



**Marija Tomic**

<https://orcid.org/0009-0000-9738-2946>

Independent University of Banja Luka, Bosnia and Herzegovina

[marija.tomic93@hotmail.com](mailto:marija.tomic93@hotmail.com)

## Level of moral development and school success of elementary school students

Submitted: 08.11.2024

Accepted: 28.11.2025

Published: 31.12.2025



### **Keywords:**

moral development,  
school success,  
art, science,  
elementary school  
students

### **Abstract**

**Research objectives and problems:** The aim of this study was to determine whether there is a statistically significant relationship between elementary school students' level of moral development and their academic achievement. The research examined the connection between students' moral development and their overall grade point average (GPA), as well as their achievement in art-related subjects (painting and music) and science subjects (mathematics and physics).

**Research methods:** The study employed a survey technique to collect data on students' academic performance and a scaling technique to measure moral development. The moral development scale consists of 65 items assessing moral knowledge, attitudes, and behavior.

**Process of argumentation:** The paper is structured around a theoretical and methodological framework. The theoretical section analyzes major theories of moral development and relevant empirical findings, while the methodological section presents the research aims, questions, hypotheses, sample description, instruments, and research procedure.

**Research findings and their impact on the development of educational sciences:** The analysis shows that there is no statistically significant relationship between overall academic success and moral development, nor between achievement in science subjects and moral development. It is also important to note that students who earned higher grades in painting achieved a higher level of moral development than other students. Students with high grades in art

demonstrated statistically significantly higher results on the moral development scale. Given that this relationship was not confirmed for music, the hypothesis concerning art subjects is only partially supported.

**Conclusions and/or recommendations:** Regardless of the results obtained, future research should be directed toward examining children's morality in a larger sample of students. Although the level of moral development does not statistically significantly differ depending on students' overall academic success, the difference observed in art-related subjects provides a basis for more detailed investigation. Further studies with larger and more diverse samples are needed to validate these results and explore potential mediating factors influencing moral development.

## Introduction

In this paper, the connection between the level of moral development and school success is presented through several key subheadings. The goal is not only to provide factual information but also to raise readers' awareness of the importance of this topic. The first part of the paper contains a theoretical analysis of the problem and a description of the most common approaches to researching morality, as well as general school achievement. The importance of moral upbringing for overall development is a very significant area of pedagogical research.

The second part of the paper presents the empirical study, including the research aims, questions, hypotheses, sample characteristics, instruments, and procedure. The results are analyzed in relation to previous findings in pedagogy and related disciplines, with the goal of identifying practical implications for educational practice. A detailed description of participant selection and methodological steps is included to enhance transparency. This study is motivated by the need to better understand how moral development interacts with school-related outcomes, particularly in subjects that differ significantly in their cognitive and affective demands.

The importance of morality is examined not only through the lens of contemporary society but also with reference to the historical significance of moral education for children's growth and development. Because

morality is an important part of young people's lives, it is understandable that such circumstances increase the need for scientific analysis of the relationship between morality and other areas of human functioning. Regardless of the results presented at the end of this paper, it is necessary to encourage the moral development of children and young people.

The purpose of this work is not to overstate the importance of moral education. All claims are grounded in scientific evidence and the results of empirical research. Recent research has refined the conceptualization of moral development, showing that it encompasses six key dimensions: equality, empathy, morality, tolerance, self-control, and kindness (Wongwanich, 2024).

### **School success and moral development**

This research is based on the hypothesis that there is a relationship between students' level of moral development and their academic performance. Previous studies provide mixed results regarding this connection, highlighting the need for further investigation. Academic success is not limited to overall grade point averages; it also includes performance in specific areas such as the arts and sciences.

Although hundreds of definitions of morality exist in various social sciences, most authors agree that morality consists of unwritten rules and customs that shape interpersonal relationships (Kalin, 1998). Moral considerations commonly involve judgments of right and wrong and decision-making in moral dilemmas. Morality is closely connected to conscience, reflected in feelings of pride, guilt, or remorse. It is important to emphasize that morality is formed in a specific environment, which attests to its changeability. Morality is shaped by environmental and social influences, which illustrates its dynamic nature. Historical examples, such as gladiatorial training in the Roman Empire, demonstrate practices that would be considered morally unacceptable today (Zelenak, 2015). Such examples underscore the importance of evaluating morality in contemporary educational contexts. From today's moral standpoint, such

practices are entirely unacceptable—not only do they fall outside the framework of moral principles, but they would also violate legal regulations, which represent the minimal level of moral norms.

How, then, can we foster moral development in young people in a society oriented toward pragmatism and utilitarian values? What content should be offered in education, and how can moral competences be developed to their fullest extent? In contrast to moral education, the issue of grades occupies a highly visible place in the educational system. For all participants in the educational process, academic performance often receives far more attention than the level of a child's moral development.

Current research on children's moral development generally falls into two categories:

1. Research on moral behavior, which focuses on explaining observable actions.
2. Research on moral reasoning, which examines how children think about their own and others' actions (Vasta et al., 1998).

Considering that students who are focused on art often possess specific personality traits, we might expect them to demonstrate a higher level of moral development. Empathy, understanding of others, equality, and openness to people are characteristic of those with artistic orientations; therefore, it can be anticipated that they would score higher on measures of morality. In order to understand how to improve students' moral development in the future, it is important to identify the factors associated with this ability. Given that people are not born as moral beings, the influence of the environment and social context is undeniable.

Children's level of moral development is also reflected in different forms of moral behavior. Težak and Čudina-Obradović (2005) state that there are several forms of moral behavior. The most basic form is manifested in children's decency, that is, their acceptance of certain rules most often established by parents. These rules usually concern maintaining order, personal hygiene, putting toys away, and similar expectations. This form of behavior is learned in everyday life and through the personal example

of parents and teachers. As is well known, children do not simply listen to what adults say; they observe what adults do. Thus, personal example is the most effective means of teaching such behavior.

This type of behavior is often accompanied by emotional reactions. When a rule is broken or appropriate behavior is absent, children may experience feelings of guilt and shame (Težak & Čudina-Obradović, 2005). The family, with support from the preschool, should continuously work to prevent selfishness, arrogance, lack of self-control, and other unacceptable behaviors (Zubak, 2017). These qualities form the foundation of morality.

### Theories of moral development

One of the most influential theories of moral development was proposed by Lawrence Kohlberg, a professor at Harvard University. Kohlberg based his concept of morality on Piaget's theory of cognitive development. Using moral dilemmas, he identified three levels of moral development, each consisting of two stages (Zhang & Zhao, 2017). Piaget developed his own theory of moral development by observing children between the ages of three and thirteen during play. For Piaget, it was particularly interesting to analyze the rules that children established during games, as well as the situations in which these rules were violated. His observations included both naturalistic and experimental approaches (Vasta et al., 1998). The naturalistic approach involved observing children in their everyday play, whereas the experimental approach involved presenting moral dilemmas to assess developmental stages.

As part of the experimental approach, Piaget presented children with different types of moral dilemmas to determine their stage of moral development. According to Piaget, children's experiences with others play an important role in determining their transition from one stage to the next (Petrović, 2011). The first stage, occurring approximately between the ages of two and four, is considered the pre-moral stage, during which the child does not follow any rules (Singer & Revenson, 1997). In the second stage,

from ages four to seven, children develop an absolutist orientation to rules. At this stage, known as the heteronomous or conventional phase, children follow certain rules but are not yet able to fully understand or critically evaluate them. The final stage is characterized by an understanding of rules as well as the ability to create new ones. Piaget noted that this stage usually occurs around the ages of eleven or twelve. Broadly speaking, these stages can be described as moral heteronomy and moral autonomy.

Turiel's model of interpreting moral actions concerns how individuals judge whether something is right or wrong depending on the context. Within this theory, there are two domains: the personal domain and the conventional domain (Hren, 2008). In the personal domain, judgments are based on psychological states and personal preferences, whereas the conventional domain refers to social agreements. In contrast to Kohlberg's three levels of morality, Turiel's model emphasizes the parallel influence of these two domains. These earlier theories of morality provide an important foundation for applied moral research.

Although the theories of Kohlberg, Piaget, and Turiel dominate research in this field, it is also necessary to mention Gilligan's (1982) influential theory of the morality of justice and care. According to Gilligan, there are two categories of morality: the morality of justice and the morality of care. Her research supports the finding that women tend to use the morality of care more often, whereas men tend to rely more on the morality of justice. Applied to Kohlberg's moral dilemmas, these categories correspond to two types of behavior: one based on justice, and the other on providing assistance. The morality of care involves taking a protective stance toward the victim in moral dilemmas, regardless of the circumstances.

All of these theories contribute to our understanding of morality. However, for this phenomenon to be more clearly understood, it is necessary to confirm certain patterns through empirical research. Research findings not only support existing theoretical frameworks

## Overview of the results of similar research

A review of the professional literature reveals several relevant studies on moral development and education. Previous research has focused on moral education, moral reasoning, and moral failures among young people. Numerous studies have examined moral education as well as the moral shortcomings exhibited by youth. The crisis of education and moral values in Croatia is also evidenced by unpublished findings from the project *Poverty in Croatia*. The study conducted by Marina Vlahović and Ivan Rimac examined the values most important to the citizens of Croatia. According to the respondents, the values of self-education, empathy, and altruism ranked lowest on the acceptance scale, while wealth, success, and health occupied the top three positions. Perceptions of what is considered good or bad also changed depending on respondents' age. Research conducted in Osijek found that 9% of students would not like to have members of a national minority in their surroundings. Furthermore, as many as 54% of respondents believed that more content about other cultures should be included in the curriculum (Kragulj & Jukić, 2010).

Another important study in the field of moral education is the research conducted by Havighurst and Taba (1949). The basic premise of their work was that moral behavior is shaped by character traits, not just situational factors. Their results showed that family, peers, and religion have a significant influence on character formation, which led them to identify five character types: amoral, selfish, conforming, irrationally conscientious, and rationally altruistic. This research takes the psychological characteristics of the individual as its starting point and uses them as the foundation for examining moral behavior. The present study also relies on psychological concepts as theoretical assumptions for the development of its research framework.

Although numerous studies on morality already exist, it is necessary to monitor social change and shifts in individuals' moral development. Given that we live in a society marked by moral inconsistency, research in the field of morality is imperative for the future development of pedagogical science. The erosion of value systems, lack of tolerance, peer

violence, extreme hedonism, selfishness, and the diminishing presence of empathy and altruism all indicate an urgent need for changes in value orientations. Pedagogy, as a discipline concerned with children, parents, and schools, has the potential to influence individual development and contribute to shaping a new kind of society. Moral education is not only the responsibility of schools or parents but of the broader social community and the social environment in which children grow up. Although it is expected that moral values evolve over time, it is necessary to adapt educational strategies and values accordingly to meet children's developmental needs. What was once considered morally unacceptable may now form the basis of everyday human behavior.

One of the more interesting studies related to the examination of morality was conducted in 38 countries among members of the Islamic world. The results show that most respondents associate morality with faith in God. For example, 76% of respondents from Kosovo and 65% from Bosnia and Herzegovina stated that faith in God is a necessary condition for morality. The same study also reported attitudes regarding divorce, gambling, alcohol consumption, and similar issues as prerequisites for moral behavior (Campbell & Marshall, 2007). As we can see from the above, all the parameters used to assess morality are based on postulates that are prohibited by Sharia law; therefore, this research cannot be accepted as a comprehensive assessment of morality across all nations. A positive correlation has been found between moral development, emotional intelligence, and academic achievement in secondary school students (Reyal, 2025).

## **Research methodology**

### **The aim and significance of the research**

The aim of this study was to determine the relationship between students' academic success and their level of moral development across different subject groups. Understanding these relationships is essential for improving pedagogical practice and fostering holistic development

in children. Modern technology and social changes have influenced moral reasoning among young people, making it increasingly important to examine these aspects at different developmental stages. In order to support the advancement of moral development, it is necessary to determine its links with other aspects of personality. Because the future of each individual—and therefore the future of society—depends on moral education, dedicated research in this pedagogical field is necessary.

In recent years, modern technology has contributed to moral challenges among young people. It is particularly important to examine the moral aspects of personality at different ages. The concept and understanding of good and bad change depending on the age of the respondent. Especially relevant for practical research is how children and adults interpret and justify moral actions. Differences in responses to moral dilemmas demonstrate that children perceive the concept of good differently than adults do. Through workshops and forums, it is essential first to raise educators' awareness of the importance of moral development and then to work with parents as key contributors to the child's upbringing. The results are important not only for the present but also for future improvements in education. In which direction should we guide students? How can we address the shortcomings related to the moral dimension of personality?

The study was conducted in two elementary schools in Banjaluka with a sample of 120 students from the 8th and 9th grades.

### Research hypotheses

Based on the aim of the research, we formulated a general hypothesis: we assume that there is a relationship between school success and students' level of moral development.

- **hypothesis I:** We assume that there is a relationship between students' GPA and their level of moral development.
- **hypothesis II:** We assume that there is a relationship between students' success in art subjects (painting and music) and their level of moral development.

- **hypothesis III:** We assume that there is a relationship between students' success in science subjects (mathematics and physics) and their level of moral development.

### Research methods and techniques

In accordance with the research problem and topic, theoretical analysis and synthesis were used. Through these methods, literature related to morality and academic achievement was examined in detail. The main empirical techniques used in this study were surveying and scaling, which collected data on students' academic success and level of moral development. The study combined theoretical analysis with empirical research. The survey method was used to gather information about students' academic performance, while the scaling technique measured their moral development.

- The moral development scale consists of 65 items assessing moral knowledge, attitudes, and behavior.
- Academic performance was measured using general grades, as well as grades in art subjects (painting and music) and science subjects (mathematics and physics).

### Research results

Data were analyzed using the Mann–Whitney and Kruskal–Wallis tests to assess differences between groups. The research, conducted in two elementary schools in the city of Banjaluka on a sample of 120 respondents (8th- and 9th-grade students), had as its primary goal the identification of the relationship between students' moral development and their overall academic success, achievement in art subjects (painting and music), and achievement in science subjects (mathematics and physics). The study examined the relationship between students' moral development and:

1. Overall academic success
2. Achievement in art subjects (painting and music)
3. Achievement in science subjects (mathematics and physics)

Statistical analysis showed that 62 boys and 58 girls participated in the study.

**Table 1. Students' gender distribution**

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	62	51.7	51.7	51.7
	Female	58	48.3	48.3	100.0
	Total	120	100.0	100.0	

Regarding overall academic success, most students are rated as excellent or very good, while only 24 received a rating of good.

### Connection between level of moral development and overall academic success

We assumed that students with excellent overall academic success would achieve higher scores on the moral development scale compared to students with lower academic success. However, the results of the Mann–Whitney test (see table below) showed that there is no statistically significant difference in this regard.

**Table 2. Connection between overall academic success  
and the level of moral development**

#### Test Statistics<sup>a,b</sup>

	General success
Kruskal-Wallis H	59.453
df	56
Asymp. Sig.	.351

a. Kruskal Wallis Test

b. Grouping Variable: Scale of moral development

### Connection between level of moral development and academic success in art

We assumed that students who achieve higher grades in the artistic subjects (painting and music) would score higher on the moral development scale compared to students with lower grades. The results of the Mann–Whitney test (see table below) showed that there is a statistically significant difference in this regard. Students with higher achievement in painting scored better on the moral development scale. However, the same cannot be said for achievement in music; therefore, this hypothesis is only partially confirmed.

**Table 3. Connection between the level of moral development and students' success in art**

#### Test Statistics<sup>a,b</sup>

	Grades in painting	Grades in music
Kruskal-Wallis H	56.579	60.169
df	56	56
Asymp. Sig.	.053	.327

a. Kruskal Wallis Test

b. Grouping Variable: Scale of moral development

### Connection between level of moral development and academic success in science

We assumed that students who achieve higher results in the science subjects (mathematics and physics) would score lower on the moral development scale. However, the results of the Mann–Whitney test (see table below) showed that there is no statistically significant difference in this regard.

**Table 4. Connection between the level of moral development  
and success in science**

**Test Statistics<sup>a,b</sup>**

	Grades in maths	Grades in physics
Kruskal-Wallis H	54.798	57.361
df	56	56
Asymp. Sig.	.520	.424

a. Kruskal Wallis Test

b. Grouping Variable: Scale of moral development

### Summary of findings

- No significant relationship was found between overall academic success and moral development.
- A partial relationship exists between painting grades and moral development.
- No significant relationship was found for music or science subjects.

### Conclusion

Based on the conducted research, several important observations can be made. Although the study did not yield the expected results, it opened space for new questions and further investigation. Given that only one hypothesis was partially confirmed—specifically, the connection between success in painting and moral development—future studies should delve into the causes of this phenomenon in greater detail.

The main hypothesis was not supported; nevertheless, more extensive and detailed research on this topic should be conducted in the future. If the number of respondents were substantially larger and the research conditions more controlled, it is reasonable to assume that the results might differ. One reason why the auxiliary hypothesis regarding the

connection between moral development and success in artistic and scientific subjects was not confirmed may be the limited ability to analyze lower-achieving students, of whom there were very few. Students almost uniformly receive excellent grades in subjects such as music and painting, so it is difficult to establish significant relationships with moral development.

The findings of this study may be useful to educators and professionals in various social science fields and encourage them to act within their capacities to promote children's moral development. Although the main hypothesis regarding the overall relationship between academic success and moral development was not confirmed, the partial confirmation related to painting suggests promising directions for future research.

### **Recommendations for future research**

- Conduct studies with larger and more diverse samples to validate these findings.
- Include students with a wider range of academic achievement to better understand correlations across performance levels.
- Explore potential mediating variables, such as empathy, personality traits, and social environment, that may influence moral development.
- Consider longitudinal designs to examine changes in moral development over time.

Despite limitations in sample size and scope, the results underscore the importance of continued research into the relationship between moral development and academic performance. By addressing these areas, future studies may contribute to the design of educational interventions that promote both academic success and moral growth in students.

**Funding:** This research was supported by the University of Banjaluka

**Conflicts of interest:** The author declares no conflict of interest.

## References

- Campbell, C., & Marshall, D. (2007). Gambling and crime. In G. Smith, D. Hodgins, & R. Williams (Eds.), *Research and measurement issues in gambling studies* (pp. 541–564). Academic Press.
- Gilligan, C. (1982). *In a different voice: Psychological theory of women's development*. Harvard University Press.
- Havighurst, R. J., & Taba, H. (1949). *Adolescent character and personality*. Wiley.
- Hren, D. (2008). *Utjecaj visokoškolskog obrazovanja na razvoj moralnog rasuđivanja osoba mlađe odrasle dobi* [Impact of higher education on young adults' moral reasoning]. [Doctoral dissertation]. Faculty of Humanities and Social Sciences, University of Zagreb.
- Kalin, B. (1998). *Povijest filozofije s odabranim tekstovima filozofa* [History of philosophy with selected texts by philosophers] (22nd rev. & expanded ed.). Školska knjiga.
- Kragulj, S., & Jukić, R. (2010). Interkulturalizam u nastavi [Interculturalism in teaching]. In A. Peko, M. Sablić, & R. Jindra (Eds.), *Obrazovanje za interkulturalizam: Zbornik radova* (pp. 169–190). Učiteljski fakultet Sveučilišta Josipa Jurja Strossmayera u Osijeku.
- Petrović, M. (2011). *Moralni razvoj djece* [Moral development of children]. Filozofski fakultet.
- Reyal, L. Z. (2025). Emotional intelligence, moral development, and academic achievement: A correlational study among secondary school students in Kasbah Amman. *Journal of the Association of Arab Universities for Research in Higher Education*, 45(2).
- Singer, D. G., & Revenson, T. A. (1997). *A Piaget primer: How a child thinks* (Rev. ed.). International Universities Press.
- Težak, D., & Čudina-Obradović, M. (2005). *Priče o dobru, priče o zlu* [Witnesses to good, witnesses to evil]. Školska knjiga.
- Vasta, R., Haith, M., & Miller, S. A. (1998). *Dječja psihologija* [Child psychology]. Naklada Slap.
- Wongwanich, S., et al. (2024). Development of indicators and moral intelligence scales for junior high school students: Mixed-method research. *BMC Psychology*, 12(4), Article 174. <https://doi.org/10.1186/s40359-024-01640-w>
- Zelenak, D. (2015). *Cirkusi i amfiteatri u rimskoj svakodnevici* [Circuses and amphitheatres in Rome's daily life]. Filozofski fakultet.
- Zhang, Q., & Zhao, H. H. (2017). An analytical overview of Kohlberg's theory of moral development in college moral education in mainland China. *Open Journal of Social Sciences*, 5(8), 151–160. <https://doi.org/10.4236/jss.2017.58012>
- Zubak, M. (2017). *Filozofijski aspekti odgoja: Što nam djeca govore o moralnosti?* [Philosophical aspects of education: What our children tell us about morality]. Učiteljski fakultet.