whether they are under the care of parents or guardians. It is also important to determine the identity of a foreign minor in a situation where they are on the territory of the Republic of Poland without relevant documents (Sosnowska, 2012, items 32–40).

The legal status of foreign children learning in Polish schools can be divided into two categories: refugees and immigrants (Konwencja dotycząca Statusu Uchodźców, 1951). The legal basis that regulates the situation of foreign minors in Poland is the Ordinance of the Minister of National Education of 9 September 2016 on education of persons without Polish citizenship and Polish citizens who learned in schools in other countries (Rozporządzenie z dnia 9 września 2016 r. w sprawie kształcenia osób niebędących obywatelami polskimi oraz osób będących obywatelami polskimi, które uczęszczały do szkół poza granicami kraju, 2016). It states that children of foreigners and children of Polish citizens returning from emigration have the right to attend Polish kindergartens, schools, and other educational institutions until the age of 18. Thus, Polish law grants children of foreigners the same right to education as children of Polish citizens (Konstytucja Rzeczypospolitej Polskiej, 1997, Article 70). Foreign children who attend Polish schools have the right to be assisted

by a special teacher (called an intercultural assistant or cultural assistant) (Prawo oświatowe, 2016).

4. Foreign minors in Polish schools – dilemmas and challenges

In recent years, especially since Poland joined the EU, the situation of foreign minors in Polish schools has been investigated by a number of researchers. First of all, they noticed a growing cultural diversity among students, as well as increasing helplessness, a lack of ability and a conviction among teachers that schools must adapt to the growing number of foreign students without adequate parental care.

In the eyes of researchers, Polish schools appear primarily as a place of dialogue and a meeting point of diverse cultures. Such an atmosphere should foster the exchange of values, the verification of stereotypes and the perception of the 'Other' as an opportunity for cultural exchange and for learning about the world and what we commonly call humanity (Dobrowolska, 2010, p. 61). Thus, schools should be open to 'otherness' and 'difference' (Bobaj & Wyszynska, 2009, p. 328). However, as Nikitorowicz notes (2002), the main task of school is to present the native culture, its values and its distinctiveness in detail, while fostering discovery, appreciation, dialogue and cooperation with people from other cultures (p. 264).

When discussing the situation of foreign minors in Polish schools, researchers also underscore the vital role that teachers/educators play in the process of these students' integration and the assistance offered to them. Even in the early 2000s, various authors observed that the school situation of unaccompanied foreign children and foreign minors living with their families was difficult. The main problems were that refugee children frequently dropped out of school and that teachers' had poor intercultural skills (Rabczuk, 2002). Research indicates that teachers are interested in cooperating with institutions that can support schools in their work with foreign minors. The exchange of experiences among teachers and with school counsellors or psychologists, methodological

guides and training courses on multicultural education are all considered valuable (Błęszyńska, 2010, p. 81).

Januszewska (2017, pp. 138–139) argues that adequate preparation of teachers and educators is a necessary condition for integrating foreign students into a new school and a new cultural environment. As Lewicki et al. (2006, pp. 16–18) point out, teachers should be willing and able to decentralise, go beyond their own culture, learn about other cultures and cooperate with others for the purposes of intercultural education. A weak point of Polish schools when working with foreign students is the unsatisfactory level of competence and inadequate preparation of teachers to work in multicultural environments (poor knowledge of foreign languages, the lack of a broader understanding of migration issues, poor cooperation with parents/legal guardians of foreign minors) (Butarewicz-Głowacka, 2015, pp. 103–104). Most often, due to the lack of previous experience in working in a multicultural environment, teachers and school counsellors do not understand the needs of their foreign students properly. What leaves much to be desired in teachers' work is the development of evaluation criteria for foreign children who require an individual approach and greater involvement in group work.

Foreign children and adolescents are provided with specific assistance, as they might have special educational needs (Krakowiak & Kołodziejczyk, 2017, pp. 206–207). Researchers describe the situation of foreign minors in Polish schools as difficult (Dobrowolska, 2019, pp. 128–130), which is primarily caused by their poor knowledge of the Polish language, which adversely affects the realisation of the education and upbringing programme. Other negative factors include inadequate preparation of schools to admit foreign minors, in terms of both appropriate teaching aids and satisfying their basic needs on the school premises (Butarewicz-Głowacka, 2015, pp. 106–114). Different gross enrolment ratios and different education systems in various countries lead to greater difficulties fulfilling the obligation of compulsory schooling, while different cultural codes and references to values lead to behavioural issues. Foreign minors are often withdrawn or aggressive, and they sometimes experience moderate xenophobia and racism. The reluctance of foreign children

to integrate is frequently triggered by the discriminatory behaviour (stereotyping or ethnic prejudices) of Polish students (Błęszyńska 2010, pp. 65–66). As Kolankiewicz observes (2015, pp. 78–79), it is not easy for children burdened with the traumatic experience of separation from their family to successfully manage the roles of a student and a peer, who is expected to build new relationships. That is why the process of integrating foreign students into the school environment is relatively slow.

The report from a study conducted 10 years ago listed the following as the most frequent problems facing foreign minors: language problems, the lack of understanding of Polish culture and customs, problems in student–teacher relations and religious problems (organising Christian religious practices or observing the Muslim diet) (Błęszyńska, 2010, p. 59). The report’s conclusions emphasise the need to assist children and young people from foreign families, although it is not an easy task due to a range of factors, such as culture shock, the minors’ interrupted lives, low motivation and learning problems and avoidance of class activities and interaction with peers (Błęszyńska, 2010, p. 98). The authors observe that schools often adopt strategies which are a certain compromise, a balanced option between obligatory integration and the process of socialisation (Włodarczyk & Wójcik, 2014, pp. 184–185). An analysis of relevant articles reveals that the problem of foreign children in Poland is not only a matter of passing on knowledge to them, but also one of teaching them how to observe the rules, how to integrate with peers and how to follow everyday cultural practices.

Conclusions

As shown above, there is no single legal act in Poland which would regulate the difficult situation of foreign minors in a holistic way. The relevant Polish laws touch on particular aspects of foreigners’ stay in Poland, but these are very general and very rarely do they directly address the problem of foreign minors in the Polish context. Thus, Poland lacks a strategy and holistic policy from the government and non-governmental

institutions regarding the integration of foreigners. Nevertheless, the literature on the subject demonstrates that Polish law and institutional practices are aimed at safeguarding the interests of foreign minors and respecting children's rights, subjectivity and national and cultural identity.

With reference to foreign minors in Poland, the authors observe that realising the right to education and the obligation of schooling goes beyond the existing standards of work in Polish schools. It is also worth mentioning that the upbringing of minor foreigners living in Poland poses new challenges for schools and teachers, who should acquire new competences in intercultural education and educational practices aimed at students from other cultures. Despite the good standards of international legal protection of foreign minors, no holistic policy aimed at integrating unaccompanied children migrating to our country has been developed in Poland so far (Karpowicz 2009, pp. 221–241).

Despite the fact that schools and educational centres are involved in the education of foreign minors, there are no specialised centres capable of providing adequate care and assistance to such children, who are often victims of violence, crime and exploitation. Educational authorities and schools tend to incline towards the paradigm of inclusion and acknowledging the 'Other' when it comes to children from other cultures, rather than towards discrimination and opposition to multiculturalism.

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School Bullying and Cultural Otherness: Vulnerable Social Groups and Education

(pp. 59–94)

Abstract

Globalization and migration are now common. Internationally, societies are changing economically, culturally, and demographically. Greek society is becoming multicultural, causing many issues such as cultural diversity and the integration of new cultures. Education is affected by population changes and must manage multiculturalism. Interpersonal, social, and emotional interactions, relationships, and experiences occur in modern schools. Inter-cultural education is used in the multicultural school environment to encourage respect and eliminate preconceptions. School violence, aggression, and bullying are on the rise. It is a social phenomenon that affects more and more students. In this paper, school bullying, its relationship to student ethnocultural diversity, and its management are studied. The conclusion is that school bullying and violence must be prevented and treated systematically; to this end, teacher training, the school's program, and parent-child relationships should also be addressed.

Keywords: bullying, school violence, social, education, child victims, multicultural, student

1. Introduction

1.1. Conceptual definition of school bullying and school violence

In the European Conference of Utrecht (1997), school violence was defined as “imposing the will of one part of the educational process on another and causing damage or harm” (Artinopoulou, 2001). In any case, school violence is a reflection of social violence and a sign of poor education (Artinopoulou, 2001). According to Beze (1998), school-related aggression and violence cover four groups of interpersonal relationships and interactions: teachers toward students and students toward teachers. Artinopoulou (2001) adds teacher–administrator aggression to these relationships. As discussed below, bullying requires a power imbalance, which distinguishes it from school violence (UNESCO, 2017).

2. Object and subject of research

2.1. School bullying

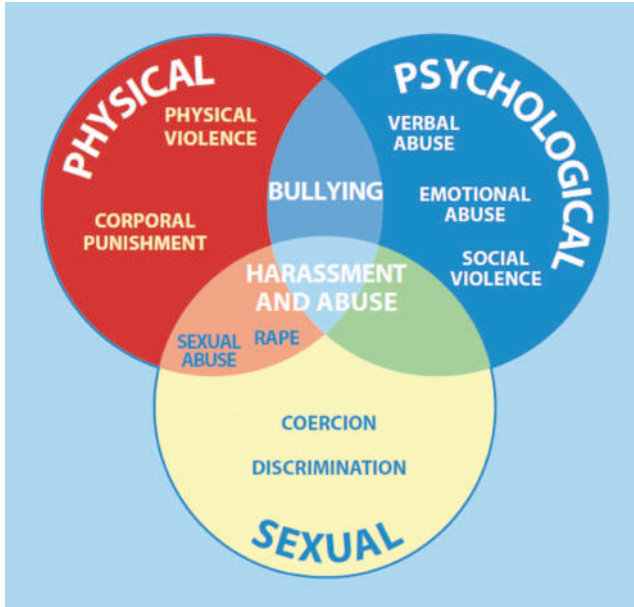
A Swedish school doctor Heinemann coined the term *mobbing* to describe school violence (Heinemann & Thorén, 1972). Heinemann defines mobbing as “all against one” in the context of racial prejudice, where a large part of a class unites against an individual who is very different from the group. The term has its origin in the science of zoology. Sjölander (Lagerspetz et al., 1982) translated the work of Austrian physician, zoologist, and ethologist Lorenz (1963), who used the term *mobbing* to denote animal aggression. Olweus (1972), a Norwegian psychology professor who studied school aggression for decades, coined the term *bullying*. Olweus questioned Heinemann and social psychologists’ use of the term mobbing to describe student aggression, because it refers to concepts that do not match school violence. *Aggression in the Schools: Bullies and Whipping Boys* (Olweus, 1978) is an English translation of his seminal Swedish work, which initiated research worldwide on the phenomenon.

Dan Olweus was the first to study and define school bullying. “A student is bullied or victimized when he is repeatedly and consistently subjected to negative actions by one or more other students,” says Olweus (2010). All definitions in the literature on the subject follow this framework (Farrington, 1993; Smith et al., 2004; Smith & Sharp, 1994; Tattum, 1992). A new definition of bullying includes goal-directed behavior, a power imbalance, victim harm, and regular repetition (Menesini & Salmivalli, 2017; Volk et al., 2014).

2.2. Forms of school bullying

The forms of school bullying are described below (Figure 1) (Lee, 2006; Rigby, 2007; Antoniou & Kampoli, 2014).

- a. Verbal abuse – often done in public, it incites fear; the instigator insults, mocks, and degrades
- b. Physical abuse – involves punching, kicking, and stealing or destroying personal items
- c. Social or direct intimidation – involves removing someone from a social group on purpose
- d. Racist bullying – targets people of different races, religions, nationalities, colors, and socioeconomic statuses
- e. Psychological bullying – involves threats, exploitation, and emotional blackmail
- f. Cyberbullying – psychological and verbal; uses messages, emails, and websites
- g. Sexual bullying – includes gestures, touches, “teasing jokes,” comments, sketches, and photographs of sexual content to embarrass, shame, and humiliate the victim
- h. Visual bullying – posting offensive notes in public places

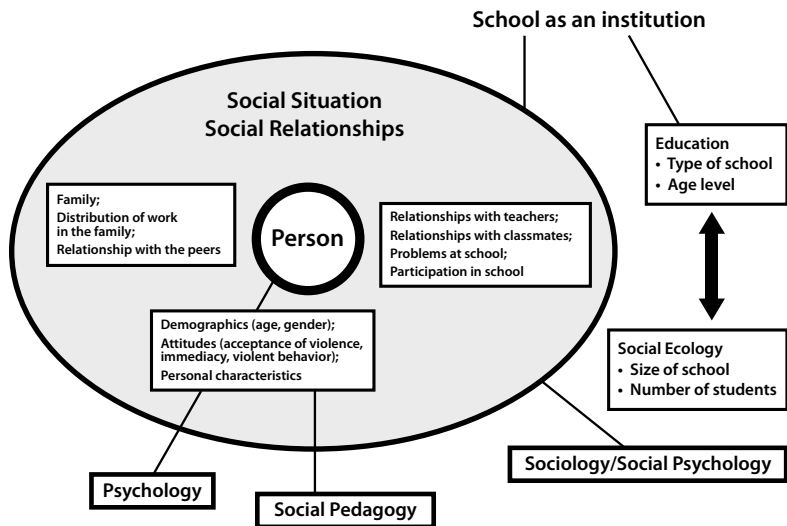
Figure 1. Forms of school violence and school bullying.

Source: (UNESCO, 2017)

2.3. Factors that cause school violence and school bullying

The school focuses on psychosocial adaptation, communication, and socialization as well as cognitive development (Bambalis, 2011). School violence is complicated by psychological, familial, social, cognitive, and emotional factors that reinforce antisocial behavior (Figure 2), in particular, one's temperament, developmental course, traumatic experiences, and family environment (very strict or very flexible parenting methods, patterns of aggressive behavior, violence between parents or from parents to children, child's insecure bond with parents).

Figure 2. Factors related to school violence and bullying in the school context.



Source: Artinopoulou (2001)

The school environment (inadequate supervision, overcrowding, staff shortages, and lack of stimuli), psychological atmosphere (competitive, controlling, impersonal, restrictive in a hostile manner, performance-oriented, not relationship-oriented), and policies of the education system also play a role (excessive use of punishment and expulsion as a means of discipline or disproportionately rewarding socially positive behaviors). Finally, general social problems that reinforce antisocial behaviors, the attitudes of children, parents, and teachers toward violence, and how the mass media portrays violence must be mentioned.

Multiculturalism dominates today's schools. Racism leads to violence and bullying against foreign students, with boys being more likely to bully (Pepler et al., 2008).

2.4. The frequency of school violence and school bullying

In a pan-Hellenic survey by the Ministry of Education, Research, and Religion (Y.P.E.Th), three out of ten middle and high school students were

victims of bullying. Boys (30.6%) outnumbered girls (3.18%) (Artinopoulou et al., 2016). School bullying in Greece is mostly verbal (Pateraki & Houndoumadi, 2001; Artinopoulou et al., 2016). In one study, 56.7% of primary school students had witnessed verbal abuse and mockery, while 30.5% had witnessed physical bullying. Finally, 27.8% of schoolchildren had experienced social bullying (Artinopoulou et al., 2016). In Greece, boys bully more than girls (Pateraki & Houndoumadi, 2001; Artinopoulou et al., 2016). Physical bullying affects boys more than girls (Pateraki & Houndoumadi, 2001; Sapouna, 2008). Girls are especially bullied verbally (Pateraki & Houndoumadi, 2001; Sapouna, 2008). As boys get older, they bully more verbally, while girls mostly bully by spreading rumors, according to research (Pateraki & Houndoumadi, 2001). According to UNESCO, 246 million adolescents and children are affected by such situations each year (UNESCO, 2017). School bullying affects 10% to 65% of children worldwide, making school violence and bullying a global issue. The following findings are also mentioned in the same report (UNESCO, 2017):

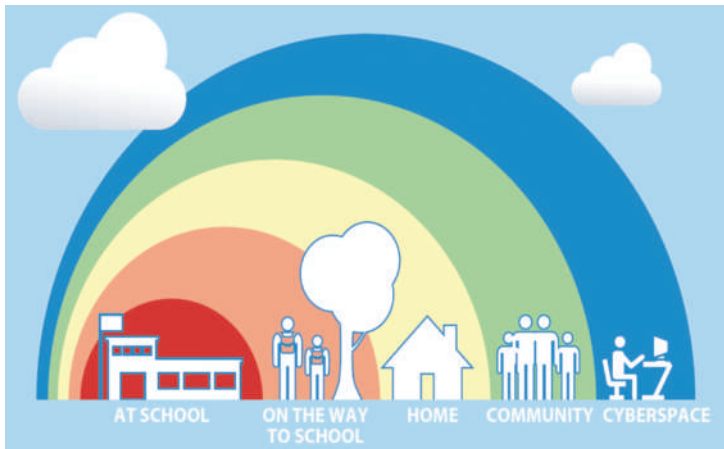
- a. Industrialized nations struggle with cyberbullying. Girls are more likely to experience cyberbullying, which affects 5% to 21% of young people.
- b. Non-heterosexual students are subjected to the most psychological, emotional, and physical violence (16% to 85%).

Finally, studies show that foreign students are more likely to be victimized than native students (Fandrem et al., 2010; Strohmeier et al., 2011).

2.5. Where school bullying occurs

The European Anti-Bullying Network campaign's large European survey found that school bullying was most common in classrooms (Europe's Anti-Bullying Campaign, 2012) (Figure 3). According to the same study, Greece has more school bullying outside of school. Regarding the bullying that takes place on school grounds, a survey carried out in primary schools in Germany revealed that the playground is where most incidents of school bullying take place (Fekkes et al., 2005).

Figure 3. Places where school bullying occurs.



Source: UNESCO (2017)

Secondary school students are more likely than primary school students to witness or experience school bullying in school corridors and classrooms. This difference in the location of violence between younger and older age groups supports earlier research (Whitney & Smith, 1993).

2.6. Characteristics of the intimidator, the bullied, and the observer

- a. Bullies are mean, cruel, and self-centered. They are introverted, lonely, and lack self-control, making them impulsive (Andreou & Smith, 2002). They also engage in vandalism, theft, and substance abuse. According to Olweus (1993), the abusers seem indifferent to their victims' feelings.
- b. Bullied victims are weak. Victimized children lack friends; they are insecure, do not express their feelings, and avoid going to school after being bullied. Submissive, anxious, and cautious, they cry out of fear and weakness, making them easier "victims" of bullies (Andreou & Smith, 2002).
- c. Bystanders are also involved in school violence. Research suggests that 85% of school bullying observers are assistants, reinforcers, neutral or uninvolved outsiders, or defenders (Mestry, 2006).

2.7. Consequences of school bullying

School violence and bullying are multifaceted (Tsiantis & Asimopoulos, 2010). School violence harms the perpetrator, victim, and school. Abusers may exhibit behavioral disorders, defiance, and antisocial behavior and may join fringe groups that are hard to leave. Many exhibit social pathogenic phenomena such as violence and crime; they may become domestic abusers (Rigby, 2007). Olweus (1993) found that 60% of high school bullies committed at least one crime as adults and that 35%–40% committed three or more offenses before the age of 24. Bullying affects victims as well. School refusal, low performance, school phobia, low self-esteem, anxiety, avoidant behavior, psychosomatic disturbances, and others are common in victims (Antoniou & Kampoli, 2014; Artinopoulou, 2007). According to Andreou and Smith (2002) and Antoniou and Kampoli (2014), victims are more likely to have mental disorders, depression, and suicidal thoughts. School violence also harms the students and teachers who witness it. Their presence at the violent episodes causes emotional and behavioral issues. It also increases anger, which can lead to aggressive behavior. The observer is a “potential” perpetrator (Artinopoulou, 2007).

3. National and cultural otherness – conceptual demarcations

3.1. Cultural identity

Culture encompasses a wide range of systems, including knowledge, beliefs, arts, morality, customs, languages, and nonverbal communication. It is a lifestyle shaped by historical, social, economic, and political factors. It includes rules, behavior, symbols, values, conditions, and other factors that distinguish a social group from others. Teaching and learning pass on cultural context. Under these conditions, a person’s cultural identity is formed (Nicolaou, 2005).

Identity is ambiguous, making it difficult to define. Identity can mean complete similarity or equality between people, groups, opinions, things, and symbols. It can also mean the traits that distinguish one thing from another. Psychologists define identity as a person’s or group’s subjective

qualities (Gotovos, 2002). Personality includes identity; it is an ego-identification. The self is formed in relation to others starting in childhood (Erikson, 1990; Vryzas, 1997).

Ego identity is personal and social. Social identity means that the subject belongs to social categories and is studied in groups (Gotovos, 2002). Social identity includes cultural identity (Georgoyiannis, 1995; Damanakis, 2001). Cultural identity – belonging to a specific ethno-cultural group – is the most inclusive identity term (Phinney, 1990). National identity is the dominant cultural identity of a nation-state, while ethnic identity is the cultural identity of immigrants and other groups from outside the country. Thus, each person's cultural identity is always linked to nationality, ethnicity, religion, and language, which define their diversity (Nicolaou, 2005).

3.2. National and ethnic identity

A person's ability to identify with a national group and share its values, beliefs, and behaviors is called national identity. National identity is a collective identity that defines a nation's way of life in terms of nationality, religion, language, culture, and customs (Gotovos, 2002). Ethnic groups and nations play different roles in national identity formation according to the literature. In the 1970s and 1980s, historiography was dominated by the earlier modern approach to nation-building and national identity, in which national identity is material, social, and political and reflects common institutions, obligations, and rights. A group of people becomes a nation when they recognize each other's rights and obligations based on their ethnicity (Gellner, 1992). Thus, the nation is modern and characterized by:

- a) A common legal code of rights and obligations,
- b) A unified economy,
- c) A compact territory, and
- d) A national political culture.

In the late 1980s, the traditional approach complemented the earlier theory, but was often pitted against it. This approach's main theorist,

Anthony D. Smith (2000), views national identity as a constant throughout each nation's history. Ethnicity, shared history, and culture – not territory – define the nation. Even after immigrating, a person's ethnicity, language, and traditions matter. Since kinship ties are emphasized and people are not treated as a political community, an ethnic consciousness is formed as a "super-family." All of these elements indicate a historical, culture-based community with a sense of identity. Nationhood includes elements of other collective identities, so it can be combined with religious identities. National identity is shaped by ethnicity (Smith, 2000).

Nations share a history, culture, laws, and politics. While ethnic communities may not live in the ancestral land or share common obligations and culture, they feel national identity symbolically. Nations without a dominant ethnic identity are created by culturally mixing many waves of immigrants, imposing a common language and religion, or creating a political religion. Thus, a new ethnic identity and consciousness unites ethnic communities and integrates their cultures (Smith, 2000).

A person may identify with multiple ethnic communities on different levels (Smith, 2000). Immigrant children, especially those born in the host country, experience something similar.

3.3. Multiculturalism and ethnocultural otherness

Multiculturalism is accepting otherness in a group with universal values, critical communication, and consensus without fear or denial of social change. The collective that accepts otherness as a natural factor in human societies and not as a necessary evil must accept social cohesion, equality, and justice.

"Any sociocognitive system of categorizations and representations of the environment" requires the concept of otherness (Konstantopoulou et al., 1999). Otherness refers to human quirks. Origin, race, color, language, religion, and culture define a person or group and distinguish them from the majority. Otherness can be ethnic, linguistic, racial, or religious. Otherness often leads to exclusion or marginalization. Apart from the idea of absolute similarity or equality, identity includes the idea of difference from others (Bolle De Bal, 1997).

Modern otherness is related to both the dominant ethnocentric view of the other and a culture's authenticity, purity, and non-mixedness. Otherness can mean national diversity, cultural specificity, or social expression. Postmodern diversity defines those who think differently and question technological progress as the only truth (Konstantopoulou et al., 1999).

The abolition of borders and globalization have conceptually differentiated otherness in terms of its philological content, pedagogical function, and epistemological definition. Thus, cultural differences are central to theoretical dialogue because how we understand others shapes society's communication structure (Konstantopoulou et al., 1999). Western nations accept immigrants from poorer nations. All human activity has rearranged social, economic, and political systems, resulting in multiculturalism. Multiculturalism affects geopolitical, economic, and political changes. Modernity has limited otherness questions to create a homogeneous society. Instead of homogenizing, ethnocultural groups were differentiated by creating minority groups, which fueled social inequality. Since education kept society homogeneous and marginalized minority groups, postmodern states ignored the issue without solving it (Nicolaou, 2005).

Modern thought emphasizes cultural alterity and according to Nikolaou (2005):

- a. Humanity evolves, presenting a wide variety of social and cultural forms,
- b. Cultures intertwine and interact, and no culture evolves alone,
- c. In a global environment that risks homogenization, cultural diversity must be preserved, and
- d. Tolerance, understanding, and respect are necessary for peaceful co-existence.

Otherness matters when it creates power and inequality between minorities and states and between natives and immigrants. Otherness is indifferent without such relationships and social contrasts. Modern schools are the site of many cultural encounters between linguistically diverse groups, which shape a specific identity and can stigmatize the individual

(Cummins, 2005). To avoid stigma and marginalization, modern teachers should know how to handle multicultural classroom issues.

The diversity of ethnocultural identities is ethnocultural otherness. The individual's ethnocultural identity is experiential and formed through interaction with their immediate social, economic, and cultural environment. In order to function in host societies, ethnoculturally diverse people reinterpret their cultural symbols (Oikonomidis & Kontogiannis, 2011).

From the 1990s onward, Greece received a large wave of immigrants from the former Eastern bloc and Asian and African nations, bringing cultural diversity. Foreign students are integrated into schools with caution and reactions due to cultural diversity. Some schools foster xenophobia, racism, inequality, and a lack of respect for diversity, which further divides native and foreign students (Nicolaou, 2005).

3.4. Multiculturalism, cultural diversity, and interculturalism

Multiculturalism and *interculturalism* differ. Multiculturalism is a “political term” that describes a multicultural society, while interculturalism is a pedagogical term that focuses on the individual as a member of society and provides directions for achieving social justice, harmony, and cohesion (Georgoyiannis, 2009). Cultural diversity refers to an individual's adoption of different cultures, while multiculturalism emphasizes a community's diversity. Interculturality, multiculturalism, and cultural diversity require people, groups, and communities to interact. Intercultural education intentionally creates exchange, mutual influence, and cultural intersection to teach democracy. A stable cultural potential enhances diversity and complexity (Council of Europe, 2003). Interculturality is a creative process that emphasizes group interaction, planning, responsibility, and identity (Fennes & Hapgood, 1997). Multiculturalism and interculturalism differ in education. Multicultural education teaches acceptance or tolerance of other cultures. Intercultural education promotes understanding, respect, and dialogue between cultural groups to create a sustainable multicultural society (UNESCO, 2006).

UNESCO's 2006 *Guidelines on Intercultural Education* set an educational framework and addressed UN member countries' assimilation

policies. The following three intercultural education principles can be used as goals:

- a. Principle I: Intercultural education respects the cultural identity of the learner through the provision of culturally appropriate, culturally sensitive, and quality education for all.
- b. Principle II: Intercultural education provides each student with the cultural knowledge and attitudes and skills necessary to achieve active and full participation in society.
- c. Principle III: Intercultural education gives all students the cultural knowledge, attitudes, and skills to promote respect, understanding, and solidarity between individuals, ethnic, social, cultural, and religious groups, and nations (UNESCO, 2006).

3.5. National and cultural diversity and school bullying

Bullying and violence in different ethnocultural groups are contradictory in the Greek literature on the subject. Alexopoulos and Kokkinos (2018) found that nationality affects school bullying. Psaltis and Constantinos (2007) found that bullies' ethnocultural identity did not affect the bullying. Foreign students are more often victims, but they do not report it (Psalti & Konstantinou, 2007). According to contact theory, international research (Hoglund & Hosan, 2013; Thijs et al., 2014) suggests that increased ethnocultural heterogeneity in school composition may reduce ethnocultural aggression. Intergroup contact can reduce prejudice when groups have equal social status, common goals, and institutional support from competent authorities (Pettigrew & Tropp, 2006).

In his article on school violence and otherness in Greece, Maniatis (2010) claims that multiculturalism in the same sociopolitical context leads to conflict, because immigrant groups demand public recognition. Aggression against students from different cultures also amounts to racism. Otherness can also cause fear and rejection, he claims. Thus, bullying is more intense. Bullying based on ethnicity or culture affects the entire group, not just the individual.

Cultural otherness and school bullying have conflicting results worldwide. Research links school bullying to anti-foreigner attitudes (Cobia & Carney, 2002; Pagani et al., 2011). Foreign students are also isolated and bullied by native peers (Pagani et al., 2011). Interpersonal issues may increase the risk of victimization for immigrants (Strohmeier et al., 2011). Children of immigrants struggle to make friends and fit in. Their classmates struggle to accept and incorporate other cultures into their own (Hamarus & Kaikkonen, 2008).

Other studies either find no correlation between bullying, otherness, and multiculturalism (Larochette et al., 2010) or they find a higher risk of victimization for natives than immigrants (Strohmeier et al., 2008).

The school's refusal to acknowledge ethnocultural diversity can make it hard to identify bullying and victimization of different ethnic groups (Cobia & Carney, 2002). Another reason is that ethnocultural factors (language, demographics, ethnicity, and external characteristics) affect their many measurements and students' subjectivity (Strohmeier et al., 2008).

A class's ethnicity may affect bullying and victimization. Ethnic diversity may protect against bullying because it balances power between groups. In ethnically diverse classrooms, groups are evenly distributed, power is balanced, and ethnically marginalized students are less likely to be bullied (Stefanek et al., 2011).

Studies suggest that ethnic minority-dominated classrooms may have higher rates of bullying and victimization (Vervoort et al., 2010). In the Netherlands, ethnic minority adolescents are bullied more in classes with a high percentage of minority students than in classes with a low percentage (Vervoort et al., 2010). Verkuyten and Thijs (2002) found that indigenous students are bullied more in classes with a low percentage of indigenous students. Another US study (Hanish & Guerra, 2000) found that in multicultural schools with high ethnic integration, white students were more likely to be victimized, African-American students were less likely, and Hispanic students were almost never victimized. These studies show that classroom ethnicity affects student bullying.

According to the above reports, bullying in multiculturalism involves not only foreigners' culture and ethnicity, but also their racism (Strohmeier

et al., 2008). Western schools are increasingly multicultural. Thus, conflicting research shows that diversity is the norm and implicates diversity in bullying.

4. Theoretical approaches to the interpretation of bullying due to ethnic and cultural diversity

The international literature attempts to explain the relationship between bullying and ethnocultural victimization. The most crucial theories are described below.

a. Contact theory

Intergroup contact can reduce prejudices when groups are asked to cooperate, have common goals and equal social status, and when competent authorities support and promote it. Wagner, Van Dick, Pettigrew, and Christ (2003) found that school-based intergroup contact reduces prejudice.

b. Group threat theory

Blalock (1967) states that schools are controlled by ethnocultural groups. When the number of different groups increases significantly, the dominant ethnocultural group feels threatened and creates conflicts to defend their social position. Agirdag et al. (2011) conclude that because there is a power struggle between different groups in the school, any group can become victims of aggression, even when they coexist in equal numbers.

c. Imbalance of power thesis

Graham (2006) and Juvonen et al. (2006) also say that a group's power depends on its size. Thus, minority students are more likely to be victims than majority students and ethnocultural aggression may be linked to school composition.

d. Conflict theory

Conflict theory, by Quillian (1995), states that the more ethnocultural groups are in a given context, the greater their sense of threat.

Scheepers et al. (2002) found that this threat increases intergroup prejudice and bullying. The perpetrators and victims are usually from the dominant and non-dominant groups, respectively.

e. Social identity theory

Tajfel (1978) states that group members develop a strong sense of belonging by identifying with the group's traits. Thus, they feel a special identity that they must preserve and they develop a positive attitude toward group members. This positive attitude toward their group may explain their negative and discriminatory attitude toward other groups.

5. Dealing with violence and bullying at school

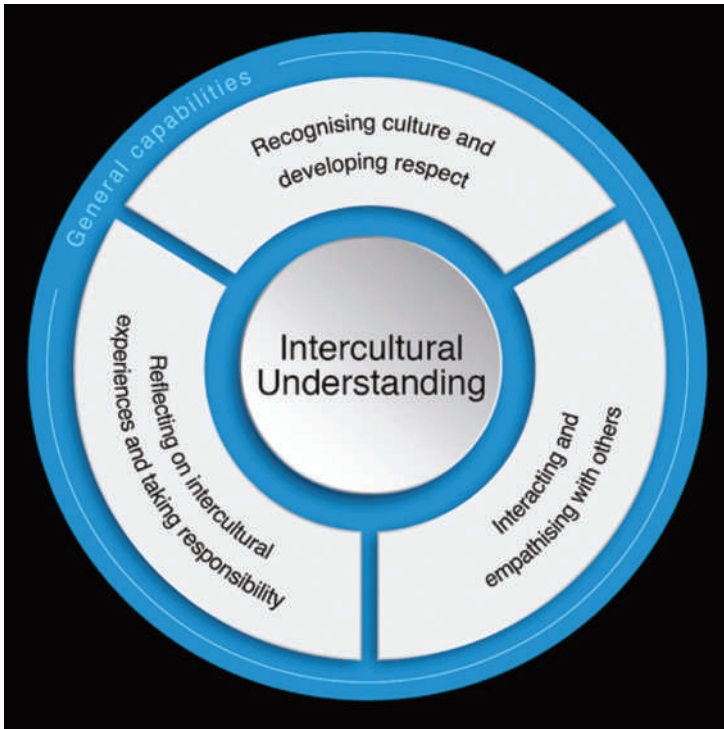
5.1. Theoretical approaches to the prevention and management of school bullying

Given the diversity of the school community, multiple interventions and the ability to combine them are needed to combat school bullying. We will analyze the following methods to develop effective strategic practices against the phenomenon.

The socioecological approach views bullying as a result of the interaction of many factors, many of which are hidden and contribute to its perpetuation (Molnar & Lindquist, 2013). It assumes that everyone is part of an ecosystem and that any change in one member affects the others. Thus, fixing the system is the goal.

Open dialogue, trust, and community participation underpin the whole school approach. Power relations, gender, sociocultural background, and school hierarchy are considered in such approaches (Artinopoulou & Michael, 2014). In order to address the root causes of today's most pressing issues – cultural, social, and ethnic misunderstandings, favoritism, racism, and hatred –the holistic approach incorporates intercultural understanding into the school environment (Figure 4) (Leo, 2010).

Figure 4. Elements of cross-cultural understanding.



Source: ACARA (2015)

The Children’s Voice encourages creative participation in school life, strengthening the student’s voice and its impact on decision-making and policy-making (Cremin, 2007).

The Child Friendly School approach prioritizes child-friendly practices and school climate. Violence and bullying are analyzed as part of the school or community. The right of children to learn and attend school is important (United Nations, 2016).

Finally, Restorative Justice uses positive reframing to resolve conflicts, repair harm, and repair relationships. This approach emphasizes respect, equality, equal opportunities, and holistic learning through communication, dialogue, and experiential learning methods like role-playing (Rigby, 2007).

6. Ways to deal with the phenomenon

Educators believe that school bullying is common. Others deny the phenomenon or find it unimportant. People sometimes think that seemingly trivial events are exaggerated (Rigby, 2008). The topic of bullying is gaining popularity, though. The media are now covering the phenomenon and its solutions. Bullying can harm mental, emotional, and behavioral health (Brown et al., 2011).

Bullying has two approaches. The first view promotes positive behavior and constructivism (Rigby, 2008). Respect and cooperation enable smooth communication, eliminating the need for sanctions, threats, and punishment to manage behavior (Rigby, 2008). Punishing aggression is the second view. He believes that only recognition and severe punishment stop bullying (Rigby, 2008).

Modern societies' dysfunctional socializing institutions (family, school, and work) led to improper socialization and school delinquency. Thus, socializing agencies must monitor, coordinate, and staff welfare and support services to address the modern socioeconomic situation. To combat intimidation and delinquency caused by social and economic inequality, meritocracy must be strengthened (Panousis, 2009).

All who deal with school bullying agree that teachers need awareness, education, and training, as well as an official policy (Rigby, 2008). The state should create programs to combat intra-school violence, properly operate the Hellenic Observatory, appoint a Community Ombudsman in each municipality, and train teachers about violence and bullying through seminars and workshops (Panousis, 2009). The Ministry of Education, unions, parents' associations, and other organizations must take bullying seriously, educate themselves, and find solutions. Schools, kindergartens, and universities must address school bullying. Schools should design bullying policies based on research that address families' socioeconomic status, cultures, and other unique circumstances (Rigby, 2008). School bullying is addressed by state media control, especially when it harms children's moral, intellectual, and physical development. Mass media should limit violence and

increase educational and entertainment programs, adapting them to student schedules (Panou-sis, 2009).

6.1. The role of the family

Families influence children most. Parental involvement educates, develops first social skills, and improves academic and psychological development. Teachers ignore family culture, which shapes each child's culture. Parent-teacher partnerships teach language, culture, and religion. They help teachers integrate their children into school and society and teach students to accept and respect others (Govaris, 2001; Beveridge, 2005). Parent-child bonds prevent child abuse. Parents must teach self-esteem, social skills, and pro-socialization (Rigby, 2008). Child abusers must respect others and avoid irritating and depressing their children through excessive control and punishment (Rigby, 2008). Bullying prevention depends on many factors, including the parents' role, ethnicity, culture, socioeconomic status, and communication skills (Hoover-Dempsey & Sandler, 1997; Bonia et al., 2008). Foreign parents do not actively support their children's education in Greece and abroad (Walther-Thomas et al., 2000). The causes for this are their difficult working conditions, ignorance, or limited use of the host country's language, which makes it difficult to communicate with teachers (Hatzidakis, 2006) and prevents them from helping their children with their homework; a fear that the teachers will mistreat them; and a lack of knowledge about the host country's detailed curriculum (Sosa, 1997). Encouraging foreign parents to participate in school life, educational activities, and their children's education reduces their underrepresentation (Sosa, 1997) and boosts their children's achievement and self-confidence (Baker, 2005).

6.2. The role of school

Schools prevent and address all pre-adolescent and adolescent violence and bullying and help children manage emotional tensions, negative family experiences, and aggressive communication, interaction, and relationships at home (Panousis, 2009). Students, parents, and teachers represent the school. Respect and care for others – not as a duty – help

greatly. Schools' intellectual philosophy encourages this. Unfortunately, some schools disagree and approach bullying differently. Primary and secondary education differ most in coping (Rigby, 2008).

School programs must be specialized and tailored to all students with no gap between goals and resources to address the issue. School cooperation requires shared values and rules. Well-equipped and attractive facilities promote positive behavior and deter bullying (Olweus, 1993).

Immigrant students emphasize the importance of cultural identity, or understanding and internalizing one's immediate sociocultural environment (Kendall, 2015). In modern multicultural classes, the school must recognize all students' cultural identities and treat them equally. To achieve this goal, education must emphasize otherness. Intercultural pedagogy, which respects others, is linked to the shift from the hypothesis of deficit to the hypothesis of difference (Damanakis, 2000; Taylor, 2000) and to recognizing each person's unique identity based on their subjective cultural differences with their continuous and dynamic social negotiation (Damanakis, 2007) and equal participation in social goods. Interculturalism teaches that all students have equal cultural and educational capital. Schools value cognitive, linguistic, cultural, and experience differences between dominant group and migrant children without making hierarchical assessments. They also support equal opportunities, not to homogenize students but to allow each student to develop their personality based on their abilities and sociocultural conditions (Damanakis, 2000). However, theorists agree that inter-culturalism is for all students and centers on the student's creative use of diversity, proposing an integrative, collaborative, transformative classroom and education policy model (Banks, 2004). Differentiated teaching respects students' needs and learning profiles by finding each student's starting point and offering different learning paths and approaches to help them develop cognitively, socially, emotionally, and culturally (Tomlinson, 2015). Anti-racism education can also address ethnocultural otherness bullying using theoretical frameworks and teaching models to eliminate racism (Pantazis, 2015). It teaches children compassion, altruism, and respect (Blenesi, 2003). All levels of schooling must raise awareness of racism in order to end it

(Pantazis, 2015). Anti-racist schools teach students and teachers about discrimination, equality, democracy, and anti-racism (Pantazis, 2015).

6.3. The role of the teacher

Multi-ethnic students are being taught today. Racism, ethnicity, and culture affect educators. Teachers must understand race, ethnicity, and culture to adapt to students' cultural backgrounds (Costley, 2012). Cooperative, respectful, dialogue-focused, and problem-solving teachers create positive school cultures. Modern teachers must identify their role in the educational process, analyze all levels, and study discrimination issues in the following basic ways (Androusou & Magos, 2002):

- a. Being familiar with school life analysis, which allows them to draw many conclusions about interactions, rules, and strategies;
- b. Recognizing and eliminating their and others' prejudices;
- c. Showing respect for differences; and
- d. Questioning everyday school life.

These actions will help teachers accept diversity and manage student otherness.

Cultural pluralism's inevitable national/cultural composition among students raises intercultural teacher training and culturally responsive teachers. Interculturally competent teachers know that race, gender, social class, and culture can cause educational inequalities and exclusions.

Intercultural competence involves personal and professional development. The latter addresses the teacher's role in education, teaching, learning, and the sociocultural context. Villegas and Lukas (2002) developed a personal–professional typology. Teacher training programs may have these six characteristics of culturally competent teachers:

- a. Sociocultural consciousness – This requires the teacher to recognize that their worldview and perspective are not universal. Understanding their own sociocultural identity will help the teacher connect with students. According to Villegas and Lucas (2002), teachers must

understand the organic connection between school and society, go beyond meritocracy and neutrality, and understand the school's role in maintaining and reproducing society's inequalities and power relations to shape this consciousness.

- b. Cultural acceptance – Teachers should value diverse thinking, acting, behaving, and learning. Thus, they can view students of different ethnicities as having educational capital that benefits self-esteem, learning, and school performance.
- c. Transforming teachers – Reflective teachers' professional identities extend beyond methodological choices to epistemological, philosophical, and social assumptions. This requires teachers to see teaching as political and the school as a tool for social change and justice (Matsangouras, 1995).
- d. Constructivism – The teacher should encourage students to structure knowledge using past experiences, which are essential to learning. Given the importance of alterity in learning, constructivism lets teachers tailor lessons to each student's background. It prepares students to be active citizens and recognizes that knowledge is socially constructed.
- e. Students' lifestyles – Knowing their subject and students' lives outside of school helps teachers build positive relationships and improve learning. Thus, Darling-Hammond and Garcia-Lopez (2002) state that teacher candidates must understand the cultural and family context of foreign students to prepare for cultural diversity.
- f. Culture-sensitive teaching methods (culturally responsive teaching) – These can manage classroom dynamics and interactions based on four pillars to create a learning environment for student development: teacher behavior and expectations, intercultural classroom communication, culturally diverse curriculum content, and culturally relevant instructional strategies (Gay, 2010).

6.4. Intervention programs

Local, state, and national programs aim to reduce bullying, especially in multicultural schools.

6.5. The “Olweus Bullying Prevention Program”

The best-known anti-bullying program is from the Norwegian professor Dan Olweus (Olweus Bullying Prevention Program), who developed and implemented the program in the mid-1980s (Olweus, 1993). It reduces bullying and improves kindergarten, elementary, and middle school relationships. Stakeholder engagement drives this program. It targets school, class, and individual students. Students, parents, and school staff work together to educate, mediate, set clear bullying rules, and support and protect victims. Teachers and school staff organize and mediate aggressors, victims, and their parents in the program. The program seeks a bullying-free school.

6.6. “Learning to live together”

The International Commission on Education for the Twenty-First Century promoted living together (Delors, 1996). All cooperating international institutions share its goals. In this multicultural program, intercultural learning is about living together. Human rights-based globalization is the goal (Council of Europe, 2003):

- a. politeness education
- b. peace education
- c. education for the democratic behavior of citizens
- d. intercultural education
- e. international education
- f. education for social capital

6.6.1. Innovative programs in Greece

Teachers and experts have implemented many programs in recent years to prevent and address school bullying. The innovative programs from the Adolescent Health Unit (M.E.Y.), 2nd University Pediatric Clinic, and P&A Children’s Hospital are examples:

- a. Emotional education and peer-to-peer education are the foundation of the EU-funded “ENABLE” project for fifth- and sixth-graders

- in primary school and first-year pupils in secondary school. This is a Ministry of Education and Culture cooperation agreement (Circular F. 34.1/21/3942/9-5-2016 D/nsis P.E. II of Athens) with external bodies, supported by a Problematic Group (Think Tank) of 12 international experts and implemented by six key partners in five countries.
- b. The “YOUTH POWER” program, an integrated intervention to prevent high-risk behaviors, for fifth- and sixth-grade students, who are in the transitional phase of preadolescence; it can be implemented during the flexible zone. Its pedagogical and scientific framework is based on the Life Skills Development model and the principles of Social and Emotional Learning.

Early prevention and treatment of the problem also contribute to the following:

- a. The formulation of an agreed code of conduct and increased and effective supervision by teachers (Article 13, para. 2 of P.D. 201/1998 [Government Gazette 161/1998, Vol. A]),
- b. The implementation of health promotion programs in accordance with the circular of the Ministry of Education and Culture No. 170596/GD4/13-10-2016,
- c. The updating of the school’s operating regulations, the creation of a school for parents, and the two-way communication between parents and teachers with the ultimate aim of informing them in time on matters of health promotion, contribute to combating this phenomenon, and
- d. The formation of prevention action groups (OPA) and the creation of the intra-school violence prevention network (in accordance with reference no. 448/18-02-2016 circular of the Ministry of Education and Culture).

6.7. Counseling and school bullying

The methods that a counselor can choose to intervene with counseling in bullying incidents are analyzed below. These methods of intervention

also complement each other, so that a more complete intervention can be achieved by using elements from each method.

6.8. Person-centered approach

Carl Rogers, a psychotherapist and educator, developed the person-centered approach, which encourages the patient to trust their strengths while the therapist acts as a companion and supporter. The counseling relationship emphasizes strengths and changes behavior. Good counseling relationships include agreement, empathy, and understanding of the other person's thoughts and behavior (Geldard & Geldard, 2011). The therapist must accept, respect, and not judge the patient. The person-centered approach emphasizes the student–teacher–counselor relationship, which should have such traits. Person-centered techniques include reflection, clarification, encouragement, and self-disclosure (disclosure of the thoughts and feelings as well as the experiences of the counselor).

6.9. Ecological-Systemic approach

The systemic approach is part of “context” theories, which hold that existence and knowledge are meaningful only in the social, environmental, and historical context examined each time. Any change to the system affects all its parts. The systemic approach emphasizes system dynamics, while the ecological approach emphasizes system interactions. These two approaches cover the system's internal and external dynamics holistically. The ecological-systemic approach emphasizes the system's cyclic action/reaction and interaction/communication (Payne, 2000). Thus, the school, family, and community must be studied and worked on for the counseling intervention to succeed. Finally, a child's school behavior problem is a systemic problem. Thus, school bullying requires individual and environmental change, guided by the counselor (Hatzichristou, 2004):

- a. Reframing, i.e. attributing a different interpretation of an event or behavior
- b. Searching for and emphasizing a positive element in the behavior

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- c. Using positive feedback
 - d. Identifying and avoiding duplicate messages
 - e. Avoiding the creation of scapegoats

7. Structuralism or constructivism

Constructivism is a cognitive theory that holds that everyone constructs knowledge. According to this theory, there are many realities because each person gives meaning and signals their own truth and worldview based on their experiences (Elliot et al., 2008). Experiences enrich and change one's worldview. Lev Vygotsky's (1978) social constructivism theory holds that social interaction shapes people's thoughts. Thus, Vygotsky believes that children can accomplish much if they work together or with teachers. It emphasizes social interactions and confrontations among students in a group as conditions for mental reorganizations or conceptual changes. Open discussion and disagreements help form personal opinions. Vygotsky believed that society shapes knowledge first. Children discuss, reflect, and control meanings in social interaction, and adults (the teacher) can help create culturally appropriate meanings.

8. Conclusions

We showed how violence and school bullying affect children's psychosocial development inside and outside the classroom. Redefining education is necessary due to society's growing cultural and racial diversity. To maintain a positive culture and climate, modern schools must incorporate new data into their curriculum and teacher training. Intercultural education affects both immigrants and the dominant group in Greek society. Thus, school bullying and violence must be prevented and treated systematically. Teacher training, the school program, and parent-child relationships can be addressed.

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Higher Education as a Space for Forming the Values of United Europe

(pp. 95–114)

Abstract

The research is focused on the role of higher education in the development of European values among applicants for higher education, in particular the role of international projects that contribute to active European citizenship and spread the fundamental values of the European Union. The article uses

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the method of modeling and substantiation of the model of the development of European values among future PhDs during a Jean Monnet Module of the Erasmus+ program called “University autonomy in the development of democratic values in higher education: The experience of the EU Member states for Ukraine” at Borys Grinchenko Kyiv University. The model contains four structural blocks that specify the goal, tasks, methodological approaches, principles, content of structural components, forms, methods, means, stages, functions, pedagogical conditions, and expected results. The study is aimed at developing European values in graduate students as young scientists and teachers of higher education institutions – who will become agents of qualitative changes and help establish the principles of democracy in the academic community – and deepening European integration. The results of the study are presented in the broad public discourse of Ukraine, confirmed by the data of sociological studies on European integration in Ukrainian citizens’ value orientations, accelerated by the large-scale Russian military invasion of Ukraine. Since sociological studies indicate a certain fragmentation of European values instead of an integral whole in the perception of the respondents, we believe that institutions of higher education themselves are an important element that builds the state and society on the basis of European values and that international projects implemented at universities contribute to the European integration of Ukraine and the formation of the values of a united Europe in young citizens.

Keywords: axiology, values of a United Europe, future PhDs, model, Erasmus+ international projects

Ukraine’s aspirations for European integration and the current sociopolitical situation in the country lead to an appeal to the axiological foundations of a united Europe. Today, Europe has not so much a geographical as an axiological dimension, because European values are the foundation of liberal democratic institutions of the European space. According to Amelchenko (2013, p. 2), European values are a set and/or system of axiological maxims; basic principles of building a family, society, and state; and political, economic, cultural, legal, and other norms which unites a significant majority of the residents of Europe and forms the basis of their identity.

European values include 1) humanistic thinking, 2) rationality, 3) secularity, 4) rule of law, 5) democracy, and 6) the protection of human rights (EuropeanValues.info, 2010, p. 5). These components form the basis of the European values outlined in the 54 articles of the Charter of Fundamental Rights of the European Union, structured in seven chapters, which makes it possible to ensure the legal order created by the European Union and to form the economic, social, and political life of a multicultural society of 28 states with a population of over 500 million people. The first six chapters of the Charter are fundamental values (“Dignity,” “Freedoms,” “Equality,” “Solidarity,” “Citizens’ Rights,” and “Justice”), while the seventh chapter regulates and interprets the application of the document. The Charter received full legal force on December 1, 2009, together with the Treaty of Lisbon.

The civilizational choice of Ukraine towards European integration means that the state and society are developing based on European values and that the majority of the country’s citizens share the main value orientations of the European community. Nevertheless, as sociological studies testify, in the perception of respondents there is a certain fragmentation of European values, and not an integral axiological construction (Ukrainian society and European values, 2018).

The institute of education plays an important role in nurturing basic European values in Europe. Experts emphasize that a value-based approach is a key, determining factor in global education today. European studies have already been introduced in the higher education system of Ukraine, with the aim of popularizing European experience in various fields and developing European values. Enriching educational components with valuable knowledge, meanings, and information about European values, ideals, and democratic achievements should serve both to increase the competencies necessary for living in the European community, which will contribute to the self-realization of young people, and to further the progress of Ukraine’s European integration.

In the article, we focus on the role of projects funded by the Erasmus+ program, in particular the Jean Monnet projects, which contribute to active European citizenship and spread the fundamental

values of the European Union: respect for human dignity, freedom, democracy, equality, the rule of law, and respect for human rights, including the rights of members of minority groups (Erasmus+, 2023, p. 370). The Jean Monnet Module of the Erasmus+ program called “University autonomy in the development of democratic values in higher education: The experience of the EU countries for Ukraine” is taking place at Borys Grinchenko Kyiv University, with the participation of the authors, and is aimed at studying European norms, standards, mechanisms, tools, and the best state, social, and educational practices. The target audience of the module comprises tertiary education students (educational and scientific), future PhDs, and university teachers, since most of them are already teachers or intend to be. These are the people who will become agents of qualitative changes and contribute to the affirmation of the principles of democracy in the academic community. Thus, the project is mainly aimed at social institutions – in particular in the field of higher education – separate higher education institutions, and individuals – young scientists and future university teachers and at developing in them the values of a united Europe.

The purpose of the article is to substantiate the model of the development of European values among future PhDs during the implementation of the Jean Monnet Module of the Erasmus+ program called “University autonomy in the development of democratic values in higher education: The experience of the EU countries for Ukraine” at Borys Grinchenko Kyiv University as a factor of the democratization of Ukraine’s higher education.

Research results: values of a United Europe – Ukrainian discourse

The events of the last 20 years confirm that Ukraine’s European choice has no alternative: for Ukrainians, Europe is rather a space of value than a geographical space. The events of 2004–2005 – the Orange Revolution – determined the growth of values in Ukrainian society such as

democratic development, state independence, freedom of speech, democratic control of the decisions of power structures, participation in political life, intellectual development, cultural competence, interesting work, participation in religious life, etc. The Euromaidan of 2013–2014, which was a Revolution of Values, testified to the desire to implement in Ukraine the values of the modern European Union (respect for human dignity, freedom, democracy, equality, the rule of law, and respect for human rights, in particular the rights of minorities). However, Russia's full-scale war against Ukraine, launched in February 2022, challenged all the democratic values of the European civilization which includes our state as an integral part.

Despite the Ukrainian state's European integration, the process a European identity forming in the Ukrainian people is incomplete, as demonstrated by the results of sociological research. According to the results of an all-Ukrainian study conducted by the Gorshenin Institute in 2017, European worldview and values were recognized by respondents as a worthy ideal to follow. However, personal well-being and paternalistic values dominated the value orientations of the majority of the survey participants. Finally, the respondents mentioned European values: the rule of law, democracy, freedom of speech, honesty/transparency, the desire to provide equal opportunities to all citizens, etc. (Ukrainian society and European values, 2017).

The large-scale Russian military invasion of Ukraine in 2022 accelerated the shift in value orientations among Ukrainian citizens toward European integration. Thus, according to a survey conducted by the sociological group "Rating," the war undoubtedly brought Ukraine closer to the EU: three quarters of the respondents believed that Ukrainian soldiers and officers today are defending both the people of Ukraine and the people of Europe (Tenth national survey: ideological markers of war, 2022). While in 2017, only 51.6% of respondents unequivocally believed that Ukraine should integrate into the European Union (Ukrainian society and European values, 2017), in January 2023, 87% of respondents declared that they would support this geopolitical choice in the event of a referendum (against – 3%, would not vote – 8%). Support for joining

the EU and NATO is almost unanimous among representatives of all macro-regions and age and wealth groups (Twentieth National Survey, 2023).

Thus, sociological research from 2017–2022 testifies to certain dynamics in the perception of European values: from misunderstanding and moderate perception to support and conviction in the irreversibility of our country's European integration aspirations. Adherence to certain values is determined both by one's belonging to certain social-status groupings of society and one's region of residence. The category most receptive to European values is young people, focused on democratic transformations, observance of rights and freedoms, and the rule of law.

In his article "Citizenship and National Identity," the German philosopher Jürgen Habermas (2005) emphasized that only a population accustomed to freedom can support the life of free institutions. Any kind of constitutional norms can only become effective public practices when they "form unity with the motives and beliefs of citizens."

Today's Ukraine is characterized by an intermittent value transformation, which should result in the formation of democratic values that will gradually be modernized and change the essence of existing political institutions to become more democratic. Therefore, "building Europe in Ukraine" is only impossible if formal institutions are borrowed and the valuable component is neglected. To avoid the rejection of the initiated "Euroreforms" and the new institutions created for their implementation, it is necessary to work purposefully and thoroughly on the formation, popularization, and spread of European democratic values in Ukrainian society. At the same time, European values should be considered not only from the point of view of ethical guidelines for citizens' behavior, but also from a pragmatic point of view: the ability to support democratic institutions and make them more effective.

The role of higher education in establishing EU values in Ukraine

The institute of education, higher education in particular, should serve to form the axiological system, since it trains future specialists – leaders of change and European integration. Scientists consider higher education institutions an important element of the country's social capital formation system: they become a crossroads of social cooperation, create an atmosphere of social trust around them, serve to form a just society, and are a necessary and significant step on the way to improving the education system, by developing its value framework (Protsenko et al., 2021).

Educational practices play an important role in spreading European values outside the EU. In particular, scientific studies convincingly prove that for more than three decades Erasmus+ programs have deepened European integration, enriched the knowledge of young people about European identity, promoted the idea of a united Europe (Lebediuk et al., 2018), influenced national higher education policies (Huisman et al., 2005), strengthened international cooperation in European higher education and inter-university networks (Marques et al., 2020), implemented the principle of language equality in the European Union, fostered tolerance and respect for the cultural and language policy of countries and individual universities (Baroncelli, 2014), supported the development of active citizens capable of forming their identity and active citizenship (Perko & Mendiweso-Bendek, 2019), raised awareness of European values among students, and strengthened the sense of belonging to the European cultural paradigm (Tupakhina, 2021).

Considering Europeanization as the adoption of EU rules and norms reflected in discourses and practices, Makarychev and Butnaru-Troncota (2022) study the process of transferring EU values to the eastern region, in particular through international projects financed by the EU. The authors focus particularly on the Jean Monnet projects, which are the Erasmus+ programs that directly aim to develop EU studies worldwide by promoting cooperation between students and staff in the field of teaching and research on European integration.

Using the example of the Erasmus+: Jean Monnet Module called “University autonomy in the development of democratic values in higher education: The experience of the EU countries for Ukraine” (2022–2025) at Borys Grinchenko Kyiv University, we have developed and substantiated a model for development of European values among future PhDs. The concept of university autonomy is inextricably linked to such fundamental values as academic freedom and social responsibility of and for higher education. The institutional autonomy of universities, represented by various models of autonomy in the EU countries, is an example of preservation and multiplication of the European democratic values in the system of higher education. University autonomy is an important element of democracy in society. Societies are considered democratic when academic freedom and institutional autonomy are respected. At the same time, these basic values of the European Higher Education Area can be realized only in democratic societies. This interdependence, as well as the influence on university autonomy of political culture, historically rooted practices and management models, has been proven in studies conducted in different countries (Karran et al., 2017; Hocevar et al., 2017; Holmén, 2022; Kalinicheva, 2022).

Introducing the module “University autonomy in the development of democratic values in higher education: The experience of the EU countries for Ukraine” contributes to the development of democracy, further cooperation between societies with common values, the participation of young people in democratic life, and their stronger role in the development of civil society. The goal of the project is to popularize among postgraduate students who are future teachers of various subjects, of European history and civilizational development, to spread European democratic values and European experience of university autonomy in EU countries, and to inform about the organizational, financial, staffing, and academic autonomy in European universities and the relevance of higher education integration of Ukraine into the European Higher Education Area. The tasks of the project include popularizing the best educational practices of the EU among postgraduate students, teachers, and the general public regarding the creation of an effective model of university

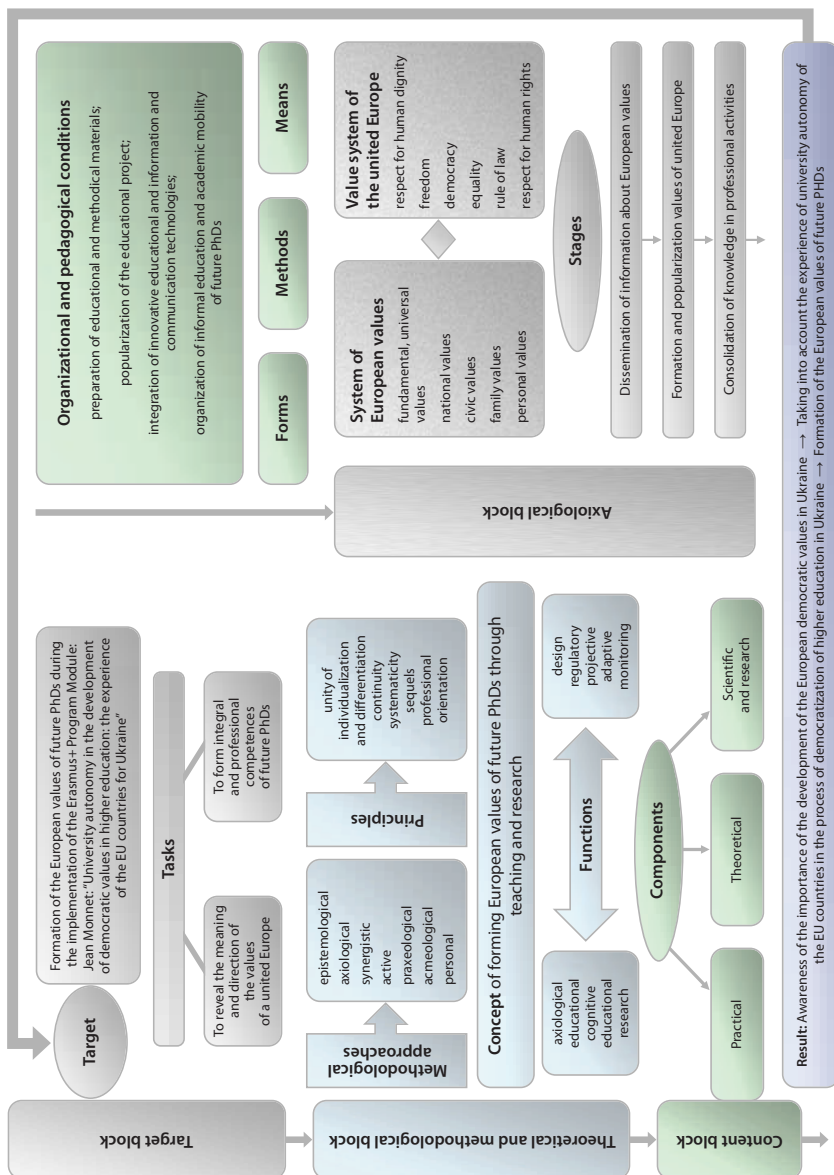
autonomy and the development of educational innovations in higher education. After all, integrating Ukrainian higher education into the European Higher Education Area contributes to Ukrainians' understanding of the common values of the European Union and strengthens the sense of belonging to it.

Makarychev and Butnaru-Troncota (2022), when summarizing the experience of the Erasmus+ Jean Monnet projects in the countries of the Eastern Partnership, claim that the majority of participants perceive the knowledge gained from the point of view of statehood, and not in the categories of European values. Indeed, the main tasks of the Erasmus+ Jean Monnet Module in question is to provide future PhDs with knowledge about the system of university autonomy in EU countries as regards the principles, policy, and practice of four components of university autonomy – academic, financial, organizational, and staffing – as well as to analyze the experience of EU countries regarding the implementation of university autonomy. As Makarychev and Butnaru-Troncota (2022) convincingly prove, the study of the legal framework and effective management practices in the field of higher education in EU countries lays the axiological basis of Europeanization, promotes the development of respect for democracy, equality, the rule of law, and human rights, and thus develops European values in postgraduate students.

A model for the development of the European values of future PhDs during the implementation of the Erasmus+ Jean Monnet Module “University autonomy in the development of democratic values in higher education: The experience of the EU countries for Ukraine.” Based on an analysis of the literature on the subject, regulatory and legal documents at the national and local (university) level of European countries, and the experience of teaching this educational module, we have developed a model for the formation of European values of future PhDs during the implementation of the module at Borys Grinchenko Kyiv University.

The model contains four blocks that provide the structure and specify the goal, tasks, methodological approaches, principles, content, forms, methods, means, stages, functions, pedagogical conditions, and expected results (Fig. 1).

Figure 1. A model for the development of the European values of future PhDs during the implementation of the Erasmus+ Jean Monnet Module “University autonomy in the development of democratic values in higher education: The experience of the EU countries for Ukraine.”



In describing the purpose block, we focused on the fact that the model will be aimed at forming European values in future PhDs in various degree programs at Borys Grinchenko Kyiv University. This will be manifested in the degree of compliance with general and professional competencies and academic results in their chosen specialties and in the effective activity of future PhDs – leaders of change based on democracy and self-governance at higher educational institutions.

The target block of the model contains the goal (forming European values in future PhDs at BGKU) and the tasks that will achieve this goal:

- to reveal the content and direction of the values of united Europe for the axiological attitude of future PhDs towards their effective implementation in professional activities and
- to develop integral and professional competences in future PhDs in the educational process.

The theoretical and methodological block contains the concept of forming European values in future PhDs through teaching and research, methodological approaches (epistemological, axiological, synergistic, activity, praxeological, acmeological, and personal) and principles (unity of individualization and differentiation, continuity, systematicity, consistency, and professional orientation), as well as functions (axiological, educational, cognitive, educational, research, design, regulatory, projection, adaptive, and monitoring).

In the process of teaching the Jean Monnet Module, the project group used a complex combination of methodological approaches and principles. The use of the epistemological approach made it possible to apply the basic methods of scientific knowledge in the teaching process: thoroughly analyzing the essence of the processes under study and the conceptual and categorical apparatus; defining the content, criteria, and components of university autonomy in European countries, the directions of democratization of higher education in European countries, and their national characteristics; establishing the relationship between the scientific knowledge of higher education students and their axiological/acmeological components;

creating a group of like-minded people focused on forming the values of a united Europe among young Ukrainian scholars. The application of the acmeological approach indicates that the subject of the educational process, which is future PhDs, objectifies their needs, motives, values, attitudes towards themselves and others, and achieves scientific and professional excellence.

Individualization and differentiation are manifested in the technologies used to prepare future PhDs, the choice of scientific research, and the organization and conduct of various forms of scientific work within the framework of research training. The implementation of this principle in the system for training future PhDs will orient the values of future teachers towards self-knowledge, self-development and self-evaluation, building their own “self-concept” as a person, a specialist, and a unique personality in the context of European values.

The principle of continuity and consistency reflects the sequence of the training process over time, its structure, and stages. This principle is a demonstration of the temporal and spatial interconnection of the stages of scientific training of future PhDs. Continuity means building a training system from the beginning of the research work. The process of training future PhDs is implemented as a progressive movement aimed at obtaining new knowledge within the limits of one’s own research and on the basis of interdisciplinary connections and at building an axiological system that makes it possible to implement professional knowledge, abilities, skills, technologies, etc.

The principle of systematicity is based on the scientific approaches that 1) the influence on a person is effective only if it is purposeful and systematic (the orderliness of the knowledge system as the content of education) and 2) each educational topic has its own scientific logic, a system of concepts arising from each other, and its own regularities that reflect certain facts and phenomena. Systematicity also means the need to establish order between topics and sections of the module as well as intersubject connections. The principle of systematicity determines the process of planning the training sessions of the module in accordance with the agreed program and developed programmatic materials, which

determines the system of teachers' work in the process of conducting thematic lectures and seminar classes. Systematicity should also be manifested in the organization of the module teaching process and the requirements for higher education applicants in the process of conducting each practical session. It is necessary to form knowledge about the system of modern European values and the system of values (rights and freedoms) of the united Europe among future PhDs.

We have determined the main ways of implementing the principle of professional orientation while teaching the module: 1) including professional techniques and actions that will determine the success of the participants' professional activity, 2) including elements of research work in the educational process, and 3) introducing methods and techniques for forming axiological principles in the context of democratizing the educational process.

The content block of the system model contains theoretical, practical, and research components. The theoretical component involves mastering professional knowledge from the Jean Monnet Module called "University autonomy in the development of democratic values in higher education: The experience of the EU countries for Ukraine" (2022–2025). The practical component aims at forming professional competences through interactive seminar classes, training courses, intensive lessons, independent work, a round table on "University autonomy: The balance between state regulation and responsible independence," debates on "University autonomy: A sufficient or necessary condition for the quality of higher education," a scientific conference on "University autonomy in the development of democratic values in higher education: The experience of the EU countries for Ukraine," and practical application in professional activities. The scientific and research component should help postgraduate students use the theoretical knowledge acquired during the program when they conduct scientific research within the framework of their educational program and to develop skills learned through research and participation in round tables, debates, and scientific conferences.

A number of organizational and pedagogical conditions should serve the purpose and tasks of the educational module in question:

1. Preparation of educational and methodological materials (text and presentations of lectures, an electronic study guide, scientific articles in Ukrainian specialized and foreign publications),
2. Promotion of the educational project through the website of the module and social networks,
3. Integration in the educational process of the university Modular Learning and Information and Communications Technologies, problem-oriented learning, team-oriented learning, learning based on research and solving situational tasks, and project-oriented learning,
4. Organization of the informal education and academic mobility of future PhDs,
5. Development of critical thinking, creative potential, and professional skills among future PhDs, and
6. Approbation of the results of scientific and pedagogical work of teachers and post-graduate students through participation in Ukrainian and international scientific and practical conferences and publication of scientific articles in Ukrainian and foreign professional journals.

The content of the Jean Monnet Module “University autonomy in the development of democratic values in higher education: The experience of the EU countries for Ukraine” is revealed through lectures, interactive seminar classes, training courses, intensive lessons, independent work, round tables, debates, scientific conferences, and practical application in professional activities. In the teaching process, the members of the project team (lecturers) use a wide range of traditional and innovative methods and techniques of educational and research activities, as well as informative and communicative means of education.

The axiological block of the system model contains the following components: information about the system of modern European values, the system of values (rights and freedoms) of united Europe, and the stages of European value formation in future PhDs at Borys Grinchenko Kyiv University.

The following values are distinguished in the structure of modern European values: 1) fundamental, universal values (life, human, goodness,

nature, society, happiness, justice, freedom, equality, humanism, work, knowledge [truth], and beauty [harmony]); 2) national values (values of national culture): native language, national idea, national symbols, national holidays, traditions and customs, and folklore; 3) civic values (values of a democratic society): tolerance for dissent, democratic rights and responsibilities, respect for the cultural and national traditions of other peoples, religious tolerance, continuous education, information culture, etc.; 4) family values (values of family life): respect, love, trust, loyalty, mutual help, support, and responsibility, honoring ancestors, etc.); 5) individual, personal values: moral and volitional qualities (kindness, honesty, responsibility, principles, discipline, initiative, diligence, mercy, etc.), health, self-realization, education, success, competitiveness, creativity, optimism in life and the desire for self-improvement, compliance with the rules of etiquette, etc.

In the process of teaching the thematic lectures of the module, the lecturers of the project team stress these six values of a united Europe: 1) respect for human dignity, 2) freedom, 3) democracy, 4) equality, 5) rule of law, and 6) respect for human rights.

Consolidation of the acquired knowledge about European democratic values should demonstrate the future PhDs' understanding of the content and essence of the fundamental, political, social, and cultural values of the European community. Fundamental values are the right to life, the inviolability of the individual, the right to property and the freedom to dispose of it, and the right to one's own beliefs and freedom of conscience. Political rights and freedoms are represented by such values as the right to unite with other citizens in public organizations, political parties, and trade unions in order to protect one's interests; the right to assemble to defend one's rights, freedoms, and interests; the right to freedom and security; freedom of thought, conscience, and religion; the right to elect the government and be elected; and freedom of movement and residence in any EU country. Social rights ensure the right to education, professional development, the right to work, and to fair remuneration for it; health care and proper medical care; the child's right to protection and care; the provision of pensions; state support for people with disabilities,

mothers, children, etc.; the right to environmental safety and the protection of consumer interests; and non-interference in family life. Cultural rights and freedoms ensure the right to preserve cultural identity, determining the value of national identity.

The result of training future PhDs at Borys Grinchenko Kyiv University under the Erasmus+ Program Jean Monnet Module “University autonomy in the development of democratic values in higher education: The experience of the EU countries for Ukraine” should be an awareness of the importance of building European democratic values in Ukraine. This should be done by using the experience of democratic governance and democratization of higher education in European countries, in particular, the experience of university autonomy in the EU countries. The formation of European values among future PhDs should serve the democratization of the national higher education system and the sociopolitical progress of our country. The indicator of formation of European values in future PhDs is their knowledge, skills, and abilities to solve professional tasks, situations, and problems on the axiological basis of united Europe.

Conclusions

Forming European values of future PhDs at Borys Grinchenko Kyiv University within the framework of the Erasmus+ program Jean Monnet Module is a component of the institution of civic education, which is of particular importance in the transformation of post-Soviet values, and is an effective tool capable of forming a democratic value-based foundation for reforming Ukraine’s social and political institutions on the way to a united Europe.

International projects financed under Erasmus+, especially the Jean Monnet projects, which promote European integration through teaching and research, are aimed not only at transferring knowledge about European norms, standards, mechanisms, tools, and best state, social, and educational practices, but also at spreading the fundamental values of the European Union. The model for forming European values among

future PhDs developed during the implementation of the module called “University autonomy in the development of democratic values in higher education: The experience of the EU countries for Ukraine” at Borys Grinchenko Kyiv University consists of four blocks that structure and specify the project’s target, tasks, methodological approaches, principles, content, forms, methods, means, stages, functions, pedagogical conditions, and expected results.

The priority in the process of forming European democratic values among young scholars should be the transition from a paternalistic political culture to a participative culture of partaking, which involves the effective participation of the expert and public community in the discussion and the adoption of socially important decisions, the democratization of political life, and the creation of a system of public relations based on principles of open access, transparency, and publicity.

Thanks to the European research, postgraduate students, young scientists, and teachers of higher education institutions will become agents of qualitative changes, contributing to the establishment of democratic principles in the academic community, popularizing the best educational practices of the EU among the general public, and strengthening the sense of belonging to the EU.

* * *

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Needs and Difficulties of Future Teachers in Dealing with Aggression and Violence in Real and Virtual Spaces

(pp. 115–138)

Abstract

This study investigates the opinions of future teachers regarding needs and expectations when dealing with aggression and violence in real and virtual spaces, in the context of their personal experiences and future professional work. Some teachers avoid involving themselves in difficult, 'violent' situations that for various reasons require their intervention. Therefore, it is essential for teachers to have appropriate competencies to address these issues. The study used the diagnostic survey method. Over two years, a survey was conducted among 167 university students of teacher training and pedagogical faculties of a Polish university. The participants indicated their experiences of aggression and violence and evaluated their knowledge on the subject and the difficulties and benefits. A thorough statistical analysis of the research material reveals that those who declared a willingness to participate in the course and to learn effective action against aggression and violence had previously experienced such behaviour themselves. Furthermore, those respondents showed more interest in acquiring skills to deal with conflict situations and knowledge of how to resolve them because of their future work in the profession, their willingness to help others and their awareness of these risks. The study also recommends actions to reduce this phenomenon.

Keywords: aggression, violence, teacher, needs, e-learning course

Introduction

Aggression and violence, both within and outside professional work, are issues that teachers increasingly have to deal with nowadays. The scale of the phenomenon is increasing rather than diminishing; it takes on new, more drastic forms and is destructive to the psyches of those affected, who may be victims of aggression in both the real and the virtual world.

Violence contravenes human rights – above all, the right to dignity – as set out in the Universal Declaration of Human Rights, the Council of Europe Convention on preventing and combating violence against women and domestic violence, the International Covenant on Civil Rights and the Convention on the Rights of the Child. These general acts of law refer to human rights, including specific groups that are vulnerable to discrimination and require protection against violence. Adequate legal measures are in place to ensure that the offences set out therein are punished and effectively discouraged through sanctions. Nowadays, a victim of aggression and violence can be not only a poor, submissive, sensitive, shy or fearful person, but also one with a specific appearance, views or outstanding learning achievements – someone who is simply different. It is important to remember that being victimised is not the victim's fault. Everyone has the right to be themselves, and this 'otherness' should not provoke hatred or violence. There are also numerous theories on the multifaceted causes of aggression.

Due to the COVID-19 pandemic, the anonymity of students in remote learning situations has increased aggression towards both the learners and the teachers (Bieganowska-Skóra & Pankowska, 2020; Bigaj & Dębski, 2020; Ragavan et al., 2020). Indeed, teaching is becoming the highest-risk profession, as evidenced by cases of harassment of teachers publicised by the media. For example, at a technical college in Toruń, a group of students put a dustbin over a teacher's head, then filmed the entire incident and published it on the Internet. Teachers are often afraid of their students and do not know how to behave in conflict situations. It must be remembered that a teacher, while performing their duties, has the right to enjoy the protection provided for a state functionary under the principles set out in

the Criminal Code. The educational authority and the relevant legislation should guarantee protection and support teachers' activities in combating aggression and violence. If aggression is to be overcome, it is not enough to punish it, but also to eliminate the phenomena that contribute to it. Widely publicising the legal consequences of aggression throughout the media and consistently punishing aggressors can assist in curbing this phenomenon. The authorities should consistently punish aggressors for the consequences of their behaviour whilst tackling the causes of this frustration, which can include economic exclusion.

Literature review

Research shows the adverse effects of exposing students to aggression and violence in school settings, as well as the consequences for other members of the school community, including teachers (Patton et al., 2012). Over the past year, 41% of the respondents had experienced some form of violence at school. A substantial increase in cyberbullying against teachers can also be observed (Goel & Naaz, 2021; Tomczyk et al., 2016, pp. 4–5). In 2018, statements from 34% of students mentioned posting compromising material about teachers at their school. This may be related to a number of factors, including the inability of teachers, parents and students to sufficiently deal with threats in both real space and cyberspace (Orpinas & Horne, 2004).

Young teachers with limited experience feel particularly vulnerable when faced with aggressive or violent student behaviour (Berg & Cornell, 2016; Reddy et al., 2018; Santor et al., 2021; Wilson et al., 2010). Teachers' knowledge and sense of agency in dealing with aggression and violence indicate that they do not have the tools to deal with these problems. The lack of specific knowledge in this area precludes appropriate prevention and intervention measures. Moreover, students are not the only victims of aggression. Teachers may also be at risk, which can undermine their ability to help others (Berlanda et al., 2019; Galand et al., 2007; Moon & McCluskey, 2020). As a result of conflict and aggressive situations, teachers

experience stress and deteriorated health, which may consequently lead to professional burnout or leaving the profession (Poraj, 2004; Zysberg & Sabbag, 2021). Bandura's (1977) *Self-efficacy theory* highlights the individual's personal experience and competence – their ability to cope with the situations that life brings. In this case, reference can be made to teachers and the daily struggles they face, for example, aggressive situations at school, which can affect their confidence and self-esteem. Thus, it is worth noting that perceptions of self-efficacy and personal goals are relevant to people's motivation, emotional state and actions in difficult and oppressive situations (cf. Kozicka, 2004, pp. 36–37). This is also supported by research on the level of self-efficacy among adolescents, and its correlation with aggressive behaviour (Bandura & Locke, 2003, pp. 87–99). Other international studies have shown a link between self-esteem and victimisation in school or online, and have highlighted the victims' low self-esteem (Álvarez-García et al., 2015, pp. 231–233). This can lead to low self-esteem in the person who is bullied. This phenomenon affects both students and teachers.

Given the importance of teachers' role in preventing the problem of aggression and violence, this study's aim was to train teachers and enhance their awareness. One of the possible solutions was to develop and deliver an e-learning course on the chosen platform between 2019 and 2021 in order to improve the competencies of future teachers and educators in the following areas:

- learning about aggression and violence, its causes, indicators and coping mechanisms;
- becoming familiar with the legal consequences of aggression and violence;
- solving problems when coping with others' aggression in real and virtual spaces;
- resolving conflicts in a constructive manner within a team, through knowledge and the choice of appropriate strategies; and
- communicating effectively as part of a team.

To achieve these objectives, a sample of teacher-training students participated in a 60-hour course on a selected e-learning platform. The participants were provided with continuous monitoring and substantive and technical support by the academic staff in order to maintain the integrity of the programme's various thematic modules. Prior to the course, the participants were invited to take part in a survey whose cognitive objective was to identify whether future teachers need expert knowledge about aggression and violence in a variety of environments. The respondents also discussed how to prevent these occurrences and how to mitigate the negative effects of aggression.

Methodology

The aim of this study was to investigate the opinions of future teachers about needs and expectations when dealing with aggression and violence, in the context of their personal experiences and future professional work. To achieve this objective, the following research questions were addressed.

- 1) What is the distribution of prospective teachers' responses in terms of assessing their knowledge and self-efficacy in dealing with the phenomenon of aggression and violence in relation to the real/virtual space?
- 2) Is there a link between personal experience of (cyber)aggression and (cyber)violence and the declared need to improve knowledge and skills for diagnosing, analysing and dealing with these issues?

The research was of a cyclical nature, carried out over a period of two years. In May 2020, a preliminary survey was conducted among the participants in the first edition of the course, which lasted four months. Subsequently, a preliminary survey was conducted in the second edition of the course in January 2021. The survey was conducted remotely through a closed survey system. The survey group consisted of students

of teaching-training programmes and specialisations studying at a public university in central Poland.

The selection of respondents for the sample was purposeful, and the basic criterion was their application for participation in an e-learning course on the subject of aggression and violence, in the context of their causes and ways to prevent them. A total of 202 students participated in the survey (the total number of students taking that course), which resulted in 167 questionnaires being returned with complete responses. The respondents received an invitation to participate and a link to the survey via the university's email system. Upon accessing the survey landing page, the participants were informed about its purpose and how the data would be processed. In addition, they were informed that the survey was anonymous and voluntary, and that they could opt out at any time. In order to take part in the survey, the students had to provide consent to participate.

The study used a diagnostic survey method. For this purpose, a survey questionnaire was constructed

- to evaluate their own knowledge and performance in dealing with aggression and violence in real and virtual spaces (five-point Likert scale: 1 – very poor, 5 – very good),
- to indicate their experience of (cyber)aggression and (cyber)violence, types of aggression and their perception of these phenomena in terms of the individual, relatives and family, as well as the school environment and
- to indicate their expectations concerning the subject matter and issues covered during the e-learning course.

The validity of the research tool and the research procedure was tested in a pilot study, which allowed errors, shortcomings and ambiguities to be detected. Based on the information gleaned at this phase, some items on the survey form were reworded, amended or deleted.

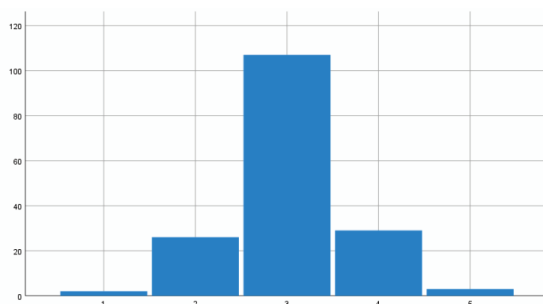
Results and analysis

An analysis of basic descriptive statistics was performed, including the Kolmogorov–Smirnov test, frequency analysis, χ^2 tests, Fisher’s exact tests, Student’s *t*-tests for independent samples and Mann–Whitney *U* tests. The classical threshold of $\alpha = 0.05$ was taken as the significance level.

Evaluation of knowledge on aggression and violence in real and virtual spaces

First, the distribution of responses assessing knowledge and self-efficacy in the area of aggression and violence in real and virtual spaces was analysed. This indicator was reported on a scale from 1 to 5, where 1 indicated a very low level of knowledge and 5 a very high level. According to Figure 1, level 3 responses – indicating a moderate level of knowledge – clearly prevailed. The basic descriptive statistics of the quantitative variables are presented in Table 1. The Kolmogorov–Smirnov test, which checks the normality of the distribution of the variables under study, were also conducted. A statistically significant result of this test was recorded, indicating a deviation from a normal distribution. In such cases, additional verification of the skewness is recommended. If the skewness of the tested distribution is between -2 and +2, it can be assumed that the data are not significantly asymmetric with respect to the mean. The result for this variable met this criterion, so it was decided that the statistical analysis would consist of parametric tests.

Figure 1. Evaluation of knowledge on aggression and violence in real and virtual spaces



**Table 1. Basic descriptive statistics
for the quantitative variable**

	<i>M</i>	<i>Me</i>	<i>SD</i>	<i>Sk.</i>	<i>Kurt.</i>	<i>Min.</i>	<i>Max.</i>	<i>D</i>	<i>p</i>
Evaluation of knowledge on aggression and violence in real and virtual spaces	3.03	3	0.67	0.09	1.06	1	5	0.33	<0.001

M – mean; *Me* – median; *SD* – standard deviation; *Sk.* – skewness; *Kurt.* – kurtosis;

Min. and *Max.* – lowest and highest values of the distribution, respectively;

D – result of the Kolmogorov–Smirnov test; *p* – significance

Experiences of violence and its types

A series of frequency analyses was subsequently performed for all questions posed to the respondents in order to calculate the percentage of participants who had experienced any kind of violence. There were 140 affirmative (83.8%) and 27 negative (16.2%) responses. Table 2 presents the breakdown of indications for specific violence types. It can be noted that the highest percentage of affirmative responses concerned incidents occurring in real life.

Table 2. Experiencing violence

	Not indicated		Indicated	
	<i>N</i>	%	<i>N</i>	%
Personally – in real life	67	40.1	100	59.9
Personally – in a virtual space	99	59.3	68	40.7
Real-life – against loved ones and acquaintances	74	44.3	93	55.7
Real-life – against unknown individuals	113	67.7	54	32.3

The types of violence experienced were then analysed. As presented in Table 3, only 12 people indicated that they had not experienced any type of violence (compared to the 27 mentioned above). Of the types of violence listed, emotional, psychological and verbal violence were reported

most frequently, while sexual and economic violence were least frequently reported.

Table 3. Types of violence experienced

	Not indicated		Indicated	
	<i>N</i>	%	<i>N</i>	%
Emotional	53	31.7	114	68.3
Economical	156	93.4	11	6.6
Physical	96	57.5	71	42.5
Verbal	67	40.1	100	59.9
Exclusionary	92	55.1	75	44.9
Mental	65	38.9	102	61.1
Sexual	152	91	15	9
Negligence	139	83.2	28	16.8
I have not experienced any of the above types	155	92.8	12	7.2

The survey then ascertained how many participants responded to the violence experienced. Affirmative answers were given by 89 individuals (53.3% of the sample) and negative ones by 78 respondents (46.7%). It is surprising to see such a high percentage of people not reacting to violence. This may be due to their own powerlessness, lack of support or, above all, insufficient competence in dealing with aggression and violence.

The next question asked the respondents to imagine that they would experience aggression at school or in the school environment and whether they, as a teacher, educator or psychologist, would be able to deal with the situation. The results are summarised in Table 4.

Table 4. Answers – would the respondents, as teachers, educators or psychologists, be able to perform certain actions if they encountered aggression at school or on the Internet

	School grounds				Internet			
	No		Yes		No		Yes	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Recognise a problematic situation	27	16.2	140	83.8	36	21.6	131	78.4
Solve a problematic situation	104	62.3	63	37.7	119	71.3	48	28.7
Provide assistance to victims of violence or indicate where to seek it	38	22.8	129	77.2	54	32.3	113	67.7
Prevent conflicts in the future	113	67.7	54	32.3	125	74.9	42	25.1

The vast majority of participants estimated that they would be able to recognise a problematic situation, but just over a third indicated that they would be able to solve it. Even fewer claimed that they would be able to prevent conflicts from arising in the future. Similar distributions of responses were recorded for the question about aggression on the Internet.

Course expectations

The respondents were also asked to assess the need to supplement their knowledge and skills in diagnosing, analysing and dealing with aggression. As presented in Table 5, more than 9 out of 10 respondents answered in the affirmative, referring to real and virtual spaces. There were similar distributions of responses.

Table 5. Participants' assessment of a need to supplement their knowledge and skills in diagnosing, analysing and dealing with aggression

	Yes		No		I have no opinion	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
In real space	156	93.4	1	0.6	10	6
In virtual space	153	91.6	6	3.6	8	4.8

Table 6 summarises the topics which the respondents would like to learn more about. The most frequently mentioned topics were how to prevent aggression and violence, as well as the psychological aspects of aggression and violence. The key notions and concepts of violence were the least frequently mentioned, which may indicate that prevention measures are more important to them than theory.

Table 6. Topics the respondents would like to develop

	Not indicated		Indicated	
	N	%	N	%
Key notions and concepts of violence	121	72.5	46	27.5
Legal aspects of violence	85	50.9	82	49.1
Psychological aspects of aggression and violence	39	23.4	128	76.6
Socio-pedagogical aspects of cyberbullying	88	52.7	79	47.3
Stalking and hacking	96	57.5	71	42.5
Prevention of aggression and violence	31	18.6	136	81.4

The respondents' expectations of the course were also assessed (Table 7). Most often the persons surveyed indicated that they cared about improving their knowledge of and skills for dealing with others aggression in real and virtual spaces and constructive conflict resolution in a team.

Table 7. Course expectations

	Not indicated		Indicated	
	N	%	N	%
Improving knowledge and skills in solving problems related to dealing with aggression of others in real and virtual spaces	12	7.2	155	92.8
Acquiring knowledge and skills for constructive conflict resolution within a team	46	27.5	121	72.5
Acquiring knowledge and skills for effective communication within a team	79	47.3	88	52.7
Acquiring knowledge and skills for solving routine problems of searching for necessary information online, selecting information and using it skilfully and solving problems while using digital technology	70	41.9	97	58.1

Experiencing (cyber)aggression and (cyber)violence

In the next step of the statistical analysis, the participants' experience of violence was examined for correlations with the other variables of the study. A series of χ^2 tests were performed, or, if their assumptions were not met, Fisher's exact tests. First, the results of the participants who had experienced any violence or had never experienced violence were compared. Eight statistically significant correlations were noted. Those who had experienced violence were more likely to indicate in the survey that they had taken action in relation to the violence experienced by themselves or someone close to them. They were more likely to show interest in issues concerning the socio-pedagogical aspects of cyberbullying and preventing aggression and violence. They also emphasised learning skills for solving problems when dealing with others' aggression in real and virtual spaces. They expressed the need to acquire knowledge and skills for constructive conflict resolution in a team more than those who had not experienced aggression. Respondents affected by the experience of aggression rarely indicated that in the future they would be able to prevent conflicts from arising in the school environment or on the Internet. The cogency of the first effect noted was moderately high, while the others were low. The results are summarised in Table 8.

Table 8. Relationship between experience of violence and other variables (statistically significant relationships)

			Experiencing violence		
			Yes	No	
Reacting to violence experienced by you or someone close to you	no	<i>N</i>	56	22	$\chi^2(1) = 15.65;$ $p < 0.001$ $V = 0.31$
		%	40.00%	81.50%	
	yes	<i>N</i>	84	5	
		%	60.00%	18.50%	
Ability to prevent future conflicts in response to aggression in or around school	no	<i>N</i>	100	13	$\chi^2(1) = 5.61;$ $p = 0.018$ $V = 0.18$
		%	71.40%	48.10%	
	yes	<i>N</i>	40	14	
		%	28.60%	51.90%	

Ability to prevent future conflicts in response to aggression on the Internet	no	<i>N</i>	109	16	$\chi^2(1) = 4.16;$ $p = 0.041$ $V = 0.16$
		%	77.90%	59.30%	
	yes	<i>N</i>	31	11	
		%	22.10%	40.70%	
Interest in issues concerning the socio-pedagogical aspects of cyberbullying	no	<i>N</i>	69	19	$\chi^2(1) = 4.04;$ $p = 0.045$ $V = 0.16$
		%	49.30%	70.40%	
	yes	<i>N</i>	71	8	
		%	50.70%	29.60%	
Interest in issues concerning the prevention of aggression and violence	no	<i>N</i>	21	10	$\chi^2(1) = 7.27;$ $p = 0.007$ $V = 0.21$
		%	15.00%	37.00%	
	yes	<i>N</i>	119	17	
		%	85.00%	63.00%	
Improving knowledge and skills in solving problems related to dealing with aggression of others in real and virtual space	no	<i>N</i>	6	6	$p = 0.005$ $V = 0.26$
		%	4.30%	22.20%	
	yes	<i>N</i>	134	21	
		%	95.70%	77.80%	
Acquisition of knowledge and skills for constructive conflict resolution within a team	no	<i>N</i>	33	13	$\chi^2(1) = 6.85;$ $p = 0.009$ $V = 0.20$
		%	23.60%	48.10%	
	yes	<i>N</i>	107	14	
		%	76.40%	51.90%	

Those who had experienced cyberbullying were more likely to indicate that they were interested in the topic of how to prevent it. These individuals selected knowledge and skills for constructive conflict resolution within a team as one of the most important aims of the course.

Discussion

As mentioned above, the daily reality of teachers in schools is complex and imbued with challenges and the need to deal with aggression as their main focus. This skill is essential in a remote learning situation,

as has been evidenced by research conducted during the COVID-19 crisis (Dolev-Cohen & Levkovich, 2020). The pandemic and the need to shift to remote learning have led to an increase in aggression and many other negative behaviours, while also raising awareness of the need to bring this phenomenon under control.

The aim of this study was to understand the participants' expectations of an e-learning course and to investigate the relationship between the experience of aggression and/or violence in real and virtual space and the declaration of knowledge in this area. The results show that more than 80% of the respondents had experienced some form of aggression and/or violence. In most cases the aggression concerned direct communication, which for more than 40% of the participants took place in virtual spaces. Of the types of violence specified, emotional, psychological and verbal violence were recorded most frequently, whereas sexual and economic violence were the least frequently reported.

Before taking the e-learning course, the vast majority of participants estimated that they would be able to recognise a problematic situation, but just over a third indicated that they would be able to solve it. Even fewer indicated that they would be able to prevent conflicts from arising in the future. Similar responses were found for encounters with acts of aggression on the Internet. The respondents expressed the most interest in acquiring skills for preventing and addressing the psychological aspects of aggression and violence and constructive conflict resolution in a team; the least interest was in theoretical concepts of aggression and violence. Those who experienced it more often indicated a desire to improve their knowledge and skills.

The results of this research showed that future teachers lack skills in dealing with aggression problems. In view of the increasing likelihood of experiencing them (both real and virtual) and the awareness of the consequences of these experiences, there is a need to raise the awareness and competence of future teachers and educators at the tertiary level in recognising symptoms, dealing with aggressive behaviour and supporting those affected. In particular, teachers must be prepared to:

- (a) use instructional techniques and modify existing curricula to teach their students social problem-solving and conflict resolution skills,
- (b) implement verbal and non-verbal intervention techniques to reduce students' belligerent behaviour and
- (c) intervene to protect pupils and others in situations of crisis for them (Acker, 1993).

The results lead to the conclusion that it is necessary to modify the training programmes of teachers and educators so that they know how to recognise and deal with their own and their students' aggression inside and outside the classroom. A teacher who is aware of the causes of aggression and who has the right skills to ensure a friendly classroom climate can greatly enhance the behaviour and lives of their students (Larson & Kolodziejczyk, 2019, pp. 26–28; Kulesza, 2007). It is important that teachers, form masters, educators, school psychologists and other specialists are able to promote a safe school environment through appropriate educational methods and mutual cooperation, and, above all, to develop students' respect, empathy, trust and responsibility in their relations with other people, which can counteract deliberate aggression and violence.

Teacher education programmes should draw attention to the importance of collaborating with other professionals in the community (school educators, psychologists, therapists and school nurses), school staff and parents, so that social care¹ and educational measures can be taken for prevention, intervention and psycho-social needs (Goel & Naaz, 2021, p. 53).

Appropriate responses, including in public spaces, can increase school safety and reduce the likelihood of further violent incidents. The implementation of educational programmes in this area should be compulsory –

¹ Social welfare institutions are responsible for social welfare, its organisation and provision, enabling persons and families to overcome difficult life situations and supporting them in efforts to satisfy their needs and to live in conditions that respect human dignity. The social welfare institutions in Poland include social assistance homes, care and Education centres, municipal and communal social assistance centres, county family assistance centres and others.

not only in pedagogical and teaching faculties, but also in every university or school – and they should relate to the family environment. **Education should be systemic and institutionalised, given that irregular and sporadic actions are far from sufficient, and sometimes apparent.** Bearing in mind that part of society is unprepared for the experience of violence and cyberbullying, it is necessary to ensure comprehensive education, to develop competencies for developing appropriate attitudes, recognising the symptoms of violence and preventing it and to raise awareness about obtaining legal and psychological assistance as well as therapy.

We must not forget that prevention of these phenomena is not only the responsibility of schools; the family and the media also play active roles in passing on values and promoting responsible use of mobile devices and the Internet. Children and young people should be taught adequate digital literacy and the advantages of electronic communication devices, as well as the potential risks and how to prevent them. Systematic and purposeful training in these values, knowledge and skills should be a responsibility shared by schools, family and societies (Álvarez-García, et al., 2015, pp. 232–233). For instance, there is a free helpline of the Children's Rights Ombudsman in Poland, enabling children, adolescents and carers to receive free and professional psychological help in oppressive situations. Assistance is provided to people with emotional problems, in conflictual peer, school, family and adolescent relationships. However, the current situation calls for systemic solutions and programmes and appropriate action to address these difficult issues.

An aggressive pupil is often a lost and frustrated person, who may enter life with the baggage of negative experiences. The role of the teacher, educator and tutor should be to help the pupil cope with these difficulties, understand the nature of the destructive effects of aggression and violence and to form the right attitude based on values. A report by the Polish Committee of the European Anti-Poverty Network (Szarfenberg, 2021), based on national and international statistics, indicated an increase in the number of citizens living in extreme poverty by 2020. The Polish Central Statistical Office (Bieńkuńska&Góralczyk2021) also confirmed that the proportion of children living in poverty had increased

in the previous year. The deterioration of the material situation of some households and the increase in extreme poverty in Poland is associated with the COVID-19 pandemic and restrictions in social contact. Extreme social poverty and economic instability can therefore be a breeding ground for aggression and violence.

It should be noted that this study is not without limitations. For instance, a larger sample group could have provided statistical confirmation of the results. Furthermore, this research can be repeated with a group of school teachers actively working at different levels of education. With a larger sample, it would be possible to investigate any differences by professional experience or by gender.

Conclusions and personal reflection

The reflections that arose in connection with the course I conducted, and the analysis of the material collected in the questionnaire, led me to formulate certain conclusions and postulates, which I present below. The problem of violence and aggression is difficult to define and cannot be captured by statistics. This phenomenon escapes comprehensive research. However, there is an urgent need to study it, as it has steadily increased to the point of causing public concern. This is why the media have taken an interest in the topic and are constantly informing the public about manifestations of aggression and violence. The course I conducted was therefore a response to an urgent contemporary need, and the research material collected through a survey conducted on a small group (167 course participants) is undoubtedly only one contribution to a comprehensive and multifaceted view of the problem. As a result of the course, I understood that it would be erroneous to consider aggression and violence as a final phenomenon. I believe that the problem should be considered in terms of cause and effect: the causes, manifestations of aggression and violence, their effects and ways of combating them.

The participants of the remote course on aggression and violence view the knowledge gained as part of their professional development.

It is clear that only teachers who are involved in and aware of these problems will be able to prevent and deal with aggressive behaviour by students, and the knowledge they gain can have a significant impact on the school environment. However, it appears that training and support for teaching staff in this area has been insufficient in recent years. Teachers, especially young ones just entering the profession, are under pressure to achieve high teaching scores or strive to improve them. As a result, they often feel frustrated because they have to reconcile teaching time with the time spent overcoming expressions of aggression in the classroom. It is therefore necessary to focus on increasing future teachers' skills in getting to know students, classroom management, conflict resolution and managing emotions (their own and others'). It is necessary to strive for efficient communication in teams and to establish good relations, because the ability to solve everyday school problems is a manifestation of an effective teacher's work.

The pandemic is a difficult time, with lockdowns, prolonged isolation, the severing of direct interpersonal relations, remote working and hybrid learning, the economic consequences of lockdown (inflation, economic slowdown and bankruptcies), significant expansion of poverty, the psychological and psychiatric consequences of long-term isolation (widespread depression in children and adolescents and a wave of suicides) and significant changes in morality. Such factors have intensified aggression and violence, on a scale never seen before. Moral, ethical and religious norms are no longer a brake on the expression of aggression and violence; rather, the oppressive nature of social life during the pandemic has become a driving force for this problem. Moreover, the phenomenon is increasing, and concrete measures must be taken to reduce its scale. Attempts are being made to counteract it, such as the press conference of the Children's Rights Ombudsman, the new helpline (800 12 12 12), the clinic for children with depression (by the TVN Foundation 'Nie jesteś sam' [You are not alone] and the Children's Health Centre.

When analysing the empirical material, I understood that an important role in the fight against aggression and violence should be played not only by teachers, but by many institutions (social services, foundations,

charities and others) which can prevent it before it appears in the public space – provided that they are effective. I decided that today my survey would include a question on what the respondents believe is the source of violence, in order to investigate whether the respondents are aware of these social phenomena causing aggression and violence, as well as a few other questions to make the respondents think and observe: 'Is the aggressor sometimes also a victim of a system, of mistakes in social and economic policy?' I would make them think about the difference between a victim and an aggressor, by asking how they would define a victim, and what problems an aggressor solves by expressing aggression and using violence. I reflect that it was a mistake to ask how violence should be 'dealt with', because, in my opinion, the correct question is which institutions should be involved in combating the phenomenon of aggression and violence, so that their activities have the desired effect of reducing the scale of this disturbing phenomenon.

Postulates

1. Given the complex aspects of aggression and violence outlined above, I propose the need for a definition of aggressors and victims in the 2020s, during a prolonged pandemic and in relation to its consequences.
2. I believe that by gaining comprehensive knowledge of this issue, it will be possible to combat the phenomenon effectively with regard to both its causes and its effects.
3. This issue therefore needs to be thoroughly researched – a pressing need given the current pandemic and post-pandemic situation.
4. The phenomenon should be comprehensively studied from the point of view of pedagogy, sociology, economics, social policy, psychology and psychiatry.
5. Particular attention should be paid to the institutions that care for the mental health of children, adolescents and adults.
6. Legal regulations and enforcement are needed.

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7. Teachers, who have the legal status of state officials, should play a major role in this fight.
 8. The media should play an important role in this fight by disseminating educational campaigns.
 9. The media and teachers should be supported in this fight by the institutions set up for this purpose, such as the European Commission.
 10. It is necessary to measure the scale of the phenomenon and to carry out research to locate the areas of public life in which it occurs most frequently.
 11. Institutions should be established to ensure equal access of all children and adolescents to the Internet and culture, in order to counteract social exclusion.
 12. The public should be provided with low-cost access to recreation, to remove an important cause of aggression and violence – boredom, which leads to frustration.

These are the research areas I indicate as urgently needing research.

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Introduction of Al-Washliyah as Moral Strengthening in Early Childhood at Ra Al-Washliyah Indonesia

(pp. 139–157)

Abstract

Al-Washliyah is an Islamic organization that pays great attention to education. The Al-Washliyah educational institution prioritizes spiritual values in the learning process so as to answer the community's need for religious education and moral strengthening. This study illustrates how introducing al-Washliyah in early childhood can strengthen morality or add a new understanding that confuses children. Methodologically, this paper is an example of qualitative research. The results of this study show that introducing Al-Washliyah in early childhood at Raudatul Athfal [RA; Islamic kindergarten] Al-Washliyah was achieved by maximizing the quality of the educator, the infrastructure, and by formulating clear, measurable goals. With clear and measurable goals, such as reciting sholawat and dhikr and memorizing prayers, Al-Washliyah materials are integrated with developmental aspects that can strengthen children's morality. The form of simple

and fun activities can strengthen children's morality, though there are obstacles in introducing Al-Washliyah materials, such as differences in student characteristics, the educational environment, religious understanding, and the teacher's creativity in using Al-Washliyah materials in early childhood.

Keywords: Al-Washliyah; moral strengthening; early childhood

Introduction

Islam places education in a vital and exalted position. As a religion that leads to *rahmatan lil alamin*, educational values in accordance with Islamic teachings are the achievement of civilization progress. We can know this sign through various contents in the concept of Islamic teachings. The concept of education in the view of Islam leads to spiritual aspects, social aspects of welfare, aspects of freedom, aspects of scope, and aspects of responsibility. What is meant by the spiritual aspect is how Islam as a religion is relevant to education and can be a source of information on the preparation of the concept of Islamic education (Yuli Kuswandari, 2022). The balance of human life can be achieved through the educational process. All human activities – relationships with others, God, and the universe – are the targets of Islamic education. To develop Islamic education, it must be built on a paradigm that is spiritually strong, intellectually superior, and morally elegant, by using the Qur'an and Hadith as a reference.

In the modern era, the human way of thinking is increasingly advanced and sophisticated; science is developing rapidly and has entered the entire life of modern society (Rossidy & Masruri, 2007). The form of obtaining knowledge is increasingly sophisticated in its development, where humans can learn from courses, including through social media. However, any knowledge that humans learn will always intersect and be in accordance with what is stated in the Qur'an.

The implementation of education is an effort to transfer the values of goodness and benefits to every human being. These values can be instilled from an early age. Several educational institutions under the auspices of Islamic organizations such as Nahdlatul Ulama, Muhammadiyah,

Al-Washliyah, and others are trying to instill spiritual values and organizational *sibghah* in education. In the context of Islamic education, the material regarding the Islamic role model – the Prophet Muhammad, not only his name, but also his behavior in communicating and relating to other traditions needs to be introduced (Sangkot Sirait, 2010). The process of introducing the values of Islamic teachings is not absent from educational institutions under the auspices of Islamic organizations in order to answer the community's need for religious education of future generations.

Al-Washliyah is an Islamic organization that contributes to the sustainability of education in Indonesia. This Islamic organization pays great attention to da'wah, education, and social movements. Al-Washliyah's commitment in developing da'wah, education, and social movements is indeed very high. Various efforts have been made with the aim of upholding the teachings of Islam for the creation of a society that is faithful, pious, intelligent, trustworthy, fair, prosperous, and blessed by Allah. In terms of education, the effort is carried out by establishing educational institutions in all types and levels of education and by regulating the perfection of education, teaching, and culture. In Al-Washliyah's *wijhah*, it is stated that the absolute element that supports the establishment of Islam is a good education and teaching that is applied to both men and women (Batubara & Ja'far, 2010).

Al-Washliyah, in its guidelines of providing education, states that education in the organization consists of preschool education, elementary education, secondary education, and higher education (PB Al-Washliyah, 2012). To maintain its existence in education, Al-Washliyah tries to be present in the community by strengthening religious values, structures, and functions, as outlined in the Al-Washliyah curriculum, which consists of the following components: 1) the organization *al-Jam'iyatul Washliyah*, 2) the history of establishment, 3) the foundation of faith and worship, 4) symbols and songs, and 5) their work in da'wah and social fields. The values of these five components are expected to form spiritual attitude, social attitude, knowledge, and skills. These values have a goal in understanding *shibghah*, and the additional goal that the values of Al-Washliyah should maintain unity and brotherhood (PB Al-Washliyah Education Council, 2018).

Al-Washliyah's values are instilled in students at Al-Washliyah from an early age. At the early childhood stage, the values of Al-Washliyah are conveyed by the teacher to the extent of introducing symbols, songs, and strengthening the 3S culture (smile, greet, and friendship). As the concept of early childhood learning is limited to introducing happy and fun playing strategies, (Novan Ardy Wiyani, 2016) introducing something good to children is ideally effective when done from an early age. Early age is a golden age that requires positive stimulation so that it can develop all potential and ways of thinking in everyday life.

The thinking process of early childhood is influenced by the material presented by parents, teachers, or the social environment. The content in the Al-Washliyah material for early childhood is related to the religious and moral development of children. Regarding to the development of religion, Kimberly R. Logan and James M. M. Hartwick's research (2019), *Teaching and Talking About Religion: Strategies for Teacher Educators*, shows that religious literacy is an important part of teachers' competencies, including social science teachers. Social science teachers must find ways to incorporate religion into their courses. Therefore, teachers can examine how religious identity can influence their teaching and foster cultural understanding, which will lead to a more informed and respectful society.

Religious identity is embedded in each child by using effective strategies according to their development. The strategy used in the implementation of religion-based character education is through assignment, direction, habituation, modelled behavior, and environmental conditioning. All these strategies support each other and are integrated into all learning, both central learning and daily activities at school. The application of religious character values is also carried out in a 'hidden curriculum,' meaning that it is not only stated and explicitly incorporated into the lesson plans, but also implicitly contained in every student activity at school (Cinantya, 2019).

The activities of each student will refer to the norms of religious teachings if the educator is able to improvise the strategies and use them properly. The selected strategy highlights the importance of the distinctive

features of religious education, which thus emerges as an important component of education with a strong impact on the moral health of the nation and as a factor that affects human well-being (Niculescu & Norel, 2013).

In the stage of moral development, early childhood is classified as the pre-conventional stage (Mansur, 2011). At this stage, reward and punishment are two things that undoubtedly motivate children to do good or right things. Moral considerations in early childhood still depend on things that are physical and hedonistic (Fitriyah, 2019). Therefore, to develop children's morality, it is necessary to provide rewards and punishment for children's actions. This moral development from an early age will shape the character of every child. The parenting style and parents' way of teaching play an important role in optimizing children's development (Millei, 2005). In a social environment, children will continue to develop themselves based on the habits they see and hear every day. Therefore, the social environment must provide a good example and positive values to children, because it will indirectly affect children's potential intelligence (Bornstein, 2002).

The presence of educational institutions promoted by Al-Washliyah certainly answer the needs of the community, as well as the challenges of modernization, as an effort to fight foreign cultural values that undermine the thoughts and actions of the nation's golden generation. The interesting aspect in this study is whether introducing Al-Washliyah values in early childhood, when children still have an unstable way of thinking, will provide insight to or confuse the children, who should be given the freedom to recognize the values of life. The purpose of this study is to describe the process of introducing Al-Washliyah in early childhood as moral strengthening.

Research Methods

This type of research is qualitative with a philosophical approach. In this study, the researchers collected data related to Al-Washliyah values, which are introduced in early childhood at RA Al-Washliyah Indonesia.

The research subjects consisted of primary data sources, namely, the principals and teachers at RA, and secondary data sources, various literature sources and related research results, in the form of books or research articles. Besides observation, the data collection method in this study was interview. The researchers used in-depth interviews in order to provide the researchers the freedom to interview respondents with a broad outline of the investigated issues (Sugiyono, 2017). The interviewees were the principal and teachers at RA Al-Washliyah Indonesia. After the data was collected, data was analyzed in three stages: data reduction, data display, and verification.

Results

The results showed that strengthening the morality of early childhood in RA Al-Washliyah was carried out by introducing them to Al-Washliyah. The teachers at RA Al-Washliyah Indonesia apply three main items: 1) Al-Washliyah materials, 2) a learning method, and 3) a learning activity program.

The Material of Al-Washliyah for Early Childhood

According to the principal of RA Al-Washliyah Indonesia, the Al-Washliyah material given to students at the school is still simple and basic, introducing the Al-Washliyah symbol, the uniforms worn by Al-Washliyah students, and the Al-Washliyah song. The process of introducing simple things is the proper way to facilitate young children's understanding of something new. Children in early childhood understand new things more quickly if they use concrete and simple things (Yani et al., 2017).

Furthermore, the researchers asked about the worship procedures children learned from their parents and whether they agree with what is introduced and taught in this RA. The principal explained that "the teachers at RA continue to teach the procedures for worship according to

Al-Washliyah. Even though there are children who are not in tune, they continue to follow it, and so far, no parents have objected to what was implemented.”

The material presented to students at RA Al-Washliyah Indonesia consists of the symbol of Al-Washliyah, the founders of Al-Washliyah, and the Al-Washliyah song. The songs that are introduced to students were the Hymn of Al-Washliyah and the March of Al-Washliyah. The lyrics of the hymn and march are presented below (Ja'far, 2011).

HYMN OF AL-WASHLIYAH

By Hj. Salhiyah Yunus, S.Ag

Al washliyah.....washliyah.....hiduplah

Al washliyah.....washliyah.....bangkitlah

Al washliyah.....washliyah.....jihadlah

Al washliyah.....washliyah.....syahidlah

Kami para kader washliyah, Berjanji bersumpah setia

Meyembangkan tenaga pikiran dan harta, Demi cita-cita
washliyah

Kami terus berjuang walau penuh rintangan, Kami surut
berpantang

Washliyah berjuang bukan untuk golongan, Washliyah
berjuang untuk ummat semata...2x

Berjuang-juanglah wasliyah pasti jaya, Berkorban-berkorban
ummat kita sejahtera...2x

Bangunlah pemuda-pemudi harapan bangsa, Belalah agama
washliyah jadi wadahnya...2x

Jadikan washliyah arena pengkaderan, Insan pemikir jujur dan
beriman...2x

MARCH OF AL-WASHLIYAH

Al washliyah washliyah washliyah

Perhimpunan kami

Perhimpunan menuju untuk berbakti

Hidup sentosa rukun damai berbakti pada ilahi
 Hiduplah washliyah hidupnya berjasa
 Anggotanya setia menurut agama Allah yang mulia
 Bersatulah kita wahai saudara-saudara sekalian
 Mari bersatu ya ikhwan yaaaa..ya ikhwan..yaaaaa..banil authan
 Bersatulah kita untuk mencapai kemuliaan
 Bersatulah ya ikhwan buangkanlah pertikaian
 Junjung tinggi amar tuhan
 Hiduplah washliyah zaman berzaaaaaaaman.

The activity of singing the hymn and march of Al-Washliyah is an introduction to the value of Al-Washliyah in students. These songs will be sung at public moments, such as competitions at the end of the semester, Al-Washliyah anniversary activities, and Islamic holidays. This activity is intended to introduce children to the Al-Washliyah organization as an Islamic organization that continues to fight for the *ummah*, making honest and faithful human thinkers.

To maintain the existence of Al-Washliyah educational institutions and to strengthen children's morality through the lyrics of the Al-Washliyah song, the educators continue to carry the *sibghah* of Al-Washliyah by worshipping in accordance with Al-Washliyah habits. The existence of differences with student's parents does not become an obstacle itself, because what parents expect in this digital era for their children is to know their religion, understand the procedures for worship, and be able to apply them in life.

The songs introduced by Al-Washliyah are one of the instruments to introduce the teachings of the faith to the nation's children. The doctrine given to adherents by each religious teaching has different characteristics and goals. Islam, in this case Al-Washliyah, provides religious doctrine through singing to students.

Learning Methods for Introducing Al-Washliyah Values

The learning method is one component in the learning system. With the method in learning, it is easier to implement learning. Learning activities are effective and efficient if the methods used are in accordance with the development of the students and the conditions of the learning environment. According to observation, interview, and documentation, learning activities related to the introduction of Al-Washliyah values at RA Al-Washliyah Indonesia are carried out with several flexible methods, such as example methods, habituation, storytelling, and singing. As explained by one teacher when asked about the teaching method at RA, "by setting a good example, singing, telling stories, using clapping, continuing to pray, and, usually, activities in learning are practiced every day." Based on the teacher's expression, it is clear that their preferred methods are example, habituation, storytelling, and singing. Everything is carried out according to the needs, but these methods are used almost every day.

Example Method

Example is an important method applied in early childhood. What is done by the teacher will be imitated by the child. The child's behavior begins with imitation, and this applies to humans from an early age. What is said by educators and parents will be immediately recorded and reproduced by the child. Children learn from those closest to them and they are very rational (Istiqomah et al., 2016). The process of introducing the symbol of Al-Washliyah and planting religion in early childhood in the school environment is accomplished by good examples from the teacher. The attitude of students at school can be properly formed through the example given by the teacher at school. The child's tendency to imitate leads to the child's attitude. Therefore, the teacher must be able to harmonize direction with action, be able to set an example, and be able to be a good example for children. They need clarity of heart, sincerity, constancy, and consistency in educating and stimulating children's development.

This method is one that is always used by teachers when introducing the values of Al-Washliyah (smile, greet, and friendship) to children at RA Al-Washliyah Indonesia.

Habituation Method

The habituation method must be done by early childhood education teachers. This method is the one that is most often used by teachers at RA Al-Washliyah Indonesia when introducing and instilling religious education and al-Washliyah. A teacher at RA explained that the children's daily activities were reciting *sholawat* and reading *asmaul husna*, short letters, hadith, and daily prayers. Early childhood tends to imitate the habits that were seen and heard, so that habituation in religious activities from an early age has implications for children's spiritual habits in their future life.

The good deeds that children do continuously in life will form good habits. The field of habituation development includes moral development and religious values that are applied to increase children's piety to God and foster children's attitudes in order to lay the foundation to become pious children and good citizens. Habituation that is continuously carried out by children can become new habits that bring good; in addition, habituation can improve old habits that are not in accordance with the norms of life (Syah, 2010). Thus, habituation is to train and to habituate students consistently and continuously in religious activities, so that the behavior is properly embedded in children and will be difficult for children to abandon in the future.

This habituation method is urgent because early childhood has characteristics that are still unstable. Of course, habituation will provide understanding for children regarding what they see and do. Ummi Fatimah said that during the pandemic, "the habituation method can be done in synergy with parents; study hours at school are not possible, so collaboration with parents is needed." Habits that are routinely carried out at school are also applied at home as children's spiritual reinforcement.

Storytelling Method

Storytelling is another method that is often used by teachers at RA Al-Washliyah Indonesia. The story material can be adapted to the needs at the time of learning. Storytelling is done by telling an event to children (Fadlillah, 2016). The story material that is conveyed to children must use language they can easily understand, though the events presented can be real or fictitious. The story packaging becomes the attraction for children to listen. Storytelling can be used as a method to convey spiritual and moral values that apply in society (Sapendi, 2015).

Storytelling is considered one of the more effective activities used to instill good or moral values in children through the messages contained in the story. Therefore, the teachers at RA Al-Washliyah have used the storytelling method to introduce the values of Al-washliyah. The values conveyed are 3S culture (smile, greet, and friendship). The packaging of the stories presented by the teacher does not vary, though, and the stories are monotonous. The development of children's religious, social, and moral values is more optimal and can shape the child's personality to be better in accordance with the norm if the story material used by the teacher is interesting, short, fun, and includes many moral messages for children.

Singing Method

The singing method is used for Al-washliyah materials, such as introducing the characteristics, symbols, and songs of Al-Washliyah. Based on observations from June 2, 2022, the children were seen singing the march of the Qur'an. In addition, the children did a variety of clapping activities, for example, clapping the pious child. As for the Al-Washliyah march, it was introduced only in a few activities. As said by Buya Sholahuddin, "we introduce Al-Washliyah March and Al-Washliyah Hymns only in activities such as competition, the Al-Washliyah anniversary, and student graduation. This is done because children do not understand the lyrics of such a long song, so the introduction of the song is only for certain activities."

By using this singing and clapping method, children will more easily catch and understand the symbol of Al-Washliyah, as well as various teachings of goodness in Islamic teachings exemplified by the Prophet Muhammad SAW. This singing method is an effective and appropriate method for early childhood learning. According to Fadlillah (2016), singing activities can make the learning atmosphere relaxed, fun, dynamic, and efficient in stimulating all aspects of children's development. Singing activities in early childhood usually use rhymes and movement. The rhymes are adjusted to the learning theme that is to be delivered.

In early childhood learning, one of the tools or methods that plays an important role is song. The messages of life, especially spiritual and moral messages, are conveyed and it is easier for children to understand them when accompanied by singing and movement. Spiritual and Al-Washliyah messages are easier for children to accept when the material is delivered with songs. Short, energetic songs accompanied by many refrains are the types of songs that are easy and attractive to young children (Borhan, 2004). Singing activities with a teacher and children have many benefits for the children's development, including reducing anxiety, raising self-confidence, and fostering children's creativity as well as a tool to express their emotions and feelings in religion.

Learning Activity Program

Programs in learning activities can be carried out well, when there is synergy from all elements of education. Based on interviews with the principal and teachers at RA Al-Washliyah Indonesia on June 3, 2022, it was found that there are several programs in religious education and Al-Washliyah, such as reading *iqra* and *sholawat*, *dhikr* and praying together, memorizing short letters and every day prayers, singing the song of Al-Washliyah, and introducing the attributes of Al-Washliyah. These programs are held every day from 7:30 to 10:30 a.m. The explanations are below.

Reading *Iqra* and *Sholawat*

Children's enthusiasm for reading *iqra* activities is very high. Children read their material while sitting on the classroom floor waiting for their turn. Each child brings their own *iqra* and recital notebook. Children are already able to read *Iqra* fluently from their notebooks. This ability can be honed through the guidance of the teacher in the classroom. It was also seen that the children who were already reading the Qur'an were able to read it well according to their *makhroj* and *tajwid*, even though the breathing rhythm was not perfect. All of the children looked very enthusiastic. When they are finished reading *iqra*, the children are guided by the teacher to recite *sholawat* as proof of love for the Prophet Muhammad SAW. The *sholawat* that is read is the *badr* prayer. Children read *sholawat* followed by hand gestures that show love.

Reading *iqra* and *sholawat* in the teachings of other religions is one of the efforts to build closeness to God. The Islamic teachings promoted by the Al-Washliyah organization instill this activity as an effort to get closer to God Allah. The scriptures should be studied by every adherent from an early age. According to this principle, every religious authority must pay attention to the material taught in early childhood related to their sacred books.

***Dhikr* and Pray Together**

This activity is carried out only one day a week, on Friday, to be precise. It is done after performing the *Duha* prayer in congregation. Based on observations on June 6, 2022, the children were very enthusiastic about reading *istighfar*, *tasbih*, *tahmid*, *tahlil*, and *takbir*. In conditioning children, each class teacher controls the child's sitting position. Thus, there are two teachers in front who guide the children, while the other teachers sit together with their classes.

In addition, the children are invited by the teacher to read daily prayers such as a prayer for eating, entering the house, leaving the house,

entering the mosque, leaving the mosque, in front of the mirror, rainfall, and other times. As the principal of RA Al-Washliyah Indonesia explained, memorizing daily prayers is a target for every child for a year. The activity of memorizing these prayers is one way to cultivate a culture of children, parents, and teachers greeting each other.

Dhikr and praying together in Islamic teachings are done to always remember Allah; in the teachings of other religions, remembering God is a necessity that must be lived by every believer of the religion. Teaching young children to remember God and asking only God is a form of strengthening religious beliefs.

Memorizing Short Letters

The next program of activities related to religious education and Al-Washliyah at RA Al-Washliyah Indonesia, which is carried out every day, is memorizing short letters. The time devoted to this activity varies according to the direction of the class teacher. This memorization activity is carried out in the classroom every day and in the mosque at the end of the *Duha* prayer and *dhikr* together on Friday. Memorizing activities in the classroom are given full rights by the class teachers, while the memorizing activities in congregation on Friday are guided by the teachers Buya Sholahuddin and Ummi Siti Aisyah. This memorizing activity takes place in the mosque. Children who have finished memorizing can enter their classrooms.

The short letters that are memorized by children are *al-Fatihah*, *an-Nas*, *al-Falaq*, *al-Ikhlās*, *al-Lahab*, *an-Nasr*, *al-Kafirun*, *al-Kautsar*, *al-Ma' un*, *al-Quraish*, *al-Fiil*, *al-Humazah*, *al-Ashr*, *al-Takasur*, *al-Qori'ah*, *al-Adiyat*, *al-Zalzalāh*, *al-Qodr*, *at-Tin*, *al-Insyiroh*, and *ad -Dhuha*. For some children whose abilities are above their classmates, there are additional memorization tasks, such as the letters *ar-Rahman* and *an-Naba*, but this activity is additional and only carried out when learning is finished, usually when children are waiting for their parents.

Various activities for introducing and instilling Al-Washliyah values at RA Al-Washliyah Indonesia are carried out between 7:30 and 9:00 a.m.

However, based on information from the principal of RA Al-Washliyah, a range of such activities was initially carried out routinely every day, from Monday to Saturday. Introducing Al-Washliyah values to children is an effort to strengthen early childhood religious development. Strengthening religious development from an early age is one of the efforts to develop children's spiritual intelligence, so this research is related to early childhood development as stipulated in Regulation of the Minister of Education, Culture, Research, and Technology No. 7 of 2022. Religious education and Al-Washliyah are very important to the moral and religious development in early childhood. In early childhood education, religious and moral values are explained through various materials consisting of the ability to recognize the religion one adheres to, imitate and worship in the right order, do prayer before and after doing something, recognize and behave honestly, politely, respectfully, and fairly, greet and return greetings, maintain personal and environmental hygiene, know the religious holidays, and tolerate other religions. The learning activities carried out at RA Al-Washliyah are an effort to introduce the religion children adhere to, worship, good morality and glory to the Qur'an as the holy book of Muslims, with the program of reading *iqra* and *sholawat* to the Prophet.

There are several obstacles to teachers in their efforts to introduce the values of Al-Washliyah, as expressed by Buya Sholahuddin: the differences in the children's characters and the mental condition of the children making it difficult for teachers to introduce something new. The obstacle in introducing Al-Washliyah according to Ummi Rodiah, as the school principal, stems from the environment of the teachers, meaning that when the environment of the teachers is creative in singing Al-Washliyah songs, it will trigger other teachers to be creative as well. There are also teachers who know little or nothing about the history of Al-Washliyah, so creativity is needed in introducing the Al-Washliyah organization through songs and symbols in early childhood.

Regarding the obstacles found by researchers in their observations and interviews with the teachers, they are the students' characteristics and the environment and teacher creativity. These constraints mean that the material of Al-Washliyah is not conveyed completely and lead to

differences in children's achievements in religious activities. Therefore, there is a need for an initiative from the Al-Washliyah educational institution to manage time and make details of study time. In addition, Al-Washliyah educational institutions need to provide material reinforcement about Al-Washliyah to all teachers who teach at Al-Washliyah educational institutions, so that teachers can deepen and master Al-Washliyah material in the form of symbols, songs, history, etc. How is it possible for a teacher to introduce something to young children if they do not fully understand it?

Conclusion

The introduction of Al-Washliyah in early childhood is done in a simple and fun way. The values of Al-Washliyah that are introduced do not add new understanding, but provide moral reinforcement for young children. Al-Washliyah material is religious material, namely, ablution, congregational prayers, reciting the Qur'an, memorizing letters in *juz amah*, introducing the symbol of Al-Washliyah, uniforms worn by Al-Washliyah students, and singing Al-Washliyah songs. The methods used by teachers at RA Al-Washliyah Indonesia are example, habituation, storytelling, and singing. The programs presented are related to Al-Washliyah, such as reading *iqra* and *sholawat*, *dhikr*, praying together, and memorizing short letters and daily prayers. The Al-Washliyah program provides moral reinforcement in early childhood. The obstacles found in introducing Al-Washliyah are the constraints from differences in student characteristics, the educational environment, different religious understanding, and teacher creativity. Some of these obstacles mean that the Al-Washliyah material is not conveyed completely and lead to differences in children's achievements in religious activities.

The introduction of Al-Washliyah material at RA Al-Washliyah Indonesia is a form of organizational adaptation in a pluralistic society. Al-Washliyah educational institutions adapt by implementing a curriculum that can answer the needs of the community. The content of Al-Washliyah

material is integrated with the content of religious material, which is part of the curriculum that has been systematically compiled by educational institutions. Based on the results of this study, the advice given to PAUD Al-Washliyah institutions is that a regularly published magazine or teaching module is needed to introduce Al-Washliyah values. Additionally, collaboration with parents is needed to strengthen children's morality.

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The Practice of Developing Skills and Competences Throughout Life



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Improvisation at Rhetoric Workshops as a Way of Teaching Communication Skills

(pp. 161–183)

Abstract

The paper describes an educational project on teaching rhetoric at the university level as part of practical rhetoric workshops. What makes this didactic proposal innovative and unique is the incorporation of improvisation tools in rhetoric classes. The aim of the article is to demonstrate how techniques from contemporary improvisational theatre help students improve their communication skills. The article begins with a brief overview of rhetorical education at Polish universities and a description of basic rhetorical competences related to the creation and analysis of texts. An introduction to improvisational theatre and the specifics of improvisation workshops are presented. Then, a proposal is made to combine these different approaches to the development of communicative competences in a series of workshops. Two exercises are presented, representative of the entire workshop series and devoted to the categories of ethos and narration. The benefits of using this method are discussed by showing the learning outcomes as a specific connection between communicative competences and the mechanisms of understanding rhetorical categories.

Keywords: rhetoric, rhetorical education, improvisational theatre, improve workshops

Introduction

Rhetorical education in Poland is evolving and expanding in several areas: firstly, at universities, where it is combined with scientific research; secondly, in primary and secondary schools; thirdly, in non-governmental organisations and self-education practice; and fourthly, in commercial education, organised by training and coaching companies.

In Poland, similarly to all of Central and Eastern Europe (Aczel, 2019), the relevance of rhetorical education became apparent in the 1990s (Bendrat et al., 2021; Gaj, 2008; Skwara, 2008), due to the processes of democratisation and the need to develop the communication skills required to participate in social life. Considering the centuries-old rhetorical discipline taught at European universities as part of the canon of the seven liberal arts, the modern teaching tradition is a short-lived one (Awianowicz, 2008; Jaeger, 2001; Korolko, 1998; Marrou, 1982; Skwara, 2011; Ziomek, 2000). The contemporary teaching of rhetoric takes place in a variety of academic subjects and disciplines, and it must address and meet new communication issues (Rypel, 2011).

The first rhetoric courses in university departments were based on classic rhetoric textbooks, which provided knowledge about the subject and were the basis for assimilating classic communication standards (Bendrat et al., 2021). Along with the development of scientific specialisations and the advancement of research on new rhetoric as a theoretical discipline, practical methods of teaching communication competences have also been developed. The reflection on teaching rhetoric and didactic methods that would meet the communication needs of the changing world of global and media communication has begun to broaden (Bendrat et al., 2021; Lichański, 2003; Sobczak & Zgółkowa, 2007; Sobczak & Zgółkowa, 2011).

At faculties of journalism and communication, there are courses devoted to applied rhetoric (e.g. practical rhetoric, the rhetoric of public

speaking or vocal pedagogy), which mainly explore the elements of *actio* (delivery of speeches) (Bogołębska, 2011; Wasilewski, 2011). Such courses can also be found in Polish studies in applied rhetoric at the Catholic University of Lublin (the only university in Poland offering studies in rhetoric at both levels of education) (Tryksza & Madecka, 2011). Rhetoric in literary studies, rhetorical analysis and rhetorical criticism are all part of essential methodological trends in academic education (Hanczakowski & Niedźwiedź, 2003).

It is worth noting that the awareness of rhetorical education in Poland has increased significantly in recent years. Global knowledge-sharing processes via electronic media have provided access to source materials and new educational methods. In terms of communication skills, the traditional teacher–student relationship has been transformed from vertical (a one-way transfer of knowledge) to horizontal (a mutual exchange of experiences) (Lunfordsford & Ede, 1984, p. 40). The increasing awareness of rhetoric and the need for education at the school and university levels – as well as training among adults – have led to the development of new workshop methods that are attractive to students and have the potential to be didactically effective.

Thus far, the methods of teaching practical rhetoric have been based on short, rhetoric exercises (Barłowska et al., 2010), as well as on teaching specific genres. The most popular genre is a speech addressed to different audiences with different purposes and situations (Korolko, 1998). In recent years, debates in various formats have become an element of rhetorical workshops (Coombe, 2018). In addition, dialogue forms were practiced as simulated negotiations, discussions and interviews – interactions typical of institutional life (Budzyńska-Daca & Modrzejewska, 2018). According to the assumptions of practical rhetoric, these exercises aimed to strengthen the communication skills of the participants. Our proposal for modifying the educational methods is to incorporate interactive elements specific to improvisational theatre into the traditional rhetoric exercises to improve communication skills.

1. What is improv?

Improvisational theatre (improv) is a form in which all or part of what is performed is created spontaneously without a script or a plan. The story, dialogue and characters are created, developed and played at the same time, during the performance (Halpern et al., 1994, p. 7). Improv theatre exists in a variety of styles. In most cases, the performances are comedy plays, but they can also be non-comedic; they can be long-form or short-form plays, a series of unrelated scenes or games.

Performances are based on specific assumptions: the format (structure), which is the foundation of the performance, and the general rules of improvisation. Many improvised performances begin with a simple premise – often via an audience suggestion. The suggestion may be a mere word, a place, a relationship between characters, a part of a text, etc. The players then get inspiration from the suggestion and start the play spontaneously, developing the plot in real time. Therefore, improvisers are simultaneously actors, directors and scriptwriters. Their overall goal during a performance is to collaboratively build a coherent narrative and influence the emotions of the audience (Łukowska, 2020).

In most artistic practices, improvisation is an intentional and autonomous activity; it is an end in itself. The process of creation is shown to the audience during the performance; its outcome is singular, unrepeatable and unique each time. Performers' decisions regarding what to do and how to progress the plot, and how to act or move, are not based on previously defined scripts. Instead, improvisers base their performances on skills, techniques, styles and forms they have learnt (improv formats or any other cultural texts that derive from literature or films, etc.) (Johnstone, 1999). As a result, the performance is not only based on pure spontaneity, but also on knowledge, cultural contexts and past experiences; thus, some elements are not created *ex nihilo*. Another thing worth mentioning is the audience's active participation influencing the performers. Improv is focussed on relations. As Gale (2004) notes, improv is a relational activity; there are 'player–player relationships, the players–audience relationships and the selves-of-player relationships' (p. 3). The audible reactions of the

audience influence the improvisers (e.g. by making them develop or abandon ideas).

Improv theatre and its techniques are also considered a tool; they have already been applied in various fields such as theatrical training, scriptwriting, coaching, team-building, corporate training, education, social work, design, health care, etc. (Tresca, 2020). The potential seems unlimited. Not only does improvisation require knowledge of the formats and the fundamentals, but also a specific set of skills (such as quick thinking, creativity or effective collaboration). The latter are also developed during courses and workshops and can be used later under different circumstances. Therefore, apart from learning about rules and formats, the goals of such training are to develop creativity, the ability to respond to quickly changing situations, effective communication, thinking outside the box and collaboration with others (Lepovic, 2021).

2. Rhetorical competences

The proposal to include improvisational exercises in rhetorical workshops requires an outline of the area of expected benefits resulting from these didactic modifications. Rhetoric is a field of knowledge and at the same time a communication practice. It is treated as a tool not only for influencing the attitudes and behaviour of the audience with symbols (Burke, 1969), but also for finding everything that has the ability to convince (Aristotle, ca. 350 B.C.E./1926, 1355b). In this article, we take the Aristotelian perspective of a persuasive influence composed of the elements of the speaker's character (*ethos*), evoked emotions (*pathos*) and argumentation (*logos*) (Aristotle, *Rhetoric*, 1356a). We treat rhetoric as a communicative ability equipped with ethical, aesthetic and pragmatic rules determined by the situation.

The matter of rhetorical competences (Zgółkova, 2011) can be analysed in several contexts, depending on the discursive field in which one wants to examine the functionality of rhetoric. We will consider two perspectives on rhetorical competence: critical/rhetorical and social communication.

2.1. Critical/rhetorical perspective

Critical analysis is the study of the creation and use of symbols in society (Martin, 2014). The competence of critical analysis involves examining persuasive messages. The knowledge of rhetorical categories can result in effective interpretation of media, political, artistic and functional texts. It means that rhetorical competences enable critical thinking, detection of manipulation and separation of reliable messages from propaganda. Such skills allow one to analyse public artefacts and actions and to recognise their symbolic meaning. In practical terms, rhetoric provides a person with the ability to defend themselves.

2.2. Social communication perspective

Rhetorical competences in the area of social life concern the ability to actively participate in public life and interpersonal relations. Rhetorical education in this field means equipping a person with the competences needed to represent their own or their community's opinion, understand and listen to the arguments of others and define goals and potential solutions. These competences allow citizens to publicly express their thoughts and opinions in situations of conflict, which allows them to participate in the democratic processes of co-decision (Flower, 2008). Communication skills that are taught in rhetoric classes are an element of professional education in many areas of political, social, business and artistic life (Zgółkowa, 2011).

Taking into account the critical and communicative perspectives, the competences that can be achieved as a result of rhetorical education, based on the classic canon of rhetoric (*inventio, dispositio, elocutio, memoria* and *actio*) (Lausberg, 2001) are in the following areas:

1. Invention – the ability to create and develop a speech according to the rhetorical situation (determine *stasis* theory and select topics, arguments and emotions)
2. Composition – the ability to choose the appropriate structure of a speech and to plan its parts (identify the introduction's properties and its place in the speech, present a thesis and engage in narration, argumentation, refutation and recapitulation)

3. Elocution (style) – the ability to express oneself appropriately, bearing in mind the subject and situation (selection of figures and style)
4. Memory – the ability to memorise the material needed for a presentation (in accordance with the presentation method)
5. Delivery – the ability to present a prepared speech in a multimodal way (including body language, paralinguistic, visual and proxemic codes, etc.)

3. Improvisation as a tool in the development of rhetorical skills

Improvisation is a valuable communication and self-awareness tool that can significantly improve one's ability to act confidently and decisively. Improv workshops are beneficial for building creativity, developing quick thinking and improving collaboration in a group (Hamburg, 2014). Improv allows a person to grow on many different levels; it creates a safe and enjoyable setting in which a person can experience self-directed learning. A person can learn on an intellectual, physical and emotional level by participating in interactive exercises and activities. Regular practice allows a person to self-reflect on their experiences and make better decisions (Tresca, 2020).

Improv workshops shape social competences in a different manner than rhetoric. The improvisers are not socially involved, which means that they are not focussed on influencing the attitudes and behaviours of the audience. They fulfil their artistic needs, and while they also acquire the above-mentioned socially important skills, the very activity differs between the rhetorical and improvisational fields. Thus, the two fields may seem disparate, yet there are multiple areas in which improvisation may be useful in developing rhetorical skills. Moreover, by making sure those differences are not blurred, but rather highlighted, we are able to make them a part of the rhetorical training, which will allow the students to learn in a reflective manner.

If we look at the competences of an improviser as we analysed the rhetorical competences, the areas can be outlined as below.

1. Invention – the ability to create and develop plots in a group, in accordance with the rules of the performance or game
2. Composition – the ability to create a coherent storyline while simultaneously following the rules of the format, which requires narrative skills
3. Elocution (style) – the ability to accommodate style in accordance with characters, story, changing situations and other players in the performance
4. Memory – ability to remember the previous parts and structure of the performance
5. Delivery – the ability to perform without preparation in a way that is understandable to the audience and to demonstrate flexibility and a sense of interpersonal relationships (status) to portray credible characters and relations

Rhetoric is an art, but we can also look at it as if it were a set of tools that allows its user to efficiently prepare and deliver a speech. The differences between the two fields are visible in the two sets of definitions of the competences described above. Due to those differences, training improv for rhetorical purposes would mean working on some – not all – of the tools we have in the ‘rhetorical workshop’. The skillset of an improviser differs, but the competences developed through improv are useful for a rhetor as well. Also, our assumption is that the practice of improvisation and rhetoric as well as the comparison of these fields are beneficial for the development of rhetorical skills.

Improvisation at rhetoric workshops

The rhetorical/improvisation workshop course includes exercises to strengthen competences from each of the five rhetorical canons: *inventio*, *dispositio*, *elocutio*, *memoria* and *actio*. We propose a set of five workshops that will

1. increase inventive abilities through exercises focussed on creating scenes,
2. teach about composition by polishing the skills of efficient narration,
3. show style usage possibilities with improv games focussed on style,
4. contribute to better memory skills and concentration by playing games that require multitasking, divided attention and short-term memory and
5. teach about delivery with a focus on ethos and building credibility by using the category of status from improv.

Furthermore, all the exercises and the practice of improv will give the students confidence, help them overcome the fear of public speaking and teach them about appropriate body language (e.g. posture or powerful gestures) (Tresca, 2020). It can equip the group with a collaborative spirit as well as creating a positive, supportive environment in which students can feel safe. This will allow them to focus on exercises and learning instead of being stressed and feeling the need to overcome their fears.

In order to show the significant benefits of the synergy between rhetoric and improvisation, we present two workshop proposals and analyse the relationship between the two fields.

4.1. Exercises developing competences in the area of delivery (actio):

Delivery (*actio*) in rhetoric has common roots with acting (Budzyńska-Daca, 2008). The Greek equivalent of the word *delivery* is *hypocrisy* (the act of speaking and acting, but also pretending) (Korolko, 1998, p. 133). If we combine rhetorical action with acting, the commonality between them is the use of similar means of expression with para-verbal and non-verbal codes (Leathers, 2007). These means are used for different purposes: a public speaker should have the presence of a person 'worthy of the promoter of truth' (Korolko, 1998, p. 134), while an actor expresses the thoughts of others, uses costumes and decorations and plays in an artificial setting; their 'truth' is the credibility of the character they play. The improvisers are in yet another position: they express their thoughts through characters,

but they adopt them to an invented world. Their words are used to create a scene or play a game, which (as with actors) builds the character's credibility.

In order to teach about delivery and credibility, we propose a set of exercises devoted to the category of *ethos* (Amossy, 2001; Baumlin, 1994; Hyde, 2004; Wisse, 1989). Our goal is to show students a variety of approaches in which one can build their credibility as a public speaker and make them reflect on the possible tools they can use as well as how they can recognise and decode other ways of influencing the audience in this manner. It will also make students look at *ethos* in a situational and interactive context. This is especially important for the education of dialogical genres such as debates, negotiations and discussions. The students will be able to craft public speeches more consciously, paying attention to the factors and aspects of dominance in interaction (Szurek & Modrzejewska, 2022; Vlašić Duić & Dvorščak, 2022; Mavrodieva, 2022).

Ethos is the credibility that the speaker gives to their words, a self-image constructed in their speech. It is a psychological construct consisting of three elements: *arete*, *phronesis* and *eunoia* (Aristotle, *Rhetoric*, 1356a; Baumlin, 1994). The speaker, guided by the principle of appropriateness, expresses their character and personality traits (*arete*), which strengthen the message (*logos*), emphasise competence, knowledge and experience (*phronesis*) and finally signal openness and kindness towards the audience (*eunoia*). It is directly linked to the authority and credibility of the orator: they must be trustworthy and respected in order to achieve their goal.

For the purpose of teaching students about *ethos*, we use the category of status that is applied in improv theatre and compare it with rhetorical *ethos*. Status can be defined as a character's sense of self-esteem in relation to another character in a scene. It is a power difference between them (Johnstone, 1992). A person with higher status dominates the lower-status person. Their relationship is perceived as a balance of power: one will have influence over the other, one will dictate the rules, the other will follow, one will act superior and the other will act inferior (Wasilewski, 2006). This dynamic is recognisable in the non-verbal aspects

of the scene – the manner of speaking, body language, behaviour and actions – and not only in the characters’ words and dialogue (Leathers, 2007).

Table 1. High-Status vs Low-Status Behaviour

High-Status	Low-Status
confident	nervous, shy
relaxed demeanour	tense demeanour
upright posture	hunched-over posture
head in an upright position	tilted head
purposeful messages, clear communication	rambling
fluent speaking, meaningful pauses	digressive speaking, breaks in speaking with stammering
speaking in complete sentences	speaking in halting, incomplete sentences
speaking authoritatively, with certainty	speaking hesitantly, uncertainly
powerful, deliberate, meaningful gestures; only when necessary	a lot of uncontrolled gestures; touching the face, head and hair
standing still, minor movements	shifting from foot to foot, nervous movements
keeping eye contact	avoiding eye contact

Note: Based on Johnstone, 1992, 1999; Salinsky & Frances-White, 2013.

As improv performances refer to a fictional world, the improvisers’ actions do not go beyond their creation; they do not relate to reality nor do they intend to change it. The art of improvisation influences the improviser, equips them with communication and creation skills and, as a performance, influences the audience emotionally and provides it with an aesthetic experience. Status has an impact on how the characters interact with each other and plays a vital role in shaping the story. It is a tool for building a scene, giving it credibility and establishing the relationships between the characters. Status games within a scene (changes during the course of action, low status of a person with a high social rank or vice versa, etc.) are used for comedic purposes (Salinsky & Frances-White, 2013, p. 95). Status supports the credibility of the character and fictional world being created. In rhetoric, on the contrary, there is no division

between the self and the character. There is no rule of convention and the speaker relates directly to reality. The speaker's goal is to influence the attitudes and behaviours of the audience and is devoted to action and creating a change in reality.

To consider these issues, we offer students two exercises.

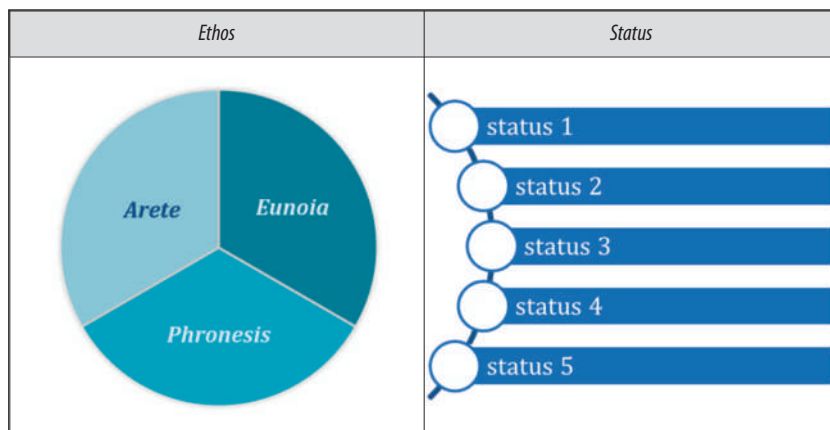
1. Improv Exercise

The first exercise is called 'Status Party'. In this game, students draw a number from 1 to 5, which determines their status (1 being the lowest and 5 being the highest). They do not show it to any other student. Then, they role-play an event of their choosing (e.g. a holiday celebration at university, a party for employees at work). The goal is to act according to the status one draws without disclosing it directly to the other participants. In the end, the students discuss the event and guess the others' statuses. The students are also given time to share their experiences and reflections. How did they feel in different situations? How did they perceive themselves and others? Was it difficult to act according to their status? Was it a challenge to guess others' statuses? What made them act in a particular way and what made them believe a person had a certain status?

2. Rhetoric Exercise

In the second part of the workshop, students put this new experience into practice. Three participants play the role of members of three social groups. Each of them is to convince the city council to vote for an investment project they are promoting, to be financed through participatory budgeting. The audience (group of students) votes for the best project.

Figure 1. Ethos and Status Components



In Figure 1, the differences between the structure of ethos and status are presented. As shown, ethos is made of three elements, while status denotes the level of domination in relation to other participants of the interaction. While the status can be located on a scale in which one is positioned higher than the other, ethos is rather a sphere of features of an individual and not a balance between two or more people. Another thing worth noting is that ethos and status function partially on different levels (Table 2).

Table 2. Ethos vs Status

Category	Ethos	Status
Relation	Speaker–audience	Characters in a scene
Communication situation	Rhetorical	Scene
Participant(s)	Speaker	Group of improvisers
Purpose	Convincing the subject at hand (<i>logos</i>)	Establishing relations between characters; building a believable character
Organising principle	Decorum (appropriateness)	Intuitiveness
Function	Gives credibility to the text/message	Gives credibility to the scene

The speakers create ethos as belonging only to them and as a kind of relationship between themselves and the audience. Status, on the other hand, is established within the situation, between all characters in the scene. By 'choosing' certain statuses, participants establish relations with individuals in the group on the basis of domination and submission. The audience acts as an external observer. Ethos is created according to the rules of the appropriateness of rhetoric. Status is established intuitively as having more or less power of communication, regardless of the subject of the conversation (*logos*).

Status in improvisation corresponds with the symbolic/interactionist approach of ethos, which is derived from Goffman's (1974) concept of constructing an image of oneself in social interaction. The concept of self-image is similar to the concept of ethos in rhetoric: there is a construction of belief in the social role played by an individual. Self-image in social interactions is constantly negotiated during communication. Meanwhile, in rhetorical ethos, it is the speaker who is responsible for it, creating it in the text as a communication strategy (Aristotle, *Rhetoric*, 1356a; Wisse, 1989). In the interactionist ethos, self-image becomes a negotiated self-representation and results from a continuous process of symbolic exchange. Status is a kind of self-image towards the participants of the interactions on the stage. Its framework is constantly negotiated during the play. The similarities between ethos and status as tools of influence are as follows:

1. Both concern credibility: the ethos of the message and the status of the characters in the scene
2. Both express the rhetorical energy: ethos towards the audience and status towards the players
3. Both are expressed in words as well as in para-verbal and non-verbal codes

If we look at ethos' instrumental aspect, i.e. influencing the attitudes and behaviour of the recipients, we can place it next to status and compare the two. They can be described as a set of verbal and non-verbal

practices used for establishing appearance and personality attributes. Thus, we can look at people's status-based behaviour to identify the desired actions of a speaker. Taking some attributes from the scale of statuses, we can place them in a sphere of features needed to build credibility. Improv status games enable us to deconstruct the possibilities of developing ethos and then apply them to a variety of settings where there is a need to build rhetoric credibility in order to influence the audience. By experiencing the relationship between participants acting in high and low statuses, one can understand the potential of different ways of acting when giving a speech as well as what to avoid when building one's own rhetorical credibility. Based on the students' experience from the exercises, they can discuss the attributes of people giving speeches similarly to the statuses in the game. For instance, a high-status person acted confident, but might have been perceived as too dominant – what can one do to find the balance? What is the specific set of behaviours, then, that can be beneficial for building ethos? How is a person perceived in general and how can their credibility be built? Group discussion can also compare improv and rhetoric.

4.2. Exercises developing competences in the area of *dispositio* (arrangement)

In order to demonstrate the possibility of developing and strengthening arrangement skills, we have selected exercises devoted to *narratio*. Narration is an important part of the rhetorical *dispositio* that concerns a detailed explanation of the subject matter. The rhetoric textbooks list three features that the account of events (*narratio*) should have: it must be short (relating to the topic), lucid (appropriately selected intelligible content) and plausible (logically related facts based on available sources) (Lausberg, 2001, pp. 294–295). The function of narration is to relate the thesis with the argumentation that supports it.

Rhetorical *narratio* can appear in three forms: (1) as a biased presentation of facts (in court speeches), (2) as a digression (an anecdote) not strictly related to the case and (3) as a literary story referring either to events or people. A story about people serves to describe the characters

psychologically. A story about events can come in three variations: (1) plot (an account of an event that did not take place), (2) story (a true account of an event) and (3) argument (an account of an untrue but probable event). There are six elements in the story: person, topic, place, time, matter and thing (Lausberg, 2001; Barłowska et al., 2010, pp. 173–184).

In improv, the narration is the core and basis of the performance. During their journey of mastering improv art, improvisers frequently aspire to develop the ability to construct a long-form, narrative-based performance. Narrative improv involves producing a storyline that not only makes the audience laugh, but also has a complete flow from beginning to end. The narrative takes place on the general level of the performance and in the story-telling parts of the play. The aim is to create a coherent, understandable performance, an engaging story with a specific frame. Storytelling skills and techniques are the foundation of convincingly presenting well-crafted stories. The narrative is the result of applying the elements that give stories shape, cohesiveness and power, but it is also a result of collaborative effort (Sawyer, 2002). For this reason, improv workshops contain multiple exercises and games devoted to teaching storytelling, the construction of narration and composition.

The purpose of the proposed exercises is to help students develop and improve their narrative skills and to understand and explore the place and meaning of narration in speech. The improv games centre on the collaborative creation of short stories with an outline of their flow. By showing the students ways to create a storyline, we will teach them the basics of narratives and narration. By contrasting these categories in improv and rhetoric, students will be able to reflect and learn about their essence and their value in speeches.

1. Improv Exercise

The first game is called 'The Story Spine'. The participants form a circle and, one by one, improvise the endings to each of the following sentence starters to create a short story: (1) Once upon a time... (2) Every day... (3) But one day... (4) Because of that... (5) Because of that... (6) Because of that... (7) Until finally... (8) And ever since then... This can be done

either in a group, with each student taking the next line, or as an individual exercise where one student composes the whole story.

2. Rhetoric Exercise

Next comes a rhetoric part, in which students first draw a thesis in the form of a statement or a maxim, for instance, 'He who lives by the sword shall die by the sword.' Then, they create short stories to illustrate and defend the thesis. They present the stories in front of the group. The audience will evaluate the stories' effectiveness in defending the thesis.

The differences between characteristics of rhetorical *narratio* and narration in improv are shown in Table 3.

Table 3. Narration in Rhetoric vs. Narration in Improv

Category	Narration in Rhetoric	Narration in Improv
Approach/ Character	Instrumental	Ludic (focused on entertainment)
Goal	Supporting/defending/illustrating a thesis	Providing entertainment
Creator	An individual	A group or an individual (in games or monologues it can be one person)
Place	Part of the speech	Full play
Audience	Evaluating	Entertainment-focused

In rhetoric, narration is a part of the speech placed in a specific location within the whole text – between *exordium* and *argumentatio*. Its character is instrumental; it must correspond with the arguments, support the thesis or illustrate the situation that is questioned. The orator takes into account the evaluating audience to whom the message is addressed, formulating the narration with a concrete goal in mind. In improv, on the other hand, narration is the core of the performance. Full-length plays are based on storylines that follow certain rules of composition, but may have alterations and variations within the performance (digressions, retrospections, etc.). Long-form improv builds on a skilfully crafted narrative; the goal of improvisers is to create a coherent, understandable and

engaging story, providing the audience with an emotional experience (Łukowska, 2020).

The techniques of storytelling that are applied in improv can be implemented into rhetorical practice as well. Through short improv games, the students can develop practical skills of creating narration. After the exercises, they discuss the questions and issues related to narration: What are the differences between synergistic narrative (improv) and instrumental narrative (rhetoric)? How does freedom of narration differ from narration for the purposes of defending a thesis? Is there a specific order of narrative that one should follow? How can improv help develop creativity and inventive efficiency? How does the presence or absence of an evaluating audience influence the performance?

Conclusions

Rhetoric, as theoretical (*docens*) and practical (*utens*) knowledge, is important for the efficient functioning of an individual in society. The increasingly widespread recognition of the importance of rhetorical competences has made this field an important part of education at all levels, highlighting effective tools and possibilities for teaching. This article shows that university-level students benefit from an interdisciplinary approach to teaching rhetoric. The structured course of five workshops described herein combine rhetorical and improvisational practices, focus on the students' active involvement and exemplify the potential of these tools for teaching rhetoric.

The foundations of important interdisciplinary theories in the areas of ethos and narration demonstrate the potential of rhetorical education using improvisational techniques. In the case of ethos, the combination of rhetorical and improvisational exercises can expand the knowledge about rhetorical, interactional and social ethos, based on an understanding of the issues related to status (ethos in the performing arts). The practical exercises help students experience the contextual and situational implications and methods of building rhetorical credibility. In terms

of narration, the theoretical considerations concern the area of narratology: narration in rhetoric and storytelling in improv. The exercises allow students to practice synergistic narrative (created in a group) as well as a singularly created narration with an instrumental character. The creation of short narrative forms helps them consider the issues of rhetorical *narratio* and essential rules of composition. Students can experience these matters through improv games, which allows them to further reflect on various possibilities of story creation, composition and crucial parts of delivery.

The theoretical grounding of knowledge is only one element supporting the development of communication in these two areas. Here, the focus is on *actio*, the competences in delivery, as well as on *inventio* and *dispositio*, creating and organising texts in specific compositions. The entire series of exercises covers the development of all competences from the rhetorical canons.

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Self-Determination in Maths Education: How to Strengthen Students' Positive Attitude to Mathematics and Develop Their Emotional/Social Competence (pp. 185–210)

Abstract

The aim of this study was to verify the effectiveness of the self-determination theory (SDT) in mathematics teaching methodology. In the experimental group, 62 fifth-graders had 10 months of maths lessons according to an original programme that prioritises three needs: autonomy, competence and relatedness.

The following research questions were formulated:

1. How did students' attitudes towards mathematics change under the influence of methodological interventions aimed at satisfying the three SDT needs?
2. Did the methodological solutions contribute to better emotional/social competences in the students?
3. Did the intervention result in higher maths achievement, measured by a maths knowledge and skills test and grades in the subject?

The findings included statistically significant differences in 1) positive attitude towards mathematics (measured by the semantic differential technique),

2) emotional/social competences (measured by the KA scale from the tool called TROS-KA) and 3) mathematical achievements (measured by a maths test and grades in school) in comparison to the control group (N = 59), where less positive attitudes towards mathematics, lower maths grades and no significant increase in emotional/social competences were observed.

Keywords: SDT, mathematical education, attitude towards mathematics, emotional/social competence, mathematical achievements

Introduction

The self-determination theory (SDT) is a meta-theory (Deci & Ryan, 1985, 2000) which presents the relation between satisfying three universal needs – autonomy, competence and relatedness (Deci & Ryan, 2002) – and an increase in intrinsic motivation (Deci et al., 1991), which further leads to contentment, satisfaction, fulfilment and well-being in a given field (Chirkov et al., 2003; Cuevas et al., 2018). So far, the SDT has been empirically confirmed by research in various areas: work efficiency, sport, medicine, psychotherapy and religion (Grolnick et al., 1997; Magne & Deci, 2005). Studies have also been carried out regarding its use in education (Trenshaw et al., 2016; Vansteenkiste et al., 2006; Niemiec & Ryan, 2009). The results confirm improvements in many individual variables under the influence of interactions targeting the three universal needs (Deci & Ryan, 2000).

According to the SDT a social environment conducive to the students' optimal development should be dominated by teachers' interactions and strategies supporting their intrinsic motivation (Deci & Ryan, 2002). As a result the intrinsically motivated students achieve higher grades in school than their externally motivated peers (Noels et al., 2000; Oga-Baldwin et al., 2017). They show higher self-esteem (Orsini et al., 2018) and they better understand the essence of the knowledge they acquire (Magne & Deci, 2005). They also reveal higher social competences (Reeve, 2002). They show better adaptability to changes and new situations (Niemiec & Ryan, 2009) and present higher self-awareness and emotional competence (Grolnick et al., 1997).

The SDT was developed in the 1980s by Ryan and Deci (1985), and it has been empirically confirmed at different levels of education (Cuevas et al., 2018; Kaplan, 2018). Its universal assumptions about optimal learning environments can be applied to specific school subjects and types of competences developed at school. Therefore, taking this as a starting point, supported by a review of the literature on the SDT in mathematics teaching (Hagger et al., 2015; Kiemer et al., 2015; Leroy & Bressoux, 2016), the authors assumed that the use of this concept in teaching methodology can contribute to more effective mathematics education, changes in students' attitudes towards mathematics and better emotional/social competences.

The authors' interest was directed to the application of the SDT's assumptions in teaching mathematics for two reasons. Firstly, the changing nature of life in the digital technology era necessitates a redefinition of the learning process and its goals. One can notice a gradual transition from teaching towards learning with an emphasis on student activity in this process (student-centred learning [Justice et al., 2009]). Secondly, despite numerous reports on the increase of intrinsic motivation to learn mathematics, there has not been much research on using the SDT to change attitudes towards maths. This is worth paying special attention to because mathematics is more often burdened with negative emotions than other school subjects (Carmichael et al., 2017). There are several reasons for this. Firstly, mathematics has the most abstract character among fields of knowledge. Its content is taught spirally in schools, which means that its understanding at higher levels depends on prior education (Brandenberger et al., 2018). Therefore, a lack of comprehension of the basics of mathematics in the early school period can lead to further difficulties in subsequent years of education (Corkin et al., 2018). Secondly, mathematics is about solving problems, and this requires, among other skills, the ability to deal with difficulties (Kiemer et al., 2015). In the student's mind, getting the correct solution to a maths problem is a type of reward, while incorrect solutions lead to frustration and poor grades (Bourgeois & Boberg, 2016; Brandenberger et al., 2018).

The SDT in mathematics education – A research review

The ability of self-determination (Niemiec & Ryan, 2009) and engaging in activities driven by interest and joy is an important factor in increasing the effectiveness of learning and teaching (Vansteenkiste et al., 2006). It seems particularly important to equip primary education students with this skill so that they have proper, durable patterns for acquiring and constructing knowledge in their future. According to the authors of the SDT, satisfying the need for autonomy, competence and relatedness is the crucial condition for developing intrinsic motivation (Deci & Ryan, 1985, 2002). This is particularly relevant in maths education due to the waning interest in the subject in later educational stages (Carmichael et al., 2017; Lohbeck, 2018) and the build-up of negative emotions around it (Leroy & Bressoux, 2016; Liu et al., 2016; Humbree, 1990; Ma & Xu, 2004; Carey et al., 2016). Studies based on the SDT in maths education relate to 1) environmental conditions of intrinsic motivation to learn mathematics, 2) emotions accompanying learning mathematics and 3) primary school mathematics teaching as the basis for further mathematics education.

Environmental conditions of intrinsic motivation to learn mathematics

The participation of environmental factors in the process of learning is well reflected in the idea of 'smart context' (Barab & Plucker, 2002), which consists in creating didactic situations to enhance students' potential. For a more precise explanation of this concept, one can look to ecological psychology (Gibson, 2000). From a relational perspective (Barab & Roth, 2006), an action can only occur if a person recognises environmental features that provide opportunities for the action. Two terms define this relationship accurately: affordance and effectivity (Gibson, 2000). *Affordances* relate to the possibilities of action provided by the environment (Gibson, 2000; Young et al., 2002), while *effectivity* is the behaviour that an individual can generate in response to these possibilities (Barab & Roth, 2006). With low affordance, it is difficult for a person to be

effective. In early education, this is difficult because the student's limited learning experience cannot yet provide them with the knowledge necessary to take the initiative to engage in an activity: the subject is not yet aware that they are able to do it (Gibson, 2000).

Papanastasiou (2008) sought the indicators of the school environment that determine students' achievement in maths. Data was collected from 3,116 eighth-graders (mean age: 13.8 years) participating in the Trends in International Mathematics and Science Study, which constituted about 31.8% of the total student population of this age in Cyprus (9,786). By analysing the differences between the expected and achieved results, the researchers identified schools that perform better than might be expected. The analysis revealed six factors that explained the differences associated with mathematics achievement. Transmission teaching was the factor that explained most of the difference between more and less effective schools. The others were active learning, self-perception – including maths self-concept – students' attitude to maths, family incentives and classroom atmosphere (Papanastasiou, 2008). The study showed that environmental factors play a crucial role in developing students' intrinsic motivation to learning.

Davadas and Lay (2018) indicated that students' approach to maths was influenced by their parents' attitudes and their teachers' emotional support and teaching instructions. The study analysed the relationship between these factors and students' attitude towards mathematics. The sample of 318 Malaysian fourth-graders was assessed with a questionnaire measuring a) parents' attitude towards mathematics, b) support from mathematics teachers, c) the way mathematics was taught in the classroom and d) the students' attitude towards mathematics. It was found that teacher support and teaching method had the most significant impact on the students' positive attitude towards mathematics (Davadas & Lay, 2018).

The quasi-experimental study by Brandenberger et al. (2018) consisted in a one-year classroom multicomponent intervention with 348 Swiss seventh-graders, divided into three groups: 1) student/teacher intervention group, 2) student intervention group and 3) no intervention (control) group. Intrinsic and identified motivation were self-reported by the students.

The results showed significantly less of both types of motivation in the student intervention group. The most positive effects were found in the student/teacher intervention group, which the authors interpreted as value-constructed successful learning.

These studies show the role of the environment – the teachers' participation, in particular – in developing intrinsic motivation to learn mathematics. As a consequence, it should lead to higher maths achievement.

Motivation and emotions in maths education and students' maths achievement

A longitudinal study by Leroy and Bressoux (2016) among 1,082 French sixth-graders analysed the relationship between six types of SDT motivation and maths achievement during the first year of junior high school. Maths teaching based on the SDT led to higher intrinsic motivation and less amotivation after a one-year intervention. Similar results were obtained in a study by Kiemer et al. (2015), which sought a strategy to combat the decline in student interest and motivation for maths learning throughout secondary education in Germany. Teaching based on the SDT and respecting the students' universal needs was a positive remedy for this decline in the experimental group compared to the control group, where the methods were not applied. A study of 216 Pakistani students aged 12–15 years (Hagger et al., 2015) assessed the processes of students' perceived autonomy support and autonomous forms of motivation towards mathematics in the classroom, and indicated them as predictors of autonomous motivation toward maths homework achievement. Perceived autonomy support was defined as students' perception that their teachers support their intrinsic motivation. Autonomous forms of motivation were defined as a sense of choice, ownership and self-efficacy. The results provided evidence that students' autonomous motivation towards maths at school, supported by teachers, is strongly linked to maths interest in doing and engaging in homework.

A longitudinal study based on the SDT and the control value theory (CVT), conducted by Sutter-Brandenberger et al. (2018), concerned the relationship between self-determined motivation and three negative

emotions in learning mathematics: a) anxiety, b) anger and c) boredom. To assess emotions and motivation among 348 seventh-graders, three self-report measures were made: 1) at the beginning of the seventh grade, 2) at the end of the seventh grade and 3) at the end of the eighth grade. The results demonstrated unidirectional negative effects between self-determined motivation and the three tested emotions. This means that the increase in students' intrinsic motivation in learning maths caused lower levels of anxiety, anger and boredom associated with the subject.

Primary school mathematics teaching as the basis of further mathematical education

A study by Lohbeck (2018) measured 397 children at the beginning of education (mean age: 9.55 years) in terms of maths self-concept and the SDT's six types of motivation: intrinsic, integrated, identified, introjected, extrinsic motivation and amotivation (Deci & Ryan, 1985; Vallerand, 2001). The relationships between maths self-concept, motivation and grades in maths were explored. Statistically significant positive correlations between maths self-concept, intrinsic, integrated and identified motivation and maths grades were obtained. The strongest connection was observed between maths self-concept and maths grades.

Numerous observations of the decline in intrinsic motivation to study mathematics and engagement in later schooling led researchers to search for the causes of this issue. A study by Bourgeois and Boberg (2016) investigated the reasons for the decrease in intrinsic motivation and involvement in school life among high achieving maths students (grades 3 to 8). It was conducted on a huge sample of students (N = 5,392) and teachers (N = 680) in the southern USA. A mixed methodology was used: self-reports, classroom observations, interviews with maths teachers/principals/students and surveys from parents. The analysis was arranged in three pathways related to the SDT's universal needs: autonomy, competence and relatedness. The results indicate that high achieving students who showed relatively low scores on school life engagement shared nine similarities: 1) low connection to school, 2) low school enjoyment, 3) negative or neutral attitude towards other school subjects, 4) optimal

challenge preferences, 5) enjoyment of mathematics homework, 6) competitiveness, 7) attitude towards grades, 8) parental involvement and 9) extrinsic incentives. In the context of decreasing involvement and intrinsic motivation with age and length of education, it seems important to ensure that students are equipped with this type of motivation from the youngest primary school grades. Maths self-concept, which has the greatest correlation with the results in maths learning, also required similar strengthening (Bourgeois & Boberg, 2016).

Based on this recent research, the decision was made for the present study to measure the attitudes towards mathematics among 62 fifth-grade students who underwent (for 10 months, the whole school year) an original programme based on the SDT, aimed at supporting and developing the three universal needs – autonomy, competence and relatedness – as well as intrinsic motivation to learn mathematics.

The following research questions were formulated:

1. How did students' attitudes towards mathematics change under the influence of methodological interventions aimed at satisfying the three SDT needs?
2. Did the methodological solutions contribute to better emotional/social competences in the students?
3. Did the intervention result in higher maths achievement, measured by a maths knowledge and skills test and grades in the subject?

Study design

The substantive and methodological basis of the study was the original model of measuring emotional/social competences (Domagała-Zyśk et al., 2017). This model was based on the intelligence concept conducive to success in life by Sternberg (2003) and on Erikson's (2004) psychosocial development theory. The authors defined the general sense of competence as a set of one's emotional and social skills: coping with difficulties (T scale), social relations (R scale), self-concept (O scale), sense

of agency (S scale) and affect control (KA scale). The KA scale, created from the strongest items of the TROS scales, is a screening tool for general assessment of emotional/social competences. These skills can be treated as transferable resources (Pellegrino, 2012), i.e. skills necessary for tasks both of a typically school nature and those related to everyday life. From the letters defining the individual competences in Polish, the acronym TROS-KA was created for the name of the instrument.

Method

Participants

The study was conducted according to the test-retest model using the semantic differential technique, a mathematics achievement test and the TROS-KA test tool, in September 2017 and June 2018 (after the entire school year) among six fifth-grade students (Polish primary school consists of eight grades) in three primary schools. In total, 121 students (including 64 girls and 57 boys) aged 10–11 years were included in the study, 62 of which had the intervention and 59 of which constituted a control group, where the classes were carried out according to the traditional programme and methodology.

All the fifth-graders at the schools participated in the study. Care was taken to ensure that during the two meetings and individual consultations, the parents were thoroughly informed about the objectives and course of the experiment. Their consent for the assessment of their children and the appropriate consent of the local research ethics committee were obtained. In addition, consultations were held with mathematics education methodologists to minimise the risk associated with the students' participation in the study. For students who did not agree to take part in the experiment, it was possible to attend mathematics classes in a parallel grade with the traditional curriculum; no student made use of this opportunity. The research was carried out in schools whose principals responded to the request of the researchers.

Measurements and procedure

The longitudinal study was run in three stages:

- 1) initial measurement of the current development of students' emotional/social competencies (ESC), attitudes towards mathematics and mathematics achievement,
- 2) conducting mathematics teaching based on SDT assumptions and
- 3) final measurement of students' ESC, their attitudes towards mathematics and their mathematics achievement.

1. Assessment of the current development of students' ESC, attitudes towards mathematics and mathematics achievement

During the one-hour meeting in groups of up to five students, their development of ESC was measured with the use of the TROS-KA tool (KA scale). In addition, the attitude towards mathematics was measured using the semantic differential technique, which is a combination of two methods: scaling and associative (Czapiński, 1978). The assumption of the method is that concepts can be defined in several dimensions so that a specific semantic space is created. The authors, Osgood et al. (1957), assumed that this semantic space could serve as an accurate and reliable tool for studying a person's attitude. The study used a semantic differential technique with a modified list of adjectives, based on Czapiński's (1978) work. The subjects' task was to evaluate each of 10 pairs of opposing adjectives by referring to mathematics (the measure of attitude). The highest numerical value (7) was assigned to objectively positive connotative adjectives, while the lowest (1) was assigned to objectively negative connotative ones. The use of the semantic differential technique allowed the researchers to investigate the students' current affective and cognitive assessment of mathematics (understood mainly as a school subject). For measurement of mathematical achievements we used maths knowledge and skills test based on the basis of the contents of the core curriculum for the fifth grade – up to a maximum of 50 points.

2. Conducting maths teaching based on SDT assumptions

Due to the fact that the most important stage of the study was implementing an appropriate – according to the assumptions of SDT – methodological workshop that differs greatly from the one used so far, the procedure included a 34-hour training programme and consultations with experts. Additionally, teachers were offered assistance in the form of mentoring at every stage of the research. During the training sessions, the teachers independently constructed the scenarios of the classes, evaluated them collectively and introduced modifications under the supervision of an expert. Three maths teachers (with similar professional experience, qualifications and from 12 to 15 years of work experience) taught maths based on the assumptions resulting from the training for 10 months (see Tables 1 and 2 for details). The research included monitoring of didactic activities: two didactics experts visited the classes at least once a month.

Table 1. Examples of maths teaching strategies based on the SDT and used in the study

SDT area of intervention	Methodological solutions
Relatedness	1. With the help of the teacher, teams of students set monthly goals to be achieved in mathematics. These goals were visualised in different parts of the room. The students felt responsible for the learning outcomes of their classmates and implemented elements of peer tutoring. 2. During the school year, the students completed three projects for their maths lessons. Each project was divided into parts, which were assigned to different teams. The project presentation stage required work consolidation and cooperation between all teams. The topics were: – <i>Butterfly effect in saving the planet</i> – <i>Logics of algorithms</i> – <i>Alternative counting systems</i> 3. The motivating thoughts of famous figures from the world of art, science and sport were chosen by the class as the motto of the week. 4. Class cheers encouraged joint effort, especially when working on difficult material.
Competence	1. In introducing and summarising lessons, the teacher pointed out the practical possibilities of using the analysed mathematical content (e.g. in technology, IT, individual saving plans, etc.). After familiarising themselves with the topic, students pointed to additional applications. 2. The operational goals from the core curriculum in maths were treated as an opportunity to exceed one's own limits. 3. A maths advertising campaign was conducted: once a week, students created posters and advertising slogans to encourage each other to master a given mathematics issue.

Autonomy	<ol style="list-style-type: none"> 1. Multilevel tasks – common task content with a dozen commands that the student chooses themselves (depending on their abilities and individual pace of work) 2. Possibility of students deciding together about the method of practicing, choosing exercises, work cards, etc. 3. Alternative ways to check knowledge – the student chooses from at least three different forms 4. Possibility of temporarily non-engaging, allowing for rest, calming down or taking care of the student's chosen priority 5. A wide selection of optional content – students indicate additional issues that they think should be accomplished during the lesson 6. The teacher's ranking of methods and content of education (based on student surveys) provides an opportunity for students to express their own individual assessment. The results of the surveys were discussed regularly and were used to implement changes.
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Table 2. Description of SDT implementation in the context of maths curriculum

The aim of education in the maths core curriculum (fifth grade)	Detailed implementation methods based on the SDT
<i>The student reads with comprehension text containing numerical information.</i>	<ol style="list-style-type: none"> 1. Students collect excerpts of online newspaper articles (print-outs) containing numerical information for two weeks (<i>student's independent activity, autonomy in the selection of information</i>). 2. During class, they write down examples of numerical information taken from the collected materials and form a matrix for playing bingo (<i>autonomous selection of the student</i>). They look for people who also wrote down the same numbers. The task for the class is to bring about a situation where every student will be able to say 'BINGO', i.e. all numbers will be paired (<i>relatedness instead of competition</i>). In case of difficulties, the students modify the rules, e.g. they look for the same or similar numbers (<i>autonomy, shared responsibility, sense of competence</i>). 3. The teacher poses a problem: How many different texts with numbers appeared today? Try to estimate. 4. Students make hypotheses and verify them by calculating the texts accurately. The teacher sums up the importance of numbers in providing information about the world (<i>need for competence</i>). As part of a creative summary, the students discuss in a circle: What can't be counted? 5. The teacher gives additional instructions: If someone remembers that an uncountable object mentioned in the discussion appeared in one of the previously read texts as countable, they say loudly: 'CHECKING' (<i>need for autonomy, competence and relatedness</i>). <p>Example: The student mentioned 'feeling' as an uncountable object. A classmate shouted 'CHECKING' and cited the text she read: 'In her life only two feelings mattered: love and hate.' Based on this example, the students discussed whether feelings are measurable or immeasurable (<i>need for autonomy and competence</i>).</p>

<p><i>The student correctly uses the units of volume and capacity.</i></p>	<ol style="list-style-type: none"> 1. Students work using mathematics research stations. 2. They form four teams according to their own classification (<i>sense of autonomy</i>). 3. Each team prepares a station, at which students from the other teams will have mathematical challenges related to measuring the volume and capacity of objects/figures. 4. Students come up with a name and marketing slogan for their station, and prepare a poster together (<i>need for relatedness</i>). 5. Tasks are solved in teams and the points are earned for the team, rather than the individual. 6. The teacher encourages the teams to come up with tasks related to an object: the Sahara Desert, the Baltic Sea or Mont Blanc. 7. This provokes problems: How do you count the grains of sand in the desert/a sandbox/a bucket? 8. As part of the summary, students generate life situations in which units for capacity/volume are used (<i>need for competence</i>).
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3. Final measurement of students' ESC, attitudes towards mathematics and mathematics achievement

After 10 months the development of students' ESC was again measured using the KA scale, and their attitude towards mathematics (semantic differential technique) and mathematical achievements (maths knowledge and skills test) Additionally, longitudinal data on students' maths achievement were obtained from the school a) at the end of the fourth grade, b) after the first semester of the fifth grade and c) at the end of the fifth grade.

Data analysis and results

The results regarding the attitude towards mathematics at the end of the fifth grade turned out to be higher in the experimental group (Table 3). In this group, the positive attitude increased between the two measurements ($M1 = 44.19$; $M2 = 51.39$), while in the control group the positive attitude decreased ($M1 = 42.85$; $M2 = 38.32$).

The differences between the experimental and control groups was significant in terms of both attitudes towards mathematics and ESC (Table 4). Students from the intervention group obtained significantly higher results on the KA scale, which indicated a higher level of affect control, defined in the TROS-KA model as a degree of emotional maturity allowing for effective functioning in a social group (Knopik & Oszwa, 2022).

Table 3. Experimental (E) and control (C) group results for attitude towards mathematics and emotional/social competences

Group		Differential1	Differential2	KA1	KA2
E	M	44.19	51.39	52.98	59.74
	N	62	62	62	62
	SD	13.180	12.877	10.912	10.457
C	M	42.85	38.32	53.51	54.10
	N	59	59	59	59
	SD	13.941	16.607	12.114	12.114

Table 4. Significance of differences in the final measurement, by group

Significance test of differences	Differential2	KA2
Mann–Whitney U	1027.000	1326.500
Wilcoxon W	2797.000	3096.500
Z	-4.161	-2.608
p	<0.001	0.009

It is worth noting that the observed differences between the groups in attitudes towards mathematics and level of ESC did not occur at the beginning of the study (the initial measurement in September; see Table 5). This supports the conclusion that the intervention contributed to these differences.

Table 5. Significance of differences in the initial measurement, by group

Significance test of differences	Differential1	KA1
Mann–Whitney U	1755.500	1751.500
Wilcoxon W	3525.500	3704.500
Z	-0.382	-0.402
p	0.703	0.687

The measurement of mathematical achievements shows that students from the experimental group at the end of the fifth grade obtained both better school grades and higher scores in the mathematical knowledge and skills test (Table 6). These differences were statistically significant (Table 7). The data in Table 6 show that the control students had slightly higher maths grades at the end of the fourth grade ($M = 4.07$) compared to the students from the experimental group ($M = 3.76$). These differences were not statistically significant, though it is worth using them to highlight the trend observed in both groups in the longitudinal perspective: a clear progression of improving maths grades in the experimental group (increasing average grades in subsequent semesters: 3.76, 3.89 and 4.42) and a clear regression in the control group (decreasing average grades in subsequent semesters: 4.07, 3.88 and 3.66).

Table 6. Mathematics achievement in the study groups

Group		Maths knowledge and skills test	Maths final grade in the fourth grade	Maths grade in the first term of the fifth grade	Maths final grade in fifth grade
E	M	39.90	3.76	3.89	4.42
	N	62	62	62	62
	SD	6.772	0.987	0.925	0.897
C	M	33.53	4.07	3.88	3.66
	N	59	59	59	59
	SD	9.730	0.980	0.892	0.993

Table 7. Significance of differences in maths test and grades (final measurement), by group

Significance test of differences	Maths knowledge and skills test	Maths final grade in the fourth grade	Maths grade in the first term of the fifth grade	Maths final grade in the fifth grade
Mann–Whitney U	1103.500	1476.500	1776.000	1138.000
Wilcoxon W	2873.500	3429.500	3729.000	2908.000
Z	-3.769	-1.924	-0.299	-3.772
p	$p < 0.001$	0.054	0.765	$p < 0.001$

The intra-group differences in the results between the initial and final measurements (Table 8) revealed a) significant increase in ESC in the experimental group and no such change in the control group, b) a significant increase in positive attitude towards mathematics among students from the experimental group alongside a significant decrease in this measurement in the control group and c) a significant increase in the maths achievement of students from the experimental group alongside a significant corresponding decrease in the control group.

Table 8. Significance of test-retest differences between the groups

Wilcoxon Rank Test		Maths grade first term of the fifth grade - Maths final grade in the fourth grade	Maths final grade in the fifth grade - Maths final grade in the fourth grade	Differential2 - Differential1	KA2 - KA1
E	Z	-2.309	-6.105	-6.411	-6.185
	p	0.021	p<0.001	p<0.001	p<0.001
C	Z	-2.294	-3.489	-3.933	-1.278
	p	0.022	p<0.001	p<0.001	0.201

Discussion

The research showed the effectiveness of methodological actions based on the assumptions of the SDT in a) the acquisition of mathematical knowledge and skills, b) forming a positive attitude towards mathematics and c) developing emotional and social competences. As shown by the examples of teacher activities in Table 4, the maths lessons were not limited only to transferring issues from the core curriculum, but instead were treated as a space conducive to the needs of students in three key aspects: autonomy, competence and relatedness (Deci & Ryan, 2002). In focus talks at the end of the study, the teachers directly admitted that they began to think more about their role as a mathematics teacher ('I realised that the concern for the well-being of students and the usefulness of mathematics in their lives after school is just as important as the transmission of

mathematics content'). The teachers' interventions with the experimental group were also focussed on developing ESC: cooperation, negotiation, dialogical thinking, dealing with frustration in the event of difficulties with a complicated problem, developing self-knowledge and stabilising self-esteem (see Table 3). It should be noted, however, that activities aimed at a) satisfying the three needs defined in the SDT, b) increasing intrinsic motivation and c) the development of ESC are not separate activities in practice (Justice et al., 2009). As Ryan and Deci (2000) stated, the implementation of SDT assumptions creates optimal conditions for developing ESC, acceptance and satisfaction of the following needs:

- a) autonomy – developing self-knowledge and forming self-esteem, a sense of agency and internal locus of control, responsibility for one's actions
- b) competence – identifying one's own resources, sense of meaning, task engagement, setting appropriate goals
- c) relatedness – the ability to cooperate, develop empathy, emotional control, cooperative learning, forming one's identity in a group, expressing one's opinion

This shows that, in fact, the use of the SDT with students contributes to the development of resources which can be successfully utilised in other contexts, including outside of school. This conclusion is particularly important in the scope of Polish education, in which there is strong opposition between implementing the core curriculum and developing the competence of transferable resources (Knopik & Oszwa, 2022; Stevens & Miretzky, 2014) without attempting to include both goals in the teaching methodology.

The significant decrease in the positive attitude towards mathematics in the control group is consistent with the standard phenomenon of negative attitudes towards mathematics growing among students in subsequent stages of education. However, the study suggests that this process can be stopped, and a positive attitude towards mathematics can be systematically built thanks to the methodological actions based on

the SDT's assumptions. The role of a wise and smart learning context should be recognised as important in this process (Gibson, 2000; Young et al., 2002). The examples listed in Table 1 show this relation: *the research station* triggers situations of mathematical investigation and experimentation instead of providing ready-made solutions, and *the bingo game* provides an opportunity to process numerical information at an intensity level that is difficult to achieve without the student's emotional involvement. This is in line with the results of Kunter et al. (2008), who stated that enthusiasm for mathematics was passed on to students, especially when teachers created a supportive social environment in the classroom and organised classes in the zone of proximal development of students (in accordance with the assumptions of the SDT: challenges adapted to the possibilities). Similar conclusions can be found in Blazar (2015) and Frenzel et al. (2009).

The intervention carried out during the maths lessons enabled the participants to develop ESC. A comparative analysis of the KA scale scores obtained by the students from the experimental and control groups confirms that the observed increase was not the result of natural developmental processes, but of planned educational interactions. Referring to the authoritative operationalisation of the ESC of the TROS-KA model, it is worth emphasising that the key aspects measured by the KA scale are a) dealing with difficulties, b) maturity in creating and maintaining social relations, c) self-concept and d) a sense of agency.

A previous study by Knopik and Oszwa (2019) showed that providing students with a learning environment that respects their needs – defined in the SDT concept as fundamental – contributes to the increase of ESC. Therefore, it seems reasonable to look at more positive attitudes towards mathematics through the prism of not only more intrinsic motivation to learn the subject, but also of improving the ESC necessary for effective maths learning, primarily the ability to cope with difficulties.

The proposed methodology of teaching mathematics is also effective in terms of learning the material. Students from the experimental group earned higher grades in mathematics and better results in the test of knowledge and mathematical skills than their peers from the control

group. To sum up, it can be concluded that involving a student in deciding about their education, combined with constant reference to everyday life and justification of activities allows them to activate additional motivation in case of difficulties (Armoura et al., 2015). Teachers implementing the programme in the experimental group agreed that the main change in students' behaviour was about more constructively coping with failures and treating them as challenges, not distractions. This readiness to work hard and carry on despite encountering problems seems to be crucial in learning mathematics. Importantly, it is transferable (Sawin, 2004; Shah, 2013) and it makes school more of a laboratory of competences useful in life (Stevens & Miretzky, 2014).

Conclusions

The study shows that the application of the SDT's assumptions in the methodology of mathematics teaching resulted in three parallel effects:

- 1) a very positive attitude towards mathematics,
- 2) stronger emotional/social competences of the students and
- 3) more effective mathematics learning, demonstrated in school achievement compared to the standard approach without the SDT.

This is due to a new, definitely different view of the didactic situation, which has not only been reduced to the formal occasion of transferring mathematical knowledge and implementing the core curriculum, but has also been treated as a complex relationship between the students' needs and the current learning context. Teaching that is based on the teacher's constant inclination to create an environment that is conducive to satisfying students' three universal needs (autonomy, competence and relatedness) allows students to take responsibility for the learning process and the associated increase in personal involvement (Van Roekel, 2001). This effect is particularly important in mathematics, considered by many older primary school students to be complicated and difficult to master.

It consolidates the syndrome of mathematical helplessness (Cizkowicz, 2017) that constitutes a key barrier in the development of mathematical competence.

Furthermore, as the results show, the teaching methodology based on the SDT was also effective in supporting the development of students' ESC. The implementation of the SDT's assumptions in the philosophy of mathematics teaching, especially at an early stage of education, when the learner's attitudes towards subjects and their own resources are being shaped, allows realistic expectations for changing this negative paradigm in school. The SDT changes the systemic question of 'What does the student do to master the core curriculum?' to 'What challenges does the school create so that the student engages in the core curriculum?' Mathematics, therefore, from the obligation imposed by the system of learning abstraction, with which the student often does not feel an emotional connection, should become a set of development challenges tailored to the individual's abilities and needs, which one cannot remain indifferent to.

Limitations and further research

Due to the relatively small number of students participating in the study, great care should be taken in formulating general conclusions. The schools that took part in the experiment were open to testing new solutions and showed a strong desire to implement changes to existing educational practices. Less openness to novelty and the moderately conservative attitude of teachers that dominates Polish schools may constitute significant barriers in implementing the SDT's assumptions widely in educational practice.

Identifying components of school organisational culture as features of a learning environment conducive to the effective application of SDT principles in everyday teaching practice can be the next stage of study. It would also be interesting to continue the research over a longer period, e.g. in the case of the Polish education system, until the completion of primary school (variable measurements in grades 5–8). This would help

determine the results' sustainability and their potential development determinants.

In terms of application, the challenge is to interest mathematics teachers in using SDT in educational practice so that they begin to perceive enthusiasm for the mathematics of their students as a real goal, not a utopia doomed to failure.

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Narrative Analysis in the Development of Teachers' Reflective Skills

(pp. 211–227)

Abstract

Objectives of the research: The aim of the theoretical research is to elicit the meaning of improving narrative competence, particularly narrative analysis for developing teachers' reflective skills.

Research issues or problems: The research question is posed as follows: Can a narrative, narrative analysis in particular, foster development of teachers' reflective skills, and if so, how?

Research methods: The method used in the research is hermeneutic analysis, which matches the field of content narrative analysis.

A short description of the context of the issue: The content analyzed in the text is descriptions of narrative, narrative competence, and narrative analysis, as well as reflective skills such as being, disclosing speaking, testing, and probing – according to concept of Joseph Raelin, to some extent. An important goal of the research is to show the significant meaning of narrative competence, especially narrative analysis, for developing reflective skills by teacher–practitioners. The relationships between narrative, narrative analysis, and improving these skills can induce the need to add another skill, such as an implicative one, that would be crucial for further personal and professional development towards achieving a higher level of self-identity.

Process of argumentation: The research began the selection of an appropriate scope of terms which match one another and can achieve the aim and answer the research question. The analysis of these terms led to building

the relationships between narrative, narrative competence, and reflective skills, followed by narrative analysis and reflective skills that are important for personal and professional teacher development. That resulted in some implications that may be useful in educating teachers and students and for education in general.

Findings: The results show the importance of the relationship between the aspects described above. Additionally, original, result occurred in creating a new reflective skill, such as the implicative one dedicated to further self-development.

Conclusions and recommendations: The hermeneutic analysis revealed a correlation between the development of a teacher's narrative competence, particularly narrative analysis, and practicing reflective skills. However, further research is needed to bring about changes in educating both teachers and students, which demands attention be paid to the authentic reflective/narrative approach in practice. This could be reflected in core curriculum subjects in university and secondary school education.

Keywords: narrative; narrative competence; narrative analysis; reflective skills; teacher

Introduction

The issue of narratives attracts the attention of many researchers and educators from various disciplines and educational environments. They discover or rediscover its meaning for human development, which requires self-knowledge and narrative self-reflection of the individual's personal and professional identity, including teachers. Marta Krupska, aligning reflection with narratives, claims that self-knowledge can not only disclose personal identity with the use of narrative, but in a personal narrative, the human being can be responsible for the way they have developed as a person, and who they have become (Krupska; 2022; Van Manen, 1997; Van Manen, 2016). Thus, narratives can be seen as an important factor that impacts educational activity (Barone, 2007), which implies the need to improve the narrative competences at each level of education, starting with

elementary education. Thus, attention must be paid to developing teachers' narrative skills both academically and practically. The meaning of narratives in teachers' work seems to be significant, as narratives hold educational, pedagogical, and therapeutic meaning. This justifies the aim of the article, which is to elicit and better understand the correlation between the development of teachers' reflective skills through narrative analysis. It is assumed that the latter impacts the former, requiring that a narrative relationship be built between teachers and students and that they listen attentively, trust, are open to each other, and most of all have true commitment to matters emerging from oral or written narratives. Teachers can facilitate their students' mature identity, as they learn how to implement the principles of narratives and identity into their lives, which entails constructing a narrative about narratives (Bruner, 2004; Trzebiński, 2002; Czyż & Sobczak, 2022). This in turn requires that reflective skills are developed, such as being, disclosing, speaking, testing, and probing (Raelin, 2012; Szymańska, 2021) and that constructive implications are built, which can emerge from narrative analysis. These issues, analyzed from a theoretical/hermeneutic perspective, seem to be crucial in the research process and in answering the research question: Can narratives, particularly narrative analysis, foster the development of teachers' reflective skills, and if so, how? Understanding this can help in formulating implications for teacher education, remembering that "basic narratives can carry a load of ambiguity and therefore leave openings for negotiating meaning" (Czarniawska, 1998, p. 3) and can open space for creativity. Such research can help uncover the correlation between mastering narrative analysis skills and developing the teachers' reflective skills, as well.

Narrative and its Place in Developing Teachers' Reflective Skills

Depicting the meaning and role of narrative analysis in developing teacher's reflective skills entails the need to analyze the narrative and its position. Thus, the characteristics of narrative analysis require some references to selected terms of "narrative" from different researchers dealing

with this issue. Amelia Krawczyk-Bocian (2019), who has overviewed the wide scope of this literature, sees a *narrative* as a peculiar meeting of the narrator with the Self; a meeting that takes place between the researcher and the narrator during the research process; an area for understanding an individual's life story; a retrospective journey into the world of experiences; something that gives meaning to experienced events through the perspective of time; and a platform for reconstructing a life and the ability to understand what happened. Another researcher worth mentioning is Leena Aarikka-Stenroos (2010), who thoroughly analyzes the concepts of narrative by Riessman (2002) and Elliott (2005), among others. She writes that "narrative crosses the usual disciplinary boundaries: it has been taken up as a useful analytic tool by researchers with very diverse backgrounds, such as psychology, history, sociology, philosophy, literacy research and linguistics, in which narratives have long tradition" (2010). Therefore,

the term "*narrative*" carries many meanings, and is used in a variety of ways by different disciplines, often synonymously with *story* ... the narrative scholar (pays) analytic attention to how the facts got assembled that way. For whom was this story constructed, how was it made and for what purpose? What cultural discourses does it draw on – take for granted? What does it accomplish? (Riessman & Speedy, 2007, pp. 428–429)

In light of the article's theme, it seems necessary to note that teachers become researchers in their own field of education, even if they are not clearly aware of it. While realizing that their way of thinking resembles a scientific, critical one, they face the challenge of changing their approach to the process of education, in which personal empowerment determines it. Thus, teachers who understand the meaning of narrative in the educational process may acknowledge that narratives are the source of knowledge about students, their needs, and developmental potential in the areas of emotions, feelings, mentality, and interpretative competences revealed in the process of understanding different events and with the use of

a particular, individual emotional/cognitive filter. It demands a reflective approach to the process of education, thanks to which they can help their students know themselves better and understand the creation of a life that fosters individual, narrative identity and in which the person simultaneously becomes the writer and the reader of their own story (Ricoeur, 1992, 1987; Czyż & Sobczak, 2022). This seems to justify the point of view presented by Aarikka-Stenroos (2010) that narrative, from an ontological perspective, can be seen not only as a life story, but as an essential human behavior and a specific mode of thinking that makes it possible to organize and transfer knowledge into a narrative structure with a concrete form. This point of view is found in the concepts of narrative by Jerome Bruner (1986), Roy Williams (2006), or Michael Bamberg (2012), who claims that

narratives are about people (*characters*), who act (*events*) in *space* and *time*, typically across a sequence of events (*temporality*). The narrative form (structure) is said to hold the content together (what the story is about – its plot) and sequentially arrange the story units (*orientation, complication, resolution, closure*) into a more or less *coherent whole*. (Bamberg, 2012, p. 203)

Therefore, it entails the need to structuralize the life story, or a part of it, considering such elements as “actors, actions, motives and scene which create characters and setting” (Aarikka-Stenroos, 2010), placed in a concrete time and an individual, social, and cultural context, which should comprise the plot of the story. The structure of the narrative should include six elements: an abstract (a short summary), the orientation (time, place, situations, and participants), a complicating action (what just happened), an evaluation of the action’s meaning and significance, the resolution (what finally occurred), and the coda (the ending and the exit). However, it can be looser, according to the given narrator’s concept (Elliott, 2005; Aarikka-Stenroos, 2010), although the teacher/researcher should monitor whether the narrative has a beginning, middle, and ending and whether the plot goes according to some basic assumptions. Furthermore, narrative features such as temporality, causality, subjectivity,

or spontaneity cannot be neglected by the teacher while working on the Self, particularly towards the development of such reflective skills as being, disclosing, speaking, testing, and probing through the narrative and narrative analysis, which will be analyzed more in depth below. In this context, regarding narrative as self-understanding appears crucial for opening up horizons and experience space for meetings between human beings, who express themselves through narrative in a dialogical, communicative way. That is why acquiring research and narrative competences becomes a challenge for researchers and teachers, as well (Krawczyk-Bocian, 2019). In this context, Krawczyk-Bocian (2019) directs her attention to the essence of human reflection, the ability to re-create experiences in an individual biography, and the interpretation of one's experiences. This can help foster narrative competences, which in turn improves reflective skills.

Anna Czyż and Marta Sobczak (2022) claim that narrative competence does not mean only the ability to create a characteristic story, to gain and construct knowledge about the world, but first of all, it can be discussed in terms of creating a place in the space of psychological and pedagogical assistance for confronting and experiencing events and understanding the mechanisms and consequences of the educational subjects' actions. They explain that the development of narrative competence is borrowed from the psychotherapeutic relationship, modified according to the school's needs, which comprise the psychological and pedagogical support given to students. Examining both the causes and consequences of events and the possibilities and meaning of solutions and their implications in the course of life requires that two different but complementary positions be acknowledged: the person telling the story and the person supporting the story. Supporting narrative competence is centered on the ability to build a description, i.e. moving from a sparse (poor) to a dense (rich) description, expanding and connecting threads, contextualizing the story (understanding the meaning and functions of given events in a specific reality and with various variables), and understanding the dynamics of the course. Czyż and Sobczak's general description of narrative competence matches Nicola Grove's (2022) point of view:

Personal narratives, as should be evident, are told not only to convey information logically and sequentially, but also as contributions to complex networks of social relationships, and the essence of the story is its meaning to the participants. Structural and linguistic skills are of course vitally important, but so too are collaborative, poetic, affective, and embodied narrative strategies. (p. 235)

Taking for granted that narrative ability, regardless of the type of story (big or small), can be regarded as “a key contributor to a sense of positive identity, empathetic friendship, community, and belonging” (Grove, 2022, p. 225), this can be revealed in both the content and structure of a narrative, even if it concerns fictional or real, big or small stories, which concern personal experiences (Grove, 2022; Bamberg & Georgapoulou, 2008). Grove (2020) – referring to Elinor Ochs and Lisa Capps (2001), Dorien Van De Mieroop (2021), and Carol Westby and Barbara Cullatta (2016) – writes that

big stories focus on significant life events and are usually generated through interviews or biographical presentations. Small stories are defined as anecdotes told in passing, embedded in conversation and often co-narrated. These stories serve multiple functions including entertainment, empathizing, sense making, identity negotiation, and problem solving, and they are extremely common in everyday talk by both children and adults. (p. 225)

Being aware of the meaning of narratives and narrative skills in their educational relationship with students and other educational partners, teachers seem bound to develop narrative competences, first of all, in themselves, which in turn means mastering the reflective skills described above. This demands that a self-reflective approach be formed, shaped in the intrapersonal, interpersonal, and transactional dimension with the use of narrative techniques, paying attention to the meaning of words treated as transmitters of content rimmed in a logical, clear structure

(Szymańska, 2021). The ability to tell small or big stories can be enhanced by developing these reflective skills, as well as reflective competences. The classification of reflective skills by Joseph Raelin (2012) fits with the classification of reflective thinking skills for teachers by Hamidreza Kashefi, Fariba Mirzaei, and Fatin Aliah Phang (2014), who describe them as “observation, communication, team working, judgment, and decision making” (p. 633). Working on these skills entails deploying reflective thinking tools such as recording, writing, drawing, photography, journalling, making portfolios, action research, collaborative participative inquiry, etc. (Mirzaei et al., 2014). Mirzaei et al. (2014) state that “using reflective thinking tools are an important way to support teachers’ reflective thinking skills. Teachers can use these reflective thinking tools during their teaching processes to develop their reflective thinking skills” (p. 636) and to enhance the narrative abilities and competences, which also indicates the meaning of narrative and reflective analysis for integral teacher development (Szymańska, 2018).

Considering the perspective of developing reflective skills in narratives, a teacher should also know how to construct their own reflective story, enabling them to analyze, interpret, draw conclusions, and formulate implications for further development, which are connected not only with narrative skills for developing the reflective ones, but also with improving narrative competences. They can be expressed in an oral (self-dialogical) or written form. They can be documented in a diary, personal journal, etc. for further self-supervision. First of all, according to Raelin (2012), narratives demand elaboration of the reflective skill *being* that “forces” the teacher in some way to ask themselves about their vocation and its fulfillment, both now (temporally) and over one’s whole life, and in the individual, situational, sociocultural field. The teacher can develop this skill by referring narratively to actors, interacting with the Self in events that are significant for the Self and occur in a concrete time. Deepening the search inside the Self within the development of this skill provides the teacher/researcher with valuable information that helps build the real and ideal image of the Self in various unpredicted dimensions. The teacher can pose personal questions to the Self regarding different

aspects of their work withing the area of being. Making an attempt to answer them can help solve many problems, especially when they employ creative strategies. The second skill – *disclosing* – requires an attempt to give the meaning to one's thoughts, doubts, and the like. It takes place through deeply searching the essence of what appears while concentrating on objects of *being* outlined in multifaceted perceptive perspectives. Additionally, working on *disclosing* has a formative and therapeutic function. It induces the need for precisely, consciously defining and redefining the processes run inside the Self. Disclosing an approach to many aspects of personal and professional life using elements and principles of narrative analysis can help the teacher develop integrally and harmoniously, which requires a logical, methodological, scientific, and emotional commitment to work on the Self (Kunowski, 2000). Developing this skill determines the third reflective skill: *speaking* improvement. What, when, and how to share one's thoughts, experiences, and reflections demands wisdom, reasonability, and clarity to be understood by the Self and others. Here, practicing the parameters (content; quality, quantity, and frequency; the borders of mutuality and an assessment of benefits and costs; the interpersonal perception of partners; the grade of trust that each partner gives the relationship with others) while building relationships with others (Fontana, 2002) on the dialogical path can prove useful. They can foster the implementation of the intersubjectivity principle (Bruner, 1996) into fruitful bonds between educational subjects. A teacher with this mature skill applies the creative facility attitude to educational practice. Thus, the hypothesis can be posed that the development of a teacher's narrative competences enhances their reflective speaking skill. The teacher becomes a reflective practitioner in the aspect of speaking. They can actively focus on content structured in a logical, methodological, scientific way, and can depict it professionally to make a positive, transactional transfer of information widely perceived from a deposit of knowledge, experience, etc. Such internally exposed thoughts/feelings along with the use of creative/narrative strategies and methods can have an impact not only on the Self, revising what has been spoken and how, but also on other participants of the educational process, as well. This is tied with the fourth

reflective skill, called *testing*, aligned with self-assessment, which begins with development of the reflective speaking skill. *Testing* demands awareness and courage to face the truth about the Self in relation to oneself, others, God, and the world. The truth emerges from the relational and transactional Self while defining the existential content of being, overwhelming the borders upon truth while disclosing and speaking, which leads to improvement in the skill of *probing*, that deepens self-assessment in the inner space of forming a narrative identity. Narrative identity formation is accompanied by constant drama, as it takes place within harmony and temporal dissonance; real and fictional stories lived and told; a contrasting area of innovation and sedimentation; definition of the factual (neutral) state and the morally expected one expressing “what ought to be”; self-identity (*ipse*), supported by *idem* and self-maintenance; self-affirmation and self-rejection; and the author and the reader of the story (Laitinen, 2002).

To sum up, narratives (big or small ones), narrative abilities, and skills that enable good narrating can help develop reflective skills, which are important for mature growth supporting the human integral development oriented towards the inner and outer domain of the Self, who pursues the creation and construction of a narrative identity on the unique, significant path of achieving human maturity. This requires critical thinking that allows a person to face the truth about the Self, others, and the world. One of the factors determining this process of growth in maturity is the development of narrative analysis skills to be used in the development of reflective skills, that can reveal the truth of personal and social elements in the world. This way, the correlation between mastering both narrative competences – in particular, in the narrative analysis field – and reflective skills can indicate their role and meaning for forming a narrative, reflective teacher personality.

Narrative Analysis as a Tool that Enhances the Teacher's Reflective Skills

Considering all the above, it appears obviously necessary to focus on narrative analysis, then on the relationship between it and the reflective skills described above. It is worth noting that although a narrative can provide the data gathered intentionally, it often happens that unexpected data emerge, enriching the results and exposing the active feature of narrative data, in contrast to passive research data (Aarikka-Stenroos, 2010; Dubois & Gadde, 2002). In this light, it can be implied that the competent teacher/researcher feature with creative openness leaves a space for students in a positive, relaxed atmosphere to foster their creative thinking. This activeness can support the development of the personal and social entity. Nevertheless, the researcher/teacher cannot ignore the fact that negative narratives appear to have a negative impact, not only on individual students but also on the whole surrounding community. Moreover, they cannot ignore “that ‘positive’ narratives can be a weapon – in arousing interest, developing the understanding of concepts and scientific processes, and in encouraging a person to participate in scientific processes” (Rostek, 2019, p. 43). The teacher decides what way of conveying a narrative suits them better; is appropriate for the educational goal; and matches their interest in the content (needing to concentrate on actual events and experiences) connected with categorial analysis, structure, form aligned with the analytical frame of narrative, and performance of the narrative that can be analyzed, for example, in an interactional or institutional context (Aarikka-Stenroos, 2010; Elliott, 2005; Riessman, 2002; Leijon & Söderbom, 2008). The variety of teacher's and students' narrative interests seems to determine, to some extent, the trajectory of the educational process, where a particular kind of narrative analysis can prove useful in solving problems, particularly in the field of upbringing. Considering the meaning of narrative analysis for improving reflective skills, the focus on this issue is justified, especially in reference to Bamberg's assumption (2012) that “narrative analysis lays open, in the sense of making transparent, how narrators use narrative means to give (narrative) form and thereby make

sense of events and experiences” (p. 92). This proves significant in the content/structural narrative approach that treats a narrative as a narrator’s specific/reflective meeting with the Self (Krawczyk-Bocian, 2019). Such an approach requires the competence of self-reflective narrative analysis of the big or small story told by the Self, designated by the order of reflective skills and the content documented or recorded in an appropriate time for the narrator. Thus, it can be assumed that the story comprises content that reveals the Self in an intrapersonal, interpersonal, and transactional dimension that refers to the chosen object of “formal” analysis, whose source can be any artifact or piece of literature matching the teacher’s interest. A story presented in a journal, diary, or essays, for example – in the sequence of reflection upon being, disclosing, speaking, testing, and probing – becomes a new source of the critical meta-knowledge about personal, pedagogical, and professional development. It indicates the need to introduce another reflective skill relating to narrative analysis, which can be the implicative one that is to help in managing the individual or collective program for further development. Such a narrative approach elicits the role and meaning of the narrative analysis in shaping and developing the reflective skill, for it comprises the following:

- existential and metaphysical aspects of self-being in the axiological/anthropological perspective of integral development (biological, psychological, sociological, cultural, and spiritual) while eliciting strong, weak, and natural sides of the Self;
- the way and level of disclosing the Self in-depth to the Self and others;
- obstacles and challenges important for maturing and experiencing “being” the Self;
- the scope and richness of figurative language, enabling the teacher to give an appropriate meaning to words conveyed as transmitters of the content disclosed to the Self and others;
- a “true” approach inquiry oriented towards self-assessment in the range of the content mentioned above;
- the quality of in-depth probing in all dimensions already analyzed, leading to conclusions and implications for further work on the Self

in intra-action and interaction with the surrounding environment and indicating the areas of the objects for reflective narrative content analysis.

Quality probing of the analyzed content can elicit the central points of analysis that could be re-analyzed as research categories placed on some research layers of the analysis. Thus, it appears crucial to point out that narrative coherence, its credibility, and its dialogic character contribute to another determinant of a good narrative: a narrative experience (Krawczyk-Bocian, 2019) that enriches the narrative analysis in correlation with the development of reflective skills. This can improve the narrative competences, as it demands careful observation, self-observation, and analysis: synthesis skills, logic, coherence, interpretation skills, building conclusions and implications, creative thinking, and management skills. A teacher who develops such competences can become a coach for the Self on the path of disclosing deeper and deeper dimensions of their own identities, especially the narrative one.

Conclusion and Recommendations

All in all, producing a narrative and conducting narrative analysis with particular narrative methods or techniques requires that the teacher/researcher be reflective, open-minded, and creatively critical and to have an analytical/synthetical attitude in managing educational processes to foster personal and social development. However, proceeding in such development demands changes in the educational system, particularly in wisely selecting material for the core curricula, leaving space for reflective skill development aligned with improving narrative competences that support the educational subject's development. The aspects of narrative, narrative competence, and narrative analysis in reference to reflective skills seem to be crucial for constructing one's Self-identity. As Bamberg (2020), writes,

identity is a second-order theoretical construct, implying that identities (plural – as first-order concepts) are constructed and continuously reconstructed in everyday interactive processes. The term *identities* is used to enable the empirical investigation of how people and organizations are able to gain a sense of self, and give answers to the who-am-I question – engaging interactively in identity work. (p. 262)

Answering this question, particularly for teachers, can deepen their self-knowledge of their sense of vocation, which requires a space for developing reflective skills through narratives that support the formation of a narrative identity. In this context, the meaning of narrative analysis that emerges cannot be ignored, as it is one of the narrative competences. That is why, at least, the workshops or seminars in this field seem to be inevitable for educators, who can include practice of reflective skills and narrative competences into the core curricula. They can support the process of wise, critical, creative, and transformative incorporation of declarative knowledge into pragmatic knowledge. Such an approach can elicit the meaning of narration, as Irmina Rostek (2019) claims: “the most important mission to be played by narration in the world of science is the one related to promoting the idea of ‘science for everyone’ – irrespective of gender, the environment from which the learner comes, regardless of his (or her) age” (p. 47).

All in all, the research material presented above in the hermeneutical analysis accents the need to elicit the role and meaning of mastering the narrative analysis skills or competences for developing the teacher’s reflective skills, which are significant for a teacher’s integral development perceived on a personal and professional level. That is why the research problem addressed herein “calls” for action to care for the future generations.

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Reflection as a Basic Category of a Teacher's Thinking and Action

(pp. 229–250)

Abstract

Reflection in the work of a teacher is an important issue from the perspectives of linking educational theory and practice, a teacher's personal and professional development and solving educational problems in multiple contexts. The world besets the modern teacher with new challenges, and (self-)reflection becomes a necessity as well as a difficult intellectual task. This paper focusses on the issue of a teacher's reflection from the standpoint of linking educational theory and practice and examining the value of their work. Using numerous foreign and Polish publications on the subject, while also referring to classic authors such as Dewey and Schön, the authors analyse the essence of a teacher's reflection in order to highlight the significance of reflective thinking as a key competence for teachers and educators. In the deliberations in this paper, reflection is the foundation of a teacher's reflexivity in modern education, and a priority in preparing individuals for the profession. The method of a systematic and critical selected literature review was used. Special attention was paid to reflective thinking as well

as the flexibility of educational processes and communicative interaction with educational entities.

Keywords: reflection, teacher, educational theory and practice, self-evaluation, examination of the value of a teacher's work

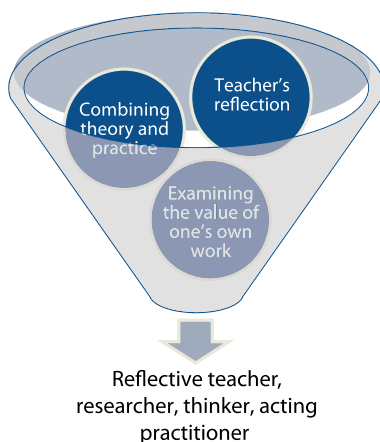
The topic of reflection in the work of a teacher has been present for several decades as an important issue in terms of linking educational theory and practice, the personal and professional development of teachers or as a tool for solving educational problems embedded in various contexts (economic, philosophical, sociological, psychological, pedagogical, etc.). The world is placing ever newer challenges before the modern teacher, and (self-)reflection in the context of (self-)evaluation is becoming a necessity as well as a difficult intellectual task. The post-modern man

experiences an unprecedented hurry caused by the dynamic development of new technologies, which change his previous daily life, change his life orientation, in which there is no room for reflection on the meaning of his life and being. (Tchorzewski, 2016, p. 177)

The purpose of this paper is to familiarise the reader with the issue of a teacher's reflection from the standpoint of linking educational theory and practice and examining the value of their work. The method of systematic and critical literature review (Gonzo, 1972; Ciczkowski, 2000; Creswell, 2013) was used, consisting in a survey of the existing research which adopted a theoretical and practical perspective and demonstrated the scientific usefulness of selected issues related to reflection in the work of the teacher and the determination of potential research fields. The work was facilitated by the question posed by David M. Kaufman (2003): How many times as teachers have we been confronted with situations where we were not really sure what to do? It would therefore be useful to be able to refer to a set of guiding principles based on evidence or at least on long-term successful experience (Kaufman, 2003). What we have in

mind is the three pillars of deliberations on a reflective teacher in the context of their development: the teacher's reflection, linking theory and practice and studying the value of their own work. In this paper, we look at the problem of reflection in more detail.

Figure 1. The model of a reflective teacher



Although the occurrence of reflection can be dated back to periods as early as Antiquity, what I have in mind is mainly the work of Socrates (as cited in Ixer, 1999, p. 515), who was the first to consciously begin to use inductive evidence characterised by the use of reasoning, which leads to progressive components and generalised conclusions by means of observations and experiments (for more, see Sobol, 2002, p. 470). In the initial phase of education, this resulted in students' independent search for truth by asking questions (thus, reflection here is associated with the development of questioning thinking and the democratisation of education), which – in the opinion of Andrei Harbartski (2018, p. 150) – in modern pedagogical anthropology is one of the main tasks of education. John Dewey should be mentioned here as well, being one of the first educational theorists and reformers of the early 20th century, and arguing in support of the value of reflection in education. John Dewey's book *How We Think* presents in detail a certain model of reflection that was used as

a basis for understanding the later Popperian development of problem knowledge (Ixer, 1999, p. 515; Valli, 1997). It was then used in so-called problem teaching, which is a specific educational method consisting in the student independently solving (under the guidance of the teacher, of course, as a facilitator) theoretical or practical problems, understood as educational issues. Dewey became the forerunner of learning by doing, in which reflection, questioning and dialogical thinking develop.¹ According to Dewey's theory (as cited in Pérez-Ibáñez, 2018, p. 21), we only learn through positive experiences² by reflecting on them, because only conscious reflection allows us to give meaning to such experiences. If teachers do not require students to reflect on meaning, then they are engaged in training (in a behavioural context), not education (in an interpretive context). It is believed that reflection fills the void caused by the abandonment of positivist paradigms (Killen & Todnem, 1991; Crandall, 1993; Ixer, 1999). John Dewey, America's greatest philosopher of education and

¹ Nancy E. Taylor and Linda Valli (1992, p. 34) deliberate on the quality of thinking that students engage in (when they reflect on their learning). According to them, the goal of teacher training programmes should be to develop relativism in teachers' thinking in order to develop the ability to look at things (problems, processes and teaching) from several points of view (in Poland, we call this *triangulation*) instead of accepting the absolutism associated with the only perspective, whether right or wrong, because relativism leads to critical thinking and action and may be a more advanced way of thinking than dualism. Thus, reflective teachers are interested in opposing viewpoints, treating them kindly and with due respect, because they can recognise them from the perspective of their own weaknesses; hence the need for reflection in examining the value of their own work.

² School is a place where it is most difficult to have a real positive experience, due to its isolation from the real world. Bogusław Śliwerski and Michał Paluch (2021) argue that students associate schools with boredom, wasted time, a sense of meaninglessness, promoted conformity and opportunism and compulsoriness. Thus, since the times of Dewey, scholars have opined that the Polish education system is associated with the reality of 'appearances' or 'illusions', as well as 'perpetrators and victims'. However, in the context of developing reflection, the worst is the everyday didactic and educational practice that consists in blocking students' independent thinking, schematisation of action and transmission of knowledge. Therefore, Dewey described it well as a detachment from reality and an inability to acquire real, positive experiences in learning and reflection.

an early proponent of reflective learning and teaching, dedicated his life to the idea of overcoming the dualism that separates the field of education from the rest of the modern world: thought and action, study and practice, educational theory and practice, science and communication, and academic life and everyday life. The central turning point of these dualisms embodied in Dewey's progressivism, as opposed to the epistemological individualism and certainty, was his inquiry theory.³ Inquiry, according to Dewey, combines mental reasoning and action. His theory of inquiry rejects both the 'autonomy of thought' advocated by mentalists and the image of 'knowledge' that was so close to the ancient Greek philosophers, who placed theory above practical skills and wisdom in everyday matters (Schön, 1992, p. 121). Dewey contrasts reflective thinking with habits of thought that are unsystematic, lack evidence, are based on false beliefs or assumptions or mindlessly conform to tradition and authority (Valli, 1997, p. 68). He further claims that problem-based learning, for the reflective practitioner, is the main basis for reflection. The second stage of Dewey's model is the observation of the experienced problem, where the main role in this process is played by experience (as cited in Howard, 2003, p. 197). Dewey considered reflective practice to be an intentional, systematic and disciplined examination of the value of a teacher's work, which is ultimately expected to lead to positive changes in a teacher's professional development (reflection on action). Later, Donald Schön (1987) added a variant of reflection in which a practising teacher can reflect on their intuitive knowledge in the course of action (reflection in action) (Ghanizadeh, 2017; Munby, 1989; Schön, 1984). However, there are authors with different views on the value of Schön's reflection in action, namely Roth, Lawless and Masciot (as cited in Beck & Kosnik, 2001, p. 218). They claim that his concept is of little importance to the understanding of teaching processes, and instead recommend organising an experiential space in which teachers work continuously to expand their experiences. Educational practice shows that teachers work with time constraints and rarely enjoy the luxury of time for reflection. With this concept, they become

³ Implicitly, we can say that this is the theory of truth inquiry.

researchers and self-evaluators (cf. Kołodziejcki, 2012). The teaching and learning processes are based on elements of quantification and observation, with the objective of constantly examining what one knows and whether one is getting it right (Carlo et al., 2010, p. 60).

For many years, professional reflection and reflexivity of teachers have been the subject of pedagogical research and analysis in Poland (e.g. Dylak, 1996; Gołębnik, 1998; Czerepaniak-Walczak, 1997, 2006; Pollard, 1998; Day, 2004; Kwiatkowska, 2008; Klus-Stańska, 2006a, 2008; Muchacka et al., 2013; Czaja-Chudyba, 2013; Czaja-Chudyba & Muchacka, 2016; Michalak, 2010; Gołębnik & Zamorska, 2014; Szymczak, 2015, 2017; Dróżka & Madalińska-Michalak, 2016; Szymańska, 2020, 2021; Kołodziejcki, 2014, 2016; Perkowska-Klejman, 2019; Chrost, 2017, 2021; Szymczak, 2015) and abroad (Habermas, 1973; Schön, 1983, 1987; Dreyfus & Dreyfus, 1986; Bulman, 1994; Yelloly & Henkel, 1995; Calderhead, 1989; Yip, 2006).

It seems that modern education still attaches more importance to teaching and focusses less on upbringing and self-education (cf. Chrost, 2017, p. 132).⁴ One may also wonder whether in a teacher's reflective and self-evaluative practice we focus too much on technical reflection, which, according to Dawn Del Carlo, Holly Hinkhouse and Leah Isbell (2010, p. 59), is similar to the behavioural approach (instrumental reflection), and we overlook (or separate too much) reflection on the teacher themselves, as a person who functions directly in the cognitive, emotional/social, volitional and physical areas. What is reflection? This word comes from Latin (*reflectere*) and means 'to lean back' (Valli, 1997, p. 67). Reflection prompts one to think about a specific problem area by analysing one's own experiences from a temporal perspective, resulting in better self-knowledge and thus an opportunity to improve one's working methods, which in turn leads to higher efficiency in the educational process (Marciniak, 2014, p. 169) as well as to improved well-being of the teacher, which, after all, can be considered a normative state and a condition for professional development, in addition to effects in educational practice.

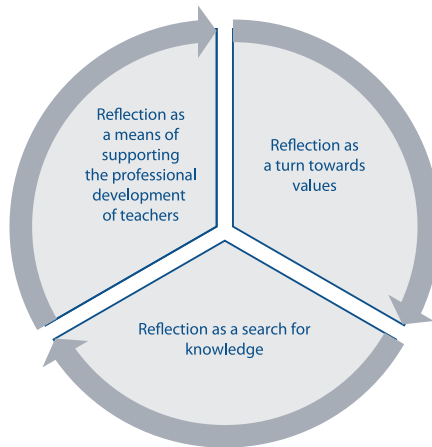
⁴ However, during the COVID-19 pandemic, attempts were made to reverse these proportions.

A reflective person is someone who returns in their thoughts to what they have seen and heard, one who contemplates and is a thinker. In this regard, as Linda Valli (1997) writes, reflection should not be confused with a reflex, which is an involuntary action or instinctive reaction. Although reflection can be spontaneous and thus has aspects of intuition, it should also be associated with a conscious, systematic way of thinking (Valli, 1997). A reflective person carefully considers important issues and is characterised by openness to the opinions and advice of others. Thus, the reflective action considered here (teaching, upbringing, education and self-creation) is a process characterised by careful backward-orientated judgement. Through reflective thinking, a person formulates a reflection and acquires the capacity for reflectiveness, which is defined as 'the tendency to reflect, to ponder, to consider, and to analyse' (Szymczak, 1981, p. 32). In pedagogical terms, according to Teresa Hejnicka-Bezwińska (2008), reflectivity is 'the ability to analyse acquired experiences and incorporate new data, information and knowledge into the cognitive structures one has and to create new connections between knowledge and action' (p. 502). The very ability to make reflections becomes important. It should be stated that reflectivity is a mental competence, the ability of a person to be both an object and a subject of cognition. It is a kind of internal dialogue that manifests in the person's actions. Sławomir Krzychała (2005, pp. 144–145), inspired by the analyses of Beck (2002) and Giddens (2001), differentiates between the characteristics of *reflectivity* and *reflectiveness*. He defines the latter as critical thought, self-reference, self-reflection and self-interpretation. He also specifies that the term *reflective* encompasses both a cognitive process and a social practice, and thus describes several types of reflectivity.

So, should reflectivity (reflection) in education be a core category of thought and action for a teacher combining theory and practice in examining the value of their own work? This very question provokes reflection, does it not? After all, reflection is a deeper thinking about something, pondering over something, a consideration combined with an analysis, often triggered by an intense experience which we associate strongly with our internal motivation (Sobol, 2002, p. 945; PWN, n.d.).

In this sense, reflection means the thinking subject (a teacher, in this case) turning to their own activity when they realise an action. Reflection is also a thought or a statement (oral or written) resulting from such a thought. In this sense, reflection is a means of supporting the professional development of teachers (Hoffman-Kipp et al., 2003, p. 248), and professional development involves reflection on how to teach so that teaching has value, that is, how to teach effectively. According to Dewey, people wonder in order to know (as cited in LaBoskey, 1993, p. 10). This can contribute to the building of a culture of reflectivity in education within the framework of teachers' personal and professional responsibility (Korporowicz, 2010, p. 29). This is illustrated in Figure 2.

Figure 2. Three forms of reflection



One can therefore also consider reflection as Tyron C. Howard (2003, pp. 197–198) does, as thinking about one's own experience and educational activities in the context of meanings created and interpreted in order to be able to make more appropriate educational decisions in future. This can thus be treated as thinking and actions leading to an examination of the value of a teacher's decisions, which is present in cognitive processes understood as active and purposeful (Henderson-Hurley & Hurley, 2013). Kam-shing Yip (2006, p. 778) further argues that reflective practice is

a process of self-engagement and a kind of self-reflection. Systematic diagnosis, analysis, interpretation, inference and reflection on one's own actions and in action definitely improve the quality of daily educational work and make a teacher a kind of reflective practitioner and researcher who turns to reflection.

As Anna Perkowska-Klejman (2018, pp. 8–9) points out, the popularisers of reflectivity in learning and teaching included Kenneth Zeichner and Daniel Liston (1996), who identified five types of reflection that could be applied by teachers:

- rapid reflection – immediate and appearing automatically,
- repair reflection – the teacher decides to change their actions in response to signals received from other educational participants,
- review reflection – the teacher discusses and evaluates a selected aspect of their own practice,
- research reflection – a teacher gathers data and research in a field that interests them, and applies the findings to their educational practice and
- retheorising and reformulating reflection – a process during which a teacher critically analyses their own practice and their personal theories in light of scientific theories, and decides about possible changes in their own thinking and action.

Reflective learning and teaching in Zeichner and Liston's concept (1996) has five key characteristics: (1) experience and (2) learning by solving practical problems, (3) awareness of personal assumptions and values, (4) paying attention to the situational and cultural context, making changes in and participating in the development of the teaching content and (5) taking responsibility for one's own learning and professional development. Reflectivity in learning and teaching is manifested by questioning the objectives, values, assumptions and context. Reflectivity makes learning democratic (deliberative, dialogical). The roles of students and teachers are only symbolically assumed; everyone is equally important and participates, jointly taking decisions to the same extent (Zeichner

& Liston, 1996, as cited in Perkowska-Klejman, 2018, p. 9). Reflection is a very important construct of a person's self-awareness, and it seems necessary in the case of a mindful teacher.

Reflective thinking is not only about cognitive processes, but also about emotional, social, cultural and political reasoning. Reflective thinking is an indicator of the highest maturity; it develops the so-called personal learning and facilitates adaptive processes. Mezirow's concept (1978, 1991, 1998) of reflective thinking also seems interesting in this context. He describes reflection as a metacognitive skill that can exist on different levels. Mezirow (1991) refers to six levels of thinking, where the first three are non-reflective levels: habitual action, thoughtful action and introspection. *Habitual actions* are done without realisation of this fact and can be done simultaneously with other activities; these are automatic activities, such as typing on a keyboard. *Thoughtful action*, on the other hand, is a cognitive process during which people use knowledge that already exists, but without trying to evaluate it. The starting point for thinking is prior knowledge and the ability to choose different solutions to a specific issue. Thinking in this process is based on theoretical knowledge, which is not subject to (self-)evaluation. In both thoughtful actions and routine actions, the existing systems of knowledge and meanings do not change. *Introspection*, on the other hand, means analysing one's own thoughts, beliefs and mental states. It refers to thinking about oneself in relation to the performance of a task. It is a conscious and ongoing activity. However, it is not an attempt to reconsider previously acquired knowledge or to verify its validity. The subject analyses their thoughts and feelings, but does not reflect on how they developed.

The subsequent levels, which Mezirow identified as reflective thinking, are 1) content reflection, 2) process reflection and 3) theoretical reflection. *Content reflection* refers to what one sees, thinks or feels, and how one acts while performing a task. This activity can take the form of recognising and categorising one's behaviour in order to interpret it. Content reflection is often equated with thoughtful action. This type of activity is based on the subject's previous knowledge and experience. A person with full awareness thinks about what they are doing to solve

real problems. Thinking at this level, however, does not reflect on why specific actions are taken. Nor does one consider how solving a given issue will affect one's development. The basic question within this reflection is: What do I perceive? *Process reflection* involves 'examining' one's perception, thinking and feeling. It involves the categorisation of a task and an attempt to interpret it. At this stage, one focusses on what one feels when faced with a problem and how one deals with those feelings. One also considers how others will perceive one's activity. One is aware that one's actions have a certain impact on oneself. The basic question within this reflection is: How do I perceive? *Theoretical reflection* addresses the question of why one's thoughts, feelings and behaviours cause consequences for one's existing knowledge. One also thinks about the consequences of one's actions in future, in different situations. Theoretical reflection includes an analysis of the entire situation and involves complex problem-solving. The resulting theoretical constructs are incorporated into a deeper understanding of the problem, and may even lead to a reinterpretation of the problem. This involves finding alternative methods of doing things and changes in reasoning. Theoretical reflection involves a high degree of control over one's behaviour, which is achieved by thinking about it.

These categories of non-reflective and reflective activities show the determinants and a certain process that can occur when improving oneself and one's reflectivity. They indicate an increasing level of reflection and therefore arrange themselves into activities of increasing complexity (Perkowska-Klejman, 2012, pp. 215–219). Krzykała (2005, pp. 144–145) analyses situations that are important in terms of a teacher's reflectivity and self-evaluation: 1) extinguished reflectivity – when relationships during adolescence and peer group involvement systematically inhibit and limit the capacity for critical reflection; 2) diffusive reflexivity – when there is a need to stay and organise life, such as in conflict situations; 3) taken-over reflectivity – when the orientation is taken over from ready-made patterns and norms; 4) actionist reflectivity – which is associated with experimentation and innovation; 5) situational reflectivity – based on the use of situational opportunities, without forward planning of the future;

6) strategic reflectivity – focussed on forward-looking plans and goals; and 7) actionist reflectivity – which is expressed in experiencing and re-working the experiences of everyday life.⁵

According to Afsaneh Ghanizadeh (2017, p. 104), previous research based on the work of Dewey and Schön was only concerned with the importance of reflection in relation to the processes of teaching and learning; consequently, we also selectively focus herein on the development of the reflective teacher in the context of examining the value of their work. For Dewey, thought is reflective only when it is logically organised and includes consideration of the consequences of decisions. In this sense, reflective thought looks back on assumptions and beliefs to make sure they are grounded in logic and evidence, and looks forward to the implications of a particular course of action. Reflective teachers are critical of the ideas that come to their minds. In their search for evidence, they consider competing claims that help them dispel doubts (Valli, 1997, p. 68). Thus, there is a justified need to link scientific theories with pedagogical (educational) practice – not so much in the philosophical (epistemological) context, but in the practical (rational) and developmental contexts. Nancy Taylor and Linda Valli (1999) encourage academic teachers to develop reflection in students of education by dividing reflection into psychological and sociological types. In the former approach, research has shown that students' ability to reflect is also a product of the educational experience in the temporal dimension, and that more critical reflection can be developed through careful selection of teaching strategies, preferably those that teach reflection as a holistic construct found, for example, in communication and dialogicity. This results from the simple fact that knowledge is socially constructed, modelled through reflection and supported by practice and experience. What is helpful here are student reports, which are an invaluable source of qualitative data. Also, research projects that use the research in action method with

⁵ The development of reflectivity in a teacher, however, cannot be taken for granted. Bożena Muchacka (2018) points to a number of barriers that limit this process, such as subjective limitations on cognitive competence, emotional and motivational barriers and external barriers.

contextual thinking are useful. This research has shown that although students' conceptual levels may not change in a revolutionary manner during their studies, well-structured experiences can increase the teacher candidates' level of reflection. Acting in tandem (teacher and students) can enable individuals to think, be attentive, make sense and reach further (LaBoskey, 1993, p. 11). The sociological approach, in turn, concerns the scope and content of students' thinking rather than the quality of reflection. One way of setting the goals of a curriculum that would encourage students to undertake broad reflection on the moral and social aspects of teaching is to use Tom's method (1985; see also Taylor & Valli, 1993, pp. 42–43), which develops various dimensions of questioning thinking and action: (a) the problem area, (b) the model to be used to study a particular problem area and (c) the ontological status of educational phenomena. In the process of (self-)evaluation, a reflective teacher does the following:

- systematically asks themselves questions about their own teaching (in the constructivist model of learning/organisation of the educational environment), and displays an inquisitive, exploratory attitude,
- questions their own knowledge and tests theory in practice,
- examines, using appropriate tools, their own teaching (organisation of the learning process of students and teacher), and acts as a researcher,
- allows other teachers to investigate, e.g. to observe their work, allows for honest discussion of the material and creates positive mutual learning environments,
- studies their place and that of the institution where they work in the local environment, is interested in issues associated with school and teacher emancipation, seeks their place in the environment, and seeks allies and
- continuously learns and improves their qualifications formally and informally, conducts research and strives for development (cf. Day, 2004, p. 46; Kołodziejski, 2016, pp. 365–366).

It is clear, or at least assumed, that self-evaluation (as a reflective examination of the value of a teacher's own work) should be continuous and systematic, because only then does it allow educational goals to be achieved and one's own development to accelerate. With regard to a teacher, it can be assumed that evaluation activities require the following attitudes:

- creative – one that is constructive and edifying,
- self-critical – the ability to critically evaluate oneself and one's actions,
- analytical – the ability to study particular characteristics of an educational phenomenon or process,
- ethical and moral – the ability to respect the norms and customs in force in science and education and
- causal – the ability and skill to perceive oneself as the cause of one's own actions, which in practice is linked to autotelic motivation, which is associated with the selfless pursuit of performing activities with passion, as well as cognitive and emotional curiosity (Kołodziejcki, 2011, pp. 289–290, 2016, pp. 369–370).

Nowadays, reflection is becoming the foundation of task performance in the context of the development of all subjects of education, and it performs many specific functions, such as perceptual, descriptive, exploratory, predictive, heuristic, metacognitive and self-cognitive ones (Chrost, 2021, p. 219; Białecka-Pikul, 2012, pp. 284–285). Reflective thinking is the model of a teacher's transformative lifelong learning, in which learning, as a transformative process, is based on various levels of reflection (Mezirow, 1991, as cited in Perkowska-Klejman, 2012). Reflectivity is associated with the individual's autonomy and self-control; it is a source of creative action, innovation and steadfastness in the search for and creation of various concepts, and then in their practical implementation (Gołębnik, 1998). The formulation of reflections enables a kind of emancipation from the routine and a sense of being oneself that is constructed and stored in one's consciousness. A reflective subject is convinced of their own personal individuality, rationality, uniqueness and freedom.

Reflection is a kind of intellectual inner power 'that largely determines the mental and moral, as well as technical and practical level of a person' (Chudy, 2006, p. 72). In the context of the other two pillars of this paper's considerations on a reflective teacher, namely the combination of theory and practice and the study of the value of one's own work, a teacher's reflection appears – due to the dynamics of social change – to be the fundamental pillar. Therefore, in the education of future teachers capable of formulating deep reflection that covers the value system, experience and reliable knowledge – teachers who are researchers – the area of reflective thinking plays a fundamental role in making educational processes more flexible and enhancing communicative interaction with educational entities.

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Content and Language Integrated Learning (CLIL) in European Higher Education (pp. 251–273)

Abstract

The following article discusses Content and Language Integrated Learning (CLIL) in European higher education, which has become popular in recent years due to the status of English as a foreign language. Firstly, the difference between CLIL and English Medium Instruction (EMI) is explained, then CLIL modules in higher education are presented. Furthermore, CLIL special pedagogy in higher education is described. The subsequent section is devoted to the benefits and challenges of CLIL in higher education as listed in the literature; finally, insight into research on language in the CLIL higher education context is addressed. The data presented in the article is based on an in-depth literature review and research conducted in higher education institutions in Europe. The findings show that even though CLIL has become a popular approach in higher education in recent years, adapting this concept has been a great challenge due to the very little preparation, proper methodological training and complex linguistic learning situations.

Keywords: Content and Language Integrated Learning, higher education, pedagogy, language, content, benefits, drawbacks

1. Introduction

The requirements of 21st-century higher education, created within the framework of the Bologna Process, and the importance of the English language in the global market have led to the internationalisation of higher education. In recent years, universities have been introducing English as the language of teaching and learning, stressing the importance of quality teaching and effective practice. Content and Language Integrated Learning (CLIL) is a perfect example of an approach which meets the requirements of 21st-century higher education, as its aims are consistent with the CLIL dimensions proposed by Marsh et al. (2001), namely Culture, Environment, Language, Content and Learning.

Even though CLIL has become a very popular approach in higher education in recent years, adapting this concept has been one of the greatest challenges due to the very little preparation, proper methodological training and complex linguistic learning situations (Fürstenberg & Kletzenbauer, 2015). Therefore, the aim of the article is to discuss the CLIL modules present in higher education. Moreover, the aim is to focus on the special pedagogy for CLIL in European higher education institutions (Fortanet-Gómez, 2013) and methodological approaches related to content and language learning in CLIL (Almagro & Pérez Cañado, 2004; García, 2009). Additionally, the benefits and challenges that higher education institutions face when introducing CLIL in higher education are highlighted (Ball & Lindsay, 2013; Bruton, 2013) and, finally, the most relevant research in the context of language learning in CLIL is discussed.

2. CLIL and EMI

Before focussing on CLIL in particular, it is worth explaining the difference between CLIL and English Medium Instruction (EMI), as the two might be easily confused. Content and Language Integrated Learning (CLIL) is 'a dual-focused educational approach in which an additional language is used for learning and teaching of content and language with the

objective of promoting both content and language mastery to pre-defined levels' (Marsh et al., 2001, p. 11). Unlike EMI, CLIL is used to teach both content and language. In CLIL, all four language skills – speaking, writing, listening and reading – are the focal point, while the content is not simply topics of general interest or current affairs, but something that reinforces mainstream curricular subject learning outcomes (Brown & Bradford, 2017). In other words, CLIL students study the content they would typically study in their mother tongue. Content and language are integrated through the '4 Cs' of CLIL (Coyle, 2005): content, communication, cognition and culture. Content is connected with the subject matter (e.g., maths, biology, geography, etc.); communication concerns language learning and language use; cognition is connected with the learning and thinking processes; and culture deals with developing intercultural understanding and global citizenship. Another very important factor is the context, which integrates communication, content, cognition and culture (Coyle, 2005).

The rationale behind CLIL, as stated by the European Commission, is to promote EU citizens in gaining mastery of a second language or native language and two other EU member languages (Llinares et al., 2012). Moreover, it is also believed that employers and society should gain language competence, especially in communication, in order to succeed in their future profession (Fortanet-Gómez, 2013). Nevertheless, apart from the advantages that CLIL provides, one of the disadvantages, as in the case of EMI, is the lack of properly qualified teachers who would have double qualifications.

EMI is described as 'an umbrella term for academic subjects taught through English' because it makes 'no direct reference to the aim of improving students' English' (Dearden & Macaro, 2016, p. 456). The EMI approach mainly focusses on subject matter in English, which means that the language is used as a tool for transmitting subject content. The extent to which content and language learning are included as implicit or incidental aims of EMI courses is context-driven and might depend on the EMI teacher or the discipline itself (Brown & Bradford, 2017).

One of the aims of introducing EMI, as stated by universities, is to enhance the employability of their graduates in domestic or global markets

(Björkman, 2008; Pecorari et al., 2011) and to attract more international students; language learning is of secondary importance (Smit & Dafouz, 2012). This approach is often adopted in the sciences at both postgraduate and undergraduate levels, as the majority of important and influential research is published in English (Macaro et al., 2018). Therefore, students who decide to enrol in an EMI programme are expected to read a lot in English and have a very good command of English (B2 or C1 level according to the CEFR). Even though the popularity of EMI programmes is increasing across Europe due to national government policies, which consider it a significant strategy to enhance national competitiveness in innovation and knowledge production (European Higher Education Area and Bologna Process, 2016), one of the most significant issues needing to be addressed is connected with subject teacher qualifications. Implementing the EMI approach requires not only students who are well prepared from the linguistic point of view, but also subject teachers whose subject knowledge in English is very good.

Both these approaches are very beneficial to language learners, allowing them to develop their foreign language proficiency. However, research indicates that even though there are positive results in terms of language learning (Dalton-Puffer, 2007; Mehisto et al., 2008; Lasagabaster, 2008; San Isidro, 2010), the results are not very obvious in the case of content learning (Ní Chróinín et al., 2016; Sylvén, 2013; Yip et al., 2003). Therefore, it is very important for both content and language teachers to understand the roles that content and language play in these approaches.

3. CLIL modules in higher education

The CLIL approach has become very popular in European higher education and is often adopted in the fields of law, business, humanities, medicine, economics and engineering. However, one of the major difficulties when researching CLIL education is the great variety of modules existing in particular institutions across Europe (Dafouz, 2018). CLIL is usually offered at the MA level, and the classes are either fully or partially

delivered in a foreign language (most frequently in English). At the BA level, higher education institutions usually offer some content modules or individual lectures in a foreign language. By *module* I mean a way of teaching that contains a set of planned learning experiences and is designed to help students master specific learning goals (Butcher et al., 2006). The CLIL modules offered by higher education institutions vary from university to university and often depend on the availability of teachers and the number and distribution of hours. The following CLIL modules were described as part of the LANQUA project (2007–2010), in which 60 partner institutions took part. The CLIL subgroup consisted of teachers from 10 different countries. Even though the data is not very recent, not many changes have been observed in the area of CLIL modules at higher education institutions since then (Meyer & Coyle, 2017; Sisti, 2009; Vega & Moscoso, 2019).

The main aims of different CLIL modules vary. Partial CLIL/discipline-based language teaching (LT) and Partial CLIL (language-LAP) mainly focus on language and study skills, Partial CLIL (content focus in L2) mainly on content, Adjunct CLIL on both content and L2 instruction and Dual-focus CLIL on both on content and language. All the modules are aimed at non-native learners, with the exception of Partial CLIL and Adjunct CLIL, which also include native speakers. When it comes to teachers, the first two modules are taught by language specialists; the other two are taught by content specialists, sometimes with the assistance of a language specialist. The pedagogical approach differs within the modules, as do the learning outcomes, which go in tandem with the pedagogical approach. In Partial CLIL/discipline-based LT and Partial CLIL (language LAP focus), the learning tasks are modified depending on the main focus. Thus the learning outcomes are either LSP competence or LAP competence. Language is viewed as a subject and a mediator. Partial CLIL and Adjunct CLIL support lecture-type classes depending on the skills required in a particular discipline. The learning outcomes are similar to those provided in content-based instruction. However, in the former language is viewed as a tool, while in the latter it is a mediator. Dual-focus CLIL, on the other hand, focusses on multimodal and interactive classes with the aim

of providing the learners with integrated content and language skills. Language is viewed from multiple perspectives. Finally, in the first two modules (Partial CLIL/discipline-based LT and Partial CLIL language LAP focus), language and communication skills are assessed. In Partial CLIL content mastery is assessed, and in the other two modules both content and language are assessed according to the criteria established by the teachers.

The reasons behind European higher education institutions' choice of a particular CLIL module vary depending on various factors. Firstly, universities want to attract international students, as education offered in English (considered a lingua franca) is prestigious and makes the university an innovator in both education and research. Secondly, offering CLIL courses in English universities achieves a significant pedagogical aim: improving the international competitiveness of the graduates (considered an advantage in both career and further education opportunities). Finally, many universities search for additional European funds, and offering CLIL courses in English increases the chance of receiving financial support (Blaj-Ward, 2017). Notwithstanding all these factors, before introducing a particular CLIL module, the universities carefully analyse the main aims, target group, qualifications of academic teachers and the expected learning outcomes. No matter which module is chosen, it is important that they all share the following aims: a) the multiple focus, b) the construction of safe and enriching learning environments, c) the use of authentic materials, d) the promotion of active learning, e) the use of macro- and micro-scaffolding and f) the promotion of cooperation among students and teachers (Macaro, 2015; Taillefer, 2013).

4. CLIL special pedagogy in higher education

Although CLIL has been mostly associated with primary, secondary and vocational education, there seems to be no reason to underestimate its potential in HE: "quite the reverse, it has been proved that one of the secrets of success for CLIL is continuity throughout the educational process" (Fortanet-Gómez, 2013). Nevertheless, CLIL goes beyond other

methodologies, as it focusses on content and language. Therefore, introducing CLIL in higher education has been one of the greatest challenges (Fortanet-Gómez, 2013).

CLIL combines various approaches and working methods of general education with those related to language learning; content should always be integrated with language. When talking about language in this context, both the first language (mother tongue) and the second/foreign language are taken into consideration. As CLIL is a type of bilingual education, the presence of the first language should not be avoided, but rather controlled. García (2009) claims that in order to provide our students with proper education and to broaden their future horizons, it is important to focus on content, the mother tongue and the second/foreign language in CLIL education.

CLIL pedagogy in higher education is based on a humanistic and constructivist approach to the acquisition of subject content and linguistic knowledge. Students gain new knowledge through experience by creating links between the knowledge and individual experience. In the constructivist approach, 'the process of acquiring the knowledge is more important than the final result' (Semadeni, 2016, p. 5). Therefore, the constructivist approach can be described as the process through which students create and develop their own knowledge (experiential learning).

Rogers (1969) listed five defining elements of experiential learning:

- *It has a quality of personal involvement.* Significant learning has a quality of personal involvement in which 'the whole person in both his feeling and cognitive aspects [is] in the learning event' (p. 5).
- *It is self-initiated.* 'Even when the impetus or stimulus comes from the outside, the sense of discovery, of reaching out, of grasping and comprehending, comes from within' (p. 5).
- *It is pervasive.* Significant learning 'makes a difference in the behaviour, the attitudes, perhaps even the personality of the learner' (p. 5).
- *It is evaluated by the learner.* The learner knows 'whether it is meeting his need, whether it leads toward what he *wants* to know,

whether it illuminates the dark area of ignorance he is experiencing' (p. 5).

- *Its essence is meaning.* 'When such learning takes place, the element of meaning to the learner is built into the whole experience' (p. 5).

The second approach that CLIL is based on, and one that is especially visible in the higher education context, is the cognitive approach, a combination of thinking processes concerning a particular subject and the two language systems. In this approach, language becomes an integral part of thinking and creating meaning. Students construct their own way of learning through the use of cognitive skills (Coyle et. al., 2010). Their intellectual challenge is to transform information in order to solve a problem or discover meaning through creative thinking. In order to create meaning, they use the following techniques: classifying, comparing, matching, guessing, differentiating, organising and assigning. This way of learning has a positive impact on the acquisition of linguistic and subject knowledge and on the development of their creative and critical thinking skills. Furthermore, the cognitive approach assumes that learning consists of constructing meanings by involving the student directly in the learning process. It is emphasised that the student's metacognitive strategies and the active use of metacognitive processes (the ability to control them) are necessary in order to learn effectively (EDUNews, 2008).

Finally, CLIL is based on a communicative approach, which focusses on interaction and communication. As mentioned above, communication has become the priority in higher education due to globalisation and the increasing popularity of foreign languages, especially English. The political, technological, economic and social realities of the modern world have led and are leading to more contact between people of different linguistic and cultural backgrounds. Therefore, the role of communication in CLIL is significant. The approach assumes that effective learning of a foreign language occurs when the student experiences real communicative situations (Wolff, 2005). Moreover, Mortimer and Scott (2003) identify the following dimensions of the communicative approach, which can often be observed in higher education: interactive/non-interactive

and dialogic/authoritative. When an activity is interactive, students participate in it more; when it is non-interactive, it is mainly the teacher who provides students with knowledge (e.g. lecturing). The dialogic/authoritative dimension refers to ideas that are discussed in the class. If the approach is dialogic, the students feel encouraged to share their ideas and points of view on the topic. In an authoritative conversation, only the teacher shares their point of view with the students and does not ask for their opinions. Mortimer and Scott (2003) claim that

the type of interaction and communication in the class depends on the type of content and the choice of the teacher. Communication might change from dialogic to authoritative, i.e., firstly, the students get engaged in a conversation about their ideas and experiences (dialogic/interactive) and secondly the teacher presents the content in a more formal way (non-interactive/authoritative). (p. 35)

The type of communication and interaction is of particular importance in CLIL, especially in higher education. The students should participate in all four types of communication so that they can acquire communicative knowledge of a foreign language while learning the material. The teachers, on the other hand, should take decisions about the types of communication and interaction in order to help the students acquire the knowledge in a foreign language. However, 'if one of the above-mentioned types of communication is overused, it may have a negative effect on the development and understanding of both content and language' (Llinares, et al., 2012, p. 63).

Research on CLIL practices reveals that the programme models used in CLIL in higher education can vary considerably, depending on the context and outcome expectations (Banegas et al., 2020; Gabillon & Ailincăi, 2015; Nikula & Moore, 2019; Tardieu & Dolitsky, 2012). Nevertheless, the integrated nature of cognition, social interaction and language use is the core idea in CLIL, which aims to

(a) respect plurilingual teaching philosophies, (b) consider language, content, communication, context and cognition as an inseparable unified entity, (c) create naturalistic learning environments, (d) provide tasks that promote cognitive engagement and creativity, (e) allow collaborative knowledge building, (f) promote dialogical interaction and (g) develop awareness of self and others. (Gabillon, 2020, pp. 106–107)

5. Benefits and challenges of CLIL in higher education

Notwithstanding the challenges that higher education institutions face when introducing CLIL, there is considerable evidence of the positive impact of CLIL on students, teachers and higher education institutions (Apsel, 2012; Banegas, 2012; Wilkinson, 2018).

Benefits for students

The use of a foreign language during classes helps the students use the language purposefully, process formation in the target language, negotiate the meaning of words and build their knowledge in the target language. Furthermore, learning an additional language in the context of CLIL contributes to the development of their cognitive, creative and critical thinking skills. By learning the content through the target language, students develop unique conceptualisation and meta-cognition skills (Carloni, 2013; Dalton-Puffer et al., 2010; Meyer, 2010). CLIL is naturally related to knowledge about other cultures and intercultural communication. Therefore, students have the opportunity to learn about other cultures and to understand intercultural differences. Moreover, they become more tolerant of and open to other cultures, and they can see a strong link between language, culture and society. Other significant benefits for students at higher education institutions are the promotion of active learning and the development of autonomy. CLIL involves activating learning methods that generate knowledge through independent research in a foreign language and taking actions that foster problem-solving learning.

Additionally, the interactive and cooperative nature of CLIL has a positive effect on the students' self-esteem, self-confidence, independence and organisational skills.

Benefits for teachers

Communicative language teaching puts the student in the spotlight. Students' communication needs provide a framework for developing curriculum goals in higher education. Students gain knowledge through the discovery process. In CLIL, students often work on projects, which requires negotiation and cooperation in the target language. The role of the teacher is to use various techniques for teaching content and language, using authentic materials and communicative exercises that require students to interact in order to exchange information or solve problems. Therefore, the teachers have a chance to develop their creativity and teaching techniques. Furthermore, Coyle et al. (2010) claim that due to the 4 Cs model (Content, Communication, Culture/Community), teachers' work becomes more effective. As a result, students can develop their skills, gain knowledge and build their identity. In the 4 Cs model, teachers need to focus on the *language of learning*, the language that is acquired in terms of linguistic functions. They also need to focus on the *language for learning*, the rules that are applied to the language itself, and *language through learning*, the language that is used to develop communication (Coyle, 2007). The next significant benefit of CLIL is cooperation with other teachers and institutions. The aim of such cooperation is for teachers to exchange their experiences. Those teachers who have subject knowledge in a foreign language have much greater opportunities to cooperate with teachers and institutions from other countries, for example, by participating in various research programmes for joint implementation of international projects between universities. This type of collaboration leads to the development of a good practice that can be applied in a variety of educational contexts around the world. Moreover, CLIL teachers also have an opportunity to develop teamwork skills between language and subject teachers, which is of great importance when creating CLIL programmes for higher education. Through teamwork,

teachers can exchange their knowledge and professional experience in both the language and the subject. Finally, the collaboration between CLIL teachers and other teachers and institutions has a significant impact on teachers' motivation and self-confidence. In addition, they have greater opportunities for professional development. In many countries, CLIL teachers can benefit from exchange programmes and receive additional financial benefits. International CLIL conferences are organised every year, where teachers can meet many other CLIL specialists, gain valuable knowledge and establish new contacts.

Benefits for higher education institutions

The implementation of CLIL raises the profile of the university and attracts more students. It can also contribute to the development of the university and help it respond better to local needs. Secondly, society will benefit from highly educated students who are motivated to continue thriving in a world where professional requirements are constantly changing. This has a considerable impact on the development of international companies and multicultural environments, in which linguistic and subject knowledge are the key to success. Graduates will be more attractive to future employers who care about employees with skills that enable them to work in an international environment (Aguilar & Muñoz, 2014; Fitriani, 2016; Margado & Coelho, 2013; Muszyńska & Papaja, 2019; Vilkcienė, 2011).

Challenges

Even though there are many advantages of CLIL, there are also a few drawbacks to or rather challenges in applying CLIL in higher education. Firstly, the content subject teachers who are specialists in their field do not always have enough linguistic competence in the target language; therefore, many teachers mainly focus on teaching the material, leaving the students' linguistic development behind (Hellekjaer, 2010). Moreover, if teachers have problems teaching the subject in the target language, the students are likely to have problems understanding the content. As a result, students' knowledge of the content might not be sufficient

(Várkuti, 2010). It is still little understood how well a student can transfer knowledge from the target language into their first language. There are some doubts concerning the conceptual and linguistic correctness in the CLIL context (Meyer & Coyle, 2017; Reitbauer et al., 2018). Another main concern is undeniably the lack of CLIL materials to be used in higher education. Teachers often adapt materials for the students and simplify the language. As a result, the language of content classes may not be relevant elsewhere and vice versa. Another problem is the time the teachers need to spend creating these materials. Adapting materials and creating new ones is time-consuming and overloading for teachers (Moore & Lorenzo, 2007). As for the students, research indicates that there are signs that CLIL students, especially in higher education, are increasingly unwilling to learn *now for use later*, but prefer to *learn as you use and use as you learn* (Costa-Rau, 2016; De la Barra et al., 2018). Therefore, there would seem to be no particularly logical reason for a student to prefer to study a subject in a foreign language when the mere ability to communicate in a foreign language is the most important skill. Finally, many higher education institutions might find themselves under pressure to offer subjects in English, and the teaching might not be carefully selected (Lasagabaster & Doiz, 2021). This is one of the most problematic issues, O'Dowd (2018) concluded after conducting a study of 70 European universities.

6. Insight into research on language in a CLIL higher education context

Research on CLIL has mainly focussed on primary and secondary education. However, the recent implementation of CLIL in higher education provides a considerable domain for language research. Since my prior interest concerns language development in CLIL, the current chapter is devoted to language research rather than content research.

CLIL programmes in higher education have been popular mainly in European countries, but today they are spreading all over the world and

are being introduced in both Asia and Latin America (Marsh et al., 2015; Pérez Cañado, 2012; Smit & Dafouz, 2012). Research on CLIL in higher education shows that it mainly focusses on language learning, language proficiency and the students' perceptions. Other studies focus on language teaching, CLIL methodology, teacher training and CLIL programmes.

Hewitt (2011) investigated the language proficiency of CLIL students. He examined 31 Spanish-speaking university students who were elective bilinguals and were asked to complete one background questionnaire and four psychometric tests. The study demonstrated that CLIL significantly improves language proficiency and supports content knowledge acquisition. Furthermore, Carloni (2012) and Watanabe (2013) examined the development of academic language and content-specific vocabulary, identifying them as key factors to achieve success in language and content learning. Jackson (2012) examined the effectiveness of CLIL combined with genre process writing at enhancing the writing skills of students. The results showed a greater reduction in the number and types of grammatical mistakes in the test group compared to the control group. The CLIL students were more successful in terms of writing. Another study conducted by Chostelidou and Griva (2014), with the aim of measuring the development of reading skills and the mastery of subject-specific content in L2, indicated that 'the performance of the experimental group in terms of both reading skills and content knowledge was higher than the performance of the control group' (p. 2173). Hellekjaer (2010), on the other hand, examined listening comprehension and the difficulties learners encounter when listening to lectures, both in English and in L1. The results showed that

students encountered more problems when listening to lectures in English; they had problems distinguishing the meaning of words, unfamiliar vocabulary and taking notes while listening to lectures. However, the difficulties the students experienced might not be connected with the language skills but with the teacher competence in a foreign language. (pp. 249–250)

Many studies explored the issues of pragmatic competence in the context of CLIL in higher education. CLIL researchers argue that when the target language is used as the medium of instruction, acquisition takes place naturally and the ability to communicate appropriately through that language develops more easily than in formal language teaching (Dalton-Puffer & Nikula, 2006; Llinares & Pastrana, 2013; Maillat, 2010; Naashat Sobhy, 2015; Nikula, 2008). Several studies focussed on the role that the first language plays in professors' and learner's discourse. Braga Riera and Dominguez Romero (2010) investigated the role of first language and translation as tools in CLIL lectures. The study showed that 'the university teachers, while teaching in English, use lexical items and grammatical structures which resemble the items existing in their L1 (language clagues)' (pp. 9–10). Moreover, Dafouz Milne and Núñez Perucha (2010) and Thogersen (2013) investigated the stylistic differences and metadiscursive devices that CLIL teachers used in their L1 and L2. The results in both cases showed that the lectures in English were more formal than the lectures in L1, and that the language used was not very natural. Additionally, Dafouz-Milne and Sánchez-García (2013) focussed on teacher discourse in general and investigated how teacher questions used in three different disciplines (business, physics and engineering) become tools for encouraging classroom discussion, promoting interaction and co-constructing meanings. The authors concluded that 'questions are indeed used in English medium instruction lectures and that the most recurrently used by all three teachers and disciplines are, in identical order, confirmation checks, followed by self-answered questions and display question' (Dafouz-Milne & Sánchez-García, 2013, p. 144).

The above-mentioned research shows that CLIL has potential and many benefits in terms of language learning. Moreover, it fosters the acquisition of foreign language competence and develops higher-order thinking skills. However, among the benefits of CLIL in higher education, it is very important to examine the challenges that teachers and higher education institutions face when implementing this approach (Fajardo Dack et al., 2020).

7. Conclusion

The main aim of the article was to provide a brief description of CLIL in higher education, starting from a clear explanation of the terms CLIL and EMI, which are often used when discussing bilingual education. An attempt was made to discuss various CLIL modules used in higher education and special CLIL pedagogy based on a constructivist, cognitive and communicative approach. Additionally, the numerous benefits and challenges of CLIL in higher education were presented. Finally, the article finished with a brief insight into research on language in CLIL higher education. At this point, it is essential to emphasise that the article represents only a summary of the research that I found to be most relevant, as the research on CLIL in higher education is diverse and difficult to describe within a few pages.

To conclude, research in higher education shows that CLIL is a successful approach (Aiello et al., 2015; McDougald & Álvarez, 2020; González & Andrés, 2018; Hashimoto & Glasgow, 2019; Klimová, 2012) and an efficient way of learning both content and language at the same time. Each approach has its drawbacks, which I strongly believe should be addressed, as there will be an inevitable increase in demand of high quality teaching in English, especially because it has become a lingua franca and is needed in most professions.

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Teacher's Age and Experience as a Modifying Factor in the Readiness For and Method of Intervention with a Student at Risk of Psychoactive Drugs

(pp. 275–294)

Abstract

This article deals with teacher interventions in crisis situations regarding a direct threat of students using psychoactive drugs on school premises, particularly in the difficult period of adolescence: 12–16 years of age. The focus of the research was on teacher interventions in situations where students are threatened by psychoactive substances. The research problem was whether the age and experience of the teacher were determinants of such an intervention. It investigated the relevance that a teacher's age and experience have on their attitude and manner of intervening on behalf of a student when there is an imminent threat from psychoactive substances. The research investigated the importance of a teacher's age and work experience in their attitude and the manner in which they intervene. It was carried out from 2017 to 2019 among teachers at middle schools in Bielsko-Biala, using the diagnostic survey method and a questionnaire. Statistical analysis of the results showed no statistically significant difference in teachers' declarations of readiness for intervention. Regardless of age and tenure, the respondents declared a high readiness to intervene. On the other hand,

there were statistically significant differences according to the teachers' age and seniority in how the intervention was carried out. Teachers from different age and seniority groups (defined by a specific length of service) more often or less often took some of the actions envisaged in the intervention procedure. Thus, it is feasible to speak of a readiness, or lack thereof, to take certain intervention actions.

Keywords: teacher intervention, psychoactive drugs, teacher seniority, teachers' age, school intervention procedures, readiness for intervention

Introduction

Adolescence is a time of intense development on many levels. During this time, a young person is very open cognitively, but does not yet have the critical judgment that one attains with maturity. This open-mindedness – and at times naivety – results in adolescents readily exposing themselves to difficulties and sometimes dangers. Experimenting with psychoactive drugs¹ is one of the most serious dangers.

The psychic sphere, the world of emotions, new cognitive sensations and altered states of consciousness are of particular interest to young people during adolescence. Psychoactive substances generate interest to explore these areas, phenomena and experiences. In addition, some of them are advertised as aids to learning, others as sources of unusual sensations or relief from the difficulties they experience. Young people turn to drugs, 'legal highs' and intoxicating drugs in clubs, at home and sometimes at school.

One of the most important issues in the protection and support of students facing the threat posed by psychoactive substances is the attitude

¹ Drug, intoxicant and legal high are terms used in everyday speech; in medicine and psychology the term psychoactive substances is used. These are agents that affect the central nervous system, mental and cognitive processes, self-esteem, mood and emotions and cause changes in the perception and evaluation of external stimuli. They change one's state of consciousness and, consequently, also affect behaviours (Woronowicz, 2003, p. 7; Szukalski, 2005, p. 3).

and conduct of teachers. Central to this is their handling of the crisis situation wherein a student is under the influence or in possession of psychoactive substances (Morbiter, 2020). Teachers know how difficult this problem is. The suspicion that a student has or is under the influence of psychoactive substances is a subjective assessment and it becomes the basis for a teacher's decision to intervene. The intervening teacher comes into conflict with the student themselves, often also with their parents and guardians and sometimes with the school authorities. Headmasters are not always willing to go to the police, although they are obliged to inform them when drugs are found on school grounds. Schools are required to develop their own educational and preventive programmes and intervention procedures (Barabas, 2022, pp. 134–135; Macander, 2016). The procedures are legitimised by existing legal regulations.²

The interventions of teachers following the threat of students being exposed to psychoactive drugs were examined during a research project carried out in the middle schools of Bielsko-Biala between 2017 and 2019, as part of a doctoral thesis.³ The subject of the research was the intervention behaviour of teachers in such situations. The first phase of the research used a quantitative strategy with a diagnostic survey method.

The research group consisted of lower secondary school teachers. The aim was to target teachers of adolescents, who are particularly prone to engaging in high-risk behaviour. During the design and first stage of the research, this group included middle school students, i.e. adolescents, aged 12–16 years, in the so-called dynamic phase of adolescence (Obuchowska, 2000, p. 169). Although the education system in Poland has

² The Regulation of the Ministry of Education of January 22, 2018. on the scope and forms of educational, educational, informational, and preventive activities in schools and institutions of the educational system to counteract drug addiction (Journal of Laws of 20188, item 214); Macander, 2021.

³ The article was based on research material collected for the doctoral thesis of Roman Waluś – 'Postępowanie nauczyciele w sytuacji zagrożenia uczniów środkami psychoaktywnymi na terenie szkoły - na podstawie badań szkół gimnazjalnych w Bielsku-Białej' (Jesuit University Ignatianum, Krakow, 2022) – written under the direction of Dr hab. Renata Jasnos and Dr Krzysztof Biel (associate supervisor). This paper includes an in-depth analysis of selected parts of the research.

been reformed and middle schools have been gradually abolished, with the eight-year primary school being reinstated (Ustawa z dnia 14 grudnia 2016 r. – Prawo oświatowe, 2016), the research is still valid, as it focussed on the intervention actions of teachers towards students of a certain age. The conclusions and postulates of the research can be applied to the older grades of primary schools and partially to high schools. The study included teachers of all 22 middle schools operating in Bielsko-Biała (as of May 2016). It was assumed that the respondents should be employed full-time and should have at least two years of seniority in the profession. Nearly 400 surveys were forwarded to all the teachers who met these criteria. Out of those returned and completed, 202 complete questionnaires were selected.

The research addressed what measures are taken by middle school teachers when there is a risk of students being exposed to psychoactive drugs. This included both prevention and the intervention itself when a student is in a situation of immediate danger.⁴ The extensive research material uncovered a whole range of problems and difficulties, as well as the determinants of effective intervention. The Chi-square test and Fisher's exact test were used in selected cases during the statistical analysis.

An important factor that was studied was the seniority and age of the teachers. As a part of the research objectives, two hypotheses were set for verification. The first hypothesis was that there is a relationship between a teacher's age and their willingness to intervene in a student's risky behaviour. The second hypothesis assumed that an analogous relationship applies to seniority in school.

The respondents were divided into age groups: up to 40, 41–50 and over 50 years old. They were also divided into groups based on their length of service: up to 7, 8–15 16–25 and over 25 years of service. The hypotheses were partially confirmed. As the study showed, there were no statistically significant differences regarding the teachers' self-reported readiness

⁴ The assessment that there is an imminent threat to a student from psychoactive drugs is based on a reasonable suspicion that the student is either under the influence or in possession of them. The study looked at students with drugs and 'legal highs', medications and other chemical substances taken for intoxication, while psychoactive drugs such as alcohol and nicotine were not considered.

to intervene related to age or seniority. A willingness to intervene was declared by 90.1% of all respondents. While there were differences among age groups, they were not statistically significant. In situations requiring intervention, teachers from the 50+ age group were slightly less determined (determined – 83.8%, indecisive – 16.3%). Meanwhile, teachers in the 41–50 age range were more determined (determined – 95%, indecisive – 5%). As noted, however, these differences were not statistically significant.

Few respondents – only one in four teachers – had intervened with a student in possession or under the influence of psychoactive substances. Also, having such experience was not dependent on age or seniority. However, the hypotheses were partially confirmed. It appeared that the experience of the intervening teachers revealed differences in the type and scope of their actions within the intervention. These differences were dependent on age and seniority. This study addressed the relevance that a teacher's age and work experience have on their attitude and manner of intervening regarding psychoactive drugs. The detailed research material makes it possible to identify differences in how teachers intervene depending on their age and experience (seniority). Some differences were statistically significant, while others remain in the realm of hypotheses requiring further verification.

Intervention actions of teachers of different ages and seniority

In the event of a crisis on school grounds, teachers are obliged to follow relevant procedures. Such procedures are developed by the school as part of the strategy of educational, preventive and intervention activities. The intervention of a teacher when a student is in contact with psychoactive drugs requires a series of actions.

1. Intervention with a student suspected of possessing psychoactive substances

The procedure for intervention against a student suspected of possessing a psychoactive substance on school premises involves a series of

actions: isolating (or attempting to isolate) the student, requesting that they hand over the suspected substance, requesting that they show the contents of their pocket/backpack, securing the substance, notifying the school authorities, handing over the suspected substance to the school authorities, determining (or attempting to determine) how and from whom the student acquired/received the substance, calling the police and documenting the incident (preparing a report). As part of the study, questions were asked about these actions, whether they were taken and how effective they were.

1a. Differences in intervention actions related to the age of teachers

The experience of intervening with a student suspected of possessing psychoactive substances (on school grounds) is an individual issue. As the research showed, there are certain differences in the way of intervening, although the actions should be carried out following an outlined procedure which calls for a series of specific actions.

In relation to the specific age groups of the respondents (up to 40, 41–50 and over 50 years of age), there were statistically significant differences ($p < 0.05$) concerning several activities. Younger teachers, up to 40 years of age, notified the authorities less often (only 62.5% of the interveners in this group; in the other groups it was 100% and 87.5%). In addition, the respondents often refrained from notifying the student's parents or guardians. Only one in four interveners chose to do so (in the other age groups it was 68.8% and 62.5%). These differences were statistically significant ($p < 0.05$).

Teachers aged 41–50 were more likely to act. Significantly, they did not have the negative experience of a student refusing when trying to isolate them, when demanding the substance or when determining how the student came into possession of it. While there are statistically insignificant differences here, these differences consistently recur. They relate to successfully demanding the substance be handed over, successfully demanding to see the contents of the backpack and pockets, handing over the substance to the school authorities and calling the police.

One in four teachers in the oldest age group were ineffective in isolating the student ('I tried to isolate the student, the student refused to go to another room' – 25% of interveners over 50). The other age groups did not report an ineffective attempt to isolate a student. Older teachers also made ineffective attempts to determine how and from whom the student received the substance, with almost one in three interveners in this group having this experience. These differences were statistically significant ($p < 0.05$).

Table 1. Selected actions taken as part of an intervention with a student in possession of a psychoactive substance, by age group

Intervention action		Teacher's age			Test result
		up to 40 years	41–50 years	Over 50 years	
I isolated the student.	N	11	12	10	$\chi^2 = 0.582$ $df = 2$ $p = 0.748$
	%	68.8%	75.0%	62.5%	
I tried to isolate the student; the student refused to go to another room.	N	0	0	4	$p = 0.028^*$
	%	0.0%	0.0%	25.0%	
I requested the substance be handed over; the student handed over the substance.	N	5	7	4	$\chi^2 = 1.313$ $df = 2$ $p = 0.519$
	%	31.3%	43.8%	25.0%	
I demanded the substance be handed over; the student showed the contents of their backpack/pocket; the substance was not found.	N	2	5	2	$p = 0.458$
	%	12.5%	31.3%	12.5%	
I notified the school authorities.	N	10	16	14	$p = 0.018^*$
	%	62.5%	100.0%	87.5%	
I handed over the suspicious substance to the school authorities.	N	6	8	5	$\chi^2 = 1.220$ $df = 2$ $p = 0.543$
	%	37.5%	50.0%	31.3%	
I determined how and from whom the student acquired/obtained the substance.	N	2	5	4	$p = 0.572$
	%	12.5%	31.3%	25.0%	
I tried to determine how and from whom the student acquired/obtained the substance; the student refused to provide the information.	N	1	0	5	$p = 0.036^*$
	%	6.3%	0.0%	31.3%	

I called the police.	N	2	5	2	$p = 0.458$
	%	12.5%	31.3%	12.5%	
I notified the student's parents/legal guardians.	N	4	11	10	$\chi^2 = 7.179$ $df = 2$ $p = 0.028^*$
	%	25.0%	68.8%	62.5%	
I documented the incident (prepared and handed in a report).	N	7	4	10	$\chi^2 = 4.571$ $df = 2$ $p = 0.102$
	%	43.8%	25.0%	62.5%	

p – significance; χ^2 – test statistics; df – degrees of freedom; * $p < 0.05$.

1b. Differences in intervention actions related to the seniority of teachers

Several differences were found between teachers' seniority and particular activities within the intervention procedure. The participants were divided into four seniority groups (up to 7, 8–15, 16–25 and more than 25 years of service). The teachers with the shortest tenure were less likely to take the action of isolating a student. Only 40% of interveners in this seniority group declared effectively taking this action (73.3%, 66.7% and 80% in the other groups).

The teachers working in the profession for 8 to 15 years did not significantly distinguish themselves from the other seniority groups in terms of intervening on behalf of a student in possession of psychoactive substances. More experienced teachers, having worked in schools for 16 to 25 years, when aiming to take away a dangerous substance from a student more often demanded that the student show their personal belongings, with the student complying (40%, a statistically significant difference). In addition, in the same group, the action of taking the substance was more often effective ('I demanded the substance; the student handed over the substance' – 46.7%), although in this case, the difference was not statistically significant. Moreover, teachers in this group more often documented the incident (60% equally with the group of the most experienced teachers – a statistically significant difference).

Teachers with the longest tenure in the profession, exceeding 25 years, as well as those in the oldest age group, were distinguished by their low

effectiveness in intervening with a student in possession of psychoactive substances. Most often, they made an ineffective attempt to isolate the student (40%, a statistically significant difference). In addition, they were the least successful in getting students to hand over the substance (12.5%), and were more often unsuccessful at finding out where the student had obtained the substance (31.3%, although the differences were not statistically significant). Furthermore, no-one in this group informed the police (a statistically significant difference), as required by protocol (in the other seniority groups, this action was taken by 40%, 20% and 26.7%, respectively). In contrast, 60% of the respondents with the longest seniority documented the incidents by making and handing in a report (the difference between the two younger seniority groups was statistically significant).

Table 2. Selected actions taken as part of an intervention against a student in possession of a psychoactive agent, by seniority

Intervention action		Seniority of the teacher				Test result
		up to 7 years	8–15 years	16–25 years	over 25 years	
I isolated the student.	N	6	11	10	12	$\chi^2 = 6.081$ $df = 3$ $p = 0.108$
	%	40.0%	73.3%	66.7%	80.0%	
I tried to isolate the student; the student refused to go to another room.	N	0	0	0	6	$p < 0.001^{***}$
	%	0.0%	0.0%	0.0%	40.0%	
I requested that they hand over the substance; the student handed over the substance.	N	6	4	7	2	$p = 0.162$
	%	40.0%	26.7%	46.7%	12.5%	
I demanded the substance be handed over; the student showed me the contents of their backpack and pocket; the substance was not found.	N	0	1	6	2	$p = 0.016^*$
	%	0.0%	6.7%	40.0%	12.5%	
I secured the substance.	N	9	5	8	12	$\chi^2 = 6.787$ $df = 3$ $p = 0.079$
	%	60.0%	33.3%	53.3%	80.0%	
I notified the school authorities.	N	12	11	13	14	$p = 0.760$
	%	80.0%	73.3%	86.7%	87.5%	

I handed over the suspicious substance to school authorities.	N	6	5	7	5	$\chi^2 = 0.952$ $df = 3$ $p = 0.813$
	%	40.0%	33.3%	46.7%	31.3%	
I determined how and from whom the student acquired/obtained the substance.	N	3	3	5	3	$p = 0.867$
	%	20.0%	20.0%	33.3%	20.0%	
I tried to determine how and from whom the student acquired/obtained the substance; the student refused to provide the information.	N	0	1	2	5	$p = 0.064$
	%	0.0%	6.7%	13.3%	31.3%	
I called the police.	N	6	3	4	0	$p = 0.043^*$
	%	40.0%	20.0%	26.7%	0.0%	
I notified the student's parent/legal guardians.	N	6	4	10	9	$\chi^2 = 6.073$ $df = 3$ $p = 0.108$
	%	40.0%	26.7%	66.7%	60.0%	
I documented the incident (prepared and handed in a report).	N	0	5	9	9	$\chi^2 = 15.441$ $df = 3$ $p = 0.001^{**}$
	%	0.0%	33.3%	60.0%	60.0%	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

2. Intervention against a student under the influence of psychoactive substances

The procedure for intervening when a student shows symptoms of having taken a psychoactive substance on school premises is more difficult because of the danger to the student's health and their unpredictable behaviour under the influence of the drug. The intervention procedure calls for a series of analogous actions, extended by medical measures. It consists of isolating the student (attempting to isolate), administering first aid, calling an ambulance, determining (attempting to determine) what substance the student took, when and in what quantity, determining (attempting to determine) how and from whom the student acquired the substance, notifying the school authorities, calling the police, notifying parents/guardians and documenting the incident (preparing a report and handing it in to the authorities). The survey asked about these actions, whether they were taken and their effectiveness.

2a. Differences in intervention actions related to the age of teachers

Younger teachers, up to 40 years old, were the least likely to isolate a student (38.5%), provide first aid (0%) and inform the school authorities (53.8%) or the student's parents/guardians (38.5%). These differences were statistically significant ($p < 0.05$). Furthermore, several other differences were observed, which, although not statistically significant, are consistent with these measures: they did not determine where the student had received the substance from (0%) and they called the police less often (15.4% vs 53.8% and 46.2% in the other age groups). Positive differences in the actions of the younger teachers concerned calling an ambulance (53.8% vs 30.8% and 23.1%) and determining what the student had taken and in what amount (30.8%). However, these differences were not statistically significant.

Teachers between the ages of 41 and 50 more often isolated the student (92.3% vs 38.5% and 53.8%) and notified the school authorities (100%). Moreover, similarly to the oldest age group, they were more likely to notify the parents/guardians (84.6%). Among the statistically insignificant differences in this age group, the teachers were least likely to successfully determine what the student had consumed and in what amount (7.7%) and were most likely to make an ineffective attempt to do so (38.5%). However, they were more successful (than other groups) in determining how the student had acquired the substance (30.8%). They called the police most frequently (53.8%).

Teachers in the oldest age group, those over 50, were distinguished by the greatest empathy. In fact, they were the most likely to take first-aid measures (38.5% vs 0% and 15.4%). Similarly, they were more likely to notify the student's parents/guardians (84.6%), similarly to the average age group. These differences were statistically significant ($p < 0.05$).

Table 3. Selected actions taken in an intervention against a student under the influence of a psychoactive drug, by age group

Intervention action		Teacher's age			Test result
		up to 40 years	41–50 years	Over 50 years	
I isolated the student.	N	5	12	7	$\chi^2 = 8.450$ $df = 2$ $p = 0.015^*$
	%	38.5%	92.3%	53.8%	
I gave first aid.	N	0	2	5	$p = 0.048^*$
	%	0.0%	15.4%	38.5%	
I called an ambulance.	N	7	4	3	$p = 0.339$
	%	53.8%	30.8%	23.1%	
I determined what substance the student had taken, when and in what quantity.	N	4	1	3	$p = 0.477$
	%	30.8%	7.7%	23.1%	
I tried to determine what substance the student had taken, when and in what quantity; the student refused to provide information.	N	1	5	4	$p = 0.265$
	%	7.7%	38.5%	30.8%	
I determined how and from whom the student acquired the substance.	N	0	4	1	$p = 0.104$
	%	0.0%	30.8%	7.7%	
I notified the school authorities.	N	7	13	10	$p = 0.022^*$
	%	53.8%	100.0%	76.9%	
I called the police.	N	2	7	6	$\chi^2 = 4.550$ $df = 2$ $p = 0.103$
	%	15.4%	53.8%	46.2%	
I notified the student's parents/guardians.	N	5	11	11	$p = 0.022^*$
	%	38.5%	84.6%	84.6%	
I documented the event (prepared and handed in a report).	N	7	8	9	$\chi^2 = 0.650$ $df = 2$ $p = 0.723$
	%	53.8%	61.5%	69.2%	

* $p < 0.05$.

2b. Differences in intervention actions related to teachers' seniority

Teachers with the shortest seniority, as with the seniority group of between 8 and 15 years, did not provide first aid (0%) and were less likely to call an ambulance, with only 16.7% having done so. Moreover, taking two actions together, that is, determining what substance the student had taken and in what amount (16.7%) or failing to determine this (0%), the youngest seniority group showed a significant negative difference. In contrast, everyone in this seniority group notified the student's parents/guardians of the situation.

Teachers with 8–15 years of seniority, like the group with shorter seniority, did not provide first aid, but 75% of them called an ambulance. These differences were statistically significant ($p < 0.05$). This group was the least likely to call the police (15.4% vs 58.3%, 59% and 41.7%) and the least likely to notify parents/guardians (25% vs 100%, 58.3% and 100%).

The teachers with work experience of 16–25 years were more effective in determining what the student had taken, but the difference was not statistically significant. Moreover, as with the youngest seniority group, they rarely called for an ambulance (16.7%), but one in four of them did provide first aid.

The most experienced teachers, with a seniority of more than 25 years, most often provided first aid to the student (41.7%). They were also most likely to try, albeit unsuccessfully, to determine what substance the student had taken (41.7%). These differences were statistically significant ($p < 0.05$). They also most often determined what the student had taken (33.3%). Although this difference was not statistically significant, it is related to the previous one. They also notified the parents/guardians about the situation (100%).

Table 4. Selected actions taken as part of an intervention against a student under the influence of a psychoactive drug, by seniority

Interventionactivities		Seniority of the teacher				Test result
		up to 7 years	8–15 years	16–25 years	over 25 years	
I isolated the student.	N	5	8	7	8	$\chi^2 = 1.728$ $df = 3$ $p = 0.631$
	%	41.7%	61.5%	58.3%	66.7%	
I provided first aid.	N	0	0	3	5	$p = 0.012^*$
	%	0.0%	0.0%	25.0%	41.7%	
I called an ambulance.	N	2	9	2	4	$p = 0.011^*$
	%	16.7%	75.0%	16.7%	33.3%	
I determined what substance the student had taken, when and in what quantity.	N	2	3	1	4	$p = 0.641$
	%	16.7%	25.0%	8.3%	33.3%	
I tried to determine what substance the student had taken, when and in what quantity; the student refused to provide information.	N	0	2	4	5	$p = 0.047^*$
	%	0.0%	15.4%	33.3%	41.7%	
I determined how and from whom the student acquired the substance.	N	0	0	3	1	$p = 0.173$
	%	0.0%	0.0%	25.0%	8.3%	
I tried to determine how and from whom the student acquired the substance; the student refused to provide information.	N	2	0	2	1	$p = 0.734$
	%	16.7%	0.0%	16.7%	8.3%	
I notified the school authorities.	N	10	9	9	10	$p = 1.000$
	%	83.3%	75.0%	75.0%	83.3%	
I called the police.	N	7	2	6	5	$p = 0.144$
	%	58.3%	15.4%	50.0%	41.7%	
I notified the student's parents/guardians.	N	12	3	7	12	$p < 0.001^{***}$
	%	100.0%	25.0%	58.3%	100.0%	
I documented the event (prepared and handed in a report).	N	10	6	6	10	$p = 0.113$
	%	83.3%	50.0%	50.0%	83.3%	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Summary

Age and seniority are significant in the attitude and actions of a teacher who learns that a student possesses a psychoactive substance or recognises the symptoms of drug use in them. Younger teachers, aged up to 40, were distinguished by their reluctance to report the situation and to notify both the school authorities and the student's parents/guardians. This may have been due to greater openness and tolerance towards students and their behaviour. They were more likely to carry out the intervention without many of the required procedural steps – isolating the student or providing first aid – but more likely to call for an ambulance. We can assume that they were willing to help the student, although they did not get directly involved. Moreover, the respondents in this group found out what the student had taken, but did not determine where they had got it from. There are inconsistencies in these actions.

It can be assumed that the age group of up to 40 years overlaps to some extent with the two seniority groups: up to 7 and 8–15 years. Teachers with the shortest seniority were noticeably less likely to isolate a student, administer first aid, call an ambulance and attempt to determine what the student had taken. A statistically significant difference was that they all informed the parents/guardians. Besides that, they were not distinguished in other activities. This group displayed greater involvement and independence. Teachers with 8–15 years of seniority did not differ from the other seniority groups when intervening against a student in possession of a suspicious substance. When intervening against a student under the influence of a psychoactive substance, like the youngest seniority group, they did not provide first aid, but were more likely to call emergency services. Less often than the other groups, they notified parents/guardians and called the police.

The teachers aged 41–50 were the most effective in action and the most loyal to the school authorities, especially in the case of an 'easier' intervention, against students in possession of psychoactive substances. They were better able to effectively isolate the student, demand the release of the substance and determine how the student came into possession

of it. They always notified the school authorities and more often notified parents and the police. However, they had trouble determining what the students had taken.

The most experienced teachers, with a seniority of 16–25 years, overlapped to some extent with the 41–50 age group. This group was more determined, consistent and effective in its actions. They were more likely to demand to see the contents of the student's personal belongings, to have the substance handed over, to determine what the student had taken and to document the incident. One can see the experience and effectiveness aimed at neutralising the threat. Furthermore, they called an ambulance less often, but some provided first aid. Perhaps routine and their assessment of whether the student was at risk weighed in.

The oldest teachers, aged over 50, were distinguished by their inefficiency in action. They had trouble isolating the students and discovering where the psychoactive substances had come from. On the other hand, they were the most personally involved and were most likely to take first aid measures themselves. Moreover, like the middle-aged group, they were more likely to notify the student's guardians.

The teachers with the longest tenure, over 25 years, were also the oldest teachers. To the characteristics of the over-50 age group, we can add two actions which distinguished the respondents in this seniority group: they did not inform the police, but were more likely to submit a documented report to the school authorities.

Conclusion

This study has shown that teachers at different stages of life and with different amounts of professional experience intervene with students in slightly different ways. It can be concluded that age and professional seniority influence the readiness to undertake certain intervention actions, and therefore the way it is implemented. It is possible to characterise the actions and motives of the different age and seniority groups. Unfortunately, neither the Polish nor foreign literature contain similar studies on

the activities of a teacher when intervening with a student under the influence or in possession of psychoactive drugs. Therefore, it is not possible to compare the results with other studies.

The younger and less experienced are more open-minded and more tolerant towards young people. It seems that they are also less confident in their skills, which they do not test 'unnecessarily'. When they consider it important, they can be creative and effective, such as determining what a student has taken.

The teachers with some work experience (8–15 years) were not distinguished by their actions, either positively or negatively. Teachers in the 41–50 age group and with a seniority of 16–25 years were effective in their actions and loyal to their superiors. It is difficult to say whether this goes hand in hand with having an in-depth relationship with the student as a basis for educational influence (Porzak, 2004). It might be surprising that they are very effective when intervening with a student in possession of a psychoactive substance; meanwhile, when intervening with a student under the influence, they have trouble determining what the student has taken. On the other hand, they excel at informing the school authorities, parents/guardians and police about the situation.

The oldest teachers, with the longest seniority, were not very effective at such intervention actions as isolating the student and demanding the substance be handed over. On the other hand, they were the most caring and empathetic. Not only did they provide first aid to the students, but they most often took it upon themselves to determine what the students had taken. Their intention is likely to assess the harmfulness of the ingested drug and to direct assistance.

Although all the respondents generally declared a readiness to intervene when students face certain dangers, the differences shown in following procedures show that they do not readily carry out every action in the protocol.

The research provides a basis for distinguishing one group of teachers in relation to intervention: teachers who are more effective and loyal to their superiors. From the perspective of school authorities, this is probably the most desirable group. However, does effectively isolating students and

removing banned substances equate to effective interventions from the point of view of the educational process? The extremely difficult activity of intervention must go hand in hand with supporting a student who finds themselves in a critical situation. Meanwhile, in many schools, existing educational and preventive programmes and intervention procedures are not sufficiently integrated. Intervention is often only a temporary solution to the crisis, one that comes with a deterioration of the relationship with the intervening teacher.

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Educational Potential of the Child's Out-of-School Experiences in the Opinion of Early Education Teachers

(pp. 295–316)

Abstract

In this article, research based on a qualitative strategy is used to synthesize the beliefs of early education teachers about children's out-of-school experiences and the need or possibility of using them in early childhood education. The aim of the research was to establish teachers' ways of thinking about the features of children's out-of-school experiences and their value in the school-based learning process. It also investigated the importance that the respondents attach to children's out-of-school experiences in the context of constructing knowledge during classes. Studying teachers' conceptualization of this area is very important due to their relationship with school practice – more specifically, because they design the didactic and educational situations aimed at integrating children's out-of-school experiences with the knowledge and experiences at school. The experiences gained in the extremely complex and dynamic contemporary space of a child's life are an important source of their knowledge and the basis of learning. In the course of the research, the following research questions were probed: What characteristics do teachers attribute to the out-of-school experiences of children at early school age? What conditions, if any, do teachers create in the classroom for children to compare the experiences they gain in the everyday space of life with their school knowledge? Due to the interpretative approach adopted in the qualitative research,

the method of individual open interview was used, as it reveals what the respondents think about reality and not what the researcher thinks about it, looking to confirm their own theses. The interviews were conducted with early childhood education teachers directly by the researcher from November 2019 to February 2020. The analysis of the individual interviews helped identify the constitutive features of children's out-of-school experiences. Although the teachers were aware of the continuity, multiplicity, transformation, and integrity of children's out-of-school experiences, in their statements they expressed caution about using them in education at school due to their "imperfection." The teachers' way of thinking about the role of out-of-school experiences in the education of a child and, consequently, in school practice, requires change.

Keywords: early school age child, out-of-school experiences, constructing knowledge, teachers' beliefs

Introduction

In the face of multiple transformations in the social and cultural space of human functioning, education ceases to be an activity that is separate from life and becomes an integral part of it (Bagnall, 1994; Gunguz & Hursen, 2015; Malewski, 2010). Everyday life becomes a synonym of the synergy of experience, reflection, and knowledge that stems from them. There is an interpretative change in the understanding of the practice of education and upbringing, as well as the meanings that are given to these processes. The dominant perspective in learning about the essence of the learning process is to perceive it as an integral element of the everyday world of life, as a natural activity integrally connected with other everyday human activities (Rogers, 2003; Meighan, 2005). Thus, an important issue that sets the framework for the search for educational potential in various areas of human activity is connecting the learning process with the everyday world of an individual's life (Aittola, 1998; Romi & Schmida, 2009). Everyday life is a source of multiple experiences embedded in various contexts of human existence. Experiencing events in

everyday situations is associated with facing new challenges and with what is part of the permanent changes of contemporary reality.

As a result of the development of civilization, the emergence of new forms of participation in sociocultural life and widespread access to information, the space of a modern child's life is changing; new spheres of their experiences are therefore emerging. When characterizing the space of a child's life, Barbara Dudel and Małgorzata Głoskowska-Sołdatow (2009) emphasize that it is a "space" experienced by them "in the physical (sensual) and cultural (related to symbolizing) dimensions – a space which it gives meaning in relation to situational conditions" (p. 174). In this space of life, the process of learning takes place, understood as "the acquisition and transformation of various types of experiences – cognitive, social, but also life experiences related to one's own biography, including various types of situations that are the place of events, meetings, and dialogues with others, as well as practical experiences. On the basis of such experiences, knowledge about oneself, the world and one's relations with it is constructed" (Uszyńska-Jarmoc, 2009, p. 123). Each individual experiences and remembers a certain situation differently. Therefore, it is the individual dimension of experiences, in addition to the personal characteristics of the individual and sociocultural conditions, that determine the individualized path of the child's passage through the "developmental labyrinth" (Nelson, 2007, p. 241).

The fundamental change in the child's subjective status, raised within the contemporary developmental discourse, is the perception of the child as the subject of experience and its reconstruction, as a result of which the child builds their individuality, knowledge, system of values, standards, management functions, competences, etc. (Bałachowicz & Witkowska-Tomaszewska, 2015). In pedagogical reflection, especially in light of contemporary children's sociology (Corsaro, 2015) and sociocultural discourse, the concept of the child as an active participant in social life, and not a passive object of external influences, is highlighted today. A child perceived in this way constructs knowledge through spontaneous activity in the multidimensional space of life, active participation in the life of social groups, and through purposeful, planned activities on their

own and their social environment. Learning, which is informal and incidental, plays a key role in this process. A child's daily experiences are important and decisive for their development and personality formation, as well as for their perception of the world and attaching meanings to it.

As Krystyna Ablewicz (1997) claims, "the space of a person's life is marked by his experience in terms of both area and meanings, and the knowledge derived from experience is primary and fundamental to knowledge acquired scientifically, systematically, and methodically" (pp. 22–23). The direct experiences of a child – which are part of their emotional states and sensory cognition – the experiences that other people describe based on their own experiences, and verbal messages – or their secondary interpretations transmitted through the media, for example – constitute the intellectual and social capital of a child. In out-of-school, everyday experiences and interactions, people get to know each other and evaluate the quality of their knowledge mostly on the basis of cooperation, joint learning, and family and social coexistence (Pieter, 1993). Learning understood in this way involves all spheres of the child's personality, because experience – according to Knoud Illeris (2006) – basically covers all aspects of learning, both internal mental processes and processes of social interactions, both cognitive and emotional aspects. The learning process, analyzed in terms of cognition, emotions, and the social dimension, takes place within formal, non-formal, and informal education, but in order for learning to be defined as being based on experience, several detailed qualitative criteria must be met (Illeris, 2006, pp. 164–165):

- a) Learning must be subjectively important to the individual, in cognitive, emotional, and social dimensions.
- b) It is legitimate to talk about learning through experience only if a single event can be understood in the context of previous and future experiences (the principle of continuity).
- c) The process of interaction between the individual and the social and/or material environment must be of such a nature that the individual in a given situation is the subject, i.e. that they are not only present, but also self-aware.

- d) The formation of experience is always socially mediated; it requires a socially defined context.
- e) The environmental impact of the interaction process must reflect specific sociomaterial and/or social structures.

In the contemporary social and cultural reality, school has definitely ceased to be the only and most important source of knowledge and experiences for a child. Children, adolescents, and adults all learn and are raised to an increasing extent under the influence of the broader environment, in what Trempała (2011) calls the “non-school living space with great educational potential” (p. 96). One’s own experiences are the source of knowledge and the basis of human learning. Joanna Malinowska (2014) divides them into direct and indirect. Direct experiences are involved in emotional states and sense cognition. In this type of experience, the essential elements are the direct participation of the individual in the event, observation and contact with the object of cognition, and human exploration. In indirect experiences, on the other hand, intentional ways are important, including personal and transpersonal sources. The former is composed of accounts of other people from their own experiences and verbal messages, while the latter comes from interpretations created through other people, secondarily transmitted through the media, textbooks, etc. However, Malinowska considers the personal sources of discovery experienced by a child to be the most important source of cognition/learning.

In addition to the reality that is real, available to sensory experience, and understood as a system of real, objectively existing things, facts, people, and phenomena with which the child interacts directly in real time with the use of all their senses, virtual reality is increasingly becoming a source of subjective experiences, which provides new opportunities to act, participate in relationships with people and things, and to simulate and model the real world. In addition, new fields of subjective experience are also opened up by augmented reality, which is created by superimposing virtual information onto real objects. Being in an enlarged reality leaves a human being in a real dimension and in real time; it enriches

the real world without replacing it with an imaginary world (Czerepaniak-Walczak, 2011).

Due to the fact that out-of-school experiences are a source of knowledge for a child, simultaneously a condition and a development factor, it is absolutely necessary for a teacher to include them in the learning process at school. According to Jerome Bruner (2006), school is a source of knowledge and individual and social experiences for students and “what it actually teaches, what styles of thinking and what” speech registers “it develops in its students cannot be separated from the location of the school in life and the culture of its students” (p. 48). Otherwise, school is isolated and the children cannot construct their knowledge using everyday experiences gained outside of school. The research on school reality (e.g., Herrmann, 2009; Klus-Stańska, 2002; Nowicka, 2010; Sławińska, 2010; Nowak-Łojewska, 2011; Kuszak, 2011; Kochanowska, 2018) shows that a child’s considerable informal knowledge and large array of experiences gained in everyday life is not sufficiently utilized at school. It is overlooked that children can and are able to learn differently, at different paces, in various social relationships, and – above all – not in a directive, informative, unidirectional, and selective manner (Śliwerski, 2014).

In this article, research based on a qualitative strategy is used to synthesize the beliefs of early education teachers about the out-of-school experiences of children and their use in early childhood education. The teachers’ ways of thinking about the features of children’s out-of-school experiences and their value in the learning process at school are investigated. Studying teachers’ conceptualization of this area is very important due to their relationship with school practice – more specifically, because they design the didactic and educational situations aimed at integrating children’s out-of-school experiences with the knowledge and experiences at school.

Research Method and Procedure

One of the basic tasks of a teacher activating students in the educational process is to help them verify their personal ideas about the world by providing an opportunity to expand their experiences during the exchange of knowledge and individual understanding of phenomena and processes. In order to skillfully combine the experiences of children at school with those gained during non-formal and informal education, as well as with the experiences of their day-to-day existence in the world, the teacher must act as a supportive strategist who skillfully uses their students' intellectual, emotional, and social resources. Such a teacher gives the proper meaning to the child's knowledge by recognizing their preferences and ways of experiencing the world (Samborska, 2013).

Teachers' beliefs about children's out-of-school experiences determine their approach to using them in the process of constructing knowledge in school practice. Beliefs are commonly referred to as all the "mental" prerequisites about the world that the subject feels are real (Lemańska-Lewandowska, 2013, p. 15). The dictionary definition of a belief is "a judgment or opinion based on the belief that something is true or false; an established view of something; conviction, opinion" (Szymczak, 1979, p. 979). According to Magdalena Grochowalska (2012, p. 17), building beliefs is a process in which an individual aims to recreate hypotheses and theories that already function socially; their formulation in practice determines the subjective interpretation of educational reality. Research on beliefs allows one to describe the content that teachers ascribe to reality in education.

In order to determine what features early school education teachers attribute to children's out-of-school experiences and what they mean in the context of children constructing knowledge at school, qualitative research was carried out using individual, open-ended interviews. According to Earl Babbie (2008), an open-ended interview is "an interaction between the interviewer and the respondent. The interviewer has a general plan of action, but it is not a specific set of questions that should be asked in specific words and in a set order" (p. 342). The questions addressed to

the respondents were open-ended. Some of them were basic questions, such as "How do you assess the amount of experiences children acquire in the out-of-school space?" "What is their source?" "How do you assess their value and importance in the process of school education?" "Do you refer to them and under what conditions and in what situations?" The remaining questions were formulated in the course of the interview and were aimed at facilitating the respondents' thematization of their experiences.

Due to the interpretative paradigm adopted for the qualitative research, the study shows different ways that early school education teachers think about the features of children's out-of-school experiences and the declared ways of using them in their work with children in years 1–3 of primary school. For Neuman (1994),

the most important in the interpretative approach is the systematic analysis of social meanings created by people in their natural conditions of functioning, with a view to understanding and interpreting how people create and understand their world in which they function. (p. 62)

In an interpretative approach, words are data from the research on which the researcher's attention is focused. It is thanks to the statements of the respondents and their narratives that it is possible to gain insight into the meanings given by informants to the events in which they participate (Zwiernik, 2015).

The research material was collected by the author as part of a wider research project. The questions, addressed to 23 teachers working in the primary classes of primary schools in the provinces of Silesia and Lesser Poland, focused on the following research problems:

1. What features do the teachers attribute to children's out-of-school experiences?
2. Do the teachers create conditions in the classroom – in the declarative aspect – for children to compare the experiences they gain in

the everyday space of life with their school knowledge, and if so, what conditions?

The individual, open-ended interviews did not involve repetitive questions or a specific order to the issues. The interview method used allowed for interaction between the interviewer and the respondent. The interviewer followed an overall plan of action, but it was not a specific set of questions that should be asked in strictly defined words or a specific order (Babbie, 2008). As a result, the interview revealed what the respondents think about reality, and not what the researcher thinks about it, looking only to confirm their own theses. The research was conducted directly by the researcher from November 2019 to February 2020. The respondents were all women. As far as the work experience of the respondents is concerned, 8 teachers (34.78%) have worked in schools for no more than 10 years, 10 (43.48%) for between 11 and 20 years, and the remaining 5 teachers (21.74%) for over 20 years.

Presentation and Analysis of the Results

In line with the adopted research approach, the teachers' ways of understanding the phenomenon under study were analyzed by the researcher in terms of categories of description. They are "generalized and structured descriptions of understanding the phenomena present in the experience of the respondents" (Męczkowska, 2002, p. 18). The categories of description were selected by condensing topics that appeared while reading the answers of the respondents. Established description categories, on the other hand, constitute the result space and then may be subject to hierarchy – but not necessarily – resulting in the description category structure. It should be emphasized that these categories of description are always individual and collective at the same time, which means that the same statement may reflect various expressions of the same concept or different concepts (Jurgiel, 2009). Due to the interpretative paradigm used for the qualitative research, the research objective

was not to consider the topic in terms of quantity and multiplicity, which is characteristic of a quantitative approach, but at extracting the meanings and dimensions of out-of-school experiences of early school-aged children from the teachers' perspective.

The analysis of the collected statements of early childhood education teachers identified the following constitutive features of out-of-school experiences of children.

Continuity

According to the respondents, at every moment of their life a child is in the world of everyday experience, which can be a source of knowledge and values. From the first moments of their life, a child accumulates experience in the space available to them at a given developmental period. This was indicated in the following statements:

“Children spend time in different places, among people, constantly gaining experience at home, at school, at the playground They learn the world all the time.”

“Contemporary children are constantly ‘attacked’ by various stimuli and information, thanks to which they gain new experiences. The world today is so intense and is changing so quickly that the child is ‘doomed’ to gain new experiences every day and everywhere.”

They combine the continuity of experiences mainly with the dynamics and multidimensionality of the contemporary living space, which in a way forces the individual to be open to new experiences at every stage of life. Children constantly gain new experiences in everyday situations and through various forms of activity in the out-of-school life space.

Multiplicity

The respondents compared a child collecting out-of-school experiences to discovering the world. The child shows openness to new experiences and

learns about new objects, events, and processes through activities such as observation, exploration, experimentation, searching for and collecting information, solving problems, and asking questions. These activities – according to the respondents – are motivated internally, by curiosity, interest in the world, a craving for knowledge, surprise, etc.

“Children are very curious about the world. They focus on everything, especially what surprises and interests them. Children have to touch everything, see what surrounds them on a daily basis This is how they accumulate their experiences.”

“Children gain experiences through their activity – activities in the immediate surroundings and the environment. Young children are curious about the world. If they like or find something interesting, they want to know it thoroughly. They collect experiences.”

“The child focuses on what interests them. They accumulate experience through their activity in the environment.”

The respondents emphasized that the daily space of a child's life has expanded due to new media, and that therefore children's out-of-school experiences have increased by virtual objects:

“I've been working in primary school classes for over 20 years. Today, children have a wealth of experience and knowledge about things that children once did not have, due to the lack of access to the media and the Internet.”

“Today, children live not only in the real world, but also in the virtual world. Thanks to this, they have the opportunity to gain new experiences. It is impossible to completely limit the influence of the media, especially the computer, on children and their knowledge.”

Children's experience of the virtual world, and thus of the wealth of objects that they learn about, was assessed by the surveyed teachers as inevitable. In their opinion, in addition to the media reality – which is the source of the so-called mediated experiences – the amount of out-of-school experiences of children is growing due to messages and reports of other people from their own experiences. The source of indirect experiences in this case is verbal messages from parents, adults, peers, and other people from the child's social environment.

“The child asks parents and grandparents about various things and learns. Especially grandparents can be a treasure trove of experience and knowledge for children. Similarly, the child makes new statements thanks to siblings, peers, and various groups they are in, on the playground.”

Therefore, the respondents pointed to the multiplicity of children's out-of-school experiences, the source of which are both personal and non-personal, and which are shared by other people. It is worth emphasizing that the teachers made no reference to the contemporary socio-cultural theory, according to which the child is not passive in the process of gathering experience, being socialized, and transferring knowledge, but actively participates in this process and negotiates meanings together with others.

Predominant Lack of Intentionality

As the respondents stated, the greater the child's freedom of activity and the more stimulating the environment surrounding them, the greater the range of their experiences will be. The child's out-of-school experiences are mainly the result of a process of involuntary, unconscious learning. According to the respondents, in the everyday life of a child, unintended, unplanned gathering of experiences occurs most often.

“Children do not even realize that they are gaining experience outside of school The very fact that they are in different

places among people causes them to gain new experiences. They don't even plan it."

In the opinion of the teachers, experiences outside the school environment are accumulated in almost every situation when a child comes into contact with specific objects, phenomena, and processes that attract their attention. Children gain out-of-school experiences along with a context that includes the situations and circumstances that happened to them.

Specificity and Differentiation

The teachers stated that children build their image of the world every day on the basis of the experiences they accumulate. Due to the diversity of the material and social environments in which they live, each child has a different resource of out-of-school experiences.

"When a child becomes interested in something, it becomes amazing and he or she wants to know about it. Each child focuses on something different. Hence, out-of-school experiences vary among children."

"Every child has different out-of-school experiences because children live and grow up in different settings. They are surrounded by a different environment, and they are in contact with different things and phenomena. Each child experiences the world in their own way."

The respondents expressed the belief that out-of-school experiences are related to a child's craving to learn about the surrounding world. The baggage of these experiences depends on the areas of the child's activity, which the respondents say is significantly influenced by adults.

Dependence

According to the respondents, the intermediaries between the child and the out-of-school world they experience are mainly adults – for

example, parents, who decide about the scope and content of the reality experienced by the child and who direct the child's attention to what they feel are important elements of reality and show them how to interpret them.

“Early school children are still not very independent when it comes to getting to know different things, phenomena, people They are still small. They experience what surrounds them, what is within their reach.”

“When children experience something, they focus on specific, often superficial, external features of objects and phenomena But the adult should help them get to know the world.”

“The task of us adults is to provide children with enough stimuli and to create situations that will allow them to experience and learn about the world around them. The more we give them of ourselves, the more they will be interested in the world and learning about it. Children must be motivated to learn about the world around them and to gain experience.”

The teachers' statements show that the social environment and interactions with others co-define what and how the child experiences. Children are perceived as not yet fully independent and not fully manifesting the ability to act autonomously. Therefore, the process of gathering experiences must be mediated by adults. These opinions from the teachers indicate a lack of faith in the ability of a child at early school age to learn independently.

Processuality and Integrity

The teachers pointed out the multifaceted and integrating nature of children's experiences. Below are examples of statements that illustrate this position.

“Children experience reality with all their senses. Often, when they talk about something, e.g. about new places they have seen, you can see what their attitude to it is, whether they liked it or not, what they would like to change. They remember what interests them, what they experience when they do something.”

“The child experiences everything ‘with his whole self.’ Not only does he learn something new about the world, but he also experiences the situations and events in which he participates. They react very emotionally to what they experience.”

Processuality refers to the respondents thinking about the child’s experience as a cognitive, emotional, and social process. Joyful experiences such as the thirst for knowledge, curiosity, fascination, surprise, the joy of discovery and creation, commitment, passion, and satisfaction increase the effectiveness of cognition and action. An active attitude in the process of acquiring experiences is caused especially by those situations that make students intellectually embarrassed, arouse their curiosity, are a source of deeper emotional experiences, and at the same time create conditions for action.

Transformation

In the teachers’ opinion, the world of children is characterized by temporal variability related to their development and changes in the surrounding reality. Children gain experiences that change qualitatively and undergo transformation.

“Every day, in various situations, children gain new experiences and learn. They develop, they are more independent. What they have learned before changes, their knowledge is enriched.”

“The older the child is, the more experience he gains and he becomes more and more independent. They are trying to get to know what interests them more and more precisely.”

According to the respondents, the transformation of experiences stems from the child taking up new activities. The teachers' statements refer to the concept of structuring and restructuring individual experiences through the individual's own activity (Przetacznik-Gierowska, 1993), in which development is considered in terms of gaining and organizing individual experience. According to this concept, the life experiences of each individual are subjective and unique and have a fundamental developmental meaning for them. The essential thesis of this concept is that experience is the material of development and development is a series of changes resulting from the structures of this experience being organized and transformed, both as a result of incorporating new experiences and adapting activity so as to regulate the relationship with the surrounding world. This position is constructivist in the sense that it assumes that the psychological development of an individual is a process of constructing their mental structures as a result of accumulating and structuring experiences derived from their own activity.

Imperfection and Subjectivity

The final feature of out-of-school experiences indicated by the teachers is related to the fact that the respondents create conditions for children in the practice of early childhood education to compare everyday experiences with those acquired at school. The respondents stated that personal knowledge resulting from the experiences a child gains outside of school is selective and does not fully reflect those elements of reality to which the child relates, due to the previously indicated features, such as spontaneity, emotional character, and the "immaturity" of the child. Despite the self-declared acceptance of the child's out-of-school experiences in school practice, most of the respondents expressed doubts as to their value in the classroom. Teachers are most often aware that students have knowledge that goes beyond the school curriculum, but they avoid or marginalize conversations with students about it. They focus on the school curriculum and often do not have time to talk about students' out-of-school learning experiences.

One can get the impression that the teachers are not interested in what the child thinks and how they come to their convictions (Klus-Stańska,

2002; Trempała, 2011; Kochanowska, 2018). Similarly, research on the practice of early school education carried out by Renata Michalak (2004) shows that the youngest students hardly ever engage in activities that trigger spontaneous actions and reveal the personal experiences necessary for constructing new knowledge. Teachers, to a limited extent, create conditions for the youngest students to stimulate the mechanisms and processes of building personal knowledge and acquiring skills as a result of the diverse research activities undertaken by pupils independently and in teams. Moreover, they do not see the sense in or need for incorporating the events taking place in the modern world into everyday school issues. Children are not helped in crossing the border between school curriculum and out-of-school experiences, which builds in them the belief that school knowledge is only used to present to the teacher and is not applicable in everyday life.

School is then a “from – to” space because it creates a world that the child is supposed to explore, but which is already organized and structured by the “better knowers,” that is, adults (Dudel & Głoskowska-Sołdatow, 2009). As a result, the child functions in two separate worlds: the school world and the out-of-school experience.

Conclusions

In contemporary pedagogical discourse, as well as the psychological and sociological approach to childhood, children are no longer perceived as dependent in thinking and acting, but are instead perceived as active and engaged “actors of social life,” active entities collecting and reinterpreting experiences and shaping the surrounding world. The contemporary living space is a rich source of everyday experiences for them. Children build their visions of the world based on their own experiences, which “make up an individual construction of reality created with the help of cultural tools and reaching understanding of meanings” (Bałachowicz, 2003, p. 22). The learning process takes place in relationships with others, in organized or incidental situations related to life tasks. As Edmund Trempała (2011) writes,

you have to go beyond the school, which still too often does not keep up with the quite spontaneously progressive development of many institutions and non-school incentives with a large amount of valuable educational information, because everything creates an opportunity to learn and develop one's talents and acquire knowledge or competences. (p. 97)

The teachers' approach to the out-of-school experiences of children in the practice of early school education is largely determined by their beliefs and ways of thinking about the educational value of these experiences in the context of constructing knowledge at school. The task of teachers is to seize opportunities and plan situations for children to share their out-of-school experiences and use them as a building material for constructing knowledge. As Kinga Kuszak (2013) writes,

entering the school space, a child should have the opportunity to confront their existing competences in new situations and the opportunity to participate in various situations conducive to developing and improving their competences so that functioning in various communication relationships outside the home and school environment becomes satisfactory (from the perspective of the individual). (p. 26)

The possibility of communicating in a group, exchanging thoughts and making references to everyday life outside of school, is conducive to the child's integration of school and extracurricular knowledge. As the research shows, teachers of the first three years of primary school are aware of the continuity, multiplicity, transformation, integrity, and processuality of children's out-of-school experiences, but they express caution in using them in their work due to their imperfection. As in the case of other studies on school reality, in this case there was a tendency for the teachers to focus on implementing the recommendations of the core curriculum and on the transmission nature of early school education. Therefore, the teachers' way of thinking about the role of out-of-school experiences in education, and consequently in school practice, requires a change.

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Innovations in Education for Developing Skills and Competences



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Digital Natives in the Non-Digital University: A Case Study of Polish Higher Educational Institutions from an Educational and Historical Perspective

(pp. 319–336)

Abstract

According to the theory of technological determinism, the development and popularisation of communication techniques has led to the emergence of two groups of participants in internet discourse: (1) those who have been 'immersed' in the Internet since childhood – digital natives – and (2) those who remember functioning in the offline world – digital immigrants. The main goal of this article is to present the interpenetration of the needs and demands of digital education and the implementation of these demands in the academic environment. The first part of the article presents the main theories related to the topic and attempts to periodise the phenomenon of education at universities undergoing virtualisation. The second part presents research conducted with the use of the CATI method on a sample of 433 students and 133 university teachers concerning the IT revolution at universities related to the SARS-COV2 pandemic and the need to move classes from lecture halls to virtual spaces. The last part of the article answers the hypotheses posed: (1) the initial dysfunctions of the education process in universities were due to the institutions' unpreparedness for the remote environment

and (2) in the opinion of the respondents, the remote education process is not as effective as education in a lecture hall. The conclusions of the study indicate that it is necessary to systematically fund research on remote teaching methodology and tools for effective distance learning. In addition to research, it is also advisable to conduct training and continuously implement new practical solutions in the workplace so that the new media serve teachers and students. In order for distance education to be effective, it is necessary to redefine the use of new media, move away from control towards collaboration and allow students to take ownership of the learning process.

Keywords: educational technology, SARS-COV2, digital citizenship, digital immigrants, online learning

1. Introduction

Progressive digitalisation is making technological solutions an indispensable part of more and more spheres of human life. A prime example of the positive use of technology in the service of human development is the use of ICT methods in the learning process. It is interesting to note that media had already been used in the learning process: in 1728, a stenography teacher, Caleb Phillips, placed an advertisement in the Boston Gazette for a correspondence course that read, 'any one throughout the country desirous of learning this art may, by receiving a few sent lessons a week, be as perfectly taught as the inhabitants of Boston'. As sources indicate, the initiative was received with enthusiasm (Thompson, 2018). According to these sources, the first university to enable remote learning was the University of London, which in 1858 made it possible to earn a university degree by correspondence (Encyclopaedia Britannica, 2013). Nowadays, e-learning is commonly understood to refer to knowledge transmission through multimedia platforms and is defined by the OECD as

the use of information and communication technologies in diverse processes of education to support and enhance learning

in institutions of higher education and includes the usage of information and communication technology as a complement to traditional classrooms, online learning or mixing the two modes. (Njoku, 2015)

Prior to 2020, when the SARS-COV2 pandemic and its social implications led to a revolution in learning processes at all levels of education, researchers such as Dublin (2003) and Arkorful (as cited in Prensky, 2001) presented three basic models of e-learning: e-learning, m-learning and blended learning. The first type covered a wide spectrum of means, from postal education through educational radio and television to multimedia courses. m-learning is de-fined in the literature as mobile learning using portable, wireless equipment such as laptops, PDAs or smartphones. In order to meet the requirements of m-learning, the devices should have permanent, wireless access to the Internet. The exclusionary barrier is an unstable connection. Blended learning, mostly used in the academic environment until 2020, involved the combination of distance and in-person learning methods. In this type, the curriculum was most often taught remotely, while exams took place in-person. The SARS-COV2 pandemic forced a revolution in higher education, as providers had to very quickly implement distance learning methods as the primary form of transmission, as well as remote evaluation of knowledge, skills and competences. It has also revolutionised the organisation of the work of higher education institutions by transferring most organisational activities from a real space to a virtual space. From the perspective of the last 24 months, it is important to preliminarily periodise the phenomenon of universities' adaptation, the process of the academic community 'learning' remote forms of education and the adaptation of universities' and national education systems' internal regulations to the norms and forms of functioning in an epidemic. This periodisation is presented in Table 1.

Table 1. Periodisation of the phenomenon of academies adapting to remote learning

Period name	Organisational features	Main tools of knowledge transfer
Initial period (January 2020–September 2022)	Chaos	e-mail, universities' internal online communication systems, outdated e-learning platforms
Transition period (September 2020–July 2021)	Uncertainty	instant messaging, video communication platforms
Mature period (July 2021–present)	Stabilisation	Dedicated communication platforms personalised for a specific academic community (MS Teams, Google Classroom, etc.)

Establishing and discussing this periodisation places the issue in a historical perspective, allowing for it to be retained in the humanities research community. The first proposed period covers January 2020 to September 2020, when universities in many countries had limited or suspended functioning. During this period, ad hoc measures such as broadcast lectures via social media (Facebook Live or YouTube) were implemented and video communications tools such as Skype, Zoom, emails, discussion groups, or forums for teacher–student communication began to be used. In some cases, attempts were also made to adapt the remote education platforms owned by universities (e.g. Moodle) to the requirements of the modern teaching process.

In the second stage, lasting from September 2020 to July 2021, universities implemented modern e-learning platforms or created their own communication and education systems. The implementation process was complemented by training for academic staff on the software's capabilities. At this stage, only the basic functions of these platforms were used.

In the last stage, the academic community became confident in using the software proposed by the university authorities, and the process of ICT-mediated knowledge transmission became a natural part of functioning during the pandemic. Most reported problems were minor, random failures unrelated to competence with the software used in the learning process. It should be mentioned that the above periodisation

is a description of the situation observed in the Polish higher education system and is only applicable in this context. Due to the great diversity in the implementation of ICT solutions in higher education, the models of technology adaptation differ depending on the country and the higher education system.

The SARS-COV2 pandemic also in a way verified Marc Prensky's (2001) typology, which divides the network society into digital natives and digital immigrants. Prensky defined digital natives as people born in the digital age, i.e. after 1980. These are people for whom new media are the natural environment of social and media activity. Additionally, these people have little memory of the predigital era. They use digital means of communication naturally. Their native language is the language of the Internet, computerisation and digitisation. Digital language is considered a supranational language used by digital natives from all over the world, using a standardised nomenclature. According to Prensky, digital natives use several multimedia devices or one multifunctional device at the same time. With one device, they can access the Internet, send messages, listen to music and watch films at the same time. Their way of learning is characterised by the fact that if they cannot find or understand something, they do not look for it in printed books, but search for the necessary information on the Internet. Digital natives are described as 'always on' (Prensky, 2001). They form a new community of people developing in the multimedia world. Their communication process is linked to access to new media, thanks to which they can contact any number of people at the same time. According to Howard Rheingold (2007), the communication of digital natives is conducted in such a way as to 'share common emotions, make plans, spread gossip, have disputes, fall in love, find and lose friends, ... flirt, and have insignificant conversations'.

The opposite of the digital natives are the digital immigrants, who, according to Prensky (2009), constitute a generation of people of predigital age, i.e. those born before 1980, for whom the new media are not a natural environment of communication and social activity. These people use the Internet, but not in the same advanced way as digital natives. Digital immigrants speak an outdated language that is not adapted to

the rules of the modern education system. They use phones mainly to make and receive calls. They work with printed text because they can 'edit' it freely with a pen. In the digital world, they often lack courage and are unable to adapt to new technological achievements. New technologies make them distrustful.

Interestingly, it is stereotypically assumed that university is a meeting place of digital natives (students) and digital immigrants (teachers), representing two different styles of functioning. However, the division between digital immigrants and digital natives is being blurred. Digital immigrants have been forced, at least to some degree, to enter the world of digital natives. Due to the specifics of the Polish system of higher education, including the ages of employees of higher education institutions in Poland, the proposed division into digital immigrants and digital natives in this particular case is justified. Marc Prensky (2009) also notes that the division between digital natives and digital immigrants is increasingly becoming inadequate, and he proposes using the concept of digital wisdom instead. Digital wisdom is recognising that media and the Internet play a significant role in education, noting that their competent use brings new quality to education, allows for changes in teaching methodologies and facilitates and streamlines administrative processes. Digital wisdom is not ascribed only to digital natives; on the contrary, many digital immigrants at universities demonstrate digital wisdom by using modern technologies in the service of learning and teaching. Equally importantly, as Prensky argues, digital tools will not replace humans, who will still be needed to analyse, synthesise, compare and evaluate the facts provided.

2. Materials and methods

The main aim of the study was to confirm or disprove two hypotheses: (1) the initial dysfunctions of the education process in universities were due to their unpreparedness to adapt to the remote environment and (2) in the opinion of the respondents, the remote education process is not as effective as in-person education.

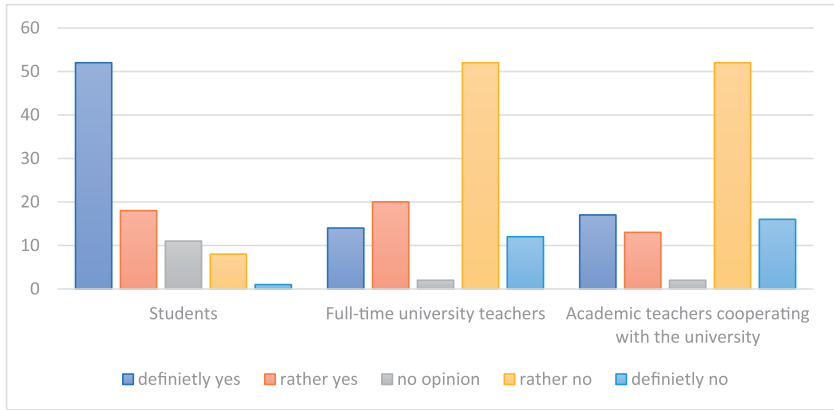
In order to confirm the assumed theoretical concepts, quantitative research was conducted in September and October 2021. The research was conducted using the CATI method, i.e. a telephone interview with the respondent following a special computer script. The script allows for some automation of the questionnaire, e.g. by filtering the questions asked or by randomising the order in which certain questions will be asked. The study used a laboratory dedicated to this type of research at the authors' home university. Due to the research problem, purposive sampling was chosen and 433 students and 133 university teachers were surveyed. Both teachers permanently employed at universities and those for whom university is not their primary place of work were taken into account. Due to the causal nature of the survey and the limited funds, it was decided to survey only respondents residing, working or studying in Poland. It is the intention of the researchers that the research will primarily contribute to larger studies set in the CEE region. In determining the research questions, an attempt was made to explore the respondents' opinions regarding their own skills at the beginning of the pandemic and at the time of the survey. An attempt was also made to establish the preferred form of ICT communication in the learning process, to analyse the effectiveness of remote education in relation to traditional education and to collect the respondents' recommendations for improving higher education.

3. Results

With the first question, the authors tried to diagnose the initial state at the beginning of the pandemic, i.e. in March 2020; the question was retrospective in nature. The respondents were divided into the following groups: students, full-time academic lecturers and associate lecturers. The respondents were asked, 'Do you think you were competent to use e-learning platforms at the beginning of the pandemic?' The analysis of the answers brought interesting conclusions: 70% of the students' cumulative answers (definitely yes and rather yes) were positive, while only 9% were negative (rather no and definitely no). In the case of the academic teachers,

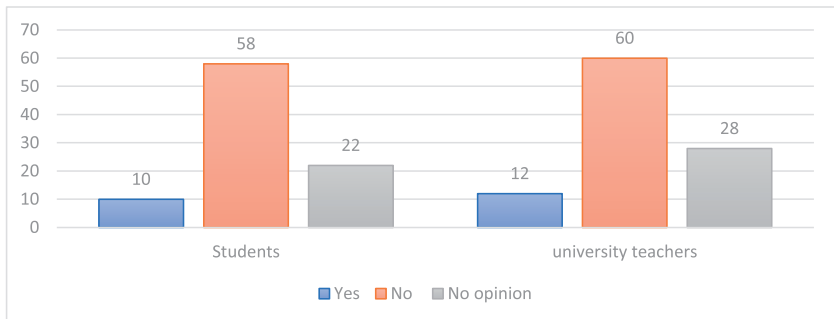
the majority of both groups answered negatively (rather no and definitely no): 64% of full-time employees and 66% of people working part-time. A detailed distribution of the answers is presented in Figure 1.

Figure 1. Distribution of answers regarding self-diagnosed digital competence at the beginning of the pandemic (%)



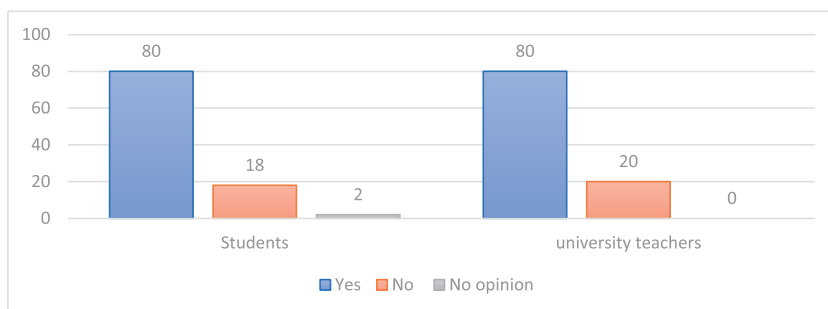
With the second question, the respondents were asked whether the university was prepared for remote teaching, in their opinion. Both the students and the cumulative answers of the academic staff overwhelmingly indicated that the universities were not prepared for remote teaching at the first stage of remote teaching, which confirms the functional-adaptive model of the university presented in the introduction.

Figure 2. Distribution of answers to the question: ‘Was your university well prepared for remote learning in the first period of the process?’ (%)



The validity of the model was further confirmed by the answers concerning the preparation of universities in the 2020–2021 academic year. The vast majority of respondents, both students and academic teachers, indicated that universities were prepared technologically and with training to conduct classes remotely, as presented in Figure 3.

Figure 3. Responses to the question: ‘Was your university well prepared for remote learning in the 2020–2021 academic year?’ (%)



Three diagnostic questions were also asked in order to more completely analyse the phenomenon. In the first of the additional questions, the respondents were asked which form of knowledge acquisition they found more effective. More than half of the respondents (59% of students and 77% of teachers) indicated traditional classes as the more effective form. Interestingly, 19% of the students marked the answer ‘I don’t have an opinion.’ A detailed distribution of the answers is presented in Table 2.

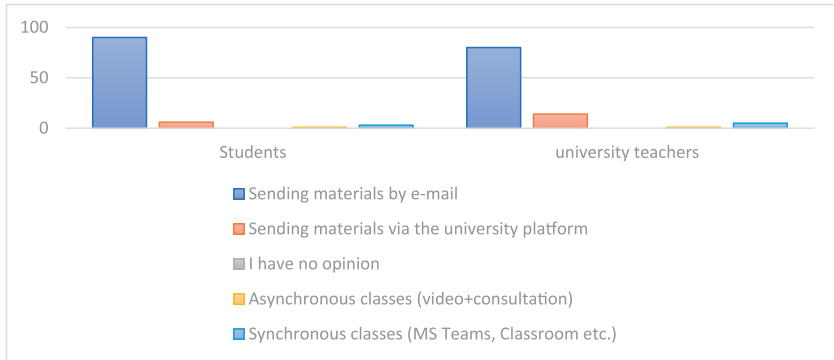
Table 2. Summary of answers concerning the preferred form of acquiring knowledge

	Traditional classes	Online classes	I have no opinion
Students	59	22	19
University teachers	77	22	1

In the second diagnostic question, the respondents were asked what they thought was the least effective form of distance learning. Most negative answers were given to the old type of asynchronous forms, i.e. sending

materials by email or via the university platform. Synchronous forms and a new type of asynchronous classes, combining the element of self-study and consultations, were considered more effective by the respondents (Figure 4).

Figure 4. Responses to the question: ‘Which form of contact was least effective for you?’ (% , multiple-choice question)



The last diagnostic question was ‘Which form of education required more effort from you?’ In the group of students, the answers showed no significant differences. A definite difference can be observed in the declarations of academic teachers, the vast majority of whom indicated remote education as the more absorbing form. The answers are summarised in Table 3.

Table 3. Aggregate answers to the question regarding the more absorbing form of education

	Traditional classes	Online classes	I have no opinion
Students	39	45	16
University teachers	20	77	3

4. Discussion

The analysis of the academic teachers' and students' self-diagnosed digital competence confirms the division into digital natives and digital immigrants in Polish higher education. The vast majority of students believed that they had sufficient skills to use e-learning platforms. In contrast, the teachers believed that they lacked such skills. As Głomb and Kniaż (2019) point out, as many as 9 million Poles over the age of 50 are digitally illiterate; as one reason for this, the authors indicate traditional schooling in which school and university teachers show a deficit of digital awareness. When creating the SAMR model, Puentedura (2010) described the first level of the model – substitution – as the apparent use of new media in education, since there is then neither a functional change in the use of IT nor a change in the teaching methodology. A study to analyse digital literacy within higher education institutions was carried out during the pandemic by Santiago Tejedor, Laura Cervi, Ana Pérez-Escoda and Fernanda Tusa Jumbo (2020); they noted that over 70% of students in Spain felt that teachers' digital skills were inadequate, while the opposite was true in Italy and Ecuador, where over 70% of students felt that teachers' digital skills were adequate (Tejedor et al., 2020). Over 70% of the surveyed students from Ecuador, Italy and Spain – like those from Poland – declared that their own level of digital skills was high. However, as David Jiménez-Hernández et al. (2020) note, today's generation of digital natives, while excelling at using digital tools for entertainment and social purposes, have difficulty using the Internet for learning and self-education.

In the present study, a transition became apparent from the initial period, in which both universities and instructors were unprepared for remote teaching, to the mature period, characterised by organisation and adaptation to remote teaching, specialised digital tools enabling more or less effective remote learning and legal and administrative solutions enabling effective communication and management of the organisation under changing conditions. According to Drucker (1994), change in an organisation is 'always that which creates an opportunity for everything new and different' (p. 3). In this case, the global pandemic was an external

enabler of change in an organisation such as a university. The pandemic contributed to both organisational changes – evident in the transition from face-to-face to distance learning – technical changes and administrative and legal changes, which in turn led to social and psychological changes. These changes were adaptive and revolutionary. In both education and science there was a lack of procedures of action which would allow for a smooth introduction of changes. The lack of conceptual, legal and technical preparation of managers and staff resulted in a number of chaotic changes, while the lack of adequate communication and preparation of staff reduced the quality of services provided. Referring to Drucker, it can be stated that remote learning provided an opportunity to create digital tools which will serve academic teachers and students in their work and communication after the pandemic, but there were no changes in the methodology of remote learning.

The vast majority of respondents preferred traditional classes, where they could interact freely. Most researchers (Hong Jon-Chao et al., 2021) agree that remote education enables students from different areas to participate in learning and time constraints to be overcome. At the same time, it is worth noting that it is debatable whether the same learning outcomes can be achieved in both types of learning. This is mainly due to psychological mechanisms concerning the ability to maintain attention for a length of time and the motivation to actively participate in courses. It also becomes important to investigate students' behavioural engagement in the courses, which is easier to obtain in face-to-face education. In the present study, it was found that remote classes were more engaging for lecturers than for students. In part, this may be due to the low behavioural engagement of students during remote learning. However, the students' responses indicate that they find both remote and face-to-face teaching equally engaging. The exceptionally high preoccupation of academic teachers with remote teaching may therefore also be explained by the need to adapt their teaching to the conditions of gifted learning, preparing appropriate materials and communicating with students. At the same time, according to Sakkir et al., the majority of students consider remote teaching less effective because of interrupted Internet access (noting the

cost of such education for students) and the lack of distance learning methods, motivation to perform tasks and mutual understanding (Sakkir et al., 2021). According to Bao (2020), the effectiveness of remote education can be verified by analysing students' logging into courses and the lesson quizzes in which students participate, pointing out that completing as many tests as possible will lead to higher grades in the subjects. However, it is worth considering the purpose of education – whether it is only the acquisition of knowledge, which can be checked by tests, or soft competences and the ability to analyse, think creatively and critically, make judgements and take correct decisions (as stated by Bakhshi et al. [2017]).

Research conducted in Poland (Zahorska, 2020) suggests that while at the beginning of the pandemic the problem with remote teaching was a lack of tools (students and teachers) and a lack of knowledge about how to use them, at a later stage the problems were a lack of contact with students during classes and activation and mobilisation among the students. Similar problems were observed at universities, and it may be concluded that they result from methodological and skill deficiencies of teachers. As stated by Tejedor et al. (2020), universities should create precise digital literacy strategies, thanks to which students as well as academic teachers will be digitally competent. As the research conducted by Klichowski et al. (2015) shows, the gaps in digital competence of teachers in Poland are due to the weaknesses of teacher education. Klichowski et al. (2015) point out that a 'pedagogical knowledge' or 'content knowledge' approach is promoted in Poland, which means that we teach teachers either as experts in subject matter without a thorough methodological and pedagogical foundation, or as pedagogues without thorough knowledge of the subject. Klichowski et al. (2015) juxtapose this pessimistic analysis with the TPACK model promoted in highly developed countries, which assumes that future teachers should have knowledge and competences from three different areas: pedagogical (knowledge of pupil support and theories of upbringing and education), subject-related (knowledge of the material and teaching methodology) and technological (knowledge and skills concerning the use of IT in education). For future teachers to be able to educate their students according to the TPACK model, they need to be

educated in this way. The main obstacles to the introduction of the TPACK model in Polish universities are (1) a lack of adequate equipment in classrooms, (2) a lack of competence among university teachers, (3) a lack of motivation to change the education system, (4) a lack of methodological solutions and (5) bureaucracy and increased emphasis on teaching time rather than teaching quality.

In the context of distance learning and controlling the quality of teaching in both traditional and remote systems, it is worth analysing the way in which academic staff conducted classes and interacted with students. In the present research, students evaluated the effectiveness of different forms of teaching, and they considered synchronous classes conducted using tools such as MS Teams, Classroom, etc. and asynchronous classes in which the academic teachers provided video and then conducted consultations to be the most effective. The least effective form was found to be sending course materials via email or the university platform. Two issues stand out: firstly, students found it more effective to learn when the teacher guides them through the learning process, and secondly, they lack the ability to learn on their own from the material. Also, in a study conducted by Tejedor et al. (2020), students preferred digital sources of learning – video and audio-visual materials – giving worse marks to source materials, i.e. books and scientific articles. In the study, the respondents pointed out that they were overloaded with homework and that the classes were boring and did not provide adequate stimulation.

Analysing the forms of teaching used by academic teachers, it can be observed that new media are used at the level of substitution, as distinguished by Puentedura (2010). This means that the lectures during the pandemic were still formally lectures, and thus monologues from the teacher, regardless of the psychophysical conditions of students, due to the fact that the concentration and ability to follow the lecturer's train of thought is much lower than with direct contact. The aforementioned desire to control the quality of teachers' work (measured by the duration of the lessons) discourages the use of other methods of conducting lectures, e.g. podcasting and consultations, as such material can only be discussed during consultations. On the other hand, lessons with exercises are

more effective when the teacher gives the students feedback on their work – in which they point out the good aspects, errors and how to improve it – and proposes group work and creative problem-solving. In the search for optimal remote teaching methods, one should remember about digital programmes with which one can create visually attractive aids, presentations, games and tasks that would require students not only to acquire knowledge, but also to form skills. The use of methods to activate students in remote education requires a lot of work on the part of the teacher when preparing for classes and transposing content adapted methodically to traditional teaching in order to achieve effective remote teaching.

5. Conclusions

Hypothesis 1 stated that the initial dysfunctions of the educational process in universities were due to the universities' unpreparedness to adapt to the remote environment. From the respondents' answers, it can be concluded that the lack of initial legal and administrative solutions resulted in communication and educational chaos, which was exacerbated by the lack of appropriate digital tools adapted for use in higher education institutions. In spite of this, in the mature period of university adaptation, university teachers who had not adjusted can still be observed. This is partly due to a lack of effective staff training, a lack of subject-specific tools, a lack of staff competence and the use of new media at the level of substitution rather than redefinition.

A postulate resulting from the partial verification of this hypothesis is that universities need to create a programme of IT implementation in higher education institutions and to design tools adequate for remote or hybrid work and adjusted to the given field of study. At the same time, it seems necessary to implement training in which academic staff would use digital tools not only at a basic level, but also to create educational resources and design programmes conducive to effective education.

Hypothesis 2 stated that the process of remote education in the opinion of respondents is not as effective as traditional classes. This hypothesis

was confirmed. Although remote classes for both groups of respondents were more absorbing than traditional classes, they were not equally effective. Most of the respondents preferred direct contact with the lecturer. The ineffectiveness of remote classes may be a result of the lack of changes in the methodology of remote learning and the lack of self-learning skills among students, through which they would take responsibility for their own learning.

From this hypothesis, two postulates can be made. Firstly, universities should analyse the psycho-physical capabilities of students and, with reference to cognitive theories (constructivism) and humanistic theories (motivation theory), should define new forms and methods to be implemented in remote learning. It follows directly from this that a methodology for remote working must be created. Secondly, teachers involved in education from the lowest level should introduce students to self-education and taking responsibility for their own learning. This will be possible when they fully implement the postulates of the constructivists and move away from the paradigm in which the teacher is the only source of knowledge and its interpretation. Granting students autonomy and their due place in the learning process will translate into students' ability to independently acquire knowledge and skills, making the teacher a source of support and guidance.

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The Impact of ICT on Shaping Reflexes and Manual Coordination in Children and Teenagers: Pupils' and Teachers' Opinions

(pp. 337–356)

Abstract

The article presents part of a diagnostic and correlational study of mixed character that establishes pupils' information competency in the use of ICT methods and tools. It investigates the effects of children's and teenagers' ICT use (importance levels of new media influence) on improving reflexes and manual coordination. To obtain the data, the author used a diagnostic survey method (questionnaire and interview) and statistical methods (chi-square test of independence and Pearson's correlation coefficient). Together, 2,510 pupils and 1,110 teachers were surveyed. It was found that in the aggregated importance hierarchy of ICT effects, the category 'reflexes and manual coordination' was given a high weight by the pupils (third place) and a very high weight by the teachers (second place). There was a faint and negative cor-relation ($r @ -0.009$) between pupils' opinions and teachers' observations on the effects of ICT use by children and teenagers in the improvement of reflexes and manual coordination. The calculations of differential factors revealed statistically significant differences between the opinions of the two groups and gender, educational stage, place of learning and the gender of teachers. There was a noticeable discrepancy between the pupils' and teachers' opinions: a not very significant 'separation'

of the world of children and teenagers ('us') from the world of teachers ('them'). This may raise concerns as teachers' recognition and understanding of students' needs, according to the ideas of constructivism, is one of the key factors in the success of the educational process.

Keywords: media pedagogy, diagnostic and correlational studies, correlation of opinions, information competency, ICT use, reflexes and manual coordination

Introduction

Today, almost all forms of activity are supported by the methods and tools of information and communication technology (ICT), treated as key technologies of modern civilisation, as clearly demonstrated during the COVID-19 pandemic (Bailenson, 2020; Doucet et al., 2020; D'Souza, 2020; Murphy, 2020). The reality of the digital age places ever higher demands on students and teachers to develop specific information competencies (van Deursen & van Dijk, 2014, pp. 43–62), guiding the development and performance of school and extracurricular tasks. Therefore, the main objective of the research was to determine students' information competency in the use of ICT in the context of new technological trends and accompanying civilisational changes. An attempt was made to identify the knowledge, understanding, actions and attitudes of children and teenagers, manifested in their approach to new ICT trends. In addition to the opinions of the students themselves, the opinions of teachers turned out to be equally interesting, especially regarding the effects of this ICT use. The broad influences of modern technology (the 'rewards' reaped from new media) included reflexes and manual coordination, both the ability to orient oneself quickly in a situation and to react appropriately (consciously) to it – a 'quick reaction' to stimuli of the external and internal environment in the world of stimuli generated by ICT tools – and 'dexterity', referring to the precision of hand and finger movements or proficiency in handling electronic instruments 'occupying' the hands (Jodzio, 2017, pp. 122–137; Raczek, 2010, pp. 51–60; Zimbardo & Gerrig, 2014,

pp. 157–166). Exercises – the practical and systematic application of ICT methods and tools through manually operated input devices – develop manual skills. Furthermore, activities aided by ICT instruments (Osiński, 2019, pp. 275–289) – especially those that demand fast movements and thus short reaction times – train the reflexes and develop the ability to orient oneself quickly and to react appropriately in a given situation.

In recent years, the market for game manipulators has grown rapidly and a number of motion-controlled games have emerged that contradict the stereotypical belief that gaming is incompatible with playing 'real sports'. Thanks to the development of ICT, players also experience an increasingly strong immersion in virtual reality. This encourages the development of very diverse forms of digital sport (sports games, exergaming, cybersport and e-sport). The global boom of e-sports has become the subject of academic studies, and e-sports viewership and player earnings are rising to the level of traditional professional sports (Steinkuehler, 2020). There are also proposals to integrate e-sports into educational contexts where learning motor skills and being introduced to sports culture is crucial (van Hilvoorde & Pot, 2016).

The question arises: To what extent do ICT tools used in practice support the development of reflexes and manual coordination in children and teenagers? By comparing the data obtained from students and from teachers (expressed through the degree of dependence and correlation), it was possible to identify the differences and similarities in the needs and expectations of these participants of education. These findings are relevant to the understanding of the teaching and learning process, especially in the context of the eternal conflict between generations (see Protzko & Schooler, 2019).

Research assumptions

The theoretical position is delineated by 1) the concepts of critical pedagogy, which assume 'constant opposition to the obvious', visions and goals open to social dialogue; 2) the postmodern approach, taking into

account ambiguous emancipation – ‘ambiguous modernity’ and ‘liquid modernity’; 3) indications of self-education, self-realisation, self-determination and open education (Bauman, 2015); 4) a proposal for the formation and development of information competency, seeing the foundations of teaching and learning in constructivist theory (with particular reference to the sociocultural perspective), indicating one way of thinking about knowledge formation: learning about ICT methods and tools through ICT (Henson, 2015); 5) positive visions for a future in which media and technology can be used effectively to support learning and healthy development (Berdik, 2020); and 6) the educational usefulness of ICT tools that support the development of reflexes and manual coordination (van Hilvoorde & Pot, 2016). In an attempt to explore the practice, the educational reality was compared with the dominant scientific theories that draw a picture of the ‘new learner’, who fully exists and is realised in the Internet cyberspace, in the world of ‘new new media’ (Levinson, 2013), which enable the multisensory transfer of information and multisensory learning, or the ‘connected’ (online) learner, who has unlimited possibilities to use the new spaces of e-education. It was assumed that the path of development is marked by the global cultural imperative to participate in the process of constructing and negotiating symbols, values and meanings, and in which the learner’s main partners are techniques, machines and tools (Gabriel & Röhrs, 2017). It was recognised that teaching success is achieved when the pupil feels accepted and that their problems are recognised and understood. It is then that the pupil’s mind ‘opens up’ and an opportunity is born to use the full potential with which they came to school (Rasfeld & Breidenbach, 2014, pp. 109–115). At the conceptual stage of the project, it was assumed that it would take the form of diagnostic/correlational research (Ferguson & Takane, 2016, pp. 33, 233–254) of a mixed (qualitative/quantitative) nature (Urbaniak-Zajac, 2018, p. 122), mainly embedded in media pedagogy. Two techniques were used: a questionnaire (Babbie, 2016, pp. 247, 255–264) and an open interview (Frankfort-Nachmias et al., 2015, pp. 240–265). The proceedings and techniques included elements of analysis and explanation of a qualitative and quantitative nature. This triangulation (between education, technique

and information) enabled a more complete understanding and presentation of the research problem from two different points of view (Furmanek, 2016, pp. 21, 28). Statistical methods – the chi-square test of independence and Pearson's correlation coefficient (King & Minium, 2020, pp. 165–181, 458–478) – helped establish the relationship between pupils' information competency in the use of ICT and pupils' opinions and teachers' observations, and helped determine which factors differentiate the studied phenomena.

The main study, involving teachers who teach various subjects¹ and pupils at particular stages of education,² was conducted in purposely selected institutions of the Lubuskie and neighbouring voivodeships. The group of students (whole sample) comprised 2,510 pupils, who were enrolled in integrated primary school (372 [14.8%]), primary school (730 [29.1%]), junior high school (753 [30.0%]) and high school (655 [26.1%]). The respondents displayed a uniform distribution of gender: 1,272 (50.7%) girls and 1,238 (49.3%) boys.

The group of teachers (whole sample) comprised 1,110 teachers, who taught the curriculum of integrated primary school (141 [12.7%]), primary school (323 [29.1%]), junior high school (255 [23.0%]), high school (269 [24.2%]) and a small group of educators working at two education stages simultaneously (89 [8.0%] in primary school and high school and 33 [3.0%] in junior high school and high school). The vast majority of these respondents – as many as 889 (80.1%) – were women; thus, men accounted for one fifth (221 [19.9%]). The interview involved 20 pupils in Zielona Góra and neighbouring towns (10 people were selected in each type of institution corresponding to the stage of education).

One of the detailed questions was designed to establish the results of using ICT, which helped specify the wide field of new media impact.

¹ The teachers listed a total of 23 subjects taught by them, both general education subjects and those from the educational and professional spheres.

² The stages of education in Poland at the time of the research were divided into 1) integrated primary school (ages 7–10, with one teacher teaching all the subjects); 2) primary school (ages 11–13); 3) junior high school (ages 14–16 [*gimnazjum*]); and 4) high school (ages 17–20).

The author identified five basic spheres of this influence (co-occurring variables), indicating the following results (effects): 1) improving reflexes and manual coordination; 2) developing creativity and cooperation skills; 3) increasing the speed of searching, selecting and valuing information; 4) increasing the ability to concentrate and ignore distracting stimuli; and 5) causing chaos and information 'confusion'. The results presented in the article – concerning the first sphere of influence – addressed the question of to what extent (according to pupils and students) the use of ICT tools in practice improves reflexes and manual coordination. Therefore, a co-occurring specific variable was distinguished: the frequency distribution of the effects of children and teenagers using ICT tools on improving reflexes and manual coordination. The declarations of pupils and teachers were the indicator for this variable. The respondents selected and specified only relevant answers from the above-mentioned five areas, and ordered them from most to least important. As a result, a hierarchy of the importance of ICT impacts was created. In relation to the correlation problem, the author identified a relationship between pupils' opinions and teachers' observations and identified the factors differentiating the two groups' views on the issue.

Interpretation and discussion of the results

The closed question establishing what ICT gives children and teenagers (in terms of effects) was answered by 2,456 (97.8%) pupils and 1,061 (95.6%) teachers. For these groups, the author counted and graphed the frequency distributions of the effects of ICT use by children and teenagers in particular spheres of influence (listed above), thus illustrating their importance for the research. The author attempted to establish to what extent the ICT tools used in practice have an impact on improving the reflexes and manual coordination in children and teenagers, according to the respondents. The results are presented in Table 1.

Table 1. Frequency distribution of pupils' and teachers' opinions on the effects of ICT use by children and teenagers in improving reflexes and manual coordination [quantity distribution by numerical and percentage values]

ICT use improves reflexes and manual coordination (*)		Level of importance (hierarchy of effects importance)						Total
		0 (none)	1 (the most important)	2	3	4	5 (the least important)	
Pupils' opinions								
numerical quantity	N	248	473	439	556	539	201	2456
	%	10.1	19.3	17.9	22.6	21.9	8.2	100.0
weighted quantity	N	0	473	351	334	216	40	1414
	%	0.0	33.5	24.8	23.6	15.3	2.8	100.0
Teachers' opinions								
numerical quantity	N	315	270	200	157	85	34	1061
	%	29.7	25.4	18.9	14.8	8.0	3.2	100.0
weighted quantity	N	0	270	160	94	34	7	565
	%	0.0	47.8	28.3	16.7	6.0	1.2	100.0

(*) Because the scale used for the calculations and interpretations is linear and ranges from 0 to 5, the numbers obtained at a given level of importance were given appropriate weights: level 0 = weight 0; 5 = 0.2; 4 = 0.4; 3 = 0.6; 2 = 0.8; and 1 = 1.0.

Pupils' opinions

The frequency distribution established by the pupils' self-assessment and showing the hierarchy of importance of ICT for improving reflexes and manual coordination reveals an irregular pattern with fairly similar numerical quantities ranked at particular levels of importance (except the fifth one). There was a clear downward tendency in weighted quantities (starting from 473, through 351, 334 and 216, to 40). According to the children and teenagers, the use of ICT tools has a significant impact on

improving reflexes and manual coordination. Almost one fourth (22.6%) of the pupils placed a high significance (third level of importance) on this sphere of new media impact – the highest numerical quantity in this category. Slightly fewer respondents (539 [21.9%]) said that the use of digital instruments is of little importance for improving reflexes and manual skills (fourth level of importance). One in five pupils (19.3%), by marking the first place in the hierarchy of influence importance, believed that using new technologies has the greatest effect on the development of reflexes and manual skills. Another 439 (17.9%) pupils, i.e. those indicating the second level of importance, saw a very strong impact of media on practicing reflexes and manual coordination. Only 201 (8.2%) children and teenagers assigned the lowest weight to the role of ICT in developing manual skills and reflexes; this was the least significant impact (weighted value: 2.8%). The picture is completed by the level with the weight of zero, established by counting those respondents who gave no weight to this category (by not voting). Thus, one learns that one in ten pupils (315 [10.1%]) did not notice any influence of ICT on the development of reflexes and manual coordination.

One can therefore conclude that pupils attached a high importance to the impact of computer tools in the sphere of reflexes and manual coordination. In their opinion, the use of ICT instruments (especially manually operated input devices) has an extensive impact on the refinement of the precision of hand and finger movements. Such exercises, supported by modern digital techniques, help form reflexes and develop the ability to quickly orient oneself in a given situation and to respond adequately (above all, spontaneously) to it.

In order to take a broader view of the effects of ICT use by children and teenagers, attention was paid to the factors that differentiate it: gender, type of educational institution (stage of education) and place (environment) where children and teenagers studied. The statistical analysis demonstrated whether these variables significantly differentiated the phenomena under study. The results are presented in Table 2.

Table 2. Pupils' opinions on the effects of using ICT tools by children and teenagers on reflexes and manual coordination – as differential factors

Results of the chi-square test: Effects of using ICT tools by children and teenagers on reflexes and manual coordination		
Differential factors (sociodemographic data of students)		
Gender	Type of educational institution (stage of education)	Place (environment) of learning
$\chi^2 = 70.94 > \chi^2_{(\alpha=0,01; df=5)} = 15.09$ $p = 6.51883E-14$ H_0 rejected	$\chi^2 = 119.94 > \chi^2_{(\alpha=0,01; df=15)} = 30.58$ $p = 1.94484E-18$ H_0 rejected	$\chi^2 = 53.06 > \chi^2_{(\alpha=0,01; df=20)} = 37.57$ $p = 7.95437E-05$ H_0 rejected

The calculations showed statistically significant differences in three cases – between the effects of ICT on children and teenagers in improving reflexes and manual coordination and gender, stage of education and place of learning. The detailed distributions of the quantities³ revealed the following findings.

- (1) Primarily boys considered improvements in reflexes and manual coordination to be a result of new media use. The frequency distribution of ICT effects (reflexes and manual coordination, by gender) illustrates this well, for example, in the distribution of quantities established at the first (highest) level of importance. In this group, there were 312 (25.6%) boys compared to 161 (13.0%) girls, that is, twice as many. Thus, it can be stated that the boys gave more weight to computer tools' impact on reflexes and manual coordination than the girls. The boys were more appreciative of the use of ICT instruments, especially manual input devices, and saw them making a more significant influence (a wider range of impacts) on improving the precision of hand and finger movements and on developing the ability to orient oneself quickly in a given situation and to react accordingly.
- (2) The picture of quantities (reflexes and manual coordination, by educational stage) is unambiguous in its message: the higher the educational level, the lower the weights assigned by pupils for this category of ICT impacts. As exemplified by the course of the first level of importance,

³ Due to the word count, these are not presented in this article.

it is easy to see how the most weight (the most important influence) given to this sphere by those in the early educational stages – i.e. 122 (33.7%) votes from children in early education and 152 (21.4%) from pupils in primary school – decreased in subsequently older pupils, amounting to 120 (16.2%) votes from pupils in junior high school and 79 (12.3%) from those in high school. This differentiation definitively determines this trend.

- (3) The numerical distribution (reflexes and manual coordination, by place of learning) had an irregular pattern. It is noticeable that pupils from villages (up to 10,000 inhabitants) and small towns (10,000–25,000) gave the most weight (the most important impacts) to this sphere of the effects of using ICT. The lowest weight in the importance hierarchy of new media was given by those living in medium-sized towns (25,000–100,000). These trends may be illustrated by the numbers of pupils who ranked this effect at the first (highest) level of importance: 150 (18.3%) from the countryside, 119 (22.7%) from villages, 77 (20.3%) from small towns, 66 (14.9%) from medium-sized towns and 61 (20.8%) from cities (over 100,000 inhabitants).

Teachers' observations

The frequency distribution established on the basis of teachers' observations about the effects of ICT use by children and teenagers on developing reflexes and manual coordination shows a regular, steadily downward trend, which is clearly illustrated by both numerical and weighted quantities. This rule also applies to the zero level (with the highest quantities), showing votes from 315 (29.7%) respondents. This large group of teachers, almost one third, did not assign any weight to this category of ICT effects, and declared it insignificant and to have no major impact on children's and teenagers' development. When viewed as a whole, teachers rated the effects of implementing new media on improving reflexes and manual skills as very important – the largest group of respondents, i.e. almost one fourth (25.4%), ranked it at the first level of importance. On the other hand, one in five

(18.8%) teachers noticed a substantial role of using computer technology in shaping and developing children's and teenagers' reflexes and manual skills. Further quantities at lower levels were as follows: 157 (14.8%) teachers claimed that the use of ICT instruments had a major impact on improving children's and teenagers' reflexes and manual coordination, while 85 (14.4%) thought that this impact was low (not very important) and only 34 (3.2%) indicated it as the least important.

In revealing their convictions about the effects of computer tools being used by children and teenagers, teachers maintained that such tools have a major impact on developing reflexes and manual skills. They were convinced that regular exercises done in a digital environment through manually operated input devices have a very significant influence on the development of hand and finger motor skills. They believe that such exercises largely speed up reaction time to changing environmental conditions. According to the teachers, daily work with ICT instruments improves children's and teenagers' dexterity with tools in general. They recognise that hand–eye coordination and manual dexterity are skills that have a very strong impact on a pupil's proper functioning.

When analysing the teachers' opinions, the author paid attention to the factors that differentiated the phenomenon under study: gender, type of educational institution, place where the teachers worked and the teachers' professional rank. These differential variables were statistically analysed, and the test results are presented in Table 3.

Table 3. Teachers' opinions on the effects of using ICT tools by children and teenagers on reflexes and manual coordination – as differential factors

Results of the chi-square test: Effects of using ICT tools by children and teenagers on reflexes and manual coordination			
Differential factors (sociodemographic data of teachers)			
Gender	Type of educational institution (stage of education)	Place (environment) of learning	Rank in professional advancement
$\chi^2 = 16.89 > \chi^2_{(a=0,01; df=5)} = 15.09$ $p = 0.004722421$ H_0 rejected	$\chi^2 = 19.89 < \chi^2_{(a=0,01; df=15)} = 30.58$ $p = 0.176014097$ no grounds for rejecting H_0	$\chi^2 = 20.22 < \chi^2_{(a=0,01; df=20)} = 37.57$ $p = 0.444487877$ no grounds for rejecting H_0	$\chi^2 = 9.42 < \chi^2_{(a=0,01; df=15)} = 30.58$ $p = 0.854299502$ no grounds for rejecting H_0

The calculations showed significant statistical differences in one case. The detailed numerical distribution of teachers' views on the effects of ICT on children's and teenagers' reflexes and manual coordination in the function of the differential variable 'gender' reveals that women gave slightly more importance to this sphere of media impact than men. The difference is at a low level, but it clearly indicates a dependence between these characteristics. At the two highest levels of importance, indicating very high and highest levels of ICT impact, 46.2% of the women outnumbered 36.9% of the men. The zero level, meaning no impact, was selected by 28.5% of women and 34.6% of men. This means that in the study group of teachers, the women were more convinced than the men about the correspondingly greater range of consequences of computer tools used by children and teenagers, maintaining that these tools have a more significant impact on forming and improving manual dexterity and reflexes. Thus, women, by placing more weight on this sphere of ICT effects, reported a bigger role of regular exercises conducted by pupils in a digital environment (through, for example, manually operated input devices) and a more significant impact on the development of hand and finger motor skills. They probably notice a role of computer games in this, which, in their opinion, children and teenagers use to the greatest extent (see Baron-Polańczyk, 2021a, p. 447). In women's positive opinions, games sharpen the senses, create reflexes and perceptiveness and improve concentration and reaction speed towards changes, among other things (Christ & Szmigiel, 2016, pp. 81–87; Helms et al., 2015, p. 59; Siemieniecki, 2021, p. 170–177; Wang et al., 2022).

Correlation between pupils' and teachers' opinions

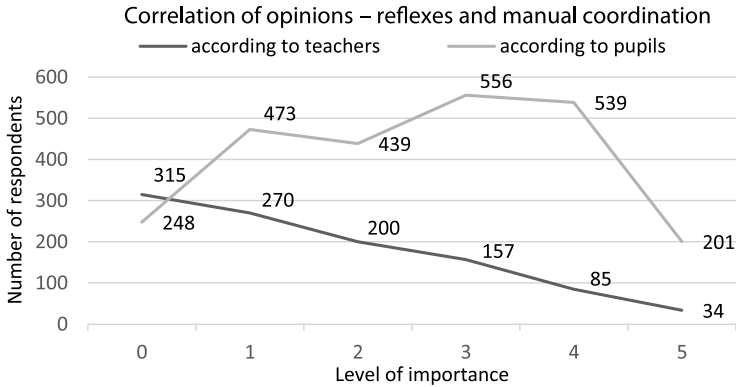
In order to better illustrate the importance hierarchy of the impact of new technologies, the results from the five analysed areas were compared. Data on the impact of children's and teenagers' use of ICT is captured globally. Overall, the category of change labelled as 'reflexes and manual coordination' ranked third among pupils (with a weighted value

of 1,414 and a zero weight of 248), who declared it a significant effect of ICT use. Teachers ranked this area in second place (with a weighted value of 565 and a zero weight of 315), maintaining that pragmatic implementation of new technology by children and teenagers has a very significant impact on improving reflexes and manual coordination. Thus, both pupils and teachers pointed out this area of media impact and attached great importance to ICT as stimulating tools.

The analysis indicated a possible relationship between the examined variables, i.e. between the opinions of pupils and the views of teachers as to how ICT impacts children's and teenagers' manual coordination. Statistical methods were also used to establish this relationship, which is a general methodological assumption in the context of dependence research problems. The coefficient of determination (r^2) and Pearson's correlation coefficient (r) were used to calculate the strength of the relationship between the two (coexisting) variables (Ferguson & Takane, 2016, pp. 142–143). The values of the coefficients were 1) coefficient of determination – $r^2 = 8.25682E-05$ and 2) correlation coefficient – $r = -0.009086705$.

The Pearson's correlation coefficient was negative, indicating a decreasing regression line; thus, the correlation was negative and it expressed opposing changes in both variables (Pilch & Bauman, 2010, p. 133). The negative value means that the pupils' self-assessment – in relation to the selected category of ICT impact area – decreased as the number of teachers' opinions in this area increased. It should be emphasised that the data used to calculate these correlations in this (overview) research only points to the coexistence of the values of variables. The values may coexist, even though one does not cause the other (King & Minium, 2020, pp. 186–188).

Figure 1. The correlation between pupils' opinions and teachers' observations about the effects of children's and teenagers' ICT use on improving reflexes and manual coordination



By interpreting (determining the degree of dependence) the value of the Pearson's correlation coefficient (approximately $r = -0.009$), one can state that the correlation between the pupils' and the teachers' opinions was 'weak' (Guilford, 1964, p. 157) or 'faint' (Góralski, 1987, p. 38). Thus, the phrase 'weak, negative correlation' can be used to describe the correlation found for the established levels of significance (hierarchy of importance) of ICT effects in this category (outlined by different opinions of pupils and teachers). What stands out in Figure 1 is the marked non-answers (level 0), given by as many as 315 (29.7%) teachers.

In relation to the problem under study and the results, it is worth emphasising that the literature reveals a specific dichotomy of opinions (polarisation of positions) on the influence of computer games and ICT in general on children's and teenagers' development. Numerous representatives of the older generation in particular have a negative attitude towards computer games and are convinced of their harmful influence (in physical and psychological terms). On the other hand, positive the aspects of gaming, confirmed by numerous studies, are gaining popularity: players gain knowledge about cooperation and competition, social behaviour and teamwork (for example, massively multiplayer online role-playing

games). Popular games are frequently based on impersonating a member of real or a fictional society, thus developing social competence, and the interaction between players is based on communication, often in English or using a special slang. On the other hand, arcade games require the player to have reflexes, manual coordination and concentration. Players must foresee events, make decisions quickly, concentrate and think logically. These skills are also supported by classic logical games: chess, bridge or solitaire. It is also worth mentioning the positive aspects of physical exercise in games (especially VR games or dance simulators, which require more coordination and a sense of rhythm). The issue of improving reflexes and manual coordination by using ICT tools is closely related to the conditions of safe and hygienic work at an ergonomically designed computer workstation equipped with appropriate input/output devices and high-quality hard/software (Cho et al., 2012).

Summary

The analysis of the literature and the data collected from 2,456 pupils and 1,061 teachers allow for the following conclusions.

(1) Based the frequency distribution of the effects of ICT use by children and teenagers in the five areas of ICT impacts, an aggregated hierarchy of their importance was established (according to the order of pupils' and teachers' opinions), in which the category of reflexes and manual coordination was attributed as follows:

- Pupils gave it a high weight (third place, weighted value – 1,414). Children and teenagers therefore believe that the use of ICT tools and exercises supported by modern digital technology, have a significant impact on improving their reflexes and manual coordination. They think that daily use of digital instruments (especially manually operated input devices) results in, and to a large extent improves, the precision of their hand and finger movement.

- Teachers gave it a very high weight (second place, weighted value – 565). In particular, the first three levels of importance, as ranked, were selected by the majority of the teachers (59.1%), as they considered ICT tools used by children and teenagers to result in improved reflexes and manual coordination (increasing their competency to a large, very large or the highest extent). Teachers are convinced that regular exercises carried out in a digital environment through manually operated input devices have a very significant impact on the development of pupils' hand and finger motor skills.

(2) The correlation between pupils' opinions and teachers' observations on the effects of ICT use by children and teenagers on improving reflexes and manual coordination was weak ($r @ -0.009$) and negative, and it expressed opposite changes in both variables.

(3) The analysis showed that among the many differentiating factors analysed, statistically significant differences existed in four cases: between the ICT effects on children and teenagers in terms of improving reflexes and manual coordination and gender, educational stage, place of learning and the gender of teachers. The following findings were established:

- When it comes to the effects of ICT use, boys noted them more often than girls, primarily in the improvement of reflexes and manual coordination. They much appreciated manually operated input devices (according to the high level of differentiation), perceiving their more significant impact on improving hand and finger movements precision and on developing the ability to orient oneself quickly in a given situation and to react appropriately to it.
- The numerical distribution in the function of the type of institution (stage of learning) showed a downward trend (the importance of ICT effects decreases with the educational level), as the higher the educational stage, the lower the weights given by pupils were.
- The results in particular areas and the numerical distribution in the function of the place of learning (town size) showed an irregular pattern.

The highest weights (the most significant influence) for the effects of ICT use on improving reflexes and manual coordination were given by pupils from villages (up to 10,000) and small towns (10,000–25,000). The lowest weight in the hierarchy of new media impacts was given by pupils from medium-sized towns (25,000–100,000 inhabitants).

- The results in particular areas and the numerical distribution in the function of the gender of teachers allows for the conclusion that women gave slightly more weight (significance) to media impact on the development of reflexes and manual coordination in children than men. The women were more convinced of the correspondingly greater range of consequences of computer tools, maintaining that they have a more significant impact on the creation of reflexes and perceptiveness and on the formation of hand and finger motor skills.

In general, pupils and teachers ranked the category 'reflexes and manual coordination' at a high level of importance for ICT effects (selecting high and very high importance, respectively). On the other hand, the research (establishing a correlation) points to a divergence of opinions between pupils and teachers as to the extent of ICT impact on reflexes and manual coordination. It revealed slightly different views on the subject (as evidenced by the low degree of negative correlation) and showed a slight 'separation' between the children and teenagers' world ('us') and the teachers' world ('them'), which is important in the context of recognising pupils' needs and understanding the reasons why they use new media on a daily basis (Baron-Polańczyk, 2018, 2021b). Given the empirical recognition of the differences between pupils' and teachers' opinions, the educational indications for the idea of constructivism as well as the consequences stemming from it for educational practice, one may doubt whether the teachers in the study were 'constructivist' enough for the ICT era. The differences in the beliefs of educators and pupils gained particular importance during the COVID-19 pandemic (Donoso et al., 2020; Ptaszek et al., 2020), when the educational process was dependent on the effective use of remote work tools – the manifestation of information competency that determined the learning process (construction of knowledge).

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The Importance of Feedback in Improving Students' Writing Skills with the Assistance of New Technologies

(pp. 357–386)

Abstract

Feedback is a crucial element of the learning and teaching cycle. Constructive feedback is central to high school students' learning. However, the effectiveness and efficiency of feedback provided through new technologies are relatively under-researched. Some examples of innovative approaches to delivering feedback to EFL learners include individualized audio-visual feedback using screencasting technology and feedback interviews with internet communication tools, such as messaging apps and social media platforms. This study examines how individual feedback provided via different modalities influences the learners' writing skills. It also offers insight into whether learners wish to be decide on the type of feedback they receive on formative assignments during their writing training. Students' writing samples were analyzed and student survey data was used to interpret the students' perceptions. Overall, the students had a positive attitude toward using different technology-based tools to provide and receive feedback.

Our findings suggest that the majority of students benefit from feedback given with the use of certain modalities. The results indicate that technology could be integrated into teaching practices to support students' writing, engage them in writing tasks, and improve interactions between learners and feedback givers.

Keywords: feedback, writing competence, technology, screencasts, feedback interviews

Background

Feedback is regarded as essential to developing second language writing skills because of its potential for both learning and student motivation. In learner-centered, process-based teaching, it is a crucial developmental tool that moves learners toward effective self-expression. It is a vital element of the scaffolding provided by the teacher to build learners' confidence in writing. Over the past 20 years, changes in writing pedagogy and the development of new technologies have transformed feedback practices, with teacher-written comments now being combined with computer-delivered feedback. However, teachers tend to have a sense that they are not making use of their full potential. Many questions related to feedback are unanswered or only partially addressed. What is the best way to deliver feedback? Can technology play a more significant part in delivering feedback? What are the students' and teachers' perceptions of feedback? What influences the students' ability to use feedback effectively?

One of the main reasons for the focus on feedback is that it is widely recognized to be a crucial part of learning. However, educators resent the fact that although they put a great deal of time into generating feedback, students take very little notice of it. It seems that the ways to generate and deliver feedback to students need to be widely reconsidered.

Feedback is the mechanism that informs students whether they are successful in their work. It is a central part of their lives as learners. For teachers, it is a way to communicate what they value and do not value

in their students' performance. It is a personal channel to communicate to students about something in which they have invested time and effort. Many learners care about their work and about how it will be judged. Feedback has nonetheless proven problematic for individual learners, teachers, and institutions.

There is no commonly accepted definition of feedback. It is used in an ordinary sense to refer to commenting on students' work. It is often seen as a helpful complement to grading, including instructions on how to improve their work and earn higher grades. Undeniably, this is a very teacher-centric view of feedback, as it focuses on the teacher's activities of writing comments, returning work, and discussing work verbally. It ignores the learner's activities, which include seeking information, responding to comments, and incorporating what is learned from them in future work. It is a matter of considering what may help transform a tired practice into one that could generate enthusiasm and meaningful action. It seems that an emphasis on what students are expected to do with feedback is the solution.

Boud and Molloy (2013) claim that feedback should be understood as a process in which learners obtain information about their work to appreciate the similarities and differences between the standards for given work and the work's qualities. The process should aim at improving students' learning. This concept suggests that feedback is not merely a one-way flow of information from a feedback giver to a passive feedback receiver. According to Boud and Molloy (2013), feedback should focus on the learners and what they do, rather than what teachers do.

If feedback is to enhance learning, we ought to move beyond a view of feedback processes as transmission and recognize the active role that students must play in them. Sadler (2010), for example, claims that "telling" students what is right and wrong in their work, as well as how it might be corrected, will not improve learning or develop stronger skills in the subject. Nicol (2010) argues that feedback should be seen as a dialogue rather than as a one-way transmission process and notes that, from this perspective, both the quality of feedback and students' responses to those inputs are essential for successful learning.

To be effective, feedback needs to be more than a number or letter grade and must provide “qualitative information” about performance that is acted upon by the student or educator. Giving and receiving feedback is not effortless. Proper, adequate communication and timing are necessary for feedback to be effective. Offering feedback provides a well-timed opportunity for staff and students to gain insight into each other’s experience and understanding of learning/teaching practice, as well as a means to help build staff–student relationships.

Even if both students and teachers acknowledge that there is an issue with feedback, it does not mean that they interpret it in the same way. Indeed, they can have quite different perceptions of what the process involves. As seen by teachers, this means that the student may not see changes as an improvement. Higgins (2000) argues that many students are openly unable to understand feedback or interpret it correctly. Feedback is generally delivered in an academic *discourse* to which students possibly do not have full access. What is meant by discourse is the language in which the tutor’s comments are encoded. While tutors think they are giving extensive feedback and may spend many hours writing comments, the evidence shows that the feedback is often not understood or is not communicated in a way that helps students. Students report that they do not know what is expected of them or do not understand the tutor’s language (MacLellan, 2001; Weaver, 2006).

Feedback Dialogues

The perspective of the students and staff that the feedback session is a two-way process, a dialogue, and undoubtedly not a one-way transfer of information can be seen in the studies of face-to-face feedback conducted by Blair and McGinty (2013), Crimmins et al. (2016), and Nicol (2010). Blair and McGinty (2013) identified limitations to this process. For example, the relationship between the marker and the student – in other words, expert and novice – may limit the dialogue’s extent. Open discussions require a degree of maturity and confidence in the student. We may

expect the relationship between the tutor and student to change with the stage of the study. Still, regardless of the stage, we need to understand the relationship between the marker and the student in order to develop efficient assessment practices. The nature of the relationship between student and teacher should be extended to support individual student learning, boost their confidence, and engage them with education.

Screencasts

When providing feedback using screencasting software tools, students traditionally receive detailed written feedback on their assignments in the form of annotations and corrections, as well as separate written comments summarizing their overall performance. For foreign-language speaking assignments, students also receive audio feedback in addition to written comments. The aim is to improve students' engagement with feedback on written assignments in distance learning environments. Also, it provides an opportunity for the tutor to engage specifically with an individual student's work, providing both feedback and feedforward. Students submit assignments through an electronic system and receive feedback in the same way. Screencasts are made with free software that also allows the recording of a minutes-long video of actions what is happening on a computer screen accompanied by a teacher's commentary to provide information on students' written assignments. It requires the teacher to download free software and to use a microphone to record commentary on their corrections. It may also require the use of a webcam, though this is not compulsory.

Middleton (2011) and Thompson and Lee (2012) point out that it is a personal, timely, and meaningful method of providing individualized feedback. Edwards et al. (2012) and West and Turner (2016) claim that audio-visual feedback improves understanding and engagement and promotes active listening.

Some benefits of spoken feedback in the form of screencasts over written feedback have emerged from several studies presented by Harper,

Green, and Fernandez-Toro (2012). One benefit is that it is more engaging due to variations in tone of voice and expression. Also, it is easier to understand since it is more nuanced through intonation, allowing students to discern what is more important. It is more informative than written feedback because teachers can add more content. Notably, it is more personal and students feel as if the tutor is engaged with their work. Most importantly, it is less daunting than face-to-face feedback since the student receives it privately and does not feel embarrassed. Lastly, it increases the sense of tutor presence: students feel as if the tutor is there in the room, which might be significantly appreciated in situations of epidemics and school closures.

Written Feedback

Feedback on assignments and assessed work are predominantly presented in written form. It may be the only kind of feedback students receive in the majority of schools. It should be formative and evaluative; it should be returned to students within a specified period. However, schools usually do not endorse educational policies on feedback. Class sizes and grading loads have inevitably increased. Greater formality has been introduced with standardized grading procedures and external adjudication. Teachers have less time to write comments on students' work, and there are fewer opportunities for tutorial interactions between tutors and their students. Feedback/Feedforward is usually considered necessary in cases where a student's work is deficient in some way that affects their grades. Students may themselves be only dimly aware that some of the tutors' remarks are determined by externally imposed standards, such as graduation exam requirements. To save time, teachers are writing for more than one reader; feedback is not exclusively directed at a particular student. A lot of this feedback is copied now, so students receive a standardized format. Very often, teachers limit themselves just to giving a grade and treating grades as a form of feedback. Several scholars have examined the issue of written feedback. For example, Glover and

Brown (2006) suggest that one key concern for teaching staff is that providing written feedback is a time-consuming process. Many educators feel that the time spent on feedback is wasted. There is a perception that students are only interested in grades and pay little – if any – attention to written feedback. Also, Bailey (2008) found that teachers experienced a conflict between their conceptions of the purpose of feedback, their intentions, and the system's requirements. Due to this conflict, Bailey suggests that educators might become more indifferent to the feedback they provide.

The Research Particulars

The main aim of the study was to check which type of feedback is the most effective in improving the writing skills of students of an IT/logistics technical college. It was hypothesized that students undervalue both the ability to write correctly and the ability to structure information logically, clearly, and concisely. Needless to say, for future professionals, writing in English in a professional setting is a necessary skill to have. Also, some research on the effectiveness of feedback (Cutumisu et al., 2018) indicates that students do not always benefit from the various types of feedback provided to improve their writing competence.

The researcher tried to investigate the effectiveness of synchronous feedback provided in one-to-one interviews in which the teacher elicited vocabulary, language forms, rules, and ideas. It allowed the teacher to collaborate with the learner on finding appropriate solutions. Another aspect of the study was checking the impact of asynchronous audio-visual feedback provided through screencasts in which the teacher gave comments on the students' work. These forms of feedback were contrasted with the effects of the traditional written feedback in which students are given corrections and a grade. The next aspect of the study to be investigated was connected with the student's perceptions of the type of feedback they received, including their comprehension of feedback, its compliance with their learning styles and self-perceived level of proficiency, and their engagement in improving their writing skills using the feedback they

received. It cannot be denied that providing good formative/corrective feedback is a time-consuming process for teachers. Yet, it is often accompanied by students' lack of understanding about the role it plays in their learning. The final aspect of the study was investigating which forms of delivering feedback to students about writing assignments are the most popular among teachers. Therefore, the following research questions were formed: 1) Is feedback provided synchronously more effective at improving students' writing skills? 2) Is asynchronous feedback more important in improving students' writing skills? 3) What are students' perceptions regarding the type of feedback they receive? 4) Does the level of English proficiency impact the student's ability to understand and use feedback to improve their writing skills? 5) Does the learning style have an impact on the student's ability to use feedback to improve their writing skills? 6) What forms of delivering feedback on written assignments are the most popular among EFL teachers?

The participants of the study were 44 students of an IT/logistics technical college, aged 18–19 years. All of them were native speakers of Polish and they had been studying English as a foreign language for 12 years. The vast majority of the participants were men; only eight students were women (18%). The three groups of students were chosen because they were all taught by the researcher and had a similar level of linguistic achievement. Two groups were randomly assigned to two experimental groups of 15 and 14 students, while the third became a control group of 15 students.

The Method

With the use of modern digital technologies such as Google Meet, Google Classroom, and Open Broadcaster Software, as well as a questionnaire, interviews, and a writing competence test, the author tried to answer the research questions listed above. Three research tools were used in the research: a test, a questionnaire, and interviews. Therefore, the research had two stages. In the first stage, a quasi-experiment was

conducted, during which students studied the same material and wrote three essays over a period of 8 weeks. Pre- and post-tests of writing competence were administered as well. In the second stage, a detailed analysis of the questionnaire results and interview responses took place. The research, therefore, went in two directions – providing statistical and numerical data and qualitatively and quantitatively analyzing it.

1. The Test of Writing Competence

As part of the research, writing competence tests were carried out. A pre-test and a post-test assessed students' writing ability in English. The tests were essays dealing with practical, social, and professional topics encountered in formal contexts. They measured the test-takers' ability to write persuasive essays and opinion essays according to the criteria of the national graduation exam ("*matura*") requirements. The participants' texts were assessed by criteria such as content and composition, logic and consistency, lexical and grammatical scope, and linguistic correctness.

2. The Questionnaire

Along with the test, the students were asked to fill out a short questionnaire that investigated the aspects of students' perception of feedback that may have had an impact on the test results. Therefore, they were asked about their learning style, their self-perceived level of English, and the way they received feedback. The other part of the questionnaire, with a five-point Likert scale, determined the students' experiences and preferences regarding feedback in their classes writing in English. For each question, students were instructed to check the box that most closely matched their experience or preference.

3. The Interviews

The researcher also intended to collect qualitative data to establish how other high school teachers provide feedback to their students. Therefore, ten teachers were interviewed about their experiences using technology and feedback, which provided an opportunity

to understand their perspectives and experiences. The interviews were conducted over the course of 2 weeks and the teachers were asked how they used technology in their classrooms, how they felt about using technology to give feedback, what worked and what did not work with technology-mediated feedback, how students responded to feedback, and whether they considered using screen-casts or one-to-one feedback interviews with students. The researcher decided to apply asynchronous online interviewing to the data on this subject.

Procedure

The study was conducted during a period of national school closures due to the pandemic, which resulted in the students' being out of the classroom for several weeks. The learning was carried out on the digital platform Google Classroom; thus, the quasi-experimental study used a three-step process:

- Week 1 – A short learning period in which the students were instructed how to plan, write, and revise a persuasive essay and a pre-test (an essay on a given topic) was given
- Weeks 2–9 – A learning period during which the students studied the same material and wrote three essays over the same period of 8 weeks, and in which the feedback process took place:
 - a) Group 1 (Experimental A) received synchronous feedback from a teacher via Google Meet during one-to-one interviews.
 - b) Group 2 (Experimental B) received synchronous audio-visual feedback from a teacher using screencast technology.
 - c) Group 3 (Control) received feedback in the form of a grade and teacher's corrections and comments through the comment feature of Google Docs.
- Week 10 – Post-test (written essay) and student surveys

The study required students to write essays of 200–250 words within a 90-minute time limit. The school used the Google Classroom platform, so the researcher and the students could use it during the whole procedure, both for teaching/learning and testing. Before the tests, the students were briefed about the topics and the criteria to be used in assessing their work. The marking scale which was implemented was the national graduation exam marking scale, with the following writing aspects: content and structure, logic and consistency, lexical and grammatical scope, and correctness. Each writing aspect received a given number of points (Table 1) with a maximum score of 13.

Table 1. Writing Scoring Rubric

Writing aspect	Points
Content and structural organization	5
Logic and consistency	2
Lexical and grammatical scope	3
Correctness in grammar and vocabulary	3

Source: Centralna Komisja Egzaminacyjna (2013)

As far as content and organization are concerned, both the content and form of a text are evaluated, as well as the quality of their implementation. The content of the text includes putting all of its elements in the appropriate places and dividing it into paragraphs. The logic and consistency assessment takes into account whether and to what extent the text functions as a whole thanks to clear connections within and between the text's sentences and paragraphs. When assessing the logic of a text, it is taken into account whether and to what extent it is clear. When assessing the scope of linguistic means, the differentiation and precision of lexis and grammar used in an essay are taken into consideration. Another analyzed issue is naturalness and phraseological diversity. When assessing the correctness of language, errors in grammar, lexis, spelling, and punctuation are taken into account.

Research Results and Analysis

1. Test of writing competence results

The writing competence test constructed for the study was meant to possess two qualities: content validity and reliability. The content validity of a writing test is how well it illustrates the variety of skills, knowledge, and abilities that students were supposed to acquire in the period covered by the exam. The reliability of the essay test was graded by the grading criteria provided by the Regional Examination Commission, with a total score of 13 points. One more aim was to create a writing test that would measure higher-level cognitive objectives. The test determined the students' ability to select content, organize and integrate it, and present it in logical prose. The essay test conducted for the study was also meant to provide a positive effect on students' learning. Therefore, the preparation for the test did not require memorizing facts. The students took their pre-tests in December 2020 and then, after an 8-week learning period, took their post-tests in March 2021. The overall results were subjected to statistical analysis. The data from the analysis of the student's scores in the pre-test and post-test in all three groups is presented in Table 2.

Table 2. Statistics for pre-tests and post-tests

		Group 1 (n=14) Experimental A	Group 2 (n=15) Experimental B	Group 3 (n=14) Control
Pre-test	mean	11.10	11.07	11.08
	SD	1.726	1.162	1.439
Post-test	mean	11.93	11.86	10.50
	SD	0.916	1.245	1.224

As can be seen from Table 2, all three groups had similar mean scores in the pre-test, but in the post-test, the experimental groups significantly outperformed the control group. The overall mean scores showed improvement in the post-test scores of the students who received asynchronous feedback in the form of screencasts (Experimental B). This agrees

with Kim's (2018) findings suggesting that audio-visual feedback is motivating and engaging for students. The other experimental group (Experimental A) also improved their results in the post-test. Those students were provided with synchronous feedback in the form of one-to-one interviews with the teacher, which allowed for interaction and clarification as well as a focus on the individual needs of particular students. This significantly contributed to the improvement. Regarding the mean scores in the control group, the results were different. Interestingly, not only did the control group lack growth, but there was a decline. This finding was not expected. Additional analysis should be conducted to identify what led to the students' poor results in the control group and investigate whether the cause is related to the type of feedback or other independent reasons.

To check whether the difference between the mean scores was significant, an additional one-way analysis of variance (ANOVA) was conducted. In Table 3, we can see the results of this test.

Table 3 . ANOVA results for the test of writing competence

Result Details				
Source	SS	df	MS	
Between-treatments	18.4427	2	9.2214	$F = 7.07135$
Within-treatments	52.1619	40	1.304	
Total	70.6047	42		
The f-ratio value was 7.07135. The p-value was 0.002346. The result is significant at $p < 0.01$.				

The analysis revealed that the difference between the scores was significant. Therefore, the null hypothesis that all the means are equal has to be rejected, and an alternative hypothesis, namely, that the means are different has to be accepted.

The levels of improvement in particular groups are presented in Table 4, represented by the differences between post- and pre-test mean scores.

Table 4 . Comparison of the improvement between the pre-and post-tests

Group 1	Group 2	Group 3
0.69	0.86	-0.58

Individual students' results were analyzed for more detailed information in order to determine the importance of different types of feedback. The post-test results showed that 21.4% of the students in the Experimental A group and 6.6% of those in the Experimental B group had become higher performers. In the control group, moderate performers were raised from 35.71% (pre-test) to 57.14% (post-test), with an improvement of 7.1%. However, this is the result of fewer high performers. This finding suggests that the students in the control group were not attentive to the written comments and feedback and were thus unable to use it to improve their writing competence. Similar findings were reported by Cutumisu et al. (2018), suggesting that students tend to avoid applying feedback to their work if they lack the encouragement to do so. Table 5 presents the number of students depending on how well they performed in the post-test.

Table 5 . Students' pre-and post-test scores

Scores	Group 1 (n=14) Experimental A		Group 2 (n=15) Experimental B		Group 3 (n=14) Control	
	Pre-test scores	Post-test scores	Pre-test scores	Post-test scores	Pre-test scores	Post-test scores
≤6 points: low performers	0	0	0	0	0	0
7–10 points: moderate performers	4	1	4	3	5	6
≥11 points: high performers	10	13	11	12	9	8

This prospective study was conducted to see if the feedback provided to students in different forms during the learning period improved their writing performance in the subsequent post-test. The study was also used to assess the educational value of different forms of feedback delivery. It needs to be emphasized that all students who took part in the experiment

had been given written comments and feedback, whereas screencasts and feedback interviews were a novelty to them. This fact might have contributed to the lack of improvement in the control group. The results revealed that two groups of students improved their writing skills, while one group did worse in the post-test than in the pre-test. The highest rise in mean scores was in the group of learners who received feedback asynchronously, whereas the largest increase in the number of higher performers was in Experimental Group A, where feedback dialogues were carried out. The study revealed no improvement in the group where written corrections and comments were provided via the Google Classroom platform.

2. Questionnaire results

The data was gathered from a total of 43 students taking part in the experiment. The survey was conducted after the learning period. What were the students' perceptions regarding the type of feedback they received? Table 6 presents some quantitative analysis of the qualitative categories.

Table 6. Students' perceptions of the value of feedback

Survey questions	Group 1 Experimental A		Group 2 Experimental B		Group 3 Control	
	Mean*	SD	Mean*	SD	Mean*	SD
Q1: To what degree do you want your teacher to provide feedback on your assignments?	4.5	0.650	3.86	0.833	3.71	0.913
Q2: To what degree do you read/listen to the feedback your teacher provides?	4.57	0.646	4.6	0.632	3.92	0.828
Q3: Is the feedback you receive clear and understandable?	4.57	0.513	4.8	0.414	4.5	0.650
Q4: When feedback is provided in English, to what degree do you understand it?	4.71	0.468	5	0	3.71	1.069
Q5: To what degree do you prefer feedback in English?	4.57	0.646	4.73	0.593	3.28	1.069
Q6: Does the feedback you receive help improve your writing?	4.21	0.699	3.66	0.816	3.78	1.050
Q7: To what degree do you take the feedback you receive from your teacher into consideration when writing another essay?	4.07	0.730	3.86	0.743	4.28	0.611

*5-point Likert scale: 1 – never, 5 – always

The hypothesis that students want to receive feedback on their writing assignments was investigated to see whether they consider it essential for the growth of their writing competence. The highest mean score was in the group of students who were provided with feedback in interviews. The standard deviation in this group suggests that they were the most homogenous of the three concerning their willingness and openness to the teacher's feedback.

When it comes to reading or listening to the teacher's feedback, both experimental groups received similar results; the results were higher than those in the control group. Regarding the degree of understanding feedback, the differences that arose were relatively small, which means that all three groups generally have no difficulty understanding the feedback from the teacher. It should be noted, however, that Experimental Group B declared the highest comprehension.

In a very similar question of whether the students understand the feedback in English, the results in both experimental groups were significantly higher than in the control group. All the respondents in the group that received feedback in screencasts indicated that they always understand feedback in a foreign language.

Another question referred to the students' preference for receiving feedback in English over their mother tongue. Again, the control group indicated the lowest preference, whereas Experimental Group B (the screencast group) demonstrated the highest preference. Next, the students self-reported the degree to which feedback helps them improve their writing. The feedback interview group reported the highest contribution of feedback in their writing skills development, and the screencast group declared the lowest impact.

In terms of taking the previous feedback into account when working on the next writing assignment, surprisingly enough, the control group indicated the highest degree in their responses. However, it disagrees with the answers given by this group earlier, which suggested they do not read the feedback as often as other groups.

The difference between means' scores is also readily observable in Figure 1.

Figure 1. Comparative analysis of mean scores to the survey questions, by group

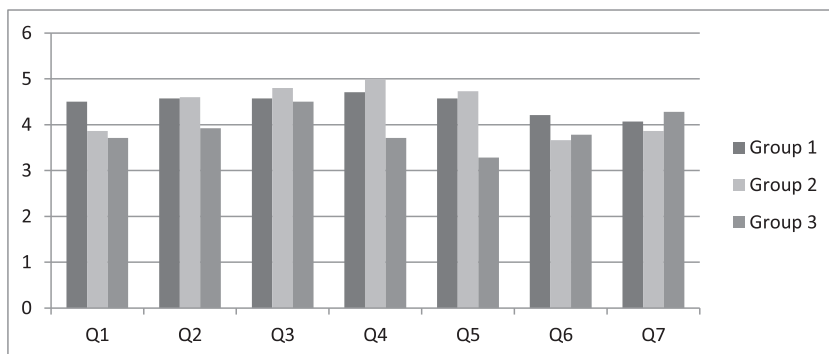


Figure 1 shows that the highest means were demonstrated by the screencast group (Experimental Group B), followed by the interview group (Experimental Group A). The control group expressed the highest preference only in one case and it had the lowest scores for five questions. This suggests that this group of students' engagement in feedback was relatively low and indicates that students do not find feedback in the form of written corrections and comments to be as attractive and motivating as the students who received it in other formats, whether synchronously or asynchronously. However, it must be stated that feedback in the form of written corrections and comments was what students had been exposed to before the intervention. In contrast, screencasts and feedback interviews were a novelty. The success of the experimental forms might be partly due to the fact that they brought something new and fresh to the learners' routine. It cannot be denied that motivation and positive feelings are of great importance in developing writing skills. It is therefore assumed that both screencasts and interviews proved their importance in developing the students' positive attitudes toward improving their writing competence.

Another analysis was conducted to establish whether the students' level of English impacted their ability to understand and use feedback to improve their writing skills. Therefore, a correlation between the self-perceived level of proficiency among students and their test scores should

be investigated. Also, the correlation between the self-reported level of English and the self-reported ability to comprehend and apply feedback was analyzed. There were three categories of proficiency to choose from in the questionnaire: pre-intermediate, intermediate, and upper-intermediate.

According to the questionnaire, two students in Group A reported being at upper-intermediate level, 11 at intermediate, and one at pre-intermediate. In Group B, eight students reported being upper-intermediate and seven intermediate. Finally, in the control group, two were upper-intermediate, seven were intermediate, and five were pre-intermediate.

A similar analysis was undertaken to determine whether there is a relationship between the participants' self-reported learning style and their ability to use feedback to improve their writing. The chosen learning style is crucial for language learners to master all English skills, including writing. Brown (2000) defines a learning style as being able to indicate how learners perceive and process information in learning situations. Because feedback can be treated as information tailored to a learner, an awareness of preferred learning styles is essential. It has an impact on language learners' achievement in acquiring English. Therefore, it is the subject of an analysis carried out to answer the fifth research question, whether there is a correlation between a learning style and increased writing competence after being exposed to various types of feedback. The respondents were advised to indicate more than one learning style to enable them to demonstrate a mix of two or more learning styles they may have.

First of all, most learners in Experimental Group A reported being both visual and reading/writing learners. The students in this group were offered feedback interviews in which they could see their tasks with the problem areas indicated. However, the correction was elicited from the learners at the time of the interview. The auditory learning style seems the most necessary for this method, but despite this style being almost non-existent in this group, its members did very well in the post-tests. This means that the learning style does not significantly correlate with the effectiveness of feedback interviews.

The results were different for the other experimental group. The most common learning styles was auditory, followed by visual. The group was provided with screencasts during the whole learning period and a close relationship was observed between the type of feedback they received and their preferred learning style. Since the group improved significantly in the post-tests, the research proves that there is a correlation between a learning style and the ability to use feedback to improve writing skills.

Surprisingly, the results obtained in the control group do not prove the existence of such a relationship. The students in this group were given feedback in the form of written corrections and comments. Even though most learners in this group reported being visual and reading/writing learners, it did not improve their writing, as presented in Table 4.

All in all, the results from all three groups do not seem to support the hypothesis that there is a relationship between the participants' learning styles and their ability to use feedback to improve their writing skills.

3. Interview Results

In order to supply explanatory information to validate and enhance the interpretation of the quantitative results, interviews with teachers of English were held. Ten interviews were conducted with teachers working in several secondary schools and one primary school, one of whom was male and nine were female. The interviewees were asked several questions in the form of asynchronous online interviews. The study results are sorted into six sections; each section addresses one of the interview questions.

- **How do you use technology in class?**

All of the interviewees noted that they use technology in their teaching practice. Various applications and devices were mentioned. Only one teacher mentioned some insufficiency, which was exemplified in the following way: "I use a TV set connected to the classroom computer.... I also use my CD recorder for listening. I don't have much equipment in my classroom. I wish I had more..."

- **How do you feel about using technology to give feedback on writing assignments?**

Another theme that emerged from the responses is teachers' attitudes toward technology as a means of giving feedback on writing assignments. Half of them admitted to not using technology to provide feedback because it is time-consuming. They also mentioned not knowing how to use technology to give comments on students' writing. For example: "When it comes to feedback, I think that technology makes it easier. However, it is still time-consuming"; "I prefer the traditional form of feedback"; and "I don't know how to use technology to give feedback in writing assignments."

Yet, those who responded positively mentioned that it saves time and is convenient. One teacher pointed to the fact that all assignments are held in one place and it is easy to go back to previous feedback to see how students have developed. "It gives a lot more possibilities to highlight and focus on a specific issue at a time"; "It's more engaging for students than traditional feedback methods."

- **What about technology-mediated feedback works with writing assignments?**

A total of 80% of all comments showed an appreciation for technology-delivered feedback. Four respondents mentioned self-correction of errors and second drafting. The other three pointed to the immediate response and students' ability to ask questions in the process. One respondent indicated the possibility of generating a repository of comments which can facilitate the teacher's work. Also, two teachers noted that having their students receive feedback electronically allowed for more personalized and private comments.

- **What about technology-mediated feedback does not work with writing assignments?**

Although most teachers highlighted the benefits of technology-mediated feedback in writing assignments, two of them indicated limited contact with the student and the lack of personal responses.

Three teachers reported the fact that it is very time-consuming to prepare comments in a digital form and they find it difficult to explain what they mean to students in detail. One respondent noted that the biggest problem with feedback is that students are not interested in receiving it: "What matters for my students is a grade. If there are too many comments, in their opinion, they ignore them."

- **How do students respond to the feedback you provide?**

Over half (60%) of the responses suggested that students respond with engagement. One teacher stated that they do not respond unless she asks them to. One teacher noted that some students do not implement feedback, which is frustrating for the teacher and makes the effort put into creating feedback useless. Another teacher stated that her students correct themselves quite eagerly and that some of them rewrite their work without being told to do so. One teacher declared that students ask questions when the feedback is unclear.

- **Would you consider using screencasts or one-to-one feedback interviews with students?**

Most of the answers suggested that teachers do not regard screencasts and feedback dialogues as very practical in their teaching practice. Again, the fact that they are time-consuming was emphasized: "No, I wouldn't. My students are not interested in this form of feedback. What's more, it would take me a lot of time to learn how to do it"; "not all students require an interview every time they write. I believe interviews should be occasional and more summative, to be seen as a 'treat'"; "I've tried screencasts, but it takes me more time than using a comments bank. ... One-on-one feedback interviews would be the most effective, but the most time-consuming at the same time. It's good in small groups (for example, in language schools), but difficult to organize in traditional classes. I prefer online tools to save time."

However, these responses are in contrast to Kim's (2018) findings, which suggested that reviewing each student's assignment with a screencast tool

is half as time-consuming as providing written comments. The reason might be that most teachers are not accustomed to this tool and therefore it is associated with effort and time.

Discussion

The analysis of the data gathered in the course of the research allows us to prove two of the four hypotheses created for the study. The highest growth in mean scores occurred in the group which received asynchronous feedback in the form of screencasts. Therefore, the hypothesis that synchronous feedback is more important in improving students' writing skills has not been validated. Another hypothesis predicted that asynchronous feedback would be more important in improving students' writing. However, the results confirmed this hypothesis only partially, as the two groups provided with such feedback returned contrasting results. One of the groups improved its mean score, whereas the other one scored lower in the post-test than in the pre-test. The first was provided with asynchronous feedback through screencasts and the success of this group should be attributed to the application of this specific type of feedback rather than it being asynchronous. The control group also received asynchronous feedback, though in the form of written corrections and comments, and did not demonstrate similar improvement of the students' writing competence. Also, there was a correlation between the students' level of English and their scores, suggesting that the level of language competence impacts the learners' ability to use certain types of feedback to improve their writing skills. Nonetheless, different learning styles do not necessarily impact the learners' ability to use feedback effectively.

Moreover, the analysis of the students' perceptions revealed that the participants expected their teacher to provide feedback on their writing assignments and that they did read or listen to it. The majority of the learners did not face problems when dealing with feedback, and they considered it clear and understandable. Most students, especially in

the experimental groups, did not mind receiving it in English. Also, generally, they found feedback valuable and helpful in improving their writing. Most of the respondents declared using previous feedback when creating another piece of writing. Finally, the teachers' perceptions revealed that although technology is often used in class, applying it to provide feedback for writing assignments is considered time-consuming.

This study and the extensive work providing the theoretical framework underlying the research area of feedback prepared us to give some final remarks concerning the issue under study. When it comes to the first research question – “Is feedback provided synchronously more effective at improving students' writing skills?” – the answer is negative. It was observed that the study participants who received synchronous feedback improved their test scores, though not the most significantly. It has to be considered that the highest growth in writing skills was observed among the participants who were given asynchronous feedback. The answer to the second research question – “Is asynchronous feedback more important in improving students' writing skills?” – cannot be given clearly and definitively. The reason for it is that the control group also received asynchronous feedback and the results were lower in the post-tests than in the pre-tests. This group was given feedback in written corrections and comments via Google Classroom, which the students were already accustomed to. It might be concluded that whether the feedback is synchronous or not seems to not affect the students' results. Some other factor appears to have an impact on the results.

Another interesting aspect concerning the two first research questions is that the improvement was observed in the groups where the forms of feedback were new to the learners. It was only during the intervention that students were offered screencasts and feedback interviews. Before that, written corrections and comments provided either on paper or on the Google Classroom platform had been the standard form of feedback. It appears that the students did not find it engaging any longer. This may lead to the conclusion that using uninteresting types of feedback demoralizes learners. They may have high expectations that cannot be met by a single form of feedback being provided repetitively. These

observations agree with the findings of Mulder et al. (2009), who claim that feedback needs to make sense for students and only then can it advance students' learning. Also, Boud and Molloy (2013) and Dowden et al. (2013) emphasized that feedback cannot be effective unless it is more contextualized than written comments. Better knowledge and understanding of this phenomenon may become necessary as technological advances continue to become a part of regular teaching practice.

The control group's failure may have also stemmed from the fact that the form in which the feedback was provided did not involve their emotions. Writing comments did not include non-verbal behavior such as facial expressions, eye movement, or voice intonation to soften the directness of feedback, support the learner, or show appreciation. Moreover, several situations which occurred during the experiment suggested that some students had misunderstood the feedback, which the tutor could only realize after some time had passed. Such problems did not occur in the group where feedback dialogues were used. The teacher could begin with less direct feedback, encouraging the learners to self-correct before moving on, if necessary, to more direct comments. When it became clear to the teacher that the student did not comprehend the problem, more time was spent on either the problem area or a more detailed explanation. It was observed during the learning period that the students felt more confident when there was an opportunity to discuss their texts individually. It appeared beneficial to confirm their guesses about how to modify their knowledge, language production, or learning strategies. Also, the more actively they took part in such discussions, the more likely they seemed to benefit from it.

Furthermore, the other experimental group to which feedback was delivered in audio-video recordings did increase their writing competence. In their case, these recordings extended the range of possibilities. The use of audio feedback allowed for the more extensive feedback, and when accompanied by written notes, more clarity was achieved. An additional advantage was allowing the student to play back the screen capture multiple times, which offered more extensive listening and reading practice opportunities. It may have contributed to the higher performance in this

group. It also allowed the teacher to appear more personalized and use non-verbal behavior to create a friendly atmosphere.

Another part of the study was the analysis of the learners' perceptions. Interestingly, the students in the feedback dialogue group were the ones who most reported being interested in receiving the tutor's feedback. It proves that this form of delivery is attractive to the participants. In contrast to this finding, the control group valued the feedback they were offered the least. When it comes to understanding feedback, the screencast group reported understanding it to the highest extent. It needs to be noted that the control group indicated the lowest level of understanding of the feedback, which confirms Boud's (1995) finding that written comments are challenging for students to understand clearly. Finally, the screencast group students perceived the feedback as the least useful in improving their writing. They also declared the lowest degree of implementing it in their writing practice. That might indicate that the use of multiple feedback modalities confused some students, perhaps because of cognitive overload. From the analysis, we can see that none of the forms of feedback delivery were perceived by the students as purely beneficial. Therefore, it seems sensible for teachers to use different modalities, both synchronous and asynchronous, to engage students and achieve better results.

The fourth and the fifth research questions investigated the correlation between the self-perceived level of proficiency and the test results and the correlation between the learning style and the test results; these were answered with the help of the questionnaire and the test. From the results in Figure 1, we can see a correlation between the level of English and the ability to deal with feedback to improve writing skills. The higher the students' perceived level, the better their scores on the test. To establish the level, the students were advised to reflect upon their English. No grammar or vocabulary test was given, but instead, the learners were to find their level by evaluating how comfortable they are watching videos and films, understanding recordings, speaking to somebody in English, discussing academic topics, reading texts, etc. They could also compare their level with the coursebook material, which is at the upper-intermediate

level. All the students had the same length of learning the language, which was 11 years. The questionnaire remained anonymous, and the data gathered from the questionnaire can be considered reliable and used to assess the students' level of English proficiency. In this case, their answers and the level of assessment done by them seem to be reasonably realistic and therefore the correlation between their answers on the test and self-perceived English competence can be described as salient.

However, regarding a correlation was found between the learning style and the students' scores on the test in one out of the three groups, as shown in Figure 2. Therefore, it cannot be treated as salient. Both experimental groups improved their writing, but the respondents reported having different learning styles. Moreover, no connection was found between the declared learning styles and the type of feedback the students received. Appropriate learning styles were hypothesized to help the learners benefit from certain types of feedback and, consequently, improve the students' writing competence. Because no such correlation was observed, the hypothesis has to be rejected. These findings correspond with those of Tasdemir and Arslan (2018), who observed that learning styles do not explain the nature of feedback preferences.

The last part of the study regarded the most popular forms of feedback delivery among EFL teachers. The study aimed to explore ten teachers' perceptions of their practice of using technology to give feedback. The findings revealed that even though the majority of the participating teachers incorporate computer technologies in class, only half of them demonstrated a positive attitude toward using it for feedback delivery. It was emphasized that it is time-consuming and that teachers do not possess the skills to use it. Despite this, the interviewees are aware of the benefits it may bring and most admitted that their students respond with engagement. However, it might be concluded that what most teachers had in mind was feedback in the form of written corrections and comments. This became apparent when they were asked if they would consider using screencasts or one-to-one feedback interviews with students: most of the teachers refused to do so, and the amount of time required was indicated as the reason.

Implications of the Study

Although providing feedback is still a controversial issue, it is commonly used in the classroom. However, most constructs were developed for the delivery of feedback in a face-to-face setting, which is significantly different from the online learning environment. Thus, it would be desirable to collect a larger sample size and conduct factor analysis to determine whether the constructs are proper in the online environment. It is crucial to continue investigating whether technology has further implications for creating more efficient feedback. There is an urgent need for more research on using different computer-mediated feedback techniques. The study proved that feedback was the most effective if students were given verbal feedback rather than relying entirely on written comments. Therefore, it is recommended to implement various modalities to engage students in improving their writing competence. For feedback to be effective, it is understood that it must consider an extensive range of linguistic, individual, and contextual variables, meaning that what works for one learner on one occasion may not work in another context. This also implies the need for further studies on how individual learners, not whole groups of students, as in this research, react to various computer-mediated feedback techniques. Applying different methodologies and research designs might also yield a correlation between a learning style, a type of feedback delivery, and the students' development of writing competence.

In light of the push toward more distance education, the need to deliver effective feedback is inevitable. Accordingly, teachers must be competent with computers as a prerequisite for deriving the benefits of different computer modalities. It may require training programs on how to provide feedback for writing, mainly using screen capture software or various modes of commenting and tracking. The importance of feedback cannot be denied. To teach means to give feedback. Consequently, experiments with feedback strategies are one of the most potent forms of teacher development.

The outcomes of this study have pointed the way for future studies. Future research could investigate what students can tell us about their

writing experience along with more quantitative, survey-based methodologies to complement their accounts of writing experiences. The introduction of innovative technologies needs to be carefully evaluated to unpack the challenges involved in such experiences for students and teachers.

Limitations of the Research

The findings of this study should be interpreted with caution for the following reasons. Firstly, the study was conducted on a limited sample (43 students) over a limited period (ten weeks) and examined certain feedback types in a particular situation. Therefore, there is a need for other studies to be conducted on a larger group of learners over a more extended period. Finally, the researcher taught both the experimental and control groups, which is not ideal because the researcher's involvement in the teaching could introduce bias.

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Measurement of Learning Outcomes in Mathematics in Relation to Choosing a Role Model

(pp. 387–412)

Abstract

The measurement of learning outcomes in mathematics in the context of selecting a role model is not widely discussed in the literature on the subject. The results of the literature review presented in the theoretical part of the article, investigating factors related to school achievements, led to the conclusion that having a personal role model may also be related to the scholastic achievements of students. The article outlines a definitional approach to the concept of authority, attaching particular attention to the role of significant persons – role models – in the educational process. Among others, Maria Dudzikowa's concept of authority, which is strictly related to the education process, is presented. According to her, the process of education involves becoming a role model for students and becoming a role model itself is a trimodal relationship. It takes place between the subject, the object, and the "domain of authority" (Dudzikowa, 2008, 2010). Becoming a role model for a student may be linked to their later educational achievement. The aim

of the article is to examine the relationship between selecting a role model and the results of a mock exam and the final grade in mathematics at the fourth level of the Polish Qualifications Framework. The main research problem was encapsulated in the question: What are the relationships between the choice of a role model and learning outcomes in mathematics? The study relied on the survey method (Pilch & Bauman, 2001). A total of 3,388 students in the last year of secondary school taking part in the practice *matura* (school-leaving exam) in mathematics at the basic level participated in the nationwide survey (online research). After completing the math exam, the students were asked to answer an open question: Who is the greatest role model for you? The analysis of the test results indicates the existence of a relationship between choosing a role model and one's grade in mathematics, but it was not statistically significant. The results indicate the need for a deeper investigation into the issue of educational achievements in the context of authority. It would also be worth asking students why someone is a role model for them. This could identify additional factors related to school achievement.

Keywords: role model, teacher, school, education, mathematics, students' mathematical knowledge and skills

Introduction

The issues discussed in this article concern school achievements and their relationship to having a significant person – a role model. In order to outline the subject of the article, we refer to the concept of scholastic achievements, pointing to factors related to them and the concept of authority. In the literature on the subject, school achievements are defined as

the result of the didactic and educational process that students owe to the school, and thus the level of students' mastery of knowledge and skills, the development of their abilities, interests, and motivation, shaping their beliefs and attitudes; school achievements also include such formal effects of school work

as passing an exam, graduating from a year or school, and getting a profession [translated by the author]. (Okoń, 2007, p. 292)

Another definition is offered by Krystyna Kuligowska, who perceives school achievement as “beneficial changes both in the student’s instrumental sphere (in information resources, intellectual abilities, and the ability to use this information in action) and in the directional sphere (in their motivation to act, in aspirations, feelings, and attitudes)” [translated by the author] (Kuligowska, 1984, p. 67). School achievement is measured at school by means of continuous assessment and final grades, as well as external exams. Using appropriate tools, teachers measure students’ knowledge and skills acquisition.

An analysis of the literature on the subject shows that school achievements are related mainly to individual factors – age, gender, or place of residence (Pilch et al., 2013) – access to preschool education (Szlendak, 2003), socioeconomic status (Coleman, 1968; Dolata, 2008; Dolata et al., 2013, 2014, 2015; Firkowska-Mankiewicz, 2011; Karwowski & Dziedziewicz, 2012; Konarzewski, 2012; Kwieciński, 1975, 1980; Pilch, 2013; Pokropek & Sikora, 2015; Reynolds & Walberg, 1992a, 1992b; Smolińska-Theis, 2008, 2014; Szymański, 1973, 2010; Smulczyk 2019; cf. Karwowski, 2013), parents’ status-related educational expectations of their children (Karwowski, 2013), and family *habitus* (Karwowski & Dziedziewicz, 2012, as cited in Karwowski, 2013). They also depend on the student’s activity and past achievements, meaning that a student with better past achievements will do better in the future (Karwowski, 2013; Niemierko, 2021). Maciej Karwowski (2013) points out that most of the differences in students’ results on exams and tests (both high- and low-stakes exams and tests) can be explained by variables related to the student as a person rather than those for which the school and class are responsible (Karwowski, 2013, p. 126; cf. Hattie, 2009; Marzano et al., 2000). Moreover, he indicates that apart from individual factors, school achievements may also be influenced by factors unrelated to the individual traits of a student, such as quality of education, length of education (Szlendak, 2003), peer environment, teacher’s functioning, school climate, in-school and interschool selection processes

(Kwieciński, 1975, 1980, 2002; Nyczaj-Drag, 2009), etc. He emphasizes the significance of these factors for student achievement, as well (Karwowski, 2013, p. 127). The results of studies carried out by Mirosław J. Szymański (1973), Zbigniew Kwieciński (1975, 2002), and others confirm the link between the sociocultural status of the family and factors related to the quality of schoolwork with the educational achievements of students. The most comprehensive model of school achievement, called the productivity model, was developed by Herbert J. Walberg (1981), who asserted that school performance is influenced by nine factors. They can be divided into three groups: 1) individual factors – a student’s predispositions, past achievements, motivation, and age-determined development, 2) didactic factors – education in terms of the amount of time devoted to learning and the quality of education, and 3) social factors – class environment, home stimulation, peer influence, and external influences (primarily the media). The research conducted by Walberg using this model indicates a considerable impact of past achievements and the home environment on student achievement (Walberg & Reynolds, 1992a, 1992b, as cited in Karwowski, 2013). Therefore, it can be concluded that research consistently identifies students’ abilities and status factors as being most closely related to school achievement.

A student’s achievements are also related to the socioeconomic status of their family (Pilch, 2013; Smolińska-Theiss, 2015). It is worth mentioning here that parents from families with a higher socioeconomic status tend to behave in ways that emphasize the subjectivity of children (talking with the child, justifying restrictions, and asking the child’s opinion) and they place higher demands on their children. These elements, regardless of the status, translate into the intelligence of the child (Karwowski, 2013, p. 143). Socioeconomic status also correlated more strongly with mathematical and verbal achievement than with overall achievement (Bradley & Corwyn, 2002; Karwowski & Dziejewicz, 2012; Karwowski, 2013; Sirin, 2005).

Apart from intelligence and socioeconomic status, another factor related to school results is the personality of the student, two aspects in particular: perseverance (the dimension of the personality factor of

conscientiousness) and curiosity (the dimension of openness to experience) (Poropat, 2009; cf. Karwowski, 2013). Distinct significance is attached to factors such as self-efficacy and belief in one's abilities, motivation, learning skills, optimism, or creative abilities (Karwowski, 2013, pp. 144–145). Factors related to the local school environment (such as the wealth of the commune, the level of unemployment, or the expenditure on education) have a lower impact on school achievement (Dolata et al., 2013, 2014, 2015). Factors that relate to the functioning of the school and that influence school achievement also include a positive attitude toward the subject, the atmosphere of the school/class (Fullan, 2009; Karwowski, 2013; Konarzewski, 2012), the teacher and their didactic solutions and teaching styles (Hattie, 2009; Hattie & Timperley, 2007; Karwowski, 2013; Piwowarski, 2011), and the relationships between teachers and students (Karwowski, 2013, p. 173). The research on scholastic achievement indicates the dominant role of personal factors and those related to the socioeconomic status of the family, though factors related to the quality of the school or the teacher – in the Walberg model included in the educational and social factors – should not be ignored.

The review of the literature for factors related to school achievement led to the conclusion that having a role model may also be a related factor (Eshel, 1991; Metz, 1978). In the literature on the subject, a role model is defined as

a model of an ideal member of a given social group, determined by a set of norms and ideas related to performing specific social roles. It is defined by authorities recognized in a given community. Most often it is a set of coherent life goals, motivations for actions, and specific behaviors and personality traits. (Rynio, 2017, p. 17)

The literature on the subject features studies that comprehensively describe the etymology of the word *role model* and the typologies and functions of authority (Bocheński, 1993; Metz, 1978; de Tchorzewski, 2017; Tuziak, 2010; Weber, 1958; Witkowski, 2009; Skarga, 2007), as well

as the concept of authority with regard to teachers (Dudzikowa, 1995, 2007, 2008, 2010; Jagielska, 2021; Kwiatkowska, 2008; Łukasik, 2021). The aim of the article is not to make a detailed analysis of the meaning of authority, but to focus on the meaning of role models for students in the context of school achievement.

The value of a role model becomes fundamentally important especially in periods of accelerating and sudden changes and emerging crises – changes that concern not only social aspects, but also economic and technological ones. Each change creates a “new” reality that the individual must follow, to which the individual must get accustomed, in times when we are dealing with a crisis of authority. In this new reality, new role models are created. The emerging new opportunities create changes in the selection of role models. Living in the era of “permanent change” contributes to the fact that contemporary people are accompanied on a daily basis by “disturbances and reorientation in the axio-normative system, and authority is one of the mechanisms of shaping a new social order and a new axiological system, searching for the meaning of life and making important choices and re-evaluations in this area” [translated by the author] (Tuziak, 2010, p. 53).

An individual’s choice of a particular person as a role model is a manifestation of their recognition of certain qualities that are accepted and admired by other people. Authority manifests itself in being recognized as a role model worth following. In this study, it was assumed that authority means having these features: predispositions which give an individual the advantage of exerting influence over a group or individual. According to Tadeusz Aleksander, the concept of authority also denotes a psychosocial phenomenon consisting in trusting and respecting a specific person or institution, recognizing their high substantive competences and moral values, personal dignity, earnestness, and rank, and perceiving their kindness, friendliness, and diligence (Aleksander, 2002, as cited in Tuziak, 2010). Authority is the emergence of a relationship between the superior individual (the role model), the subject of influence (the recipient of authority), and the existing area of influence (Dudzikowa, 1995; Metz, 1978; Weber, 1958). According to Tuziak,

the essence of this relationship is the recipient's acceptance and recognition of the values represented by the selected role model, taking into account the subjective nature of this relationship and the assumption that it is an objective social fact which plays an integrating, controlling, and motivating role in the sphere of human activities [translated by the author]. (Tuziak, 2010, p. 57)

The notion of authority always means recognizing someone as a person worth imitating, someone who is a model of conduct, and ascribing to that person exceptional features that are worth following (Jagielska, 2021). This, in turn, regardless of its nature, serves to gain an advantage over other people, whether in good faith or bad (de Tchorzewski, 2017, p. 194). According to Andrzej de Tchorzewski, researchers of authority distinguish various types:

- capacity-based authority, possessed by people with exceptional talents, skills, or special competences
- moral authority, wherein people receive respect for their conduct in accordance with generally recognized ethical values and norms
- formal authority, relating to people performing an important function (de Tchorzewski, 2017, p. 194, as cited in Jagielska, 2021)

In this study, we focus on the role models selected by students and their relationship to the students' achievement. In the case of students, the role model may be a teacher. Studies show that teachers become a role model in the teaching process and that authority is not acquired. It is the teacher who, through their actions and behavior, becomes a specific role model. The way they work and behave contributes (or not) to their being recognized as a role model in the eyes of the students. The students participate in the teacher becoming a role model; they decide who is a role model and to what extent (Jagielska, 2021; Kwiatkowska, 2008; Łukasik, 2021).

Being a role model for students in terms of the educational process and educational achievement does not only involve teachers. It concerns

all significant others who play a role in the process of gaining knowledge. In this sense, the definition developed by Maria Dudzikowa, similar to that proposed by Max Weber (1958), is important from the perspective of the theoretical approach to authority. According to her, becoming a role model is a trimodal relationship taking place between the subject, object, and the “domain of authority.” The subject is a person who trusts someone, assigns them high competences in a certain area, and allows that person to influence them. The object is the one whose influence is embraced by the subject because of their credibility and competence. The “domain of authority” is the area in which that person is competent and credible, that is, where this relationship takes place. If this trimodal relationship comes about, then one can speak of the emergence of a role model (Dudzikowa, 2008, p. 8; Dudzikowa, 2010, p. 10; cf. Jagielska, 2021). In the educational process, this trimodal relationship may lead to the later educational achievements of students. A person who is a role model for a student exerts a significant influence over them and motivates them to act. A role model is assigned certain specific features and competences. Perceiving this competence builds trust. A relationship of trust is a relationship of following a role model. A student’s role model can be a teacher. Numerous studies have confirmed this relationship (Dudzikowa, 2008, 2010; Dźerdżon, 2011). Some point to the role of a teacher’s authority in students’ achievement and improved grades (Bandura & Wood, 1989; Brophy & Good, 1986; Eshel, 1991; Metz, 1978; Pace & Hemmings, 2006; Pintrich & de Groot, 1990). A teacher’s position of authority for students is related to the construction of educational and career paths (Jagielska, 2021; Łukasik, 2021).

By analyzing various aspects of students’ achievements, in this article we try to indicate the links between students’ achievements and the people who are their role models. These studies seem to be an attempt to answer the questions of whether, during a crisis of authority, young people have any significant people in their lives who are important to them and how having such a person relates to their school achievements.

The aim of the article is to examine the relationship between the selection of a role model and the results on a mock exam and the final grade

in mathematics at the fourth level of the Polish Qualifications Framework. The main research problem was phrased in the question: What are the relationships between choosing a role model and the learning outcomes in mathematics? The analysis is important from the viewpoint of knowledge because there is a lack of research in Poland on the relationship between role models and school achievements.

Methodology and Research Questions

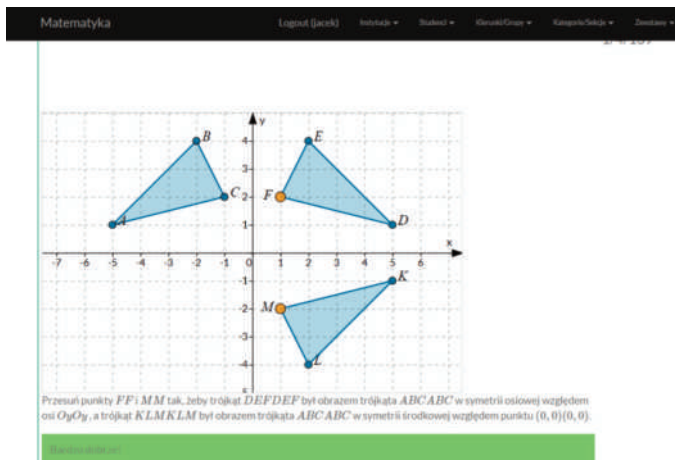
Invitations to participate in an online, real-time mock final exam was sent to all secondary schools in Poland. School data came from the database of the Education Information System (*System Informacji Oświatowej*). A total of 261 secondary schools from all voivodships participated, which was approximately 3%. The participants of the study were students in the last year of secondary school, aged 18 years.

We will now discuss the distribution of the number of high school graduates in relation to the number of graduates taking the final exam (*matura*) in mathematics in 2021, using the data presented in the Central Examination Board (CKE) report, *The Matriculation Examination Report 2021: Mathematics* (Kozak, 2021). The data applies to both the basic and extended levels of the *matura*. In the original report, the data are divided by place of residence into villages and towns with up to 20,000 inhabitants, towns/cities with 20,000 to 100,000 inhabitants, and cities with over 100,000 inhabitants. In the summary below, we present a total category for towns and villages with up to 20,000 inhabitants. At the time of writing, we do not have the 2022 data on the number of graduates in relation to the town/city size. Therefore, we use the CKE data from 2021, as they are very similar (Table 1).

Table 1. Comparison of the number of students taking the mock exam and final exams, by the number of inhabitants

Number of inhabitants	Mock exam (2022)		Matura exam in math (2021)	
	Number of test-takers	Percentage	Number of test-takers	Percentage
under 20,000	821	24.23	70,714	20.31
20,000–100,000	1,413	41.71	126,780	36.41
over 100,000	1,154	34.06	150,742	43.29

A list of specific learning outcomes in mathematics was compiled. Then so-called generator tasks (Stańdo, 2019) were designed, measuring the assumed learning outcomes. The online exam consisted of 35 tasks. For an example task, see Figure 1. All tasks were in line with the core curriculum for general education. A special IT system assessed the open tasks (e.g., the location of points; Fig. 3). The mock online exam in mathematics for the basic level took place May 10–14, 2022. At the time appointed by school principals, the students solved tasks and entered the results on a computer, tablet, or smartphone. Each student received their results immediately after the exam.

Figure 1. Sample task from the online test

A total of 3,388 students participated in the study (over 1% of the entire population of high school graduates). The participating students were asked to fill out a questionnaire voluntarily and anonymously. The questionnaire was completed by 1,059 respondents, which accounted for approximately 31% of the participants.

The research questions of the study were as follows:

1. What role models are chosen by students in Poland at the fourth level of the Polish Qualifications Framework?

To answer the first research question, we asked the students the following question: Who is the greatest role model for you? It should be noted that this was an open-ended question.

2. What are the relationships between choosing a role model and the learning outcomes in mathematics?

In the study, we collected the end-of-year school grades in mathematics (scale from 1 to 6) and the results from the online mock exam.

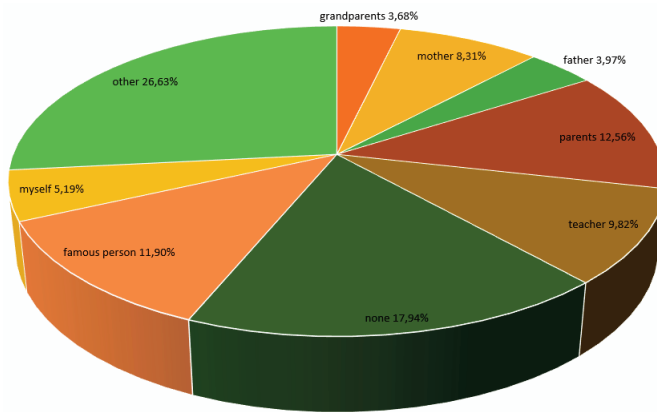
The question about the role model was open-ended. The responses were divided into appropriate categories. For example, if the answer provided was “mum,” “mummy,” or “my dearest mum” and there was no indication of another family member, the answer was classified as “mother.” If the answer was “parents” or “mum and dad,” then it was classified as “parents.” Responses that did not fall into any of the categories discussed in the Results section were classified as “other.”

Results

The description and statistical inference are based on 1,059 questionnaires concerning the link between the test takers’ mathematics exam results and indication of a role model. The respondents indicated various people or groups as their role models. We start with the initial analysis of the survey results.

The largest group of students – a total of 28% – indicated a family member as a role model (parents, mum, dad, grandparents, or other family member). The teacher was a role model for 10%, while a famous person was chosen by 12% of the respondents. The answer “I don’t have one”/“none” was given by 18% of the respondents; 5% indicated themselves as their own role model. Over a quarter of the respondents indicated someone else as their role model (see Figure 2).

Figure 2. Role models



Figures 3 and 4 present the arithmetic means of the exam results for the respondents, grouped by the role model they chose. It is worth emphasizing that these averages were calculated for groups of various sizes. For example, the number of students who indicated their mother as a role model was 42, while the group indicating “other” role models numbered 286. The same situation applies to the average grades in mathematics. Thus, more detailed analysis should be carried out using appropriate statistical tests. The analysis was performed with the software program RStudio, version 2021.09.1, R version 4.1.2.

The test results are difficult to relate to existing studies. In the 2009 report from the Center for Public Opinion Research (CBOS, 2009), data for the general population are presented, but the age group of young people is not singled out. In that report, the respondents pointed to their parents

(52% of the respondents) as a role model. Second in line was John Paul II (17%), then their grandparents (6%), spouse (6%), and teacher (5%). According to the latest survey conducted by Kantar Public in 2022, family members also enjoy the greatest authority (approx. 6%). As mentioned above, these are the results of research conducted in Poland on the general population. It is difficult to relate them to the results presented herein, concerning high school graduates. However, it can be assumed that the finding that family members are recognized as a role model is confirmed.

Figure 3. Role models and average exam scores

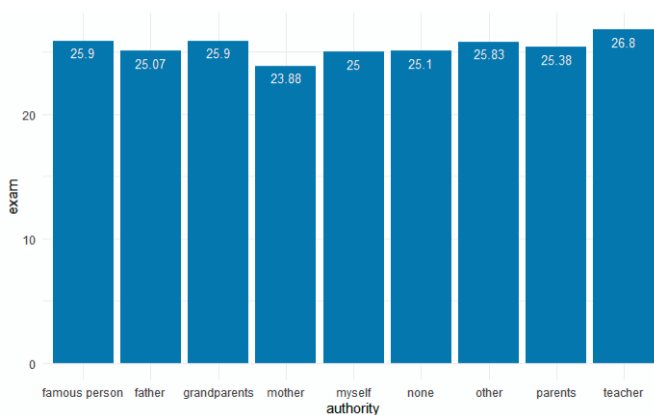
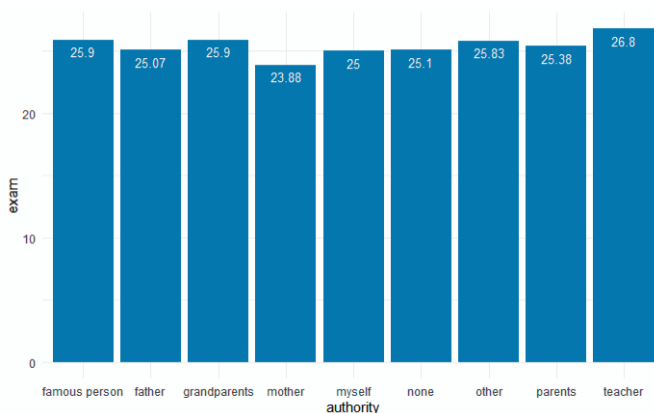
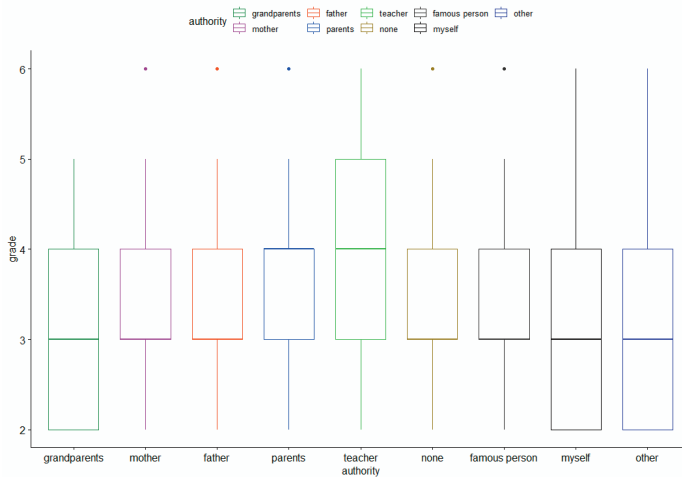


Figure 4. Role models and average final grades in math



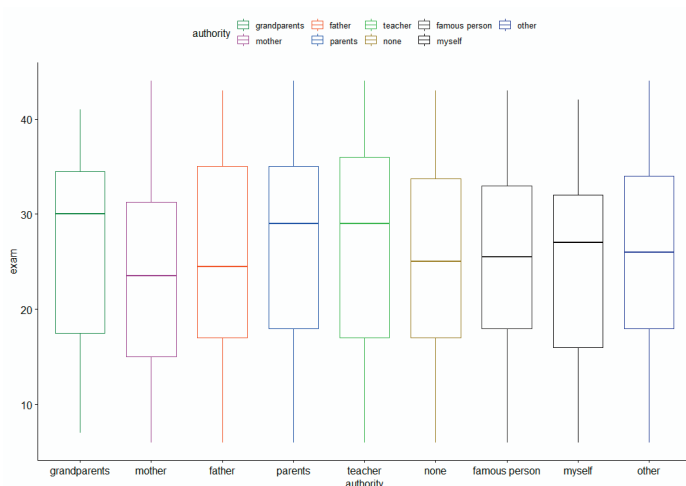
Let us compare the average results of school grades in mathematics and the average results of the online exam, divided into groups according to the indicated categories. We analyzed the differences between the means in individual groups, which were statistically significant. In the study, we assumed a significance level of 0.05. Due to the lack of normality of the data, as verified with the Shapiro–Wilk test, we used the non-parametric version of the test, namely the Kruskal–Wallis test. It should be emphasized that this test can determine whether the means in the study groups are equal (i.e. the p-value is higher than the assumed significance level) or different (the p-value is lower than the assumed significance level). The analysis of math grades in the nine groups shows that there were statistically significant differences between groups of students choosing different types of role model. This can be seen in both Figure 5 and the result of the Kruskal–Wallis test (p-value: 0.01156).

Figure 5. Analysis of mathematics grades, by selected role model



We did not observe any statistically significant differences in the exam results between the groups of students according to their chosen role models. The Kruskal–Wallis test returned a p-value of 0.6208 (Figure 6).

Figure 6. Analysis of math exam results, by selected role model

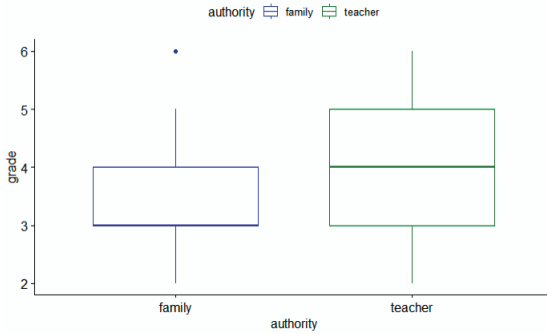


It follows from the above results that there was a correlation between the choice of role model and the grade in mathematics, but there were no significant differences in the exam grades in relation to the choice of role model. Below, we compare the following subgroups:

1. family member vs. teacher – scores in both groups were statistically significant
2. mother vs. both parents – scores in both groups were statistically significant
3. teacher vs. lack of role model – scores in both groups were statistically significant
4. teacher vs. self – borderline case

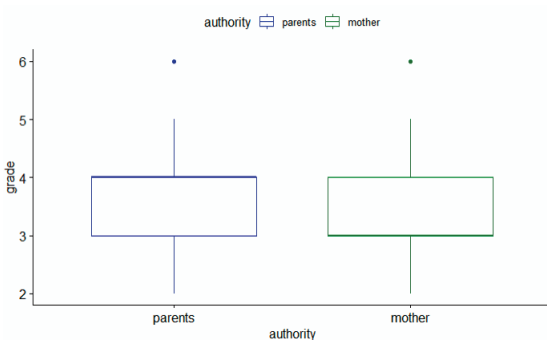
For analysis, we selected those students who chose as a role model a family member versus a teacher. The category of “family” includes mom, dad, parents, grandparents, or someone from the family. The Kruskal–Wallis test (p -value: 0.02607) revealed a statistically significant difference between the mean scores in these two groups. The comparison is presented in Figure 7.

Figure 7. Results of math exam for selected groups depending on the role model selected



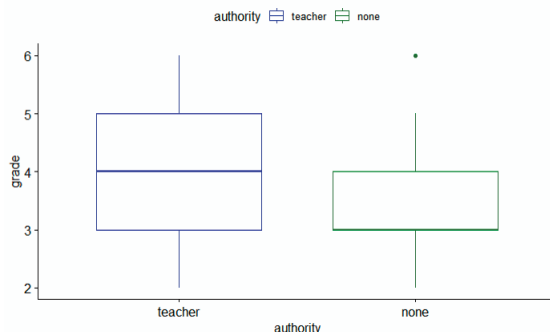
For the analysis of those students who chose “parents” versus “mother” as a role model, the Kruskal–Wallis test (p-value: 0.02493) showed a statistically significant difference between the mean scores in the two groups. The comparison is presented in Figure 8.

Figure 8. Results of the math exam for selected groups depending on the role model selected



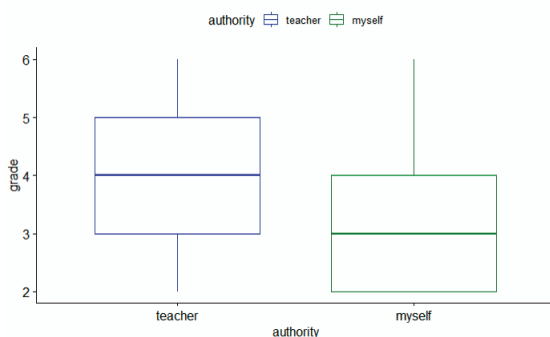
For the analysis of those students who chose their teacher as a role model versus those who stated that they have no role model, the Kruskal–Wallis test (p-value: 0.02196) showed a statistically significant difference between the mean scores in the two groups. The comparison is presented in Figure 9.

Figure 9. Results of the math exam for selected groups depending on the role model selected



For the analysis of those students who chose their teacher as a role model versus those who chose themselves as the role model, the Kruskal-Wallis test (p -value: 0.08046) indicated no statistically significant difference between the groups at the significance level of 0.05. The comparison is presented in Figure 10.

Figure 10. Results of the math exam for selected groups depending on the role model selected



The results are difficult to relate to any existing studies. Our analysis of the literature on the subject indicated a lack of research on the relationship between the type of role model chosen by students and their results in mathematics. The research results presented herein are

therefore innovative and indicate a link between role models and achievements. The analysis conducted by Karwowski (2013) points to the existence of a link between family environment and school achievements. He drew on the results of a study by Reynolds and Walberg (1992), among others. However, he focused on, for example, parental education and its relationship to school achievement – not on role models. It would be worth further analyzing the link between exam results and role models. The results indicate that there are no statistically significant differences.

Discussion and Conclusion

Authority plays an important role in the lives of young people. Research shows that young people identify the existence of significant people in their lives. When considering authority on a personal scale, it should be noted that it is a crucial aspect in interpersonal relationships, due to the fact that it may be an important source of behavioral patterns, attitudes, and ways of thinking and acting (Tuziak, 2010). This study shows that there is a link between having a role model and achieving learning outcomes in mathematics. The conclusions encourage further exploration of the issue. The analysis of the literature on the subject reveals the existence of various factors related to school achievements, including intelligence, the student's personality (such factors as persistence, curiosity, self-efficacy, motivation, optimism, or creativity), the socioeconomic and cultural status of the family, or factors related to the school environment (Karwowski, 2013, pp. 144–145).

From the perspective of this study, it is the factors related to the school environment that are worth emphasizing. In Walberg's model (1981), among the factors connected with student achievement are social factors that relate to the school environment, as well as those that relate to the family environment, peers, and external factors – primarily the media. These social factors are an area in which one can look for role models. A role model can be a teacher, parents, peers, or people associated with the media, i.e., TV celebrities, influencers, politicians, or the clergy.

These are people whose personality traits and behavioral patterns have such a strong influence on young people that they become significant for them. The emergence of a role model can affect many areas of a young person's life, including educational achievement. Therefore, it is worth conducting further research on the factors that determine students' choice of a role model. It is also worth investigating how the role models of contemporary youths are changing. The authors have already attempted to conduct a study of changes in the choice of role model over the years. In mid-May 2022, another study was carried out (covering around 4,000 students), this time on students in the last year of primary school. This study will present another challenge for us to conduct a comparative analysis.

The results have important implications for education, especially today, as teachers are observed to be losing their authority (Łukasik, 2021; Jagielska, 2021). The results indicate that having a role model within the family is related to school achievements. Thus, it can be concluded that the quality of the family environment is likewise related to the results in mathematics. The results of this study confirm those obtained by Reynolds and Walberg (1992). It could be useful to include these results in the discussion on teacher education. Particular attention should be paid not only to the subject-related preparation for conducting classes, but also to the broader pedagogical preparation of teachers (Łukasik, 2019; Łukasik et al., 2020) and the emphasis on relationship-building skills (Łukasik, 2020a, 2020b). Strengthening teacher education in this area can translate into an improvement in the quality of the school environment, another factor responsible for school achievement (Reynolds & Walberg, 1992).

The study has some limitations. The questionnaire concerned the mock exam in mathematics, while the influence of a role model in relation to other subjects (e.g., in the case of the humanities) was not studied. The survey questions did not include any questions about gender; therefore, the analysis could not deal with this feature. There were also no questions about the justification for the choice of role model. In the future, a more thorough study taking into account these limitations could be planned. This type of study could well be used to track changes in the choice of role models among high school students.

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Design of an Innovative Model of Cooperation Between Schools and the Public for the Cybersecurity of Children and Adolescents

(pp. 413–432)

Abstract

The article deals with the prevention of cyber threats to children and adolescents through the cooperation of public institutions, which can be one of the key factors in increasing safety in the virtual world. The purpose of the article is to evaluate the effectiveness of the model of cooperation of local government institutions. The novelty of the research problem lies in the attempt to practically apply the exchange of knowledge and experience between local institutions, with a particular focus on cybersecurity education. The analysis is based on students' responses from surveys conducted between 2019 and 2021, making it possible to apply quantitative analysis and to characterize the changes in the incidence of cyberthreats. The second research tool is qualitative analysis, through which we can learn about the impact of educational activities on the level of awareness of cybersecurity. The research period has three stages: the first is before the introduction of remote learning, the second is during the pandemic and remote learning, and the third is the return to in-school learning. The research analysis deals with the problem of digital threats that the modern school, with the support of other public institutions, has to face.

Keywords: education for cybersecurity, cybersecurity, innovation, collaboration, public sector

This article presents an analysis of the cooperation at the local government level between the police headquarters in Szczecin, Gdansk and Koszalin and the Koszalin University of Technology and selected schools from northern Poland, in the area of combating cyber threats among children and adolescents for the period 2019–2021. The second important goal of the research is to investigate whether this prevention, applied as a result of cooperation between public institutions, contributed to increased safety in the virtual world. The results indicate a significant relationship between educational activities in the field of cybersecurity and the occurrence of threats among young Internet users. The article addresses the problem of implementing cybersecurity education, particularly in towns and cities with populations of up to 100,000. The project is a model of cooperation among local government institutions, which can also be replicated in other areas of local development. In other words, it is a form of seeking opportunities to develop cooperation which can be applied in other areas related not only to security, but also to local development.

The perceived need – and the social pressure – resulting from cyber threats publicized by local media was one of the factors that led to the cooperation between local institutions interested in security. This project can also serve as an example for other institutions from other regions of the country which operate in the field of digital education. It also shows how institutions working together can jointly work on contemporary cybersecurity challenges. The article describes a model for developing public sector innovation from the perspective of cybersecurity education. The practical application of the project shows the advantages that result from cooperation among public sector institutions. It is also worth noting that this issue touches on the problem of ongoing changes in public administration. The aim is therefore to analyze innovation, which is also in this case a form of public partnership.

As an aside, it is worth pointing out how this paper defines the term cybersecurity, which is constantly evolving and is often a contentious issue among researchers. Given the far-reaching implications of the development of cyberspace for society, the term used in this paper encompasses

preventive measures against cyber threats faced by young people, especially related to cyberbullying.

Cooperation between institutions

Media stories that warn about attempted fraud in cyberspace prove how important cybersecurity is in everyday life (Domurat, 2012). The advent of online communication, and with it much broader access to smartphones and computers, has changed the previous culture and values and has allowed for new ways to commit crime. A lack of awareness about the dangers of the Internet can contribute to many problems, such as losing confidential information, identity theft, and cyberbullying. The literature in the area of cybersecurity is diverse and informative. Many papers discuss a range of issues connected with cyberbullying in various forms. They also indicate that understanding cybersecurity depends heavily on an interdisciplinary approach to researching the topic. A prerequisite is therefore to use both technical and social sciences (Holt, 2016; Gillespie, 2016; Holt et al., 2015; Wall & Williams, 2014).

Awareness of cyber threats is a variable phenomenon that depends on many sociodemographic factors, such as age, gender, education, and place of residence. Prevention is also an important element, based primarily on education. This problem becomes even more important in the context of the modern IT revolution, resulting in widespread and easy access to technology. The mass media often report on problems or tragedies among young people that result from a lack of awareness of the dangers lurking in the virtual world. The attitude of teachers and educators is quite enigmatic and unclear, manifested as grief and shock in a sudden situation caused by the drama (Torgal et al., 2021; Kearney et al., 2022). This is in many cases a reaction that is too late and rather focused on minimizing the problems that have already occurred. There is a noticeable lack of cybersecurity education of a preventive nature. Taking into account the above factors, it is worth considering how effective the cooperation of police, academia and schools can be at preventing online fraud.

The police force is an institution that has a duty to ensure the safety of its citizens. Cyber threats are usually dealt with in the Polish police by the Department of Economic Crime, which in cyberspace works toward protecting copyrights and preventing and combating fraud, the most common victims of which are young people. However, with all the involvement of the police, there is a lack of financial resources, technological resources, and specialists in not only information technology, but also Internet psychology. In addition, in the last two years there have been many people searching social networks, chat rooms and forums on their own initiative in order to root out fraudsters. On the one hand, this has a prophylactic and somewhat preventive effect, discouraging individuals from the inclination to commit fraud or deceive others. Nevertheless, such provocations, as well encouraging certain online behaviors, can be seen as breaking the law – even if done with good intentions. Thus, the key issue addressed in this article is changing the existing actions in the field of cyber threats, which so far have not had the expected effect – as seen by the research results. The second important issue is to show how researchers can get involved in cybersecurity education.

The involvement of academia can improve the chances of success for an innovative model in the public sector. In this case, the goal and the challenge becomes discovering processes and phenomena that actually occur in society. The project also has a scientific dimension, because it shows which activities work and which do not. This is important because public sector innovation can be interpreted as gaining knowledge in an unverified area.

Innovation as a source of success

Since the systemic transformation that began in 1989, public administration has gone through successive stages of change, as in many Central and Eastern European countries. The main idea guiding these evolutionary processes was to move away from the bureaucratic model of administration towards managing public institutions as enterprises.

The administrative reform of 1999 and Poland's accession to the European Union in 2004 accelerated the changes by decentralizing and liberalizing local policy. Moreover, the need to obtain EU funds, the purpose of which was and still is to finance local government investments, had a great impact. This led to a kind of competition for financial support of selected investments, as a result of which projects became more and more competitive. Therefore, innovativeness refers not only to new products, but also to services, processes, business models, markets, or sources of supply that provide a specific institution with a competitive advantage over other organizations.

In a complex and dynamic reality influenced by globalization and technology, the management and development of public institutions increasingly require rethinking and innovation. The contemporary emphasis on innovation in the public sector is gaining importance, as indicated by many authors (Sanina et al., 2021; Trček & Likar, 2014). Innovation is understood as being inseparable from the concept of change, novelty, reform, or an idea perceived as "new."

Innovations are considered to be the most diverse facts, processes, and phenomena of a technical, organizational, social, or psychological nature. This diverse and general understanding of innovation results both from the short tradition of research on innovation and the diversity of theoretical approaches (Stawasz & Niedbalska, 2011). Innovation brings with it additional requirements to be met, such as customer satisfaction, market needs and efficiency in delivering public services (Webster, 2004). Innovation refers to something new, dynamic, and not yet fully known. The existing reality is thus transformed as a result of a new idea. Implementing a project in public space, whose key factor is cooperation between institutions with different tasks and functions, requires a change in the way administration is managed. It consists primarily in a transition from a model based on issuing orders and commands and rigid adherence to designated responsibilities to a managerial model based on a creative, open approach to challenges. This new managerial model is becoming increasingly important in the planning and implementation of social projects (Toivonen & Tuominen, 2009).

The conditions conducive to innovation in the public sector are highly dependent on the level of economic development, the maturity of civil society, financial capacity, and the management in the local government institution (Webster, 2004). There are also social/cultural challenges in reforming an administrative system. There are difficulties to overcome, especially in an environment where there is a strong bureaucratic foundation (Unceta et al., 2020; Pillay, 2008; Schick, 1998). Project implementation therefore forces many public institutions to go beyond the statutory framework. Creating new opportunities also contributes to new ways of creating norms and values in the institution.

Innovation is a form of competition in the modern economy, but the public sector (unlike in politics) does not have to compete to “attract customers” (Plamer, 1993; Smith, 2016). This is primarily because administrative institutions have a monopoly on the services they provide. Innovation implies uncertainty, which is the result of certain assumptions, which in theory assume certain outcomes and only through practical testing verify the previous assumptions.

Despite the fact that many offices have as part of their duties or mission the establishment and maintenance of cooperation, in practice they are implemented differently. Many organizations do not have appropriate conditions to effectively implement the cooperation model. That is why – one can assume – it is emphasized in the literature that the public sector suffers from an innovation deficit (Lember et al., 2015; Potts & Kastle, 2010). While in private organizations the impulse for change is improving production or economic gain, usually in the public sector activities that work well do not change or evolve much more slowly.

Factors leading to project failure

Following best practices is no guarantee that an idea will be implemented very well – even in the private sector. Barriers caused by bureaucracy can lead to the functioning of even the best projects being quickly paralyzed at the very beginning. The implementation of certain

innovations depends on selected units belonging to public institutions. However, it is worth asking whether a change in the approach to task implementation would interfere with the previous public management, based on stereotypes, habits, and thought patterns. Despite some changes, there are still psychological and cultural barriers resulting from a centralized, hierarchical model of authority. Surveys, observations, and overt and covert interviews were conducted with officials of the West Pomeranian Province between January 2019 and June 2020. The research shows that the principles of reform can be accepted and applied as long as they do not contradict other “established” and traditional work principles. The tendency to think that innovation is connected with unavoidable problems was observed in at least 3/4 of the surveyed local administration employees. The conviction that any change entails costs, not only financial, but also in the form of time or work effort, is the prevailing attitude among many officials, which negatively influences the perception of any changes. This view is also confirmed by the analysis of researchers who put forward similar theses that any change raises concerns among public sector employees resulting from the evolutionary process (Cole, 1988; Sanina et al., 2017).

In addition to the psychological and cultural barriers, it is necessary to take into account the statutory provisions that determine the nature of administrative employees’ work. Bureaucratized organizations tend to be inefficient and inflexible at meeting collective needs. Often the public perception of public administration is also negative because of its failure to meet the needs arising from modern society, among other things.

Risks arising from introducing changes are encountered because of frameworks strictly defined in laws, the status of institutions, customs and social norms, and top-down orders. This constructed reality rewards mediocre or simply passive attitudes. Avoiding instability or work paralysis caused by the introduction of changes are common practice (Sanina et al., 2017). In summary, the possibility of success of a particular innovation is less appreciated than the guarantee of avoiding problems and unpleasant events resulting from the changes it entails (Potts & Kastle, 2010; Lember et al., 2015).

Of course, there are certain levels in institutions providing public services that require developed and proven templates to guarantee the performance of the task, such as in the case of administrative matters related to civil registration, tax settlements, social security, or health services. There are also implications arising from the fact that an administrative institution is part of a larger whole in the public sector and is obliged to fulfill its clearly defined legal obligations. In other words, innovation is not central to the public sector, for failure to innovate rarely has disastrous consequences. Nor is the public sector entirely guided by the principles of economic efficiency, which in this case are understood as minimizing losses and maximizing profits. In the private sector, success is interpreted primarily as profit maximization, but innovations in the public sector are not perceived in this way. Thus, the conclusion is that new ideas should be experimented with in a controlled manner in order to minimize unintended harm and to maximize expected value.

The public sector is a set of institutions funded by the state, i.e., by public funds. In this situation, certain failures can be problematic, and in addition to the financial costs, they may be met with a lack of understanding from the media or the political opposition. Most institutions implement changes resulting from changes in legislation. In this way, the responsibility for possible failures is minimized. That is why local self-governments most often choose actions which do not carry a high risk of failure or loss of financial resources, but which guarantee the possibility to promote themselves. The priority is therefore stable functioning of the institution without any problems or unforeseen events.

By its very nature, public administration does not have competition from other institutions that would compete for market share in services, such as the County Office, Municipality or City Hall, Tax Office, Social Insurance Institution, Police, Army, etc. The exception here is education, in which private schools compete with public institutions for students. The growing competition for students between higher education institutions (including public ones) should also be noted. Each institution tries to offer the most attractive education. Thus, an increasing degree of innovation can be observed in the education system.

“Education For Cybersecurity” project

The cybersecurity project was originally planned for the period 2019–2021, but there is a need for long-term prevention, as indicated by factors such as the continuously emerging threats, the rising number of young Internet users, and the need for continuing education in this area. In accordance with this approach, the intention of the project was to involve as many partners as possible in initiating an integrated process of knowledge and experience sharing and to further explore the potential of cooperation between public institutions. The aim of the project is to demonstrate a new model of cooperation between institutions that will demonstrate its usefulness and relevance to the problems in question. The project also gives the opportunity to view cyber threats in a new way.

Innovation in this case is understood as a special kind of collaboration between institutions. This raises the question of how institutions can engage and participate in the development of cybersecurity education. In the case of this project, the uniqueness of the model lies in the exchange of knowledge and experience and in the sharing of skills (Kravariiti & Johnston, 2020; Horbacha et al., 2013). The implementation and outcomes of such collaborations are particularly beneficial to the local community. More importantly, the project also provides an opportunity to verify the level of service, that is, how effectively public institutions are functioning. By noting joint activities, such as training courses, conferences, and meetings with youths, as well as by conducting community interviews, the information thus obtained can be used to measure the effectiveness and efficiency of the actions taken.

A significant share of social, cultural, and security-related problems are very complex in nature and attempts to analyze them in only one context cannot explain the complexity of the whole situation. Therefore, there is a need to analyze events from different angles. Such a perspective can be provided by employees working in different types of institutions whose tasks complement each other. Such a project offers many advantages for each of the participating institutions.

The employees of educational and research institutions feel that society's expectations of their profession are constantly growing and changing very quickly, while they are simultaneously obliged to remain an expert in their given field. Interviews with educators working in schools reveal that there is a great need to implement and carry out lessons in the field of online safety. Therefore, this project is a kind of response to the above-mentioned social expectations. It means mutual support of institutions with knowledge and experience, thanks to which it is more efficient to achieve the cybersecurity goals.

The project provides an opportunity to conduct a case study using a questionnaire interview; it will indicate which methods of social communication and forms of cybersecurity prevention are effective and should be continued. There is also the possibility to include NGOs in the project. Convinced of the value of the undertaking of researchers, local authorities, and uniformed services, NGOs may constitute another important element in developing cooperation in cybersecurity education.

It is crucial that the project emphasizes institutional cooperation when creating new practices to counter online threats. In other words, for the success and continuation of the project, a real commitment from all the actors involved is essential. To this end, a specific form of agreement is needed that identifies the institutions involved and defines their roles, tasks, the scope of their involvement, and the use of their resources. Of course, it is also important to identify a project facilitator, whose responsibility is to ensure an effective and understandable flow of information between the parties involved and to oversee the next steps in the implementation process. The research also reveals a gradual professionalization of relations between the cooperating institutions. Therefore, another important task of the project is to promote institutionalized cooperation between the public entities responsible for cybersecurity education. The second, obvious group of recipients are young people, to whom the effects of this cooperation are and will be directed.

Convincing employees, especially those in managerial positions, to use new, unproven methods remains a major challenge. The introduction of changes depends to a large extent on the way the institution

is managed, which may take a hierarchical and bureaucratic form of giving orders or may follow a managerial, open and, motivating model in the relations between superiors and employees. Innovation is a kind of call for those in leadership positions in the public sector to expand the scope of the institutions they lead (Cooke, 2017). An important issue remains effectiveness: without the real involvement of the employees in the participating institutions and solely following a top-down order structure the quality of the program can be significantly impacted.

Methodology and structure of the project

The first part of the project consists of two elements, the questionnaire and the scientific conferences. An anonymous online interview with schoolchildren was conducted in March/April 2019 to identify the knowledge and awareness among young people. Two weeks later, a scientific conference and a series of meetings with youths were organized. The next survey was conducted in April, before the planned scientific conference, and a series of lessons in schools again took place in May 2020. The third survey, in March 2021, was conducted prior to another academic conference and a series of meetings with students in schools.

The academic conferences addressed public safety issues, including cyber threats. They were an opportunity for representatives of the scientific community, uniformed services, and school educators to speak. Junior high school students also participated in the project. The conferences and lessons were aimed at raising awareness and enriching knowledge about cybersecurity through information and experience from uniformed services officers, civil employees, and researchers working in the field of public security issues.

In summary, the innovation of the project and the enormous benefit of sharing knowledge, needs, expectations, and information occurred between three community groups: (1) uniformed services, (2) academia, and (3) educators and middle school students. Residents of Szczecin, Gdańsk, and Koszalin also took the floor during panel discussions at the academic

conferences. The very knowledge of the needs and expectations of the residents (e.g., NGO activists or members of neighborhood clubs) was a valuable, unique source of information for the uniformed services, allowing them to identify actual or possible local threats and to concretize and define the goals of the services in the local community. On the other hand, the knowledge and experience of public officers (scientists, police, municipal guards, border guards, etc.) helped the conference participants to become aware of and familiar with cybersecurity issues.

During the conferences, employees of schools and representatives of other pedagogical institutions were present, as were young people themselves, whose knowledge was a source of information for the topics raised in the discussion panels. The conferences initiated the creation of a unique public forum, which provided a platform for the exchange of comments, knowledge, and experiences on improving and correcting activities in local security for the future.

The second part of the project involved face-to-face discussions and meetings with young people at schools. Each such event lasted two hours. During the first hour, the legal consequences of irresponsible behavior on the Internet were discussed, as well as whom victims of cyberbullying can directly turn to. The second hour was conducted by a representative of the Koszalin University of Technology, who talked about how to behave when receiving suspicious messages and invitations from strangers. An important component of the lectures was to draw attention to behavior that should be avoided during online contact with other users.

The first part of the project consisted of a community interview (through online tools) and a scientific conference. The information gathered in this way – based on a survey, interview, and online conversations with young people and educators – led to a common educational strategy, which was useful in the next stage of the project. The second step was online lessons in schools, which were in the form of lectures, exercises, and discussions. The results indicate a gradual process of increasing awareness of the dangers lurking in the virtual world. In addition, they allow for a comparison of the effectiveness of activities carried out in institutions beyond the scope of the “Education For Cybersecurity” project.

A total of 847 students representing a wide range of socioeconomic backgrounds from 14 different schools in Szczecin, Gdańsk, and Koszalin took part in the interviews. The age range of the participants in the discussions was 14 to 17 years, consisting of 402 boys (47.1%) and 445 girls (52.2%). The students were assured that their identities would remain anonymous and that the information would only be used for the purposes of this study.

The main objectives of this survey were, firstly, to diagnose the frequency of Internet use; secondly, to assess the prevalence of cyberbullying in the form of publishing malicious content on the Internet; and thirdly, to determine the degree of awareness among young people of preventive measures against cyberthreats and the possibility of receiving help in the event of cyberbullying. The rationale for carrying out this study was that students involved in cyberbullying are also involved in traditional bullying. Therefore, rather than viewing cyberbullying as a new phenomenon, it should be seen as an extension of traditional bullying. Furthermore, the relationship between cyberbullying and gender was investigated. The findings indicate that girls were more likely than boys to be victims and that boys were more likely to engage in cyberbullying. An examination of the relationship between gender and social support variables, such as friends, family, and others, showed that girls who were victims of cyberbullying reported having more support than boys. These findings can serve as a basis for prevention and intervention programs to deal with cyberbullying.

The issue of age is worth noting, as the older the participants were, the more distanced they were about participating in the conversation. The percentage of people who were reluctant to share their insights ranged from 5% to 7%.

The research revealed that the use of cybersecurity education programs positively influenced the degree of knowledge among respondents as to how to counter cyber threats. A correlation was also established between the knowledge provided and the degree of awareness among young people about seeking help in case of problems such as cyberbullying.

The project forces one to wonder if the same effect can be achieved without this mechanism. Based on a survey conducted among school-children who were not included in the project, the level of awareness of cyber threats in 2021 was almost at the same level as in 2019. In addition, based on responses to anonymous online surveys, the phenomenon of cyberbullying is still experienced by students. The project thus provides an opportunity not only to implement preventive measures, but also to assess the effectiveness of such activities in cybersecurity education.

The case study in this area can verify the effectiveness of the project and, through its empirical nature, point to actions to strengthen existing incentive structures on the part of public entities. Knowledge of the mechanism of cooperation is crucial for the success of the project and its implementation requires knowledge of the nature and specificity of each of the participating parties to help in understanding the nature and cause of resistance to innovation in the public sector.

Such empirical knowledge gives this project of cybersecurity education a much stronger scientific basis. Thus, not only is there a need to monitor this phenomenon, but there is also a need to use benchmarking to evaluate the achievements of the project. This presents an opportunity for a more targeted approach to cyber threat prevention education in schools. A model of how teachers can react when unpleasant events occur in their daily work can also be developed. The support of the police and academic institutions is also an added advantage.

Survey Results, 2019–2021

Year 2019							
Questions	Do you have a computer with Internet access in your home?	Have cybersecurity classes been taught at your school?	How many hours a day do you spend in front of a computer?	Have you posted a ridiculing or violent picture/video/content about yourself online? (number of times recorded)	Have you sent a ridiculing photo/video/content ridiculing your friends?	Do you send pictures of yourself to friends you meet online?	Do you know who to turn to for help when you are faced with cyberbullying?
Schools covered by the program	92 - Yes	42 - No 47 - Yes 11 - I don't remember	4.5	6	4	7	Yes - 63 No - 37

Schools not included in the program	89 - Yes	64 - No 7 - Yes 29 - I don't remember	4	5	5	9	Yes - 59 No - 41
Year 2020							
Questions	Do you have a computer with Internet access in your home?	Have cybersecurity classes been taught at your school?	How many hours a day do you spend in front of a computer?	Have you posted a ridiculing or aggressive picture/video/content about yourself online?	Have you sent a ridiculing photo/video/content ridiculing your friends?	Do you send pictures of yourself to friends you meet online?	Do you know who to turn to for help when you are faced with cyberbullying?
Schools covered by the program	90- Yes	38 - No 46 - Yes 16 - I don't remember	5	12	0	1	Yes - 66 No - 34
Schools not included in the program	91- Yes	54 - No 15 - Yes 31 - I don't remember	3	14	2	8	Yes - 62 No - 38
Year 2021							
Questions	Do you have a computer with Internet access in your home?	Have cybersecurity classes been taught at your school?	How many hours a day do you spend in front of a computer?	Have you posted a ridiculing or aggressive picture/video/content about yourself online?	Have you sent a ridiculing photo/video/content ridiculing your friends?	Do you send pictures of yourself to friends you meet online?	Do you know who to turn to for help when you are faced with cyberbullying?
Schools covered by the program	88- Yes	37 - No 50 - Yes 13 - I don't remember	5	6	0	2	Yes - 72 No - 28
Schools not included in the program	92- Yes	46 - No 31 - Yes 23 - I don't remember	4	13	4	6	Yes - 68 No - 32

The answers to the first question show that young people have no difficulty accessing the Internet, which may imply a greater risk from digital threats. There is also not much difference in the results between the schools in the program and those outside it.

The results in the second column show that young people from the participating schools tended to remember the program's activities,

but the progress was not as great as one might expect. The significant number of negative responses among this group of students is puzzling. It may be due to the very problem of remembering such events or giving answers out of spite. Obviously, it would be advisable to hold more frequent meetings with young people on a given subject. Despite this, however, there was a noticeable increase in awareness of cyber threats (particularly evident in the sixth column), which increased in the study group over the three-year period. The students in the non-participating schools also showed an upward trend in this area, but it was much weaker than in the participating schools.

Answers to the third question show that a large proportion of young people spend between 3 and 5 hours a day in front of a computer. Of course, the data refers to “active” computer use. However, access to the Internet itself, which is possible almost 24 hours a day through cell phone applications, for example, was not taken into account. This fact also forces us to reflect on another danger: young people becoming addicted to Internet communication.

The fourth point indicates an upward trend in the phenomenon of cyberbullying, which does not directly imply a lack of effectiveness of the project. The reported cases of cyberaggression prove that the cybersafety program must continue. In addition, the school environment is only one of many that can cause harm to a specific individual in the cyber world.

The results in the fifth column show the prevalence of cyberbullying in the study group. The problem did not appear in the answers from the schools covered by the program after the first year of it, which does not mean that the phenomenon no longer exists. Certainly, the results in the questionnaires do not perfectly reflect the reality, and the participation of the police in the program could have had an impact on this state of affairs. To sum up, it can be hypothesized that after having lessons with the police officer, who made the students aware of the legal consequences, none of the respondents wanted to admit to cyberaggression (despite the anonymity of the questionnaire), or, it can be optimistically assumed that they abandoned such activity. The problem, however, is evident in schools outside the cybersecurity education project.

The answers to the sixth question indicate the success of the project, as there is more awareness of the dangers of sending photos of oneself to strangers on the Internet or posting them on social networking sites. It should also be noted that there was also an improvement in this area – albeit slightly less of one – in the schools not included in the project.

The seventh point also indicates increased knowledge about cybersecurity. The awareness among the respondents about whom to contact in case of cyberbullying has clearly increased, with the difference being that this knowledge was more widespread in the schools covered by the program. On the other hand, it is worth noting that the level at baseline (i.e., in the 2019 survey) was already high, as more than half of the surveyed youths in both cases answered in the affirmative.

Analyzing an innovation is a major challenge for a researcher because it requires a meticulous approach to every aspect and a commitment of time to be able to discover the nature of the changes taking place. The experiment is costly and time-consuming for all concerned. The aim of this project was to determine the specific mechanism of cooperation between institutions responsible for cybersecurity, through observation and analysis of the information exchange between them. The project is pioneering for the area of cybersecurity education, which makes it difficult to implement. Until now, there have been signals at scientific conferences about the need for collaboration that, with the power of synergy, lead to much better results. The model of public cooperation in cybersecurity is difficult to implement in practice, due to the fact that, firstly, the implementation of this type of project is unknown to public entities, and secondly, it concerns a virtual space used by young people, who are a rather hermetic social group. Therefore, it is worth emphasizing that Internet users as well as cyberspace itself constitute a great research challenge for research in this field.

Conclusion

An awareness among the local community about cybersecurity and how to deal with cyber threats can help reduce the number crimes and victims. The project was a source of information for junior high school students, teachers, researchers, residents, officials, and uniformed services, which will have a unique opportunity to establish cooperation and exchange knowledge. This model also provides an opportunity, especially for young people, to develop a positive image of the police and an active attitude towards breaking the law. The cooperation program has the potential not only to improve cybersecurity, but can also be used to implement new ideas from other areas of public policy.

Cybersecurity research is an opportunity for innovation in the public sector. It also points to new opportunities for scientific engagement in the field of local government collaboration. The project “Education For Cybersecurity” is designed to make the local community aware of the dangers of using new technologies. The program also activates the local community, which can share their knowledge and needs in this area and, through scientists and the uniformed services, familiarize themselves with the problem of cyber threats. Future research should explore the links between cyberbullying and sociodemographic factors and parenting and caregiving styles. The study’s findings suggest that prevention and intervention programs, which usually focus on helping victims of cyberbullying, should also include people who have clear social/emotional problems and may engage in cyberbullying to escape problems at home or school or other problems associated with growing up.

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Challenges and Perspectives of Modern Education



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Climate Education in Kindergarten

(pp. 435–453)

Abstract

Climate change is one of the biggest challenges of our times, as it affects the way societies and economies around the world operate: from dangerous weather anomalies, through a drop in crop production, to an escalation of international conflicts. Moreover, the consequences of climate change pose a risk to many areas of life. Therefore, actions ought to be taken to limit it. For these actions to be effective, climate change education must start as early as kindergarten. The subject of the research presented in the article is the implementation of climate education in kindergartens in the Masovian Voivodeship, Poland. The objective of the study is to determine the level of knowledge among six-year-old children about climate, climate change, the related risks, actions that can be taken to prevent climate change, and whether and how the children's teachers cover topics related to climate change. The study consisted of diagnosing children's knowledge about climate and climate change and verifying preschool teachers' class register records and monthly work plans regarding climate change education. The analysis regarding children's awareness of climate and climate change demonstrates that they could not support their knowledge with concrete examples. It indicates a superficial environmental education targeted at the adoption of positive attitudes towards nature among children. The study reveals that despite some preschool

teachers introducing climate education to their classes, in the majority of classrooms, climate-related issues are rarely discussed. The research demonstrates that preschool teachers are unaware of the fact that the present generation of preschool children will have an impact on the future of our planet. Therefore, it should be recommended that teachers promote the principles of sustainable development and foster an awareness of the effect of human activity on our environment and climate change.

Keywords: climate education, kindergarten, six-year-old child, teacher

Introduction

Climate change is the most crucial issue the world faces. It has an impact on all of humankind and the survival of our civilization. This is because climate change affects the way societies and economies around the world operate: from dangerous weather anomalies, through a drop in crop production, to an escalation of international conflicts. The consequences of climate change also pose a grave danger to the energy sector (damage to energy lines as a result of hurricanes and intense storms or a lack of cooling water for power plants), agriculture (decreased plant production due to the changeability of precipitation and frequent droughts), and transport (destruction of road infrastructure and vehicles because of temperature extremes or increased risk of accidents due to rapidly changing weather). Therefore, it is worth taking action to limit these consequences and introducing the issue very early on – in kindergarten – since our preschool-aged children will soon grow up to become adults implementing the principles of sustainable resource management in their own lives.

Climate change education for preschool children

The aim of climate change education for preschool-aged children is to help them understand climate change and show them that their

actions and lifestyles make them accountable for the future of our planet. If preschoolers adopt environmentally friendly lifestyles, they will become teachers themselves, able to educate their parents. Thus, knowledge about climate change and its impact on the environment and humankind must be disseminated clearly and comprehensibly and children should be taught how to prevent climate change through everyday actions.

Good, effective climate change education for preschool children ought to be interdisciplinary: the topics must be selected at various levels of education and seen from different angles. All materials should be presented as a series of regular classes and as a years-long series of classes in preschools, starting at the age of 3 and continuing until the age of 6. The educational process should include experiences, discussions, trips, and tasks which combine various methods and offer the children a wide range of advantages. During the process, children ought to come in contact with nature (e.g., the learning through nature method), make observations and do scientific research, conduct critical analysis, discuss and reflect, cooperate, take responsibility, and learn autonomously (i.e., Roger Hart's Ladder of Participation [Hart, 2008]).

When implementing climate change education in kindergarten, the emphasis should be placed on existing, tested teaching methods and techniques based on a child-centered approach that allow the pupils to develop critical thinking and analytical skills (e.g., philosophical inquiry and systemic thinking development). Moreover, theoretical teaching should be supplemented by everyday practical application (Schwartz, 2012).

Method

The objective of the research was to determine the knowledge about climate and climate change among six-year-old children attending kindergartens within the city of Warsaw (Ursus district). Six hundred and nineteen children (309 girls and 310 boys) participated in the study, including 301 children (149 girls and 152 boys) from the city and 318 from the countryside (160 girls and 158 boys). All children participating in the study

had the consent of their parents to do so. In addition, 60 teachers from 28 urban and 32 rural kindergartens took part in the research.

The research problem was formulated as the following question: What is the level of knowledge of six-year-olds about climate and climate change?

The following sub-problems detailed the main research problem:

1. Do preschool-aged children understand the term “climate”?
2. Do six-year-olds know the risks related to climate change?
3. Do preschool-aged children know how to take care of the climate?
4. What climate change-related didactic content is taught by preschool teachers?

In search of an answer to the main research problem, it was theoretically assumed that the climate-related knowledge of six-year-olds was substantial.

The following detailed hypotheses were adopted when justifying the choice of the research problem and in preparation for the research:

1. Preschool-aged children have a good understanding of the term “climate.”
2. Six-year-olds know the risks related to climate change.
3. Preschool-aged children know how to take care of the climate.
4. Preschool teachers teach suitably selected climate change material.

The method used in the study was a diagnostic survey carried out with techniques such as a questionnaire and document analysis. The questionnaire was designed by the author and addressed to the study population. It was composed of six closed-ended questions which the children were to answer with either “yes,” “no,” or “I don’t know.” Additionally, in the case of four questions, the children were asked to justify their answers.

The analysis also covered documents: preschool activity registers and monthly work plans. In total, 60 class registers and 60 work plans were analyzed. The analysis covered a 6-month period (September 2021 to February 2022).

Results

The first stage of the research was aimed at determining whether children had ever come across the term “climate.” The results are presented in Table 1.

Table 1. Children’s answers to the question of whether they had heard of the term “climate,” by sex and place of residence

Environment	Number of children									
	Girls				Boys				Total	
	Yes		No		Yes		No			
	N	%	N	%	N	%	N	%	N	%
City	97	15.7	52	8.4	117	18.9	35	5.6	301	48.6
Countryside	97	15.7	63	10.2	95	15.3	63	10.2	318	51.4
Total	194	31.4	115	18.6	212	34.2	98	15.8	619	100

The data presented in Table 1 demonstrate that children who had come across the term “climate” constituted 65.6% of all the children, including 34.2% of the boys and 31.4% of the girls. The largest group amongst them were boys from the city (18.9%). The next largest groups were girls, both from the city and the countryside (15.7% each), and boys from the countryside (15.3%).

Subsequently, the children were asked if they knew what climate was. The results show that 62.8% of all children declared that they did, including 29.2% of the boys and 33.6% of the girls. The largest group amongst them were boys from the city (19.6%). The next largest groups were girls from the city (15.7%), boys from the countryside (14.2%), and girls from the countryside (13.5%). Here, it ought to be emphasized that 2.8% of the children claiming to be familiar with the term declared that they had never come across the term.

Next, the children who declared that they knew the term “climate” were asked to define it. The answers are presented in Table 2.

**Table 2. Children's understanding of the term "climate,"
by sex and place of residence**

Children's answers	Number of children									
	City				Countryside				Total	
	Girls		Boys		Girls		Boys			
	N	%	N	%	N	%	N	%	N	%
Our environment, what we are surrounded by, nature	16	4.1	12	3.1	0	0	8	2.1	36	9.3
Weather conditions: rain, snow, sun, wind, ice, hail, clouds	9	2.3	15	3.9	11	2.8	16	4.1	51	13.1
Getting colder and warmer outside, depending on the location on the earth	12	3.1	25	6.4	5	1.3	11	2.8	53	13.6
Temperature, various temperatures around the world	5	1.3	4	1.0	5	1.3	10	2.6	24	6.2
Presence of the seasons of the year	11	2.8	14	3.6	10	2.6	9	2.3	44	11.3
Weather, changes in the weather around the world	33	8.4	46	11.8	35	9.0	31	8.0	145	37.2
Air	21	5.4	10	2.6	23	5.9	11	2.8	65	16.7
No answer	16	4.1	17	4.4	12	3.1	20	5.1	65	16.7

The responses provided in Table 2 show that the largest group of children (37.2%) understood climate as the weather and weather changes around the world. The second largest group (16.7%) believed that climate is air. The third group (13.6%) consists of children who understood climate as "getting colder and warmer outside, depending on the location on the earth." Somewhat fewer children (13.1%) reckoned that climate is made up of weather conditions such as rain, snow, sun, wind, ice, hail, and clouds. An even smaller group (9.3%) thought that climate is our environment, what we are surrounded by, or nature. The smallest group (6.2%) represents children who claimed that climate is temperature or various temperatures around the world. Climate as the weather or changes in the weather around the world was selected by the largest group of girls

from the city (8.4%) girls from the countryside (9.0%), boys from the city (11.8%), and boys from the countryside (8.0%). The second largest group of girls from the city (5.4%) and from the countryside (5.9%) described climate as air. The second largest group of the boys from the city, in turn, understood climate as getting colder and warmer outside, depending on the location on the earth (6.4%), while the second largest group of boys from the countryside understood climate as weather conditions (4.1%). The data do not add up to 100% because the children were able to submit several options. We should emphasize here that among the children who had claimed to know what climate was, 16.7% failed to answer what climate was. The highest percentage in that group belonged to boys from the countryside (5.1%), followed by boys from the city (4.4%) and girls from the city (4.1%); the lowest percentage was for girls from the countryside (3.1%).

Next, the children were asked if climate was necessary. Most children (58.5%) said that climate was needed, including 28.9% girls (15.8% from the city and 13.1% from the countryside) and 29.5% boys (16.6% from the city and 12.9% from the countryside). The second largest group (35.7%) were children who did not know whether climate was needed. Amongst them were 18.3% girls (7.0% from the city and 11.3% from the countryside) and 17.6% boys (6.6% from the city and 11.0% from the countryside). The smallest group (9.7%) believed that climate was not needed. The group comprised 2.8% girls (1.3% from the city and 1.5% from the countryside) and 2.9% boys (1.3% from the city and 1.6% from the countryside).

The children who claimed that climate was needed were then asked what it was needed for. The results are presented in Table 3.

Table 3. Children's answers to the question of what climate is needed for, by sex and place of residence

Children's answers	Number of children									
	City				Countryside				Total	
	Girls		Boys		Girls		Boys			
	N	%	N	%	N	%	N	%	N	%
To live, for people, animals, plants, nature development	50	13.8	45	12.4	39	10.8	33	9.1	167	46.1
No answer	48	13.3	58	16.0	42	11.6	47	13.0	195	53.9
Total	98	27.1	103	28.4	81	22.4	80	22.1	362	100

Table 3 shows that the majority of children who said that climate was needed could not address the question of why it was needed (53.9%), including 24.9% girls (15.8% from the city and 13.3% from the countryside) and 29.0% boys (16.0% from the city and 13.0% from the countryside). A minority (46.1%) claimed that climate was needed to live, for people, animals, plants, and nature development. This answer was provided by 24.6% girls (13.8% from the city and 10.8% from the countryside) and 21.5% boys (12.4% from the city and 9.1% from the countryside).

Subsequently, the children were asked if they had ever heard of climate change. About half of the respondents (49.3%) had heard about climate change, including 23.6% girls (11.8% from the city and 10.8% from the countryside) and 25.7% boys (13.6% from the city and 12.1% from the countryside). The other half (50.7%) had not heard about climate change. Amongst them were 26.3% girls (12.2% from the city and 14.1% from the countryside) and 24.4% boys (11.0% from the city and 13.4% from the countryside).

Those children who provided a positive answer to the previous question were asked to list some examples of climate change. The results are presented in Table 4.

Table 4. Children’s knowledge of examples of climate change, by sex and place of residence

Children’s answers	Number of children									
	City				Countryside				Total	
	Girls		Boys		Girls		Boys			
	N	%	N	%	N	%	N	%	N	%
Storms, hailstorms, hurricanes, tornadoes	5	1.6	3	1.0	0	0	4	1.3	12	3.9
no seasonal changes, real winter, or snow; warm in the wintertime	14	4.6	11	3.6	15	4.8	19	6.2	59	19.2
Changeable weather, alternating hot and cold	8	2.6	8	2.6	8	2.6	6	2.0	30	9.8
Fires, e.g. in Australia	4	1.3	7	2.3	3	1.0	7	2.3	21	6.9
Melting glaciers	5	1.6	5	1.6	3	1.0	2	0.6	15	4.8
Floods	3	1.0	7	2.3	2	0.6	4	1.3	16	5.2
Droughts, dry fields	7	2.3	11	3.6	4	1.3	3	1	25	8.2
Global warming	16	5.2	17	5.6	17	5.6	22	7.2	72	23.6
No answer	34	11.2	40	13.1	26	8.5	28	9.2	128	42.0

Table 4 demonstrates that despite the fact that 49.3% of the children had heard about climate change, 42.0% could not give any specific examples of it, including 11.2% girls from the city, 8.5% girls from the countryside, 13.1% boys from the city, and 9.2% boys from the countryside. Of all the children who listed examples of climate change, the largest group (23.6%) were those who mentioned global warming. Changes were specified by 5.2% girls from the city, 5.6% girls from the countryside, 5.6% boys from the city, and 7.2% boys from the countryside. The second most often listed change was the disappearance of the seasons, real winter, and snow, as well as warm winters (19.2%). The third most popular climate change example was changeable weather, alternating hot and cold, followed by droughts and dry fields (8.2%), fires, such as in Australia (6.9%), floods (5.2%), melting glaciers (4.8%), and storms, hailstorms, hurricanes, and

tornadoes (3.9%). The results do not add up to 100% because the children were able to list several examples of climate change.

Then, the children were asked if one needed to take care of the climate and what should be done to prevent climate change. To this question, 62.8% of the children provided an affirmative answer: 30.4% girls (17.4% from the city and 13.0% from the countryside) and 32.4% boys (18.7% from the city and 13.7% from the countryside). Only 4.4% of the children said that one did not need to take care of the climate or prevent climate change, including 2.1% girls (1.1% from the city and 1.0% from the countryside) and 2.3% boys (1.5% from the city and 0.8% from the countryside). On the contrary, 32.8%, including 17.5% girls (5.5% from the city and 12.0% from the countryside) and 15.3% boys (4.4% from the city and 10.9% from the countryside), said they did not know the answer.

The children who answered “yes” to the previous question were asked how the climate should be taken care of and how climate change could be prevented. The results obtained are presented in Table 5.

Table 5. Children’s answers to the question of how climate should be taken care of and how climate change could be prevented, by sex and place of residence

Children's answers	Number of children									
	City				Countryside				Total	
	Girls		Boys		Girls		Boys			
	N	%	N	%	N	%	N	%	N	%
Take care of plants, animals, and bees	9	2.3	18	4.6	4	1.0	5	1.3	36	9.2
Construct fewer factories	0	0	1	0.2	0	0	3	0.8	4	1.0
Save water	7	1.8	7	1.8	9	2.3	11	2.8	34	8.7
Clean up forests and collect waste	9	2.3	1	0.2	4	1.0	6	1.5	20	5.0
Do not pollute the environment; do not throw litter to rivers, lakes, and seas; do not dump waste in forests	16	4.1	28	7.2	20	5.1	26	6.7	90	23.1

Use paper and fabric bags	5	1.3	2	0.5	4	1.0	2	0.5	13	3.3
Do not burn waste or plastic in stoves or fires	12	3.1	24	6.1	3	0.8	5	1.3	44	11.3
Limit car and motor use, ride the bike more often	17	4.4	7	1.8	6	1.5	11	2.8	41	10.5
Save energy	14	3.6	4	1.0	11	2.8	7	1.8	36	9.2
Sort and separate waste	17	4.4	22	5.6	14	3.6	15	3.9	68	17.5
Do not cut down trees, plant more bushes and trees	5	1.3	10	2.6	7	1.8	11	2.8	33	8.5
Do not smoke cigarettes	1	0.2	3	0.9	1	0.2	0	0	5	1.3
Buy a new boiler, use lignite for heating, use solar energy	2	0.5	2	0.5	3	0.8	3	0.8	10	2.6
Play with wooden toys	0	0	0	0	1	0.2	0	0	1	0.2
No answer	67	17.2	57	14.7	48	12.3	44	11.3	216	55.5

Table 5 demonstrates that more than half (55.5%) of the children who confirmed that the climate needs our care and attention and that we have to prevent climate change had no response to the question of how to do so. Amongst them, there were 29.5% girls (17.2% from the city and 12.3% from the countryside) and 26.0% boys (14.7% from the city and 11.3% from the countryside). The next largest group (23.1%) said that in order to take care of the climate and prevent climate change, one should not pollute the environment, throw litter into rivers, lakes, and seas, or dump waste in forests. This answer was given by 9.2% girls (4.1% from the city and 5.1% from the countryside) and 13.9% boys (7.2% from the city and 6.7% from the countryside). Next, 17.5% children found waste sorting to be the correct method, including 8.0% girls (4.4% from the city and 3.6% from the countryside) and 9.5% boys (5.6% from the city and 3.9% from the countryside). The next largest group, 11.3%, including 3.9% girls (3.1% from the city and 0.8% from the countryside) and 7.4% boys (6.1% from the city and 1.3% from the countryside), said that to take care of the climate or prevent climate change, one should not burn trash or plastic in boilers or fires. Another 10.5% of the children believed that reducing car and motorcycle use

and increasing bicycle use could help, including 5.9% girls (4.4% from the city and 1.5% from the countryside) and 4.6% boys (1.8% from the city and 2.8% from the countryside). In addition, some children pointed out that one ought to take care of plants, animals, and bees (9.2%), save energy (9.2%), save water (8.7%), not cut down trees or plant more bushes and trees (8.5%), clean up forests and collect waste (5.0%), use paper and fabric bags (3.3%), buy a new boiler, use lignite for heating, or use solar energy (2.6%), not smoke cigarettes (1.3%), construct fewer factories (1.0%), and play with wooden toys (0.2%). The results do not add up to 100% because children provided more than one answer.

Similarly, the children who answered that there is no need to take care of the climate or prevent climate change were asked why. The results are presented in Table 6.

Table 6. Children's answers to the question of why one does not need to take care of the climate or prevent climate change, by sex and place of residence

Children's answers	Number of children									
	City				Countryside				Total	
	Girls		Boys		Girls		Boys			
	N	%	N	%	N	%	N	%	N	%
It can take care of itself	1	3.7	3	11.1	0	0	0	0	4	14.8
One cannot control the weather	0	0	1	3.7	0	0	0	0	1	3.7
Climate is a work of nature and one does not need to be taken care of	0	0	1	3.7	0	0	0	0	1	3.7
It is unnecessary	1	3.7	0	0	0	0	0	0	1	3.7
The weather changes on its own	1	3.7	3	11.1	0	0	0	0	4	14.8
It is impossible to take care of the climate	3	11.1	5	18.5	0	0	0	0	8	29.6
There are too many factories	0	0	0	0	1	3.7	0	0	1	3.7

We are incapable of doing anything	0	0	0	0	0	0	1	3.7	1	3.7
No answer	2	7.4	4	14.8	7	25.9	3	11.1	16	59.2

Table 6 reveals that 59.2% of the children who said that the climate does not need care and climate change does not require prevention failed to explain why. Amongst them, there were 33.3% girls (7.4% from the city and 25.9% from the countryside) and 25.9% boys (14.8% from the city and 11.1% from the countryside). Another 29.6% of the children, of which 11.1% were girls (only from the city) and 18.5% boys (also only from the city), claimed that the climate does not need care and climate change does not require prevention because it is impossible to do so. The next largest group of children – 14.8% (3.7% girls and 11.1% boys, only from the city) – reckoned that the weather changes on its own. The same percentage of children, 14.8% (3.7% girls and 11.1% boys, from the city), said that the climate takes care of itself. Individual children (3.7%) held that the climate and climate change did not need attention because the weather could not be controlled, climate was a work of nature and did not need any care, there were too many factories, or we are incapable of doing anything. The data do not add up to 100% because the children were able to provide several answers each.

The final question addressed to the study group was intended to determine whether the children’s preschool teachers discussed climate and climate change with them. About half (50.3%) of the children said that their preschool teachers had discussed the climate and climate change with them. This answer was provided by 24.5% girls (12.0% from the city and 12.5% from the countryside) and 25.8% boys (14.5% from the city and 11.3% from the countryside).

Next, the number of teachers implementing climate change education was established in an analysis of the class registers and work plans of 60 teachers. The data demonstrate that climate change education issues were raised by 65% of the respondents’ teachers, including 35.0% in urban kindergartens and 30% in rural kindergartens.

The following stage of the research was to determine how many climate change topics were introduced by the respondents' teachers. All the data is presented in Table 7.

Table 7. Number of climate change education topics covered by teachers, by place of residence

Number of topics	Number of teachers					
	City		Countryside		Total	
	N	%	N	%	N	%
1	5	12.8	4	10.2	9	23.0
2	6	15.4	4	10.2	10	25.6
3	3	7.7	2	5.1	5	12.8
4	2	5.1	6	15.4	8	20.5
5	2	5.1	1	2.6	3	7.7
6	0	0	1	2.6	1	2.6
8	1	2.6	0	0	1	2.6
10	1	2.6	0	0	1	2.6
19	1	2.6	0	0	1	2.6
Total	21	53.9	18	46.1	39	100

The data collected in the course of the research and presented in Table 7 show that most teachers (25.6%) introduced two climate change education topics over the six-month study period (15.4% teachers from the city and 10.2% teachers from the countryside). The second largest group (23%) were teachers who covered one topic (12.8% from the city and 10.2% from the countryside). The third group (20.5%) covered four topics (5.1% from the city and 15.4% from the countryside). The next group (12.8%) were teachers who covered three topics (7.7% from the city and 5.1% from the countryside), and teachers (7.7%) who introduced five topics (5.1% in the city and 2.6% in the countryside). Individual teachers (2.6%) covered six topics (1 teacher in the countryside) and 8, 10, and 19 topics (one teacher in the city each). Both rural and urban areas were

dominated by teachers who covered two climate-related topics within the study period (15.4% and 25.6%, respectively).

The last stage of the research was to gain insight into the type of climate change education topics introduced by the teachers. The results are presented in Table 8.

Table 8. Climate change education topics covered by the teachers, by place of residence

Topic	Number of teachers					
	City		Countryside		Total	
	N	%	N	%	N	%
Clean air around us	5	12.8	5	12.8	10	25.6
Forests – the Earth’s lungs	3	7.7	1	2.6	4	10.3
Motor fashion – advantages and disadvantages of motor industry development	2	5.1	0	0	2	5.1
Waste sorting	12	30.8	9	23.0	21	53.8
Water as a source of life, water saving, water and climate change	12	30.8	4	10.2	16	41.0
Energy saving and the climate	6	15.4	3	7.7	9	23.1
The fundamentals of the climate every child knows about	5	12.8	3	7.7	8	20.5
Climate and climate change	6	15.4	9	23.0	15	38.4
The weather and consequences of its change	10	25.6	2	5.1	12	30.7
Ecology – we take care of our plant, Little Ecologist Program, We have Ecology’s phone number, The Code of the Little Ecologist	19	48.7	11	28.2	30	76.9
Solar energy – solar panels and photovoltaic installations	0	0	1	2.6	1	2.6

Table 8 indicates that the largest group of teachers (76.9%, including 48.7% from the city and 28.2% from the countryside) covered ecology-related topics: Ecology – we take care of our plant, Little Ecologist

Program, We have Ecology's phone number, and the Code of the Little Ecologist. The next largest groups, representing 53.8% (including 30.8% from the city and 23.0% from the countryside) of teachers and covering waste sorting, and 41.0% of teachers (30.8% in the city and 10.2% in the countryside) introducing water as a source of life, water saving, and water and climate change. This was followed by 38.4% of teachers (15.4% in the city and 23.0% in the countryside) pursuing topics related to climate and climate change, 30.7% of teachers (25.6% in the city and 5.1% in the countryside) teaching the weather and consequences of its change, 25.6% of teachers (12.8% in the city and 12.8% in the countryside) covering clean air around us, and finally 23.1% of teachers (15.4% in the city and 7.7% in the countryside) teaching energy saving and the climate. In addition, the teachers participating in the research covered the following topics: the fundamentals of climate every child knows about (20.5% of the respondents – 12.8% in the city and 7.7% in the countryside), Forests – the Earth's lungs (10.3% – 7.7% in the city and 2.6% in the countryside), motor fashion – advantages and disadvantages of motor industry development (5.1% – only teachers in the city), and solar energy – solar panels and photovoltaic installations (2.6% – only teachers in the countryside). The largest group of teachers from both the city and the countryside (48.7% and 28.2%, respectively) were those who pursued ecology-related subjects: ecology – we take care of our plant, Little Ecologist Program, We have Ecology's phone number, and the Code of the Little Ecologist.

Conclusions

The research presented above is consistent with the general and wide-ranging discussion about climate change education. The major goal of the study was to assess the implementation of climate change education in selected kindergartens. It consisted of diagnosing children's knowledge about climate and climate change and verifying preschool teachers' class register records and monthly work plans regarding climate change education.

The study revealed that despite the preschool teachers who do cover climate education in their classes, in the majority of classrooms, climate-related issues rarely appear. It is thus fair to say that the awareness of sustainable development among these teachers is not satisfactory. This could be the result of a widespread consensus that preschool age is too early to introduce climate education. Nonetheless, numerous examples of good practices in the literature on the subject do not support this suggestion.

The analysis of the children's awareness of the climate and climate change demonstrated that even though most children have heard of the issues, they cannot support their knowledge with concrete examples. Their insight indicates, at most, a superficial environmental education targeted at helping them adopt positive attitudes towards nature. Environmental awareness-raising and teaching about climate change are two entirely different things, to which waste sorting is only indirectly related. This shows that climate change education in kindergartens is not conducted in a satisfying manner.

These shortcomings can be ascribed to a lack of preschool teacher training with respect to climate education. The foundations of higher education are set by the National Qualifications Framework issued by the Ministry of Science and Higher Education, comprised of guidelines pertaining to curricula in individual fields of study at higher education institutions. However, in addition to the Framework, every university has full autonomy with respect to developing individual curricula. The term "sustainable development" and related issues can be identified mainly in the areas of natural sciences, agriculture, forestry, and veterinary sciences. As far as higher education institutions training future teachers are concerned, only the social competencies to be achieved are clearly outlined. The issue of sustainable development in the teacher training has been treated cursorily, mostly through the idea of lifelong and independent learning. The National Qualifications Framework does not require future teachers to be familiar with the idea of sustainable development or to understand the issues at the interface between the environment, the economy, and society. The most promoted values are, above all, respect for the environment and cultural tolerance.

Moreover, in accordance with the Core Curriculum for Preschool Education, children should acquire multiple cognitive, physical, and social skills. What is striking is the absence of natural sciences topics, especially in comparison with the emphasis on the family and national (Polish) material. There are two exceptions, though. As part of a child's emotional development, they should develop a sensitivity towards and sympathy with animals, be aware of the fact that animals can feel, and show them kindness and concern. In addition, children should be able to use terms related to natural phenomena, such as rainbows, rain, storms, leaves falling, seasonal bird migration, blossoming, or water freezing; terms related to the life of animals, plants, people in the environment; and the use of natural goods, such as mushrooms, fruits, and herbs. At the same time, a child should see the emotional value of the environment as a source of aesthetic satisfaction. In other words, if a child can comprehend that nature exists, they must admire it and be delighted rather than concerned about its fate. When the Ministry of National Education developed the core curriculum, it established the skills which children were to acquire. Teachers find it difficult to meet the objectives of the curriculum due to its immensity. As a result, topics related to climate and climate change are often omitted.

The research demonstrates that preschool teachers are not aware of the fact that the present generation of preschool children will have an impact on the future of our planet and that their decisions in the future will shape the behavior of producers which impact ecology and CO₂ emissions. The lack of sustainable development education among preschool teachers and of an obligation to introduce climate change education in their classes leads to poor environmental awareness among children and insufficient foundations of ecology in the nation's youth. Therefore, it is recommended that teachers promote the principles of sustainable development and foster an awareness of the effect of human activity on our environment and climate change. Close contact with nature, establishing a relationship with it, or finding favorite spots in forests may have a lasting impact on environmental protection in the future and may develop environmentally friendly attitudes.

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Educational Support and the Choice of Metacognitive Reading Strategies Under Exam Stress Among Students With and Without Dyslexia

(pp. 455–475)

Abstract

The aim of the study was to identify the determinants of dyslexic and non-dyslexic students' choice of reading strategies for exams, as well as the mediating factors – in this case, exam stress – in the relationship between perceived educational support and the use of specific reading strategies. The study groups consisted of students diagnosed with dyslexia (N=540) and students without dyslexia (N=540), aged 14 to 15 years.

The tools used in the study were the *Metacognitive Awareness of Reading Strategies Inventory*, developed by Mokhtari and Reichard, the *Students' Perceived Sources of Test Anxiety*, developed by Bonaccio and Reeve, and the *Educational Support Questionnaire*, developed by Gindrich. The study followed a correlational design. Descriptive statistics, Pearson's *r* correlations, and regression analysis were used to analyze the results using model templates for PROCESS for SPSS and SAS (Hayes, 2018).

The study established relationships between perceived educational support and the declared use of particular reading strategies (global, support, and reading problem-solving strategies) and stressors in exam situations.

The results of the study indicate that only among dyslexic students was there a moderating role of exam stress in the relationship between perceived educational support and the declared choice of global reading strategies.

Keywords: exam stress, metacognitive reading strategies, educational support, dyslexia

Dyslexia is currently one of the most prevalent specific learning disorders, affecting between 9% and 12% of European citizens (Snowling et al., 2020; European Dyslexia Association, 2021) and perhaps as much as 15%–20% of the general population (International Dyslexia Association, 2021). There is no doubt that its consequences determine the school functioning of affected students at every stage of education (Ganschow et al., 1995; Crombie, 1997, 2000; Kamińska-Ostęp & Gulińska, 2008; Snowling & Hulme, 2011). Many studies provide evidence of a link between the reading difficulties experienced by dyslexic students and both their cognitive abilities (Capin et al., 2021; Lauterbach et al., 2017; Wong et al., 2017) and school achievement (Adlof, 2020; Snowling et al., 2000).

The result of these learning difficulties, in many cases, is an anxiety reaction (Lufi et al., 2004; Peleg, 2009; Wang et al., 2021). One of the key symptoms of anxiety is a preoccupation with personal thoughts or emotions, which can result in mind-wandering (Unsworth & McMillan, 2013) and, during an exam, may interfere with reading comprehension performance, including making appropriate inferences from the text (Blicher et al., 2017; Martinez-Lincoln et al., 2021).

The relationship between exam anxiety and the cognitive/emotional and social functioning of students with low reading skills, including dyslexia, and reading and learning styles and achievement has been confirmed by numerous studies (Francis et al., 2021; Livingston et al., 2018; Ogundokun, 2011; Peleg, 2009). A number of papers also highlight the important links between exam stress and self-regulation (Ramli et al., 2018; Oaten & Cheng, 2005).

Although exam stress from being assessed in various test situations that require reading and writing skills can also affect students without specific learning difficulties and is a prominent element of school life,

the research so far seems to indicate that students with dyslexia are more vulnerable to its destructive impact, especially during exams. Given these consequences, it seems important to recognize the sources of exam anxiety experienced by students, which may arise from both internal resources, such as self-efficacy or self-esteem, and external factors, related to the exam's unpredictability or difficulty or the form of its tasks. In this situation, it is reasonable to draw attention to the need to activate metacognitive strategies in students as an outcome of therapeutic interventions aimed at increasing reading performance – one of the determinants of learning success (Dimmitt & McCormick, 2012; Kanani et al., 2017; Moojen et al., 2020). The activation of metacognitive mechanisms (Flavell, 1971, as cited in Lajoie, 2008; Flavell et al., 2000; Garner, 1994; Jacobs & Paris, 1987) allows the individual to control and regulate their own activity and to choose specific learning strategies in order to increase learning efficiency (Świeży, 2008). While reading a text, students may be directed to apply different strategies, such as global strategies, problem-solving strategies, or support reading strategies. The first of these uses a general analysis of the text, in terms of both its content (metatextual strategies) and organization. The second relates to the actions students take when the text becomes difficult and they encounter problems that prevent them from understanding the content. The last group of strategies involves the use of additional aids, such as note-taking, paraphrasing, summarizing, or discussing the text (see Mokhtari & Reichard, 2002).

Researchers' efforts in this area have focused on the search for two types of relationships, the first between metacognitive awareness – resulting in the activation of strategies for working with a text – and reading and learning performance (Campos, 2012; Czerniawska, 1999; Eilers & Pinkley, 2006; Keskin, 2013; Kolić-Vehovec & Bajšanski, 2006; Li, 2010), and the second between learning support activities and students' formation of metacognitive skills (Antonioni & Souvignier, 2007; Camahalan, 2006; Denton et al., 2021; Stevens et al., 2020; Stevens & Vaughn, 2020; Williams & Vaughn, 2020). The results of a study by Burden and Burdett (2005) showed that appropriately structured environmental support can

positively influence dyslexic students' beliefs about self-efficacy, goal orientation, and sense of control.

The above-mentioned reports therefore prompt further research into identifying the metacognitive mechanisms activated by dyslexic students when working with a text. In a study (Furnes & Norman, 2015) conducted on a group of 44 students aged 18–23 years (22 with dyslexia and 22 without reading difficulties), the students with dyslexia scored lower in reading skills, metacognitive knowledge, and associated stated use of reading strategies than students who did not exhibit reading difficulties. In addition, the former group reported lower learning efficacy (see Humphrey & Mullins, 2002) and poorer grades. They showed similar sensitivity to metacognitive experiences and comparable insight into their own difficulties, suggesting that interventions to increase the level of procedural metacognitive knowledge (Jacobs & Paris, 1987) and the use of problem-appropriate reading strategies in dyslexic students should increase their effectiveness in working with texts. Activities of this kind should be seen in the perspective of social support in the broadest sense, including educational support, which can be considered in two dimensions: objective and subjective. The objective dimension refers to both organized institutional psychological/educational support and informal support from teachers, therapists, parents, and peers. The subjective dimension, on the other hand, is understood in terms of how students perceive, evaluate, and value learning support activities (Gindrich, 2014).

There have been inconclusive results from research on the effectiveness of interventions, whether in the form of instruction on specific reading strategies (Camahalan, 2006; Stevens et al., 2019) or multifaceted, multi-component interventions for improving reading comprehension in students with reading difficulties (Fogarty et al., 2014). While some studies support the effectiveness of using an intervention targeting the selection and use of reading strategies (Camahalan, 2006; Stevens et al., 2019), others unfortunately do not provide such optimistic evidence (Fogarty et al., 2014). The theoretical discourse and research reports on the importance of support in improving reading skills in students with reading difficulties, including dyslexia, therefore guide the research toward

establishing the moderating role of exam stress in the relationship between educational support and reading strategy choice.

Methods

The research presented herein is part of a wider project on metacognitive awareness and the motivational mechanisms of reading under exam stress. The aim of the ongoing research project was to identify differences between groups of dyslexic and non-dyslexic students in terms of perceived educational support, declared use of reading strategies, and perceived sources of exam stress; to determine the relationships between perceived educational support, declared use of metacognitive reading strategies, and sources of exam stress among students with and without dyslexia; and to determine how sources of exam stress moderate the relationship between perceived educational support and declared use of global and support reading strategies and reading problem-solving strategies.

These research objectives are represented by the following questions and hypotheses:

1. Are there differences in the level of educational support experienced, the declared use of reading strategies, and the exam stress experienced by dyslexic versus non-dyslexic students? In view of the fact that dyslexic students receive specialized psychological/educational care aimed at minimizing learning difficulties – including reading and writing – we hypothesized that they report higher levels of perceived educational support and in consequence more often use particular reading strategies. In contrast, negative educational experiences and the associated understated sense of efficacy (Furnes & Norman, 2015; Humphrey & Mullins, 2002) may increase vulnerability to stressors; therefore, dyslexic students will experience higher levels of exam stress.
2. Are there relationships between educational support declared by dyslexic students in the use of reading strategies (global, support,

and problem-solving reading strategies) and the sources of exam stress in dyslexic versus non-dyslexic students? The psychological and pedagogical support provided to dyslexic students led us to hypothesize a stronger positive relationship between educational support and declared use of reading strategies among this group.

3. How and why do different sources of exam stress condition the relationship between educational support and the choice of specific reading strategies in dyslexic and non-dyslexic students? Considering both the research-supported destructive effect of exam stress on emotional/cognitive functioning (e.g., Blicher et al., 2017; Martinez-Lincoln et al., 2021) and the importance of educational support for enhancing learning performance, including reading and writing (Camahalan, 2006; Stevens et al., 2019), we hypothesized that sources of stress will act as moderators of the relationship between educational support and reading strategy choice in both groups of students.

Data

In this study, the research group consisted of a total of 1,080 students (540 with dyslexia and 540 without dyslexia) attending randomly selected Polish schools across the country. The dyslexic students had diagnoses documented by reports from psychological/educational counselling centers. The age of the students was between 14 and 15 years ($M=14.40$; $SD=0.55$). All dyslexic pupils participating in the study were receiving psychological/educational support at school and/or a counselling center and had participated in remedial classes and possibly other specialized classes.

Research tools

In this study, three psychometric tools were used. The self-reporting tool *Metacognitive Awareness of Reading Strategies Inventory*, developed by Mokhtari and Reichard (2002), was used to measure students' declared

use of reading strategies. The tool uses a 5-point Likert scale (1 – “I never or almost never do it”; 5 – “I always or almost always do it”). The authors recommend interpreting scores of 3.5 and above as high, from 2.5 to 3.4 as medium, and scores below 2.4 as low (Mokhtari & Reichard, 2002).

In the study sample, the reliability coefficients for the individual subscales were comparable to those of the original version: Global Reading Strategies – 0.88 (original version – 0.92), Problem-Solving Strategies – 0.86 (original version – 0.79), and Support Reading Strategies – 0.86 (original version – 0.87).

The *Students’ Perceived Sources of Test Anxiety* questionnaire, developed by Bonaccio and Reeve (2010), was used to identify the sources of exam stress experienced by students. The tool consists of 22 items assigned to three factors: Perceptions of the Test, whose Cronbach’s alpha value for the study sample was 0.82; Perceptions of the Self, whose reliability was 0.89; and Perceptions of the Situation, whose reliability was 0.70. The tool uses a 5-point Likert-type scale (ranging from 1 – “not at all” to 5 – “very strongly”), on which the subjects rate the extent to which each item reflects their emotions and thoughts before taking an exam.

The Educational Support Questionnaire, developed by Gindrich (2014), was used to assess students’ perceived educational support. The tool consists of a total of 30 items forming three subscales of educational support: from teachers, parents, and schoolmates. Each subscale contains eight items. In the additional part of the questionnaire, there are six statements concerning educational support provided by specialists from the psychological/educational counselling center or school in the form of additional specialized classes. The tool uses a 5-point Likert scale (1 – “completely false”; 5 – “completely true”).

The validation study of the questionnaire showed that the split-half reliability coefficients ranged from 0.79 to 0.91. The reliability of this tool’s scales for the study sample were as follows: Global Educational Support – 0.91, Educational Support from Teachers – 0.88, Educational Support from Parents – 0.85, and Educational Support from School Classmates – 0.91.

Results

In order to answer the first research question, concerning the existence of differences between the level of educational support, declared use of reading strategies, and perceived exam stress in dyslexic versus non-dyslexic students, the mean scores that the two groups obtained for each variable were analyzed and compared (Table 1). This made it possible to establish that for the three potential sources of exam stress – Perception of the Test, Perception of the Self, and Perception of the Situation – the students in both study groups prioritized Perception of the Self, which can be influenced by previous positive or negative test-taking experiences, anxiety about any type of test, setting high expectations for oneself, and the pressure to perform well in examinations, and Perception of the Test, its form, the type and amount of material, and the rank that the student ascribes to it in relation to their educational achievement. Perception of the Situation, understood as the occurrence of unforeseen events that could potentially affect the course of the exam and the results, was perceived less frequently as a source of exam stress. It should be added that the averages obtained for each of the sources of exam stress did not indicate any statistically significant differences between students with dyslexia and their peers without dyslexia.

In the case of metacognitive reading strategies, students in both groups most often declared using problem-solving strategies aimed at attentively reading the text, monitoring attention, adjusting the reading pace to the difficulty of the text, and visualizing the content being read, among other things, and least often using support reading strategies, consisting of taking notes while reading, summarizing or paraphrasing content, underlining information in the text, or returning to a previously read passage in order to link the content into a logical whole, for example. The frequency of use of each reading strategy, as declared by the students, fell within the range of mean scores. The analysis with Student's t-test for independent samples showed that the mean scores for the use of each type of strategy by students with dyslexia were statistically significantly higher than the mean scores for this variable for students without dyslexia.

Turning to the results concerning educational support, it appears that students with dyslexia scored significantly higher in terms of perceived Global Educational Support than their peers without dyslexia. A more detailed analysis indicates that these scores were not differentiated by the sources of support either: Support from Teachers, Support from Parents, and Support from Peers. It is noteworthy that students in both groups were least likely to declare educational support from their classmates, while they were most likely to report support from their parents.

**Table 1. Differences in mean scores obtained by respondents
 for individual variables**

Variable	Students with dyslexia		Students without dyslexia		Student's t-test		
	M	SD	M	SD	t	df	p
Perception of the Test	2.92	0.72	2.86	0.93	1.186	1015.94	0.236
Perception of the Self	2.98	0.88	2.99	0.96	-0.093	1070.98	0.926
Perception of the Situation	2.45	1.06	2.37	1.18	1.168	1065.09	0.243
Global Reading Strategies (GLOB)	3.09	0.81	2.89	0.88	3.850	1078	0.000
Support Reading Strategies (SUP)	2.75	0.95	2.61	0.91	2.461	1073	0.014
Problem-Solving Strategies (PROB)	3.45	0.84	3.15	0.99	5.451	1078	0.000
Global Educational Support	76.51	16.90	71.80	17.31	4.529	1078	0.000
Educational Support from Teachers	24.14	6.99	22.81	7.35	-3.035	1078	0.002
Educational Support from Parents	28.83	6.91	26.41	7.31	-5.584	1078	0.000
Educational Support from Peers	23.55	8.41	22.57	6.91	-2.076	1078	0.038

M – arithmetic mean; SD – standard deviation; p – significance level;

bold – statistical significance (<0.05); df – degrees of freedom.

Based on SPSS 27.0.

Pearson's *r* correlations were used to address the second research question, concerning the determination of relationships between exam stressors, reading strategies (global, supportive, and problem-solving strategies in reading), and the evaluation of the global educational support received.

Table 2. Pearson's r correlations of the study variables among the students with dyslexia (N=540) and without dyslexia (N=540)

		1	2	3	4	5	6
1. Perception of the Test							
2. Perception of the Self	D	.746**					
	WD	.780**					
3. Perception of the Situation	D	.474**	.361**				
	WD	.621**	.560**				
4. Global Reading Strategies	D	.575**	.429**	.265**			
	WD	.392**	.341**	.233**			
5. Support Reading Strategies	D	.437**	.374**	.309**	.768**		
	WD	.267**	.222**	.170**	.773**		
6. Problem-Solving Strategies	D	.419**	.388**	.196**	.723**	.727**	
	WD	.371**	.308**	.066	.780**	.610**	
7. Global Educational Support	D	.211**	.068	.017	.439**	.450**	.437**
	WD	.109*	.054	-.027	.400**	.377**	.307**

D – students with dyslexia; WD – students without dyslexia

** correlation was significant at $p < 0.01$ * correlation was significant at $p < 0.05$

Based on SPSS 27.0.

As Table 2 shows, the analysis showed weak to moderate positive correlations for both study groups between test perception and individual reading strategies and between self-perception and individual reading strategies. It should be noted that in the group of students with dyslexia, the correlation coefficients between global reading strategies and both sources of exam stress were at a moderate level, while in the group of students without dyslexia, they were at a weak level. Perception of the situation as a source of exam stress, on the other hand, appeared to correlate positively but weakly with all metacognitive reading strategies among the dyslexic students. In contrast, in the students without dyslexia, the perception of the situation as a source of stress correlated weakly only with global and support reading strategies.

Both groups also showed weak positive correlations between global educational support and test perception, though statistically significant relationships were not found between self-perception and perceived educational support and between situation perception and perceived educational support in either group.

The analysis suggests that global educational support is significantly related, positively and at a weak to moderate level, to the global and supportive reading strategies and reading problem-solving strategies declared by students with and without dyslexia. Furthermore, moderate to high positive correlations between individual metacognitive reading strategies and between individual sources of exam stress were revealed in both study groups.

Seeking to answer the third research question on the moderating role of the source of exam stress in the relationship between educational support and the choice of specific reading strategies, a linear regression analysis was conducted (Table 3).

Table 3. Statistics indicating the percentage of variance explained by R2 of both models with the moderators Perceptions of the Test and Perceptions of the Self

Model	R	R ²	Standard error	F	df1	df2	p	Change statistics				
								R ²	F	df1	df2	p
1	0.670	0.449	0.360	145.61	3	536	<0.001	0.013	12.422	1	536	0.001
2	0.625	0.392	0.397	115.017	3	536	<0.001	0.040	33.665	1	536	<0.001

Predictors in models 1,2: Global support, Dependent variable: Global strategies

Based on SPSS 27.0 (Process v3.4 by Andrew F. Hayes, Model 1).

After entering the data into Model 1 (Hayes, 2018), the results showed that a statistically significant $F(3, 536) = 145.67, p < 0.001$ (Table 3, Model 1) is the model in which the relationship between global support and choice of global reading strategies is conditioned by the stress source of test perception. This model explains about 45% of the variance in the dependent

variable ($R^2 = 0.45$); the change in R^2 after introducing a moderator into the model was statistically significant ($R^2 = 0.013$; $p = 0.001$). The second model tested $F(3, 536) = 115.017$, $p < 0.001$ (Table 3, Model 2), which included the moderating role of perceiving the self as a source of stress, explains about 40% of the variance in the dependent variable ($R^2 = 0.37$). In this case as well, the change in R^2 after introducing a moderator into the model was statistically significant ($R^2 = 0.04$; $p < 0.001$).

The statistically significant predictors of reading strategy choice in Model 1 were the variables Global Support Without Counselling ($B = 0.032$, $p < 0.001$; 95% CI [0.023, 0.042]), Perceiving a Test as a Source of Stress ($B = 0.981$, $p < 0.001$; 95% CI [0.737, 1.225]), and the interaction variable Global Support and Perceiving a Test as a Source of Stress ($B = -0.006$, $p = 0.001$; 95% CI [-0.009, -0.003]). In Model 2, the statistically significant predictors of reading strategy choice were the variables Global Support ($B = 0.045$, $p < 0.001$; 95% CI [0.036, 0.054]), Perception of Self as a Source of Stress ($B = 1.052$, $p < 0.001$; 95% CI [0.812, 1.292]), and the interaction variable Global Support and Perception of Self as a Source of Stress ($B = -0.009$, $p < 0.001$; 95% CI [-0.124, -0.006]).

In the two models, in a situation of exam stress – which is either a test or self-perception – the declared frequency of using reading strategies decreased as the sense of educational support increased. The conditional effect values obtained in both cases indicate that the relationship between global support and choice of global reading strategies was statistically significant for all levels of perceived stress (Table 4).

Table 4. Estimation of conditional predictor effects for moderator values

Model	Effect	Standard error	t	p	Confidence interval		
					Lower limit	Upper limit	
1 Variable PT	2.222	0.019	0.002	10.482	<0.001	0.016	0.023
	2.889	0.015	0.002	9.837	<0.001	0.012	0.019
	3.556	0.012	0.002	5.810	<0.001	0.008	0.016

2 Variable PS	2.091	0.026	0.002	3.381	<0.001	0.022	0.030
	3.091	0.017	0.002	9.798	<0.001	0.012	0.020
	3.818	0.010	0.002	4.244	<0.001	0.008	0.015

The predictor in both models was Global Support. Moderating variables:
 Model 1 – Perception of the Test (PT); Model 2 – Perception of the Self (PS)

Based on SPSS 27.0 (Process v3.4 by Andrew F. Hayes, Model 1).

Discussion

The aim of the study was to identify the determinants of dyslexic and non-dyslexic students' choice of reading strategies and the mediating factors (exam stress) in the relationship between perceived educational support and the use of specific reading strategies by these two groups of students.

Referring to the first research question, which addressed differences between dyslexic and non-dyslexic students in the level of educational support received, the use of reading strategies declared, and the exam stress perceived, the results indicate that dyslexic students scored statistically significantly higher on perceived educational support and declared use of specific reading strategies than their non-dyslexic peers. The results relating to strategy use do not support those obtained by Furnes and Norman (2015). This may be due to the fact that including dyslexic students in psycho-educational care raises their level of metacognitive awareness and allows them to use reading strategies more reflectively. In contrast, no statistically significant differences were observed in the level of exam stress reported, which can be attributed to perceptions of the test, the self, and the situation. These results may seem surprising in light of previous research reports (Humphrey & Mullins, 2002), in which students with dyslexia showed lower self-esteem and self-efficacy than students without dyslexia, which could suggest that they would perceive themselves to a greater extent as a potential source of exam stress. Thus, the results

only partially support the hypothesis and indicate that exam stress, regardless of its source, should be considered a potential factor that may affect the school achievement of both dyslexic and non-dyslexic students.

This fact is also reflected in the results of the correlational analysis to answer the second research question, which show that sources of exam stress related to test perception and self-perception have statistically significant relationships with individual reading strategies in both dyslexic and non-dyslexic students; situation perception is related to all types of reading strategies only in dyslexic students, while in non-dyslexic students it correlates weakly and positively with two types of strategies: global, including activities focused on familiarizing oneself with the structure of the text, establishing the purpose of reading, using the context of the text, or being supported by typographical clues, tables, diagrams, and illustrations in the text, and support reading strategies such as taking notes, underlining selected passages, summarizing, using dictionaries, re-reading the text, or talking to the teacher (therapist) to check reading comprehension. Therefore, in students without dyslexia, self-perception does not correlate with problem-solving strategies, which include adjusting the reading pace to the difficulty of the text, visualizing the text to improve recall, taking breaks while reading to analyze passages, re-reading the text, and using the context of the text to determine the meaning of unfamiliar words and expressions.

The analysis of the relationships between sources of exam stress and global educational support revealed weak positive correlations in both groups of students only between global educational support and perceiving a test as a source of exam stress. This suggests that for both dyslexic and non-dyslexic students, as perceived educational support increases, so does the level of stress related to the perception of test structure. This seemingly surprising relationship can be explained by students' sense of responsibility and fear of disappointing those who support their efforts to succeed in their education.

No statistically significant relationships were found between perceived educational support and perception of the self or the situation as sources of exam stress in either of the study groups. It cannot be ruled out

that this is due to both the students' low self-confidence and the belief that they have no real influence over unpredictable factors, the occurrence of which cannot be prepared for in advance. These results do not correspond with those reported in the study by Burden and Burdett (2005), who found a positive relationship between adequate environmental support and the beliefs of dyslexic students concerning self-efficacy, among other things. Indeed, in this case one would expect negative correlations between the assessment of educational support and the perception of the self as a source of stress.

In contrast, the study showed that global educational support was significantly positively related to the global and support reading strategies and reading problem-solving strategies declared by students with and without dyslexia. The strength of the relationships (from weak to moderate) revealed in the analysis allows us to confirm the hypothesis that stronger positive relationships exist between educational support and declared use of particular reading strategies among dyslexic students. This may be due to the fact that they are more prepared to activate specific strategies due to the coverage of specialized psychological/educational support.

Concerning the third research question, the regression analysis identified the moderating role of stress in the relationship between educational support and the declared use of specific reading strategies. The results indicate that sources of stress only play a moderating role in the relationship between educational support and the choice of specific reading strategies in the group of dyslexic students and only in two cases. Both involve the relationship between educational support and the choice of global reading strategies, regardless of their level, with the moderator of this relationship being two sources of stress, the test or the self. This finding is in line with previous research findings on the destructive role of stress on cognitive functioning (Ogundokun, 2011; Peleg, 2009). It seems that this may be due to the strong link that exists between these two sources of stress, resulting in dyslexic students perceiving a test in terms of their reading comprehension problems and having low self-efficacy (Burden & Burdett, 2005), perceiving themselves as the source of difficulty (Francis et al., 2021; Livingston et al., 2018).

It is noteworthy that in both cases, the declared frequency of using global reading strategies in a stressful situation decreased as the sense of educational support increased. This makes it possible to conclude that, on the one hand, the educational support received by dyslexic students has little to do with equipping them with effective strategies for working with texts and that, on the other hand, the stress of having to face the unknown of the test and the lack of self-confidence in their own abilities means that – even with an increasing sense of support – students are unable to activate metacognitive strategies for working with texts (see Ramli et al., 2018; Oaten & Cheng, 2005). The fact that both sources only moderate the relationship between educational support and global reading strategies may indicate that exam stress causes dyslexic students to activate primarily general strategies for working with texts. It therefore cannot be ruled out that the instruction for working with texts that they receive in therapeutic/educational support refers only to general guidance and does not include more advanced strategies, or that students themselves – without specific help from teachers, therapists, and parents – try to intuitively use certain strategies which they feel are the most effective at coping with the challenges of reading in an exam stress situation.

For students without dyslexia, none of the sources of stress acted as a moderator of the relationship between educational support and declared use of reading strategies. Thus, our third hypothesis was only partially confirmed. With regard to students without dyslexia, it is necessary to look for models based on assumptions other than those made in this study in order to explain the relationship between the three variables.

The research carried out under this project points to the need to provide educational support for dyslexic students, focusing on developing skills such as recognizing sources of exam stress, understanding their own cognitive and psychosocial resources, and selecting effective coping strategies, as well as on familiarizing and implementing problem-appropriate strategies for working with texts. These elements should be part of permanent rather than ad hoc multifaceted systemic solutions in the form of intervention programs aimed at improving the learning and presentation performance of dyslexic students.

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Adjusting to Remote Learning as a Result of COVID-19: Experiences of Students and Teachers in Jamaica

(pp. 477–500)

Abstract

This qualitative study aims to explore the challenges of remote learning during the COVID-19 pandemic in rural and urban Jamaica, from the perspectives of both students and teachers. Data was collected from 20 teachers and 21 students through virtual and face-to-face interviews, questionnaires, and observations of virtual lessons. While there were more positive impacts of remote learning than negative, challenges such as technical issues, attendance, digital competencies, environmental disturbances, unresponsive students, and physical pain were identified. The problem is that teachers and students are frustrated with the challenges of remote learning and are in need of a solution. The study aims to provide assistance to those facing such difficulties and to contribute to future policy decision-making. The results will be used to produce a report that initiates some level of assistance for students and teachers and informs future policy and decision-makers.

Keywords: Remote learning, remote teaching, pandemic, social distancing

Introduction

Background

According to the World Health Organization (WHO; 2020), COVID-19 is “an infectious disease caused by a newly discovered coronavirus” (para. 1) and most people infected with the COVID-19 virus will experience mild to moderate respiratory illness, but the elderly and those with underlying medical conditions may develop severe illness. In March 2020, the Director General of the World Health Organization declared COVID-19 a pandemic due to its rapid spread and severity (WHO, 2020). Social distancing is in place to limit the spread of this harmful disease. Social distancing practices have forced organizations and institutions to physically close, forcing schools to resort to online or distance learning. On March 10, 2020, Jamaica received news of the first case of COVID-19 being imported, prompting the decision to close schools and switch to online learning and teaching using online tools such as Zoom, Schoology, and Google Classroom. After several days of observation and experience, teachers, parents, and students found the transition to distance learning confusing. The most affected by this transition were those without devices and access to the internet, those with unreliable resources and devices, and those without supervision. This fear of being left behind and being exposed to the deadly virus caused frustration and fear that students are not benefiting fully from remote learning.

Hibbert (2020) reports concerns from Jamaican parents regarding the negative impact of remote learning on their children’s mental health and extracurricular activities. Hendricks (2020) highlights the issues faced by students during online classes, such as inadequate devices and technical problems. Williams (2020) found that teachers in Jamaica struggle with the lack of control in the virtual space, with only 3% accounting for all their students online. These findings emphasize the need for adaptation and improvement in distance learning in order to mitigate these challenges and ensure that students’ education is not compromised. The information can be used to formulate solutions, which are essential to prevent long-term consequences for society as a whole.

Statement of the Problem

According to The Dutty Berry Show (2020) and JV Radio (2020), frustrations are high among parents, children, and teachers with the use of online platforms for schooling. Videos and audio clips show children expressing tiredness and stress, while teachers express confusion and a lack of resources. Some students even expressed a lack of motivation, with one stating that she would remain a “dunce” due to her exhaustion from the workload. Based on personal experience with teaching Zoom classes, it was concluded that both students and parents are struggling to navigate the necessary platforms for remote learning. As a result, frustration levels are high for all involved and there are concerns that students may not be benefiting from the remote learning process.

Significance of the Study

The study focuses on online learning in Jamaica and the Caribbean, with the goal of encouraging financial assistance for students and parents who need resources for online schooling. The researcher hopes the results will also encourage schools to provide training for teachers, parents, and students on how to navigate the platforms needed for online or remote learning and teaching.

Purpose of the Study

The goal of this qualitative study is to investigate the challenges of remote learning during the COVID-19 pandemic in Jamaica, from the perspectives of both students and teachers. The aim is to produce a report that will help provide assistance to those facing issues with remote learning and will contribute to future policy decision-making.

Research Question:

- What are the perceived impacts of remote learning and teaching on children and teachers?
- What are some of the challenges of remote learning and teaching experienced by teachers and students?

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- How can remote learning and teaching be improved as perceived by teachers?

Operational Definition of Variables

According to Dhurumraj et al. (2021), remote teaching refers to the delivery of instruction outside of an on-campus course, while remote learning – also known as distance education – occurs during emergency situations where educators and learners are distanced from each other, but remain connected virtually or with no technology.

A pandemic is an epidemic that affects a large number of human beings worldwide.

Social distancing is explained as a public health practice that aims to prevent sick people from coming into close contact with healthy people to reduce opportunities for disease transmission (Pearce, 2020).

PATH stands for the Programme of Advancement Through Health and Education. This programme was created to provide assistance to vulnerable persons who might be affected by poverty.

Non-traditional high schools are educational institutions that deviate from the conventional methods of a traditional high school to cater to those who might not thrive in a traditional setting as a result of behavioral issues, circumstances, learning difficulties, or other reasons.

Literature Review

Challenges of Remote Learning and Teaching

The COVID-19 pandemic has exposed flaws in the Jamaican education system, particularly at the primary and high school levels. As noted by Demirbilek (2020), the response of teachers, parents, and students to

online schooling indicates the system's readiness to integrate technology. The study suggests that while the impact of this new form of learning may be felt across generations, younger generations such as Millennials and Centennials may have an advantage due to their digital backgrounds.

Accessibility and Digital Equity

Access to technology and devices is crucial for effective online learning, since a lack of resources can lead to cognitive losses and exclusion from learning opportunities. Studies by Demirbilek (2014), Rasmitadila et al. (2020), and Murat and Bonacini (2020) report that low-income students encounter technical issues with online learning due to a lack of access to devices and internet connections, which can make transitioning to online learning challenging and can result in cognitive losses. Socioeconomic status is a significant factor that affects students' access to necessary devices and internet connections. Rasmitadila et al. (2020) also note that teachers may need to work harder to reach students who lack access to devices, and some may resort to offline learning or visiting students' homes, which can put them at risk of exposure to COVID-19. Additionally, Tzivinikou et al. (2020) highlight the need for the development and quality assurance of online learning environments, which may present a significant challenge for teachers who are not accustomed to teaching in a digital setting.

Technological and Digital Competence

Teachers are facing challenges adapting to online classes, but are still going above and beyond for their students. The successful integration of technology into education requires more than just acquiring devices; training teachers, parents, and students is also necessary for a smooth transition (Tingling, 2016). Teachers' digital literacy is particularly important in adapting to online teaching during COVID-19 school closures (Biela

& Glutsch, 2020). However, some teachers may be unwilling to move from traditional classroom teaching to online environments, as they are used to face-to-face lessons and may hesitate to accept the change (UNESCO, 2020; Dhawan, 2020). Successful online teaching requires a teaching style and personality that fits online teaching, which may be time-consuming for teachers to become competent (Kearsley, 2002). Teachers must also be able to navigate virtual platforms effectively so as to deliver effective online instruction (Rasmitadila et al., 2020). It is also possible for both teachers and students who are digital natives to have low digital competences and introducing new platforms can be a challenge without prior knowledge or training (Adedoyin & Soykan, 2020).

Environmental Factors

In traditional classroom settings, teachers have more control over environmental factors that can cause disruptions. However, in virtual classrooms, both teachers and students may lack access to quiet spaces due to a limited living space or intrusion from family members and pets. Murat and Bonacini (2020) found that not having a quiet place at home can lead to cognitive losses. Adedoyin and Soykan (2020) reported that human and pet intrusion is a major distraction during online learning, with videos surfacing online that show classes being interrupted by family or pets. The material from Island Girl (2020) and St. John's D.S.G. Pietermaritzburg (2020) provides examples of how such distractions can cause interruptions in online classes. Additionally, a study on the perception of primary school teachers during the COVID-19 pandemic found that student's environments, including disturbances from family members, can make it challenging for students to focus in class (Rasmitadila et al., 2020). The paragraph highlights the importance of having a quiet and distraction-free environment for effective online teaching and learning.

Social and Emotional Wellness and Safety

The importance of socializing during recess for both children and teachers has been highlighted, but COVID-19 restrictions have made it challenging. Studies by Garbe et al. (2020) and UNICEF and CAPRI (Brown-Knight & Burnett, 2020) have shown that remote learning has negatively impacted children’s social and emotional development, leading to boredom, frustration, anxiety, sadness, and fear. Additionally, the pandemic has put children at risk of abuse and danger, both in person and online (United Nations, 2020). Teachers are also facing challenges with the new teaching methods and the pressure to ensure student performance. According to Klapproth et al. (2020), teachers feel constrained by excessive student workloads and low motivation for doing schoolwork at home.

Theoretical Framework

Behaviorism, a theory introduced by John B. Watson in 1913, asserts that all behaviors are the result of experience and should only be studied through observable, measurable activities, according to Baron (2001) and Cherry (2021). The Learning Behaviorism Theory encompasses classical and operant conditioning, which involve learning through the association of stimuli and learning through the consequences of behavior, respectively. This theory can be applied to remote learning by using positive reinforcement techniques such as awards, competitions, and game-based learning platforms like Kahoot, Bamboozle, and Edu Candy, as suggested by Baron (2001).

The Situated Learning Theory, developed by Lave and Wenger, emphasizes social learning and the situational nature of learning. Because digital technologies can be used as situational tools, they can recreate authentic situations and places for learners, providing them with opportunities to actively participate in the learning process and acquire new knowledge, as explained by Schiavi (2019). Digital tools such as virtual museums and game-based learning platforms can facilitate the integration

of the Situated Learning Theory into online classrooms, enriching the on-line learning experience (Northern Illinois University Center for Innovative Teaching and Learning, 2012).

Methodology

Research Design

A qualitative method was selected for this research paper in order to garner more information on the impact of remote learning from the perspective of teachers and students in Jamaica. Qualitative research, whether social or psychological, focuses on how people perceive reality and it guides them in reporting on experiences or data that could not be adequately expressed numerically (Hancock et al., 2009).

Population Sample and Sampling

The study involved purposeful sampling of students and teachers with prior remote learning and teaching experience, from both urban and rural schools at the primary, preparatory, high school, and postsecondary levels. The researcher aimed to interview at least two professors and two students from each level, resulting in a total of 20 teachers (15 females and 5 males) and 21 students (10 males and 11 females) sharing their perceptions. Consent and assent forms were personally collected from interested pupils and teachers and participants were solicited through Junior Centres, nearby communities, friends, and co-workers.

Site and Setting

The researcher sought permission from principals and parents to interview teachers and students at a particular site. Consent and assent forms were distributed to interested parties and interviews were conducted with Google Meet, face-to-face, or over the phone. A Google form with interview questions was also created for participants who were unable to be interviewed in person or over Google Meet/Zoom. Due to the pandemic, face-to-face interviews were limited.

Data Collection Methods and Procedures (Interviews, Observation, Recording, and Field Notes)

Interviews/Questionnaires

The participants were contacted after their phone numbers and email addresses were obtained. Interviews were arranged for a convenient date, time, place, and mode and they lasted 15–20 minutes. For those unable to meet face-to-face, a Zoom or Google Meet link was shared. Face-to-face interviews were held at selected schools while observing COVID-19 protocols. The interview process lasted 4 months. Teachers and students were asked 11 and 18 questions, respectively. An online questionnaire was also used for those with busy schedules, with the questionnaire link being emailed to participants who completed and submitted it online.

Recording

The researcher used pseudonyms instead of real names for each participant during the interview. Recordings were made with the participants' permission and used as a means of capturing every detail during the interview and to avoid mis-quotes and biases. Face-to-face interviews were recorded using a phone app, while Zoom and Google Meet interviews were recorded with the applications' built-in functions. After the interviews, recordings were transferred to an encrypted file on the researcher's computer and used for research purposes only.

Observation

The researcher conducted an observational study in various educational settings. The study lasted for different periods of time, ranging from 5 to 10 days, in different grades and institutions, including preparatory schools, primary schools, high schools, and a teacher's college. The researcher focused on observing how students interacted with their teachers and how they accessed and responded to online assignments. Additionally, the study explored teachers' reactions to online classes, student complaints, and online socialization during breaks. The researcher occasionally participated in virtual classrooms as a student to gain insight.

Data Analysis

The recorded face-to-face and virtual interviews were transcribed verbatim and hand-coded. The most common responses to each question were identified and themes were formulated. The researcher revisited the research questions and re-read the responses to ensure that they could be answered. The notes taken during observation were also transcribed and used to explore other areas.

Instrumentation

Permission letters, consent forms, and assent forms were issued to students and teachers. Virtual interviews were conducted using Zoom and Google Meet, and phone interviews took place. A questionnaire was also created using Google Forms for those who could not communicate using other formats. During the face-to-face interviews and observation sessions, notes were taken using a notepad, pencil, and computer.

Trustworthiness and Credibility of Research

The use of triangulation is recommended to improve the credibility of qualitative research (Shenton, 2004). This involves collecting data from different sources to gain a fuller perspective on the situation being investigated (Lacey & Luff, 2004). In this research, observation and individual interviews were used to collect credible data. Additionally, the researcher met with peers once a week to discuss the research project and make logical suggestions for adjustments, in line with Shenton's recommendation for peer scrutiny to improve credibility (Shenton, 2004).

Ethical Conduct

To ensure compliance with legal requirements, assent forms were used for children under 18 years of age and consent forms were used for adults, accompanied by letters explaining the research. The researcher obtained permission to use the school premises from the school's director. All information gathered was kept confidential and stored on a computer protected by folder lock software. Peer scrutiny sessions were held to review the data.

Results/Findings

Interviews were conducted with six high school teachers, two lecturers, six primary school educators, and six teachers of preparatory schools. Five male teachers and 20 female teachers were interviewed. Twenty-one students, including five high school students, three tertiary students, five primary school students, and eight preparatory school children, took part in this study. The student sample was comprised of 10 men and 11 women. Different questions were posed to both teachers and students.

Question 1 for the teachers: “Do you find it hard to use online platforms for school (e.g., Zoom, Schoology, Google Classroom, etc.)? If yes, please state why.”

Seventeen of the teachers responded to the question in the negative, while three teachers responded positively, all stating that they were unaccustomed to using technology.

Question 2 for the teachers: “Did you receive training to utilize the tools needed to teach online?”

“Yes” was the response from 12 teachers, while others thought the training period needed to be extended. Eight teachers said they had to educate themselves and had learned new things via engaging with students and their peers.

Question 3 for teachers: “How do you think you can improve remote learning for your students?”

Three teachers claimed that adapting their technique or teaching strategy to the online environment would improve remote learning for their students. According to two teachers, supporting their pupils would help remote learning. Three teachers claimed that sponsors could provide students with easier access to the internet and equipment in order to boost remote learning. In order to enhance interest and improve remote learning for students, 10 teachers said they made an effort to be

engaging and enjoyable throughout their classes. Two teachers claimed that since they lacked technological aptitude, they were helpless.

Question 4 for teachers: “What do you think are some of the impacts of remote learning on students (whether positive or negative)?”

The majority of responses to this question were negative, citing issues such as poor internet connectivity, device shortages and defects, laziness and reduced autonomy among students, and negative psychological effects. Some teachers noted positive impacts such as increased independence and interest in technology, and more efficient work on schoolwork.

Question 5 for teachers: “What methods do you exercise in order to improve interaction during your online classes?”

Twelve of the teachers who participated in this study used gamification as a means of improving interaction. Three teachers used question-and-answer sessions to improve interaction, seven used interactive and engaging videos to create an interactive environment, two created an interactive and inclusive classroom by having students lead class discussions, three allowed students to be engaged in group activities, two utilized rewards and competitions to encourage students to interact, and one teacher encouraged students to keep their cameras on.

Question 6 for teachers: “What do you do to ensure that your lessons are effective online?”

Three teachers stated that they ensure their lessons are effective by requesting feedback from students at the end of the lesson. Three teachers stated that they used videos to improve the effectiveness of lessons. One teacher stated that they used a reward system and one stated that they asked students to lead class discussions. Six teachers stated that they utilized interactive games and presentations to improve the effectiveness of their online lessons.

Question 7 for teachers: “What are the attendance rates like on a daily basis in your class?”

One of the teachers surveyed stated that the attendance rate at her school had decreased by 10% since remote learning, while another stated that the attendance rate in her class was 50%, which was considered good. One teacher claimed that the attendance rate online was 75% and that she considered it good. Five teachers stated that the attendance online was bad, while six teachers said it was good, seven very good, and one teacher stated that the attendance in her class was excellent.

Question 8 for teachers: “What are your challenges as a teacher with teaching students online?”

The teachers mentioned various difficulties with remote learning, including not being able to reach enough students and students not engaging in classes. Internet connectivity issues and poor internet connections were a problem for 10 instructors, while device accessibility was another issue mentioned by three teachers. Two of them mentioned physical discomfort from spending too much time in front of computers. Environmental distractions, such as people, animals, and noises, were also mentioned by several teachers as a distraction for both students and themselves.

Question 9 for teachers: “How motivated are you to teach using the online platform? Give a reason for your answer.”

In this survey, 11 teachers expressed a lack of motivation to teach online due to various reasons such as student engagement, safety concerns, and the effectiveness of face-to-face teaching. However, five teachers were motivated to teach online because they saw it as the future and had the opportunity to learn and use new online tools. Four teachers reported being somewhat motivated.

Question 1 for students: “Do you find it hard to use online platforms for school (e.g., Zoom, Schoology, Google Classroom, etc.)? If yes please state why.”

Ten students responded “no” to this question, most of whom did so because they were enjoying the opportunity to utilize technology to learn. Nine students responded “yes” to this question, citing reasons such as internet and device issues, a preference for traditional face-to-face methods, and a lack of knowledge about online platforms because they are unaccustomed to the virtual environment.

Question 2 for students: “Do you have access to the internet?”

Eleven students stated that they had access to the internet. Six students stated that they sometimes do, while four students stated that they had no internet access.

Question 3 for students: “Do you have a device to access online classes? If yes, what kind do you have?”

The data indicates that most of the students had access to personal devices for remote learning. Specifically, eight students had their own laptop, nine had a tablet, and six had access to the internet through their own phones. Only two students had access to a desktop computer. However, one student had to rely on a friend’s device for internet access, while three students had to use their mother’s phone to access the internet.

Question 4 for students: “Do you have problems focusing in class sometimes? If yes, why?”

Of the surveyed students, 12 reported having problems focusing during online classes; eight did not. The reasons for difficulty focusing included distractions from games, videos, and social media, environmental noises, device and internet connectivity issues, fatigue from screen time, boredom, and difficulty following the teacher when multiple people are talking at the same time.

Question 5 for students: “How well do you understand the lesson when it is taught online?”

Twelve of the students surveyed responded that they understood the lesson well when taught online; nine students did not understand very well when taught online. Internet connectivity issues, running out of data, and difficulty navigating the online platform were mentioned as reasons for not understanding well. Two students expressed the opinion that virtual school did not feel like school and they were lost at times.

Question 6 for students: “Do you miss out on online classes sometimes? If yes, why?”

Of the students surveyed, nine stated that they missed out on online classes. The reasons for missing out on classes included device-related issues such as charging problems or devices dying in the middle of class, as mentioned by four students. Internet connectivity issues were also a problem for six students. Two of them did not have access to a device of their own, while another two were unable to attend due to financial constraints preventing them from buying data.

Question 7 for students: “Do you feel safer at school than at home? Why?”

Thirteen students considered home to be a safer learning environment due to better ability to concentrate and understand the lessons and due to safety from risks such as accidents, robbery, kidnapping, and sexual assault. Some students expressed concern about contracting COVID-19 at school. Five students felt safer at school due to support and the presence of a security guard. One student preferred face-to-face classes, while another felt unsafe at home due to an experience of gunshots.

Question 8 for students: “When you are online at home, are you monitored by a responsible adult?”

Eleven students stated that they are not monitored by a responsible adult when learning online from home. Ten students stated that they are monitored by a responsible adult when working online from home.

Question 9 for students: “Were you taught how to use the internet safely?”

Ten students stated that they were not taught to use the internet safely, while eleven said that they were.

Question 10 for students: “How do you feel when you are at home all the time and not at school?”

Eight students reported feeling bored at home all the time due to being unable to socialize with their friends. Four students felt sad for not being able to leave the house and play with their friends. On the other hand, six students were content with being at home all the time instead of at school. Another two students felt lonely and missed being able to see their friends at school. One student expressed anger at being at home and not at school.

Question 11 for students: “How do you feel when you are unable to see your friends in person?”

The survey results show that 12 students were sad because they could not see their friends in person. Three students were bored and one student was lonely. However, six students mentioned that they were fine with not seeing their friends in person, citing reasons such as being able to see them online or having friends at home.

Question 12 for students: “How do you feel when you are unable to see your teacher(s) in person?”

Thirteen students were sad about not seeing their teachers in person and one student struggled without their help. Seven students were okay with not seeing their teachers, with one not liking their teacher and another finding some classes boring. One student felt bored without in-person interaction with their teacher.

Question 13 for students: “Do you think that you are learning enough during online classes? Give a reason for your answer.”

Ten students were dissatisfied with online learning for various reasons, including a preference for face-to-face learning, feeling left behind,

internet issues, the workload, and cheating. Two students were uncertain because they had missed classes. However, nine students reported satisfaction with good teaching, access to online notes, and consistency in the syllabus.

Question 14 for students: “Do you enjoy online classes? Why?”

Seven students liked online classes for interactivity, fun, and learning computer skills. Two students preferred online classes to avoid travelling by bus and health risks. Eleven students preferred face-to-face classes for socializing with peers and the teacher, and disliked online classes due to issues with the internet, data, and distractions. Some students were bored due to non-interactive teachers, while three students enjoyed classes only when they were not too long or dull.

Question 15 for students: “Do you prefer learning online or at school? Why?”

Out of the 22 surveyed students, 14 preferred in-person learning for socializing with friends and teachers. Four preferred online learning to avoid commuting and being exposed to COVID-19. One preferred in-person learning to access PATH food and one preferred online learning for fewer distractions. Three had no preference between online and in-person learning.

Observation Results

Response to Online Assignments and Complaints

When students at the primary school level (preparatory schools) were given assignments to be completed online, I did not hear them complaining. The majority (95%) of the time, these assignments were required to be submitted online. When students in primary and high schools were given assignments to complete and submit online, there were concerns such as “I don’t have access to a device all the time” and “my data will run out over the weekend.”

Navigating Online Platforms

The primary and high school students had difficulties submitting assignments on Google Classroom, while the tertiary-level students did not face any issues. In turn, 40% of the teachers who received complaints helped their students navigate the platform. Preparatory schools used Schoology and Zoom, with no reported issues in navigating these platforms.

Communicating with Classmates and Teachers Online

The preparatory school students responded well to their teachers and socialized during breaks as if they were face-to-face. The primary school students communicated well with their teachers, but were not given the opportunity to socialize during breaks. Non-traditional high school students had the opportunity to socialize but were silent, while traditional high school students were more responsive. The tertiary students responded well to lecturers.

Attendance Rate

At the primary school level (preparatory and primary), the students were in full (or nearly full) attendance 97% of the time. In the traditional high school (7th grade), full attendance was observed 95% of the time, while the non-traditional high school (8th grade) had full attendance only 40% of the time. At the tertiary level, full attendance was recorded 97% of the time. The students who did not attend cited reasons such as lacking a device, data, internet access, and electricity.

Discussion

The aim of the study was to investigate the challenges of remote learning faced by Jamaican students and teachers during the COVID-19 pandemic, with the goal of creating a report to assist them and inform parents. The study revealed the positive and negative impacts of remote

learning, with some negative effects being increased laziness, stifled independent learning, and exposure to predators online and at home. Both students and teachers expressed frustration with the limitations of online teaching and learning. The information gathered in the study was intended to contribute to policy decision-making. Dhawan (2020) argues that online learning provides students with ample time and flexibility, which often results in inefficient use of time and a lack of supervision, in turn leading to time-wasting activities such as playing games and visiting social media platforms during class. According to the teachers in the study, students' technologically savvy nature has led them to manipulate the remote learning system, further exacerbating the issue.

According to UNESCO (2020) and Dhawan (2020), teachers and students are facing challenges with the transition to online learning due to a lack of technology skills, an unwillingness to adapt, and a difficulty receiving personal attention and two-way interaction while adhering to pandemic guidelines. The COVID-19 lockdowns increased the risk of child abuse, exposure to inappropriate content, and online predators, making it essential to take precautionary measures to ensure the safety of children in the online learning environment (United Nations, 2020).

The teachers in this study reported that some students were receiving assistance from adults and others during assessments, exams, evaluations, or tests, which poses a challenge in measuring the child's capabilities. However, remote learning has also had some positive impacts, such as promoting technological competence, building independence and self-paced learning, and reducing commuting time. The students in this study preferred online classes for its flexibility and decreased exposure to danger, which increased their productivity time. As Dhawan (2020) noted, online learning is student-centered and flexible in terms of time and location. The challenges expressed by the teachers and students were quite similar. These challenges included internet issues (lack of money to purchase data, data running out quickly, no internet access, and unstable internet connections), device issues (faulty or no device), attendance (chronic absenteeism), digital competence, environmental disturbances, unresponsive students, and physical pain due to long hours spent at

a computer. Internet and device issues will be an ineluctable problem given that “not all parents have cell phones/laptops, and Internet signals are poor” (Rasmitadila et al., 2020, p. 98). Most of the challenges mentioned by both students and teachers might be related to financial issues. While some might be unavoidable, they can be managed or even resolved.

Conclusion

Online learning has advantages, including being a safer option for students who can avoid commuting to school. In addition, it saves parents money on transportation and meals, while allowing college students to benefit from online lectures without the expense of living on campus. According to Dhawan (2020), online learning is a relatively cheap mode of education compared to traditional classroom learning and it allows for flexibility in learning anytime and anywhere.

The challenges associated with online learning can be addressed by seeking funding from the private sector, providing affordable internet access and spaces for learning, and engaging students in virtual experiences and interactive games using the Situated Learning Theory. Teachers can also encourage attendance through operant conditioning and can periodically engage students in training sessions with IT or computer teachers. The Jamaican education system needs a pandemic plan that integrates technology into the curriculum to deliver lessons and create resources for remote classes. These challenges can hinder progress and lead to adverse reactions.

Limitation

The study employed a qualitative research design to investigate the challenges of remote learning during the COVID-19 pandemic in Jamaica, from the perspectives of teachers and students at various education levels. The study’s limitation is its relatively small sample size, which may have influenced the comprehensiveness of the results. Future research could increase the sample size and include the perceptions of parents and administrators, who also play significant roles in the education system.

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Denise Lloyd

Adjusting to Remote Learning as a Result of COVID-19: Experiences of Students and Teachers in Jamaica

(pp. 477–500)

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Level of Covid-19-Related Threats and Stress in Students in the Context of Their Personality Traits: Support Expected and Help Received

(pp. 501–519)

Abstract

University studies during the COVID-19 pandemic are conditioned by many factors that evoke a sense of danger and stress. The purpose of the study was to investigate the situations during the COVID-19 pandemic perceived by students as threatening and to determine the relevance of students' personality traits in their assessments of the threats and severity of stress associated with the COVID-19 pandemic. Another aim of the research was to identify from whom they most frequently expect help in such situations. The following research problems were formulated. 1. Which situations related to the COVID-19 pandemic are rated most and least threatening by students? 2. Which personality traits described in the 'Big Five' theory (McCrae & Costa, 1987) protect students from experiencing grave threats and from experiencing higher stress in the COVID-19 pandemic? 3. What sources of support are received by students and offered by the University?

The study involved 149 first-year students of the Pontifical University of John Paul II in Krakow. The survey was conducted in February 2021. The following research tools were used in the study: a short questionnaire for measuring the Big Five personality traits (IPIP-BFM-20), the Perceived Stress Scale (PSS-10) and the Questionnaire on Types of COVID-19-Related Threats (TCT).

The results of the study showed the importance of: 1. selected personality traits, such as emotional stability, extroversion and conscientiousness, for students' assessment of the threat to the individual, and protection against the severity of stress experienced; 2. social support that young people receive from their loved ones, including mainly mothers and friends, and 3. support provided by the University.

Keywords: threat, stress, students, personality traits, support, COVID-19

Introduction

Piotr Długosz, referring to research conducted at the beginning of the COVID-19 pandemic, calls young people the biggest losers of the pandemic (2020). This radical claim draws attention to the situation of young people, who experienced many psychosocial difficulties during their social isolation. Some of these young people are university students, for whom university education has taken an unexpected turn. One particular group of students are those who at the time of the pandemic were beginning the first year of their studies, which was basically conducted remotely.

In this study, we investigated the situations related to the COVID-19 pandemic that were experienced as threats by students commencing their studies at different faculties of the Pontifical University of John Paul II in Krakow. Another purpose of our study was to search for correlations between the intensity of students' personality traits and the threats and level of stress they identified. We were also interested to know from whom students expect and receive support in such situations.

Young people during the COVID-19 pandemic

In psychology and pedagogy, adolescence is defined as the age in a transitional period from childhood to adulthood, striving towards reaching maturity in the course of development and socialisation (Steinberg, 2008). Nowadays, it is seen as necessary to distinguish an additional period, referred to as emerging adulthood, which falls between the ages of 18 and 29 and precedes adulthood. According to Arnett (2000), this concept is supported by the distinctive features of this period, such as searching for one's own identity, experiencing unlimited possibilities, instability, a focus on oneself and 'being between' adolescence and adulthood.

The pandemic caused by SARS-CoV-2 is one of the difficult situations of which there is no shortage in the lives of young people. These situations create a sense of insecurity, particularly acutely felt by young people. As research shows, the hierarchy of threats perceived by adolescents is usually dominated primarily by topical and exposed international events (Trempała et al., 2016). Such events undoubtedly include the announcement of the COVID-19 pandemic on 11 March 2020 (World Health Organization, 2020). It transcended the previous experiences of many adults, let alone young people. It marked the current lives of young people and became a factor that is likely to determine certain aspects of their future. This is reflected in the phenomenon referred to as the 'lockdown generation', which is meant to characterise these young people (Godawa, 2021).

These threats undoubtedly involve the experience of stress. Stress is defined here as any situation that may disturb the balance between the living organism and its environment and that forces the individual to adapt to new conditions. This process involves mental effort and strain, which is determined by the human mental structure, an individual's personality structure, type of temperament and resources, as well as their ability to collaborate with others, sense of efficiency, defence mechanisms and ability to solve problems and seek help (Wojtczuk, 2020). Of these factors, personality traits play a special role. It is believed that the biologically determined factors which determine the personality structure, i.e. *extraversion* (vs *introversion*), *emotional stability* (vs *neuroticism*), *openness to experience*, *agreeableness* (vs *antagonism*) and *conscientiousness* (vs *lack of*

direction) are the main determinants of human behaviour (Lenkiewicz et al., 2016). Indeed, numerous studies have indicated that individual dispositions related to personality traits may serve as resources on which the assessment of a threat and the individual's response to that threat depends (McCrae & Costa, 1987). Thus, the extent to which students perceive the current pandemic as stressful may be related to their personality traits.

University studies during the pandemic

Young people's experience of stress and their attempts to cope became particularly evident in the context of distance learning. As a result of the pandemic, distance learning ceased to be complementary to classroom teaching. By virtue of the decisions and regulations that were made during the pandemic, it became the primary – and periodically the only – form of education (Ministry of Education and Science, 2020). The actions of the authorities and academic teachers focussed on creating optimal educational conditions for students and ensuring the quality of the educational process (Pokhrel & Chhetri, 2021). The guidelines of the Ministry of Education and Science concerning education in universities and colleges in the 2020–21 academic year also drew attention to students' mental health needs and to providing them with psychological support after identifying the problems (Ministry of Education and Science, 2020).

Research conducted by Zbigniew Izdebski (2020) as shown that among the surveyed pupils and students, as many as 53% indicated that they had experienced periods of breakdown or mental crisis during the pandemic, 44% of the respondents in the 18–29 age group declared that they had more intensely felt periods of depression and depressive states and 41% said that they had felt loneliness more intensely. The stress caused by the situation made the educational process less effective, for example, by reducing student activity and commitment (Petrie et al., 2020). At the same time, students and lecturers rightly emphasised that university education is much more than transferring knowledge: it is all about valuable networking and interpersonal relations, which cannot be easily obtained remotely (Pawlina, 2020).

Bearing in mind the difficulties which were identified, it is worth paying attention to the situation of first-year students. The beginning of university studies is a time of high hopes and joy. Students meet a variety of people who instil their own interests in them. By attending university, new students become more responsible for their life and decisions. They get a taste of university life, which exceeds their previous experience (Maślanka et al., 2013). The first months at university are also marked by uncertainty, further enhanced by stress. Justyna Iskra (2016) lists the difficulties that are most commonly experienced by students, i.e. the fear of being unable to cope in a new situation or of meeting demands, envying others' achievements, needing to digest large amounts of difficult content in a short time, to master a new way of learning or to be independent, reacting to failures too emotionally and lacking an affirmation of their individuality. Adolescents' sense of intense threats from COVID-19 may lead to more risky behaviours and other activities in an attempt to find their own place in the 'new normality' (Łukaszewski, 2020).

First-year students studying under pandemic restrictions can expect support from the university to help them cope with the demanding tasks. They can expect the university to provide them with some ersatz normality and to show understanding with regard to the disrupted rhythm of daily functioning and the many difficulties associated with the pandemic and the related restrictions (Incubator of the University of Warsaw, 2021). Providing adequate support is a challenge that individual universities dealt with to varying extents using proven forms of assistance and creating new ones.

The purpose of the study was to identify the types of situations perceived by students as threatening during the COVID-19 pandemic and from whom they most frequently expect help in such situations. The relevance of students' personality traits for assessing the threats and severity of stress associated with the COVID-19 pandemic was also determined.

Due to the exploratory nature of the study, the following research questions were posed.

1. Which situations related to the COVID-19 pandemic are rated most and least threatening by students?
2. Which personality traits described in the 'Big Five' theory (McCrae & Costa, 1987) protect students from experiencing grave threats and from experiencing higher stress from the COVID-19 pandemic?
3. What sources of support do the students receive?

Based on a literature review, the following hypotheses were formulated.

1. The number and severity of perceived threats correlates with the severity of stress experienced by young people.
2. *Extraversion, emotional stability and conscientiousness* are the personality traits that protect students from experiencing high levels of perceived threats or increased stress.
3. Students receive support mainly from their family members and other loved ones.

Methods

Participants

The study involved 149 first-year students of the Pontifical University of John Paul II in Krakow. Among the respondents, 81.2% were women and 18.8% were men.

Research procedure and questions

The survey was conducted in February 2021 when Polish society was experiencing another wave of COVID-19-related morbidity and classes were online. An electronic questionnaire was made accessible to students for three weeks. Participation in the study was voluntary and completely anonymous.

Research tools

The following research tools were used in the study:

1. A short questionnaire for measuring the Big Five personality traits (IPIP-BFM-20, an abbreviated Polish version [Topolewska et al., 2014] of Goldberg's IPIP-BFM-50) to determine the students' personality traits. The questionnaire consists of 20 items, forming 5 scales (*extraversion, agreeableness, conscientiousness, emotional stability and intellect*). The respondents evaluated each of the items – containing a description of a behaviour – by choosing one of the options: 1 – does not describe me at all; 2 – describes me a little; 3 – describes me moderately; 4 – describes me very well; 5 – describes me exactly.
2. The Perceived Stress Scale (PSS-10) developed by Cohen et al. (1983) and adapted by Juczyński and Ogińska-Bulik (2009) to measure the level of stress. The PSS-10 measures global perception of stress in a particular life situation, as well as coping difficulties and the intensity of negative emotions. It consists of 10 statements about subjective feelings related to personal problems and events, behaviour and coping styles. Responses are rated on a 5-point Likert scale (from never to very often). The scale was constructed to assess the intensity of stress related to one's living situation over the past month. It is based on the assumption that it is not the number of stressful events that determines the intensity of stress, but their subjective assessment.
3. The Questionnaire on Types of COVID-19-Related Threats by Gurba et al. (2021). It consists of 46 items describing situations related to the pandemic which, in the opinion of the students, might have been perceived as potentially threatening. On a 5-point scale (from not at all burdensome to very burdensome), the respondent rates the degree to which each of the situations described and related to the COVID-19 pandemic was burdensome and threatening for them. The demographics included questions about sex, age, family of origin and place of residence.

Results

Perceived level of threat

Basic descriptive statistics of the severity index and number of threats perceived by the respondents were calculated. The Kolmogorov–Smirnov test was applied to check whether the distributions differed from the theoretical normal distribution. The index of the intensity of perceived threats in the sample did not differ statistically significantly from the normal distribution, while the index of the number of perceived threats deviated from normality, showing features of clear left skewed (predominance of high scores) and leptokurtic distribution. Both indicators were strongly correlated with each other ($r_s = 0.841$; $p < 0.001$).

Based on the measures of central tendency, it can be concluded that the most intense threats among the students surveyed were concerns regarding

- a. obstacles to achieving life goals,
- b. a fear that their youth will not be as exciting as it was for previous generations,
- c. restrictions on life activity,
- d. the impoverishment of student life and
- e. anonymity in the student community.

The respondents were least concerned about

- a. more frequent conflicts with siblings,
- b. difficulties in romantic relationships and
- c. the need to help elderly family members.

Correlation between perceived threats and severity of stress around the COVID-19 pandemic

In the study group, the level of stress was positively correlated with both the number ($r=0.624$) and severity ($r=0.488$) of threats experienced in the context of COVID-19. This means that the more threats related to

the pandemic and the more severely they were experienced, the more severe the stress experience by the students.

Correlation between the respondents' personality traits and the level of stress and the number and intensity of the threats

The values of Spearman's *rho* correlation coefficient indicated that among the five personality traits analysed in the study, *emotional stability* was the most strongly negatively correlated with the number ($r=-0.473$) and severity ($r=-0.385$) of perceived threats and the level of stress related to COVID-19. *Conscientiousness* was negatively correlated with the number of threats ($r=-0.196$) and the level of stress ($r=-0.198$), while an increase in the intensity of the trait *extraversion* was accompanied by a decrease in stress level ($r=-0.244$). The students with higher levels of *emotional stability*, *conscientiousness* and *extraversion* experienced lower levels of stress; higher levels of *emotional stability* were associated with fewer and less severe threats; and higher levels of *conscientiousness* were associated with fewer pandemic-related threats. No other statistically significant correlations were revealed.

Table 1. Spearman's rho rank correlation coefficients for personality traits and level of stress vs the number and severity of threats (N = 149)

Personality traits	Number of threats perceived	Severity of threats perceived	Level of stress
<i>Extraversion</i>	-0.047	-0.020	-0.244**
<i>Intellect</i>	-0.008	0.007	-0.134
<i>Emotional stability</i>	-0.473**	-0.385**	-0.738**
<i>Conscientiousness</i>	-0.196*	-0.151	-0.198*
<i>Agreeableness</i>	0.145	0.110	-0.132
Level of stress	0.624**	0.488**	1.00

* $p < 0.05$; ** $p < 0.01$

Sources of support

When asked about sources of support in difficult situations, two thirds of the sample group indicated friends ($N = 98$; 65.8%) or declared that they get support from their mother ($N = 96$; 64.4%); almost a third of the respondents indicated siblings ($N = 44$; 29.5%) or a girlfriend or boyfriend ($N = 41$; 27.5%), and one in four declared their father as a source of support ($N = 39$; 26.2%); one in eight participants indicated a clergyman ($N = 18$; 12.1%), and one in ten participants declared that they receive support from other, unclassified sources ($N = 16$; 10.7%). The least frequently indicated source of support was husband or wife ($N = 7$; 4.7%) (Table 2).

Table 2. Sources of support in difficult situations

Sources of support	N	%
girlfriend/boyfriend	41	27.5%
mother	96	64.4%
husband/wife	7	4.7%
father	39	26.2%
friend(s)	98	65.8%
clergyman	18	12.1%
other	16	10.7%

Discussion of results

When embarking on the study, it was expected that those students who perceived a greater number of threats and more intense threats related to the COVID-19 pandemic would at the same time experience more severe stress. The results support this hypothesis. The level of stress experienced by the subjects was positively correlated with both the number ($r=0.624$) and severity ($r=0.488$) of the threats experienced. These correlations can be explained in the context of Lazarus and Folkman's theory (1984), which defines psychological stress as an internal state associated with a particular type of transactions between a person

and the environment that are appraised as exceeding the resources of the person and threatening their well-being. The cognitive appraisal of a situation as threatening is therefore a determinant of the experience of stress. Psychological stress refers primarily to demands that, according to the individual's evaluation, exhaust or exceed their capabilities and thus make adaptation difficult or even impossible.

Experiencing the aforementioned situations as threats that hinder young people's development can be understood in the context of the specific characteristics and needs of people in emerging adulthood, as listed by Arnett (2000). Difficulties in achieving life goals, remaining anonymous in the academic community and being limited in any activity constitute significant obstacles in the process of building one's identity and experiencing the 'unlimited possibilities' indicated by Arnett as distinctive characteristics of this developmental period. At the same time, as suggested by the results presented herein, situations such as more frequent conflicts with siblings, romantic relationships and the need to help older family members were least often selected as difficulties, while these same issues were perceived as significant threats by teenagers during social isolation at the beginning of 2020 (Gurba et al., 2021).

In research conducted by the organisation More In Common, the opinion of 51% of the young people surveyed was that people's concern for each other increased during the pandemic (2020). The research shows that one year after the announcement of the COVID-19 pandemic, young people entering university were mainly concerned about its consequences in their private lives, especially the obstacles to their personal life goals. Going to university and getting an education is one such goal, which means that young people's concerns translate into a fear of losing the excitement of youth, missed activities, impoverished student life and the new anonymity of the student community. Although the subject of young people's concern is changing, it is worth stressing the chronic nature of the fears experienced by young people during the months of the pandemic (Grzelak & Żyro, 2021). It seems that the consequences of this prolonged state may be permanent in their lives. The permanency of such difficulties also makes it difficult to identify forms of assistance.

Individual dispositions related to personality traits can act as resources on which an individual's assessment of and response to a threat depend (McCrae & Costa, 1987). Therefore, based on research in the literature (Bakker et al., 2006; Conrad & Matthews, 2008; Fayard et al., 2012), it was assumed that selected personality traits, such as *emotional stability*, *extraversion* and *conscientiousness*, may be important in the assessment of the degree of threat to the individual, and may protect against the intensity of the stress experienced. The results of the correlation analysis for the intensity of these personality traits and the number and intensity of threats and the level of stress experienced by the students in the survey confirmed these expectations. Among the relevant personality traits, *emotional stability* turned out to be the most strongly correlated with the number (-0.473) and intensity (-0.385) of the threats experienced and the level of stress (-0.738). Emotionally stable individuals have the ability to control their emotions, which provides them with resilience in dealing with difficulties and experiencing stress (McCrae & Costa, 1987). By protecting against potential social conflicts, *emotional stability* can foster closeness in social relationships. These relationships, in turn, provide support and protection against increased stress and may contribute to young people experiencing fewer pandemic-related threats (Gurba et al., 2021; Luthar et al., 2015).

Conscientiousness is another of the personality traits that was considered to be 'protective' against experiencing threats and severe stress. The individuals who are more conscientious were less likely to experience threats (-0.196) and experienced less severe stress (-0.198) related to the COVID-19 pandemic. This is supported by research findings which suggest that individuals with greater conscientiousness report fewer daily problems (Gartland et al., 2012; Murphy et al., 2012) and experience negative emotions to a lesser extent (Fayard et al., 2012). Conscientious individuals have clear-cut goals and strong determination and take their responsibilities seriously, which means that they can view difficult situations as challenges that motivate them to take action, consequently leading to lower stress levels.

Numerous studies suggest that *extraversion* reduces the strength of the stress experienced (Bakker et al., 2006; Penley & Tomaka, 2002). A similar,

although rather weak, correlation between the intensity of *extraversion* and the level of stress (-0.244) was found in this study. Extroverted people usually have an extensive network of social relationships that can provide support in difficult situations, and thus protect against experiencing severe stress (Dunkel-Schetter & Bennett, 1990). Furthermore, extraversion promotes risk-taking – which involves underestimating risks – and leads to a lower perception of stress as a result. The weak correlation found in the study may be due to the specificity of the risks associated with the COVID-19 pandemic, as the restrictions limited social contact and limited the ‘utility’ of extraversion in the respondents’ interpersonal contacts.

Support provided to students at the Pontifical University of John Paul II in Krakow

The outbreak of the COVID-19 pandemic coincided with the commencement of the two-year project called ‘University Without Barriers’ at the Pontifical University of John Paul II (2020–2021). The aim of the project was to eliminate barriers in access to education at the university. One of the activities was to open the Interdisciplinary Counselling Centre, in collaboration with the Polish Association of Disabled People and the Office for Students with Disabilities at the Pontifical University of John Paul II in Krakow. It provided assistance primarily to students and doctoral students, but also employees, their families and all who felt the need to obtain advice and support (Interdisciplinary Counselling Centre, 2020). The free consultations and support included legal counselling, social and vocational counselling, psychological consultations, crisis intervention, conflict counselling, mediation, spiritual counselling and support, IT and new media counselling, psychological consultations, speech therapy, pedagogical therapy, EEG biofeedback training and counselling on working with students with disabilities (Interdisciplinary Counselling Centre, 2020). The activity of the centre started and developed during the pandemic restrictions, so almost all consultations took place in real time through the MS Teams platform. In order to facilitate the transfer of information,

a website was launched for the project with information on support (University without Barriers, 2020). Consultations and other forms of assistance were provided in compliance with the data protection regulations and the ethical dimension of providing assistance.

The project's activities, including those of the Interdisciplinary Counselling Centre, will be evaluated after the project is completed; nevertheless, it can be assumed that it was an adequate response on the part of the university to the significant range of students' needs. A special group consisted of first-year students of various faculties of the university. The knowledge obtained through the research points towards different needs and ways of reacting to threatening situations depending on students' personality traits; it was this knowledge that made the specialists aware of the need for an individual approach to each person in need of help. Referring to the difficulties, needs and expectations of students in the research material being analysed here, it should be noted that the opportunity to talk to professionals facilitated a reflection on life goals and ways of achieving them during the pandemic. It also provided an opportunity to jointly search for ways to counteract limitations in different kinds of activities. The provided support partially reduced the anonymity among the new community. The students' use of different forms of assistance provides evidence of an interest in it.

Conclusion

The results of the study, although based on a relatively small group of respondents, allow us to state that for first-year students of various fields of study at the Pontifical University of John Paul II in Krakow, the COVID-19 pandemic was associated with a sense of threat resulting from restrictions that disrupted their life goals and the development of free activity, and created impoverishment and anonymity of life in the student community. These situations make it difficult for adolescents to fulfil one of the most important tasks of this phase of development: building a mature identity. It turned out that the more serious threats young people

perceived, the stronger stress they experienced, which confirms the assumptions of the transactional stress theory developed by Lazarus and Folkman (1984). The results of the study once again show the importance of the social support young people receive from their loved ones, mainly mothers and friends. However, not everyone can always count on such support; therefore, assistance was provided at the Pontifical University of John Paul II in Krakow for all students experiencing any problems directly or indirectly related to the COVID-19 pandemic.

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