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Teachers' Experiences in Working With Cognitively Gifted Students

Abstract

The article presents the results of research into the knowledge and experience of Polish primary school teachers. The main aim of the research was to identify the experiences of primary school teachers in educational work with cognitively gifted students. Within this framework, the following research tasks were selected: (1) investigate teachers' preferred ways of supporting cognitively gifted students in the learning process and (2) investigate the difficulties experienced by teachers in working with cognitively gifted students. The research sought answers to the following questions: How do teachers recognize the individual needs of cognitively gifted students? How do they monitor their development? How do they evaluate their progress? What methods and forms of working with gifted students do they prefer? What difficulties do they experience in working with cognitively gifted students and what are the sources? How do they deal with these difficulties? The relationship between selected aspects of teachers working with gifted students in grades 1–3 versus grades 4–8 and the level of education were examined. The empirical data show that in Polish schools, cognitively gifted students are neglected and do not receive adequate educational support from their teachers. The preferred forms and methods of organizing the education of cognitively gifted students are mainly characterized by a teacher-centered attitude. The respondents indicated that difficulties working with

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cognitively gifted students result mainly from a lack of time, the need to evaluate the student against the background of the class, a lack from support from experts and parents, and their own insufficient competency. The research is important because it shows the desirable changes to teacher education programs and the process of supporting teachers in their professional practice.

Keywords: cognitively gifted student, lack of achievement syndrome, abilities, school, education, teacher

Introduction

Educational work with a gifted student is not an easy challenge for any teacher, because it requires from them certain competences that particularly support the development of the student's abilities, in addition to the obvious competences. This difficulty is intensified by the lack of ready-made, universal, standardized models of educational activities that maximize gifted students' potential. Giftedness is a complex and ambiguous phenomenon; most of all, it is individual. Although it is commonly equated with abilities, it has a broader meaning (Feldhusen, 2005; Gagne, 2004). As noted by Michał Chruszczewski (2009), giftedness is a specific set of physical properties, abilities, and other psychological features of a person, thanks to which they achieve clearly above-average results (compared to the reference group) in a given field of activity. This activity requires not only basic operations (which are made possible by one's capabilities) or possibly specific physical resources, but also the inclusion of these operations or resources in an organized sequence of activities with a higher degree of complexity. Wiesława Limont (2010, p. 17) takes a similar view, defining giftedness as directional abilities that are interpreted as special giftedness or talent and which allow for high achievements in a specific field of activity.

Thus, giftedness is included in the category of special abilities, which Joseph Renzulli classifies as cognitive, artistic, psychomotor, and pro-social abilities and Bronisław Hornowski classifies as cognitive, linguistic,

literary, mathematical, technical, inventive, fine arts, musical, and pedagogical (as cited in Szewczuk, 1990).

Giftedness is subject to the improvement process and school education likely plays an important role in this process, especially in relation to cognitive skills (Drost-Rudnicka, 2015; Dyrda, 2012; Fechner-Sędzicka, 2013; Gagne, 2004; Gondzik, 2001; Hłobił, 2010; Legutko, 2012; Mönks, 2008; Sternberg & Grigorenko, 2011; Szmidt, 2008; Wojnarowska, 2014). Taking into account the most famous models of giftedness – for example, Renzulli's Tricyclic Model of Abilities (2005, 2016), Monks's Multidimensional Model of Abilities (Mönks & Katzko, 2005), Popek's Interactive Model of Development of Abilities (2001), or Tannenbaum's Model of Abilities (1986),[1] which not only explain the essence of giftedness, but also show its multi-range determinants – it is easier to outline the ways of supporting the development of a cognitively gifted student and the role of a teacher. Moreover, it is much easier to identify the needs of a cognitively gifted student, as well as difficulties in their functioning and the sources of these difficulties.

It should be noted that a gifted student is often identified in terms of their achievements, as they are observable and measurable. This does not mean, however, that their school functions and competencies are equally highly developed (Czaja-Chudyba, 2005; Dyrda, 2007; Gwiazdowska-Stańczyk & Sękowski, 2018; Mönks, 2008; Wojnarowska, 2014). A cognitively gifted student is characterized by curiosity, the unabated energy that they put into intellectual activities, and a great passion. Thanks to this, not only do they achieve success in school, but they also often – but not always – become group leaders. They can use their creativity in various areas of knowledge (Aleksandrovich, 2013; Pinter, 1993). It has also been noted that working with such a student is easier, faster, more effective, and – above all – free from major problems in motivating them to learn (Dyrda, 2007; Koszyk, 2015; Mönks, 2008; Porzucek-Miśkiewicz,

[1] Descriptions of these models are included in many Polish publications, e.g., Schmidt (2008), Gwiazdowska-Stańczak & Sękowski (2018), Chruszczewski (2009), Gierczyk (2016), and Popek (1988).

2017). They are eager for adventure, independent, and willing to act; they are better able to connect various matters together (Okołowicz, as cited in Landau, 2013, p. 164). Their talents are manifested in cleverness, resourcefulness, and unconventional solutions and actions. Such a student definitely differs from their peers in one specific area: They have a high intelligence quotient and a wide range of interests, thanks to which they can be identified as a gifted, outstanding, or talented student with accelerated development (Dzierzgowska, 2012).

Cognitively gifted students are characterized by a combination of many positive personal traits: (1) they are over-developed and because learning is easy, they make progress faster than others; (2) they have their own "script" for life and learn quickly in their own way; and (3) they are characterized by a passion for knowledge, a desire to learn immediately, an obsessive level of interest, and the ability to concentrate. They often focus on one particular subject, forgetting the whole world around them (Dzierzgowska, 2012, pp. 13–14). Janet Bates and Sarah Munday (2005, pp. 11–12) add to this list of features (1) an early ability to form complete sentences and talk to adults; (2) a wide vocabulary and highly developed reading ability; (3) an insatiable curiosity and willingness to ask questions; (4) the ability to stay focused longer, especially on an interesting topic; (5) a tendency toward complex thinking processes; (6) abstract thinking skills, often with the use of higher intellectual abilities; (7) an excellent memory and the ability to apply information; (8) an ability to combine abstract concepts; (9) a rich imagination; (10) a wide range of general knowledge; and (11) leadership skills.

The attributes typical of a gifted child may, in some situations, help them with active and satisfactory functioning as a student, while in others they may cause difficulties. These difficulties may result from the diverse paces of development of emotional, intellectual, psychomotor, or linguistic abilities in students who are gifted in one field. Cognitively gifted students, being clearly accelerated in their intellectual development, may be significantly different from their peers in terms of emotional and social development and they are usually more vulnerable to existential depression (Fiedler, 1999; Gross, 2002; Limont, 2013). They

show strong emotions when they are unable to achieve their goal, which causes emotional tension in them and may, in turn, lead to frustration that disrupts their functioning. Cognitively gifted students are more sensitive and experience stronger emotional tension; it is more difficult for them to come to terms with the inconsistency between stated values and the behavior they perceive in others; they are more idealistic about the world and their increased emotional sensitivity influences the way they experience moral issues (Mróz, 2015, p. 20). They do not hesitate to call on others when their knowledge contradicts their experience.

These features, as already mentioned, may cause difficulties in social relationships with teachers and peers. Typically, cognitively gifted students experience a lack of understanding and their behavior is perceived as disruptive, disobedient, embarrassing, malicious, or bothersome. Teachers do not stimulate the development of such students and by punishing them, they often lead to the student's enthusiasm being extinguished and their achievements not matching their potential. Other pupils, however, tend to isolate and reject above-average gifted students, which condemns them to loneliness and marginalization in class life. Reluctance and pressure from peers may lead a gifted student to deliberately lower their own success and achievements in order to gain their peers' acceptance, which is confirmed by the results of research. The "loneliness of a long-distance runner" is a common phrase for the situation of gifted and outstanding children. Faster development distances them from their peers. Sometimes they lack friends and their talent breeds jealousy. Unusual ideas and solutions may lead to conflict in a group (Dzierzgowska, 2012; Gross, 2002; Mönks, 2008; Peterson, 2001; Rimm, 2000; Salcher, 2009). An adult's loneliness is often a voluntary decision dictated by their own aspirations. This is not the case for a gifted child, as they usually have no choice in the matter. The danger of spontaneity in the child's psychological development is associated with experiencing negative emotions and their suppression, which may result in emotional immaturity, neurotic and characterological disorders, or psychosomatic diseases (Pufal-Struzik, 2017; Worobiej, 2011).

The unfavorable situation of a gifted student is not a marginal phenomenon in our schools. Therefore, everything should be done to prevent

problems, mainly through the conscious and professional work of teachers, who are mainly responsible for the developmental conditions of their students. Studying their experiences from working with gifted students can allow them to discover neglected areas that require support.

Methodology

Goals/Aims

The main aim of the research was to identify the experiences of primary school teachers in their work with gifted pupils. Within this framework, the following research tasks were selected:

1. Investigate teachers' preferred ways of supporting cognitively gifted students in the learning process.
2. Investigate the difficulties experienced by teachers in working with cognitively gifted students.

Research Questions

Examining the experiences of primary school teachers working with cognitively gifted students entailed the adoption of the following research questions:

1. What experiences do primary school teachers have in working with cognitively gifted students?
2. Are there any differences in the experiences of teachers working with cognitively gifted students in grades 1–3 versus grades 4–8?

The following detailed problems were derived from the questions broadly defined above:

1. How do teachers of grades 1–3 and grades 4–8 recognize the individual needs of cognitively gifted students?
2. How do teachers monitor and evaluate the learning process of cognitively gifted students?

3. What methods and forms of working with cognitively gifted students are preferred by teachers of grades 1–3 versus grades 4–8?
4. How do teachers of grades 1–3 and grades 4–8 support the development of cognitively gifted students?
5. Do primary school teachers collaborate with parents and other institutions to stimulate the educational development of cognitively gifted students, and if so, how?
6. What difficulties do teachers of grades 1–3 and grades 4–8 experience in working with cognitively gifted students?
7. How do teachers reduce the difficulties experienced in working with cognitively gifted students?

Method

The choice of method, technique, and design of a research tool are extremely important in the context of finding answers to specific research problems. A proper selection is a condition of correctly conducting the research. Due to the diagnostic nature of the research, the diagnostic survey method and the questionnaire technique were used. As noted by Apanowicz (2000, p. 126), surveying is a technique where written answers to a logical, consistent, coherent set of questions are used to investigate a specific research problem. Therefore, a questionnaire consisting mainly of multiple-choice questions and the possibility to add original answers was developed. The questionnaires were delivered to 57 schools, where they were distributed to teachers via the principals. A total of 327 completed questionnaires were returned. The data were subjected to statistical and qualitative analysis, as a result of which 300 people were qualified for the study. The values of the measurable parameters are presented as mean and median values, standard deviation, and rank mean; non-measurable parameters are presented as numbers and percentages. The chi-square test was used to check the relationship. The differences in the frequency of using certain forms and methods of working with cognitively gifted students and forms of evaluation based on the level of education were assessed using the Mann–Whitney U test. A significance level of $p<0.05$ was adopted, indicating statistically significant differences

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or relationships. The statistical analysis was carried out with the software program Statistica 9.1 (StatSoft, Poland). The content analysis method (Krzystek, 2018; Miles & Huberman, 1994; Strauss & Corbin, 1998) was used in the analysis of data collected through open-ended questions by systematizing and organizing the respondents' statements. The thematic analysis was carried out in the software program ATLAS.ti. After a list of the most frequent thematic threads was compiled, an attempt to interpret their shared meaning was undertaken.

Participants and Ethical Considerations

The research covered 300 teachers: 150 early childhood education teachers (grades 1–3) and 150 working with grades 4–8. The teachers worked in schools located in urban areas (67%) as well as the countryside (33%). All teachers worked in schools in the Greater Poland (*Wielkopolska*) voivodeship. The research was conducted from September through November 2021.

The recruitment of teachers for the study was in line with three principles:

- voluntary participation in the study
- recruitment adequate to the objectives and methods of the study, in accordance with the inclusion and exclusion criteria
- selection of respondents that is free from discrimination.

In the context of conducting empirical research that involves a large sample of surveyed teachers, the basic conditions for reliability include anonymity, voluntary participation, and an appropriate selection of the research procedure.

Therefore, four criteria were taken into account:

1. Voluntary participation and confidentiality

The surveyed teachers were assured that they would not be identified in any way and that their participation in the study was absolutely voluntary; they were able to withdraw from it at any time, without

giving any reason and without any consequences. Additionally, they were informed that the results of the study would only be used for scientific purposes.

2. Sample selection

The selection of the sample for the study was purposeful. The research covered primary school teachers, due to the distinct differences in organizing education at a given stage.

3. Risk of harm

There was no risk of harm, thanks to the content of the research questions and the participants' anonymity. Also, the selection of the research method and procedure did not pose a potential threat to the interests or infringe the personal rights of the respondents or their families.

4. Relevance of the study

The chosen research design and method addressed particular research objectives and questions. Therefore, the conclusions of the research were correlated with the questions and the results were important for the theory and practice of educating teachers and gifted students. Moreover, the proprietary tools enriched the strategy of examining teachers' experiences, while the results themselves may constitute a reliable foundation for constructing educational programs to support teachers who work with cognitively gifted students.

Results

The study of the experience of teachers working with cognitively gifted students consisted of analyzing the respondents' answers to multiple-choice questions concerning various issues, which allowed for an in-depth description of the main variable. The preferred ways of recognizing students' talents and of monitoring and assessing their development,

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the methods and forms of working with cognitively gifted students, and the difficulties experienced by teachers were investigated. The presentation and analysis of empirical data first concerns the entire sample, and then teachers of grades 1–3 and of grades 4–8 separately, in order to emphasize the similarities and differences in their experience.

1. Primary school teachers' methods of recognizing students' cognitive abilities as well as monitoring and assessing their development

When asked about their preferred ways of recognizing the cognitive abilities of their students, the vast majority (96%) of the respondents indicated observing students' functioning during lessons and during extracurricular activities (57%). Significantly fewer respondents (48%) indicated the grades earned by students, students' success in competitions (46%), conversations with parents (40%), and other teachers and school employees (37%). The fewest respondents (12%) chose the results of school achievement tests and of specialized intelligence tests (10%).

When comparing the results from the teachers of grades 1–3 with those of teachers of grades 4–8, significant differences can be noted: 92% of the surveyed teachers of early childhood education identify students' cognitive abilities by observing them during didactic classes and 70% do so by talking to their parents, while only 10% of the respondents teaching grades 4–8 rely on conversations with students' parents. The methods that were chosen significantly more often among teachers of grades 4–8 (80% each) were the marking scale and success in inter-school and national competitions. The differences in the two groups' preferences are illustrated in **Table 1.**

Table 1. Percentage distribution, by group, of the responses to the question "How do you recognize the cognitive abilities of students?"

Methods	Teachers of grades 1–3 (%)	Teachers of grades 4–8 (%)
Talking with parents	70	10
Talking with teachers and other school employees	20	54
Success in inter-school and national competitions	12	80
Observation during lessons	92	100
Observation during extracurricular activities	40	74
Students'	16	80
School achievement tests	4	20
Specialized intelligence tests	4	6
Other	0	0

The data obtained from the surveys show that the preferred method of monitoring and assessing the development of students' cognitive skills is observation during school activities (95%). A large number of teachers (60%) also indicated school documents, such as a school diary, students' notebooks, a portfolio, or a tutor's file. One third (33%) of the respondents preferred regular meetings with individual students. Only 7% of the respondents mentioned documents from external institutions. The results show that in this aspect of the study, there were no significant differences between teachers of grades 1–3 and teachers of grades 4–8.

As for the frequency of assessing the progress of cognitively gifted students, 37% of the respondents assess their students once a year and 31% do so every six months. Only 11% of the respondents declared that they assess students every week; 15% revealed doing so once a month; 2% of the respondents admitted never making such an assessment. The distribution of responses from the two groups shows that 50% of teachers of grades 4–8 assess their students every six months and 48% do so once a year, while teachers of the lower grades indicated that they mostly assess cognitively gifted students once a month (30%) and once a year

(26%). There was a statistically significant difference in the responses to this question (p=0.005).

The analysis of teachers' answers to the open-ended question revealed that they have difficulties assessing gifted students, especially against the background of the class. They are unable to construct evaluation criteria adequate to gifted students' potential and they have major difficulties constructing tools to identify their individual resources.

2. Teachers' preferred methods and forms of working with cognitively gifted students

According to the respondents' answers, the primary school teachers most often use verbal and transmission methods that consolidate cognitive passivity in their work with cognitively gifted students. The most frequently selected methods were talk (37%), discussion (19%), and description, short stories, and mini-lectures. (17%). As many as 60% of the respondents declared that they had never used a storytelling method and 38% never use drama or theatrical performances. Also, such methods as experimentation, the project method, didactic games, or outdoor methods were not very popular among the surveyed teachers. Completing worksheets, exercises, and working with texts and instructions were the dominant methods; such methods not only do not create conditions for creative activities, but they also limit independence and involvement, which are factors in the development of students' abilities.

The comparative analysis of the answers from grades 1-3 and grades 4-8 shows that it reflects the distribution of data of all respondents. Both groups of respondents claimed to prefer transmission methods based on the teacher's verbal activity and the students' cognitive passivity. Statistically significant differences were found in the frequency of using drama/class performances (p=0.007), didactic games (p=0.005), and outdoor activities (p=0.004), since teachers in grades 4–8 use these methods much less often in their work with gifted students. They very often use instructions, stories, and mini-lectures. The details are illustrated in **Table 2.**

Table 2. Percentage distribution, by group, of the responses to the question "How often do you use the following methods in working with cognitively gifted students?"

Method	A	B	A	B	A	B	A	B	A	B
	1	1	2	2	3	3	4	4	5	5
Drama/class performance	16	60	14	20	26	20	40	0	4	0
Debate/discussion	0	0	6	0	28	0	66	62	0	38
Talk	2	0	2	0	6	8	60	48	30	44
Didactic games	0	2	4	24	58	74	34	0	8	0
Presentations/student's papers	6	0	22	0	72	18	0	76	0	6
Project method	2	0	16	40	60	44	18	16	4	0
Storyline	40	80	24	20	20	0	14	0	2	0
Outdoor activities	0	10	38	80	50	10	6	0	6	0
Descriptions, teacher's stories, mini-lecture	0	0	14	0	28	0	44	80	14	20
Exhibitions	0	34	58	66	26	0	14	0	2	0
Experiments	0	2	44	52	40	32	10	14	6	0
Text work	0	0	6	0	16	10	78	74	0	16
Completing worksheets/exercises	2	0	4	0	4	8	90	72	0	20
Field exercises	0	8	12	92	66	0	20	0	2	0
Instruction	0	2	2	6	24	18	68	68	4	8

A – teachers of grades 1–3; B – teachers of grades 4–8
Scale: 1 – never; 2 – very rarely; 3 – rarely; 4 – often; 5 – very often

About half (45%) of the respondents preferred a group form of working with cognitively gifted students based on cooperation, while 43% preferred frontal teaching. Individually working with cognitively gifted students was indicated by only 10% of the respondents, while 2% of them prioritized group work based on competition.

In the analysis of the differences in the preferred forms of working with gifted students, it can be seen that the early childhood education

teachers tend to prefer group work based on cooperation, whereas the teachers of grades 4–8 prefer a frontal form. There was a statistically significant difference between the groups (p=0.049).

When it comes to specific forms of working with cognitively gifted students, the respondents declared that they most often use enrichment (83%), grouping (80%), and individual teaching in and outside of the classroom (77%), which is surprising because in another question the individual form was selected by only 10% of the respondents. It is worth pointing out the forms of working with gifted students which were not selected by a significant number of the surveyed teachers: research camps (96%), a scholarship system (94%), and consultations with a psychological and pedagogical counselling center (85%). A comparative analysis of the responses of the two study groups did not show any significant differences in this area of research. The respondents were also asked about the degree to which the given forms of support for cognitively gifted students affect their educational achievements. The vast majority (87%) of the respondents indicated that in their experience motivating and encouraging students to make an effort and to self-educate greatly influences their achievements. The experience of 78% of the respondents was that influence is exerted especially by forms of work that stimulate students to undertake useful self-service or require a lot of independence; however, 77% of the respondents stated that forms of work like extracurricular or specialized activities and developing specific skills are most likely to help gifted students achieve. Moreover, 63% of the respondents indicated that in their experience additional tasks that are specially aimed at cognitively gifted students greatly influence their educational achievements and over 50% of them indicated that when gifted students start school earlier, they are certain to be successful.

It is also worth noting here that the majority of the surveyed teachers do not fully appreciate, and therefore do not use, outside support to stimulate the development of cognitively gifted students. In fact, 95% solely meet with school pedagogues, while only 28% benefit from the support of a psychologist and less than 12% base their work with gifted students on the recommendations of psychological and pedagogical

counselling centers. Likewise, less than 30% of the respondents consult with experts and 65% have never taken advantage of scholarships or projects for gifted students.

However, over 70% of the respondents believe that cooperation with parents is a valuable way to support gifted students' educational development. Therefore, they mainly referred to open lessons and class meetings with the participation of both parents and students. On the other hand, few teachers (12%) value meetings organized at students' homes. It should be noted that there were no significant differences in the responses of teachers from the two study groups. The only important difference concerned meetings at students' homes, as this form of stimulating the development of gifted students was only used by the early childhood education teachers. According to the responses from the teachers of grades 4–8, they do not see parents as partners in the process of supporting gifted students' development. They stated that parents do not have adequate knowledge on this subject and expect from the school and that most of them do not see their children's potential and are therefore unable to provide appropriate extracurricular forms of support.

3. Difficulties experienced by teachers working with cognitively gifted students and ways to overcome them

The range of experience of the surveyed teachers acquired from working with gifted students will definitely be complemented by the difficulties they face in their daily work.

As the data show, the vast majority (80%) of the respondents admitted to experiencing difficulties from working with a cognitively gifted student. Moreover, almost 50% of them experience difficulty almost every day, with the teachers of grades 4–8 reporting such experiences significantly more (67% to 33%). The respondents were also asked about the sources of these difficulties. As the data show, 90.5% of those who experience difficulties working with gifted students indicated too little time during school activities and 73.8% indicated the process of assessing a gifted student against other students. More than half of the respondents stated that the sources of these difficulties lie in the troublesome

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behavior of the gifted student (distracting other students or failing to respect class norms) and the limited support from the parents and external institutions. Almost a quarter of the respondents admitted that the difficulties are caused by their insufficient competency for working with cognitively gifted students. Some respondents (9.5%) stated that the difficulty is caused by the passivity of the authorities in the local governments that finance education and by the complicated procedures of applying for specific solutions and forms of support. The experiences of the respondents, illustrated in **Table 3**, show that the reasons lie mainly in the organization of education.

Table 3. Detailed distribution of the respondents' answers to the question "What aspects of working with a cognitively gifted student give you difficulty?"

Sources of difficulty	Percent of answers
Assessing a gifted student against other students	73.8
Motivating a gifted student in the teaching process	17
Individual work with a gifted student during lessons	49
Troublesome behavior of a gifted student	54
High expectations from a gifted student's parents	26
Arranging a work plan with a gifted student	30
Lack of finances	9
Complicated procedures for applying for specific solutions	8
Passivity of the authorities and local governments that finance the school	9.5
Limited time in class	90.5
Insufficient competency for working with a gifted student	24.2
Lack of support from external institutions and the child's parents	54

The comparative analysis of the experience of teachers in the two study groups shows that significant differences relate to the difficulties resulting from the need to individualize work and to plan the work with

a cognitively gifted student. Decidedly more teachers of grades 4–8 experience this kind of difficulty. The respondents were also asked how they cope with these difficulties. The results show that over 78% consult other teachers about their problems. Over 54% organize additional activities for students. The methods least frequently used by the respondents were tutoring and self-improvement (5% each). Detailed data are presented in **Table 4**.

Table 4. Detailed distribution of the respondents' answers to the question "How do you overcome the difficulties you experience while working with a cognitively gifted student?"

Ways to overcome difficulties	Percent of answers
Consulting with other teachers	78
Tutoring	5
Looking for sponsors	7
Consulting with psychological/pedagogical centers	17
Introducing extra-curricular activities	54
Establishing clear rules in the classroom	41
Diversifying and posing intellectual challenges	13
Individualizing work with gifted students	9
Involving experts	7
Improving one's own competency for working with gifted students	5
Others	0

These data show that teachers use standard solutions available in every school. They are less likely to choose ways which involve outsiders (experts) or ones that focus on the gifted student only.

The comparative analysis of the experiences of the two groups of teachers revealed a statistically significant difference ($p=0.006$). Early childhood education teachers more often declared that they individualize work for cognitively gifted students. The teachers' answers to the open

question revealed the needs of the surveyed teachers in this respect. The vast majority indicated a lack of academic preparation for working with gifted students. Academic education, in both master's degree programs and postgraduate studies, is largely focused on students with various types of dysfunctions. Teachers would expect forms of support for working with gifted students by organizing various workshops.

Discussion and Conclusion

The neglect of gifted students' development is still a disturbing fact in Polish schools. The term "a student with special educational needs," in school practice and in teachers' opinion, is mostly identified with a difficult or dysfunctional student and less with one who works more efficiently or has greater cognitive, social, artistic, and emotional abilities. The lack of a clear distinction between the needs of these two groups has a detrimental and inhibitory effect on cognitively gifted students. In schools, there are definitely more programs and specialists to support students with learning disabilities than gifted students. In educational training, significantly less emphasis is placed on issues specific to working with gifted students (Koszyk, 2015). This bias is also confirmed by the results of this study.

First of all, the results show that teachers rarely adapt classes to the needs of gifted students . They prefer frontal forms of work and a unified methodology of organizing classes in which the gifted students are predominantly passive and demotivated. Extremely rarely, or not at all, do they use special forms of diagnosing and supporting gifted students, though they are aware of their own limited competence for working with this type of student.

Greater interest and recognition of gifted students' special educational needs on the part of the school would probably allow teachers, tutors, and parents to select the proper methods, means, and content of didactic and educational interactions, satisfying the students' needs and thus creating optimal conditions for intellectual and personality development.

The lack of professional support leads to a general discouragement in gifted students when it comes to gaining new knowledge, enriching their skills, and developing their abilities; this in turn leads to a lack of achievement (Dyrda, 2000, 2007; Limont & Cieślikowska, 2005).

The common and leading principles used in educational work with cognitively gifted students are (1) faster, (2) more, and (3) more difficult. These principles should give way to the fundamental principle of individualization, which results from a conviction about the students' individual needs, the course of their development, and thus the need to search for individual solutions and teaching strategies. Therefore, the development of proprietary curricula or lesson plans is the basic task of every teacher. Work tools define a specific space for the student's activity in the process of their educational growth. Support for a gifted student is based on maximizing their potential by creating a rich school environment that is optimal for active learning. Individualizing learning also means that standardized strategies for testing and assessing student's achievements should be abandoned. Each student requires a different approach in this area, which is related to the brain's reactivity to specific stimuli and their strength. Individualizing assessment means individualizing assessment tools, which – depending on the student's needs and preferences – are to create natural opportunities for learning and evaluating the student's work, as well as their involvement in solving problems and creating projects that genuinely absorb them. Cognitive processes are the main tool that a student uses in the learning process in relation with other people (Maruszewski, 2002). Their quality and the degree of their development determine their course. Emotions are an important element that influences cognitive processes, and sometimes are even a prerequisite for their activation. Paying attention to this issue may prove important in the search for conditions for a gifted student's functioning. Negative emotions block processes in the brain and reduce the effectiveness of learning (Boleyn-Fitzgerald, 2010; Herzyk & Krukow, 2011). Therefore, recognizing the atmosphere of social relations in which a cognitively gifted student participates is extremely important for their cognitive functioning and for constructing appropriate forms of educational

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activity. Such methods of constructing space for a cognitively gifted student's multifaceted functioning, as shown by the research, require the teacher to make non-standard efforts, adopt a new orientation, and gain new competencies. An innovative approach to educating gifted students which favors their active adaptation is primarily future oriented and holistic and it requires professional preparation from the teacher. Meanwhile, the academic preparation of future teachers results in theoretical, superficial, and non-internalized knowledge, which is of little use in school practice (Michalak, 2013).

References

Aleksandrovich, M. (2013). Jabłko od jabłoni… Czyli o wsparciu i rozwoju zdolności dziecka w rodzinie [An apple from an apple tree … Or about supporting and developing a child's abilities in the family]. In M. Jabłonowska (Ed.), *Środowisko edukacyjne uczniów zdolnych* [Educational environment of gifted students] (pp. 7–16). Wydawnictwo Universitas Rediviva.

Apanowicz, J. (2000). *Metodologiczne elementy procesu poznania naukowego w teorii organizacji i zarzadzania* [Methodological elements of the process of scientific cognition in the theory of organization and management]. Wyższa Szkoła Administracji i Biznesu.

Bates, J., & Munday, S. (2005). *Dzieci zdolne, ambitne i utalentowane* [Gifted, ambitious, and talented children]. Wydawnictwo K. E. Liber.

Boleyn-Fitzgerald, M. (2010). *Obrazy naszego umysłu* [Pictures of our mind]. Katowice: Wydawnictwo Sonia Draga.

Chruszczewski, M. H. (2009). *Profile uzdolnień. Intelektualne i osobowościowe składniki uzdolnień plastycznych i muzycznych* [Aptitude profiles: Intellectual and personality components of artistic and musical talents]. Wydawnictwo Uniwersytetu Warszawskiego.

Czaja-Chudyba, I. (2005). *Odkrywanie zdolności dziecka* [Discovering a child's abilities]. Wydawnictwo Naukowe Akademii Pedagogicznej.

Drost-Rudnicka, M. (2015). Nauczyciel klas początkowych w pracy z uczniem zdolnym [A teacher of primary classes at work with a gifted student]. In E. Smak, A. Włoch, & M. Garbiec (Eds.), *Diagnozowanie i terapia uczniów ze specjalnymi potrzebami edukacyjnymi* [Diagnosis and therapy of students with special educational needs] (pp. 333–345). Wydawnictwo Uniwersytetu Opolskiego.

Dyrda, B. (2000). *Syndrom nieadekwatnych osiągnięć* [Syndrome of inadequate achievement]. Oficyna Wydawnicza IMPULS.

Dyrda, B. (2007). *Zjawisko niepowodzeń szkolnych uczniów zdolnych: rozpoznawanie i przeciwdziałanie* [The phenomenon of school failures of gifted students: Recognition and prevention]. Oficyna Wydawnicza IMPULS.

Dyrda, B. (2012). *Edukacyjne wspieranie rozwoju uczniów zdolnych. Studium społeczno–pedagogiczne* [Educational support for the development of gifted students: Social and educational study]. Wydawnictwo Akademickie "Żak".

Dzierzgowska, I. (2012). *Uczniowie wybitnie zdolni w szkole- radość czy kłopot?* [Very gifted students at school – A joy or trouble?]. Wydawnictwo Raabe.

Fechner-Sędzicka, I. (2013). *Model pracy z uczniem zdolnym w szkole podstawowej. Jak praktycznie i systemowo zorganizować edukację uczniów zdolnych na poziomie szkoły podstawowej?* [Model of work with gifted students in primary school: How to practically and systematically organize the education of gifted students at the primary school level?]. Ośrodek Rozwoju Edukacji.

Feldhusen, J. (2005) Giftedness, talent, expertise, and creative achievement. In R. Stemberg & J. Davidson (Eds.), *Conceptions of giftedness* (pp. 64–79). Cambridge University Press. DOI: 10.1017/CBO9870511610455.006

Fiedler, E. D. (1999). Gifted children: The promise of potential/the problems of potential. In V. L. Schwean & D. H. Saklofski (Eds.), *Handbook of psychosocial characteristics of exceptional children* (pp. 401–441). Kluwer Academic/Plenum. DOI: 10.1007/978-1-4757-5375-2_16

Gagne, F. (2004). Transforming gifts into talents: The DMGT as a developmental theory. *High Ability Studies*, *15*(2), 119–145. DOI: 10.1080/1359813042000314682

Gierczyk, M. (2016). *Diagnoza i ewaluacja rozwiązań systemowych w zakresie kształcenia uczniów zdolnych na przykładzie Polski i Anglii. Studium komparatystyczne* [Diagnosis and evaluation of systemic solutions in the field of educating gifted students on the example of Poland and England: A comparative study]. Wydawnictwo Uniwersytetu Śląskiego.

Gondzik, E. (2001). *Nauczyciel i Szkoła: Przezwyciężanie patologii w kształceniu uczniów zdolnych* [Teacher and school: Overcoming pathologies in educating gifted students]. Wydawnictwo Górnośląskiej Wyższej Szkoły Pedagogicznej im. Kardynała Augusta Hlonda.

Gross, M. U. M. (2002). Social and emotional issues for exceptionally intellectually gifted students. In M. Neihart, S. Reis, N. M. Robinson, & S. Moon (Eds.), *The social and emotional development of gifted children: What do we know?* (pp. 19–29). Waco, TX: Prufrock Press.

Gwiazdowska-Stańczak, S., & Sękowski, A. (2018). *Rodzina ucznia zdolnego* [The family of a gifted student]. Wydawnictwo Engram.

Herzyk, A., & Krukow, P. (2011). Analiza neuropsychologiczna zaburzeń emocji i osobowości u pacjentów z dysfunkcjami mózgu [Neuropsychological analysis of emotional and personality disorders in patients with brain dysfunction].

In Ł. Domańska & A. R. Borkowska (Eds.), *Podstawy neuropsychologii klinicznej* [Fundamentals of clinical neuropsychology] (pp. 319–346). Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej.

Hłobił, A. (2010). *Działalność szkoły we wspomaganiu rozwoju ucznia zdolnego* [The school's activity in supporting the development of a gifted student]. Wydawnictwo IMPULS.

Koszyk, I. (2015). Uczeń zdolny – trudny partner nauczyciela [A gifted student – A difficult partner of the teacher]. In E. Smak, A. Włoch, & M. Garbiec (Eds.), *Diagnozowanie i terapia uczniów ze specjalnymi potrzebami edukacyjnymi* [Diagnosis and therapy of students with special educational needs] (pp. 283–291). Wydawnictwo Uniwersytetu Opolskiego.

Krzystek, M. (2018). *Analiza tematyczna w badaniach jakościowych* [Thematic analysis in qualitative research]. Fundacja Rozwoju Badań Społecznych.

Legutko, M. (2012). Wieloetapowe zadania problemowe szansą rozwoju ucznia zdolnego na lekcji matematyki [Multistage problematic tasks as an opportunity for the development of a gifted student in a mathematics lesson]. *Nauczyciele i Matematyka*, 83, 14–21.

Lewowicki, T. (1980). *Kształcenie uczniów zdolnych* [Education of gifted students]. Wydawnictwo Szkolne i Pedagogiczne.

Limont, W. (2010). *Uczeń zdolny. Jak go rozpoznać i jak z nim pracować* [A gifted student: How to recognize and work with them]. Wydawnictwo Gdańskie Wydawnictwo Psychologiczne.

Limont, W. (2013). *„Stań na ramionach gigantów", czyli uczeń zdolny jako problem wychowawczy* ["Stand on the shoulders of giants": A gifted pupil as an educational problem]. *Psychologia Wychowawcza*, 3, 130–131.

Limont, W., & Cieślikowska, J. (2005). *Wybrane zagadnienia edukacji uczniów zdolnych. t. 1, Zdolności i stymulowanie ich rozwoju* [Selected issues of educating gifted students: Vol. 1. Abilities and stimulating their development]. Oficyna Wydawnicza IMPULS.

Maruszewski, T. (2002). *Psychologia poznania* [Psychology of cognition]. Gdańskie Wydawnictwo Psychologiczne.

Michalak, R. (2013). *Dziecko na progu edukacji przedmiotowej. Studium teoretyczno-empiryczne* [A child on the threshold of subject education: Theoretical and empirical study]. Wydawnictwo Naukowe UAM.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis*. Sage.

Mönks, F., & Katzko, M. (2005). Giftedness and gifted education. In R. Stemberg & J. Davidson (Eds.), *Conceptions of giftedness* (pp. 187–200). Cambridge University Press. DOI: 10.1017/CBO9780511610455.006

Mönks, F. J. (2008). Identification and education of the gifted learner. In J. Łaszczyk & M. Jabłonowska (Eds.), *Uczeń zdolny wyzwaniem dla współczesnej edukacji* [A capable student as a challenge to contemporary education] (pp. 79–85). Wydawnictwo Akademii Pedagogiki Specjalnej.

Mróz, A. (2013). Rola wzmożonej pobudliwości emocjonalnej w przyspieszonym rozwoju osób zdolnych [The role of increased emotional excitability in the accelerated development of gifted people]. In W. Limont, J. Cieślikowska, & D. Jastrzębska (Eds.), *Zdolni w szkole, czyli o zagrożeniach i możliwościach rozwojowych uczniów zdolnych* [Gifted at school, Or about the threats and development opportunities of gifted students] (pp. 19–24). Ośrodek Rozwoju Edukacji.

Okołowicz, J. (2013). Talent czy dar? Kontrowersje teoretyczne i empiryczne wokół zjawiska talentu [Talent or gift? Theoretical and empirical controversies around the phenomenon of talent]. In K. J. Szmidt & M. Modrzejewska-Świgulska (Eds.), *Zasoby twórcze człowieka* [Creative human resources] (pp. 149–184). Wydawnictwo Uniwersytetu Łódzkiego.

Peterson, J. S. (2001). Gifted and at risk: Four longitudinal case studies. *Roeper Review*, 24, 31–39. DOI: 10.1080/02783190109554123

Pinter, F. (1993). *Kim są wybitni? Charakterystyka, identyfikacja, kształcenie* [Who are the exceptional? Characteristics, identification, education]. Wydawnictwo Szkolne i Pedagogiczne.

Popek, S. (1988). *Aktywność twórcza dzieci i młodzieży* [Creative activity of children and youths]. Wydawnictwo Szkolne i Pedagogiczne.

Popek, S. (2001). *Człowiek jako jednostka twórcza* [A person as a creative entity]. Wydawnictwo UMCS.

Porzucek-Miśkiewicz, M. (2017). Determinanty rozwoju uczniów zdolnych [Determinants of the development of gifted students]. In A. Kamińska & P. Oleśniewicz (Eds.), *Edukacja Jutra. Wartości- Wychowanie-Kształcenie* [Education of tomorrow: Values, upbringing, education] (pp. 223–231). Wydawnictwo Oficyna Wydawnicza „Humanitas".

Pufal-Struzik, I. (2017). Poczucie odmienności i osamotnienia u dzieci zdolnych [The feeling of difference and loneliness in gifted children]. *Psychologiczne Zeszyty Naukowe*, 1/2018.

Renzulli, J. (2005). The tree-ring conception of giftedness: A developmental model for promoting creative productivity. In R. Sternberg & J. Davidson (Eds.), *Conceptions of giftedness* (pp. 246–279). Cambridge University Press. DOI: 10.1017/CBO9780511610455.015

Renzulli, J. S. (2016). The three-ring conception of giftedness. In S. M. Reis (Ed.), *Reflections on gifted education* (pp. 55–86). Waco, TX: Prufrock Press.

Rimm, S. (2000). *Dlaczego zdolne dzieci nie radzą sobie w szkole?* [Why are gifted children failing at school?]. Wydawnictwo Moderski i S-ka.

Salcher, A. (2009). *Utalentowany uczeń i jego wrogowie* [A talented student and their enemies]. Wydawnictwo Oświatowe FOSZE.

Sternberg, R., & Grigorenko, E. (2011). The theory of successful intelligence as a basis for gifted education. *Gifted Child Quarterly*, *46*(4), 265–277. DOI: 10.1177/001698620204600403

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage Publications, Inc.

Szewczuk, W. (1990). *Psychologia* [Psychology]. Wydawnictwo Szkolne i Pedagogiczne.

Szmidt, K. J. (2008). *Trening kreatywności: podręcznik dla pedagogów, psychologów i trenerów grupowych* [Creativity training: A textbook for educators, psychologists, and group trainers]. Wydawnictwo Helion.

Tannenbaum, A. J. (1986). Giftedness: A psychosocial approach. In R. Sternberg & J. Davidson (Eds.), *Conceptions of giftedness* (pp. 21–52). Cambridge University Press.

Wojnarowska, M. (2014). *Działania szkoły w pracy z uczniem zdolnym* [School activities in working with gifted students]. Ośrodek Rozwoju Edukacji.

Worobiej, E. (2011). Poczucie samotności dzieci i młodzieży w szkole jako czynnik ryzyka: istota, uwarunkowania, konsekwencje, zapobieganie [The feeling of loneliness of children and youths at school as a risk factor: Essence, conditions, consequences, prevention]. In Z. Gaś (Ed.), *Profesjonalna profilaktyka w szkole. Nowe wyzwania* [Professional prophylaxis at school: New challenges]. Wyższa Szkoła Ekonomii i Innowacji w Lublinie.