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## FOREWORD

*Dear Readers,*

*In the new year 2024, Acta Educationis Generalis brings a selection of interesting and topical studies by renowned experts from university environments. Their composition is international and intercontinental, and so, the readers are provided with an overview about the newest trends in education, the most up-to-date research results, the most topical issues in individual countries, and what reforms and innovative approaches were developed. The selected themes address the fields of future teachers' teaching practice and their training, factors of reading literacy, promoting regional community learning, adolescents' psychological resilience and anxiety, new examples of assessment in religious education, and, finally, paternal attitudes as observed by children. All these are inspiring studies and their main ideas are presented below as they are ordered.*

*The first study - The Dual Role of a Reflective Future Teacher during School Practise - was written in a Polish-Lithuanian co-authorship by Małgorzata Krzeczowska and Agata Augustinovič. This article aims to present the viewpoints and feedback of university students on chemistry lessons conducted in schools by fellow university students as part of their training. The study explores how these prospective teachers perceive lessons while simultaneously playing the roles of both the teacher and an observer. It also investigates their ability to identify areas in need of support and those that require further development during their subsequent pre-service teacher training courses. This study emphasizes the advantages of weaving hands-on teaching experiences into teacher training, fostering a more introspective and effective teaching methodology.*

*The author of the second study Vildan Özdemir entitled it Investigating Factors That Affect Reading Literacy Skills in PISA Turkey Sample. In this study, the author focuses on examining the relationships between the variables that related the reading skills of the students and the variables related to the opportunities that the student, family, and the school have. Variables related to students' reading skills comprised the criterion variable set, and variables related to students' socio-economic and cultural characteristics comprised the predictive variable set. In this context, as the results show, it can be said that the variable that had the most significant association with the reading literacy skills in students was the variable "like/enjoy reading". It is an inspirational study*

*especially for those countries where students' PISA results in the field of reading literacy can be considered poor.*

*Two authors from Hungary Ádám Nagy and Balázs Kerpel-Fronius in their study *The Field of Free Time as Tertiary Agency of Socialisation* examine the agencies of socialisation and attempt to reveal a pattern among these agents. They differentiate social elements and agencies of socialisation, and they endow the latter with three conditions: the requirements of scope, time and intensity and specific set of rules. The findings show that near the family and the school, the free time space meets the three conditions of the socialization environment - scope, time-intensity, specific set of rules. The authors believe that these three conditions are not met by any other socialization area. All this means that in postmodern society, the institution of the family, which has been with us since pre-modernity, and the institution of the school, which has been with us since modernity, is accompanied by a third socialization macro-agency.*

*The role of education in Ghana is dealt with by the group of authors Emmanuel Kwame Ahasu, Moses Paafio Kwao, Christian Lawerh Anim, and Paulina Lamisi Zang in the interesting study entitled *Role of Community Resources in Education Planning and Delivery in Ghana*. The authors opted for a qualitative research design and by means of semi-structured interviews explored the involvement of community resources in education planning and delivery in Ghana. They focused on how the involvement of community resources impacted educational planning and development in a selected region. The findings indicate that communities contribute to the development of effective educational policies by providing insights and perspectives through various channels, such as community forums, advisory committees, and public hearings. Also, communities celebrate and embrace cultural diversity, fostering inclusivity within educational settings. To achieve even better results, the authors suggest to maximize community involvement in education, it is essential to establish collaborative partnerships with community organizations, businesses, and institutions. Then they can provide a wide range of resources, such as funding, expertise, facilities, and educational materials. These resources can greatly benefit schools and students, improving the quality of education.*

*Özge Erduran Tekin and Ayşin Satan from the Turkish university environment - in the study *The Mediating Role of Mindfulness in the Relationship between Psychological Resilience and Test Anxiety in Adolescents* - focus on adolescents in the context of distance education. They aim to examine the mediating role of mindfulness in the relationship between students' psychological resilience and test anxiety. The study group included 840 high school students. It was observed*

*that there was a negative relationship between psychological resilience scores and test anxiety scores, a positive relationship between resilience and mindfulness scores, and a negative relationship between test anxiety scores and mindfulness scores. While psychological resilience had a negative effect on test anxiety, the indirect effect of psychological resilience on test anxiety was also found to be significant. Mindfulness provided partial mediation of the effect of resilience on test anxiety. Based on the results, it can be assumed that conscious awareness, like psychological resilience, is therefore viewed as an important resource that enables a person to manage stressful situations, and it is believed to be effective in reducing one's anxiety.*

*Konstantinos A. Diamantopoulos from Greece and Monika Zaviš from the Slovak Republic collaborate on a research project and in their study entitled *The Subjectivity of the Grading Evaluation System in the Religious Class in Greece – A New Approach*, they continue in dealing with the issues of religious education. They attempt to answer the following questions - What are the applied assessment styles among Greek religious education teachers?; What are their main assessment criteria?; and What kind of evaluation plans are used to benefit the students? The above assessment issue is affected by the culture and mentality of each teacher. Religious education teachers seem to have particular inclinations concerning the students' assessment issues. They consider their discipline demanding and prefer to apply written form assessments quite often in class. Moreover, more methods emerged, which belong to the new school perception but are still placed statistically as auxiliary assessment weaponry.*

*Fathers' attitudes towards their children are dealt with by the group of Turkish authors consisting of Vedat Bayraktar, Mustafa Damar, and Ayşe Dilek Öğretir Özçelik in the last included study *Investigating Perceived Paternal Attitudes of Children Aged between 9 and 17 Years*. The study aims to investigate the perceived paternal attitudes of children aged between 9 and 17 years in relation to some variables such as children's gender, children's age, the number of siblings, fathers' working status, and fathers' level of education. The findings show that taken together, the research results showed that fathers' child-raising attitudes vary. These differences may result from parents' expectations of their children, parents' enjoyment of the parenting role, the number of children, children's birth order, children's gender, children's personality traits, parents' personality traits, and the interaction that parents had with their parents in their childhood. These factors have an impact on parents' attitudes and behaviours and determine the form and quality of the relationship between the mother, father, and child.*

*As you can see, dear Readers, high-quality and interesting studies are presented in this issue and we believe that You will find them inspiring as well.*

*The Editorial Office of Acta Educationis Generalis wishes you a pleasant year 2024, enjoyment of life, peace for all mankind, and the best possible education for all children.*

*Viola Tamášová  
Editor-in-Chief*





## **The Dual Role of a Reflective Future Teacher during School Practise**

*Małgorzata Krzeczowska - Agata Augustinovič\**

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### **Abstract:**

**Introduction:** Teaching and learning are processes that significantly impact one's future. Active participation in school practises serves as a strong foundation for future educators. This paper aims to present the viewpoints and feedback of university students on chemistry lessons conducted in schools by fellow university students as part of their training. The study explores how these prospective teachers perceive lessons while simultaneously playing the roles of both the teacher and an observer. It also investigates their ability to identify areas in need of support and those that require further development during their subsequent pre-service teacher training courses.

**Methods:** Quantitative data was collected through formal documents, specifically observation sheets. The study's participants were university students enrolled in pre-service teacher training programs who conducted chemistry lessons in school settings. These participants assumed the dual roles of instructors and observers during the lessons they taught.

**Results:** Analysis of the observation sheets revealed that the experience of assuming both teaching and observing roles contributed to the enhancement of the pre-service teachers' reflective attitudes. This finding suggests the positive impact of this dual role on their professional development.

**Discussion:** Teaching demands a blend of pedagogical knowledge and the ability to reflect, as evidenced by a study at Jagiellonian University's Faculty of Chemistry. This research, aimed at understanding the effectiveness of trainee teachers, highlighted the importance of creativity, proper communication, and skills in interpersonal relations for educators. While the research provided valuable insights, there's a call for more extensive studies to gain deeper

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understandings and address challenges such as classroom management and student engagement.

**Limitations:** It is important to acknowledge certain limitations within this study. The scope of the investigation was restricted by the size and composition of the sample of participants. Consequently, the outcomes cannot be generalised to the broader population of pre-service teachers.

**Conclusions:** The findings of this research highlight the importance of adopting a dual-role methodology in teacher education. By assuming both teaching and observational roles, aspiring teachers acquire a more profound understanding of their pedagogical techniques and recognize potential enhancements. Engaging in such reflective practices promises to enhance their subsequent teaching experiences. This study emphasizes the advantages of weaving hands-on teaching experiences into teacher training, fostering a more introspective and effective teaching methodology.

**Key words:** chemistry education, reflective school practise, teacher development, observation sheets.

### **Introduction**

Teaching is a beautiful, interesting, demanding, and very difficult task, especially for young teachers. It requires different types of methods, techniques and strategies depending on the subject of the school, the nature of the task, the learning objectives, the abilities of the school students and the behaviour of the students.

The teacher plays an extremely important role in contribution to shaping of the quality of the education process (Caires et al., 2012; Aglazor, 2017; Gabalán-Coello & Vásquez-Rizo, 2021; Trávníčková, 2021).

In the literature, science teaching can be defined in terms of the knowledge that teachers use in their teaching (Guskey, 1989). Each teacher must have subject matter knowledge (SMK), general pedagogical knowledge (PK), and pedagogical content knowledge (PCK) (Bucat, 2005; Abell, 2008). Another aspect considers formal preparation and teaching practise, including pre-service teachers who train students.

During subject matter preparation, all topics and questions discussed during the lesson should be determined in the context of objectives and order; taking into account the principles of teaching. Methodical preparation means finding a solution to the question of how specific lessons should be conducted and identifying how teaching methods and teaching aids should be applied. Teacher and student actions must be determined together with the forms and methods of control and homework. On the other hand, organisational preparation is related

to the preparation of the workplace and the necessary didactic (teaching) aids (Krzeczkowska, 2020).

According to researchers, teaching strategies are important for an effective educational process (Gabel, 1999; Sarica & Çetin, 2020). Teachers must be characterised by a flexible working style that changes the methods of work and the scope of the material in response to the needs and interests of the students. The teacher's role is to facilitate the acquisition of knowledge by students, and when selecting teaching methods and didactic resources, they must remember the diversity of learning styles, way of thinking, and student personalities (Beño et al., 2020; Junior, 2020).

During the lesson, school students should be involved in the learning process. Johnson (2011) underlined that student engagement brings better learning outcomes and satisfaction. Furthermore, some researchers promote an active approach to learning; school students are responsible for their educational results (e.g. Michael, 2006; Gül, 2023). Based on the literature, there are two categories of active learning: collaborative learning with interaction between teachers and students (Munir et al., 2018), problematic learning with two phases: understanding the problem and solving problems, and there is a correlation between collaborative learning and learning outcomes (Garrett, 1986).

Teacher education policy around the world takes into account the need for assessment and formative reflexion on skills development.

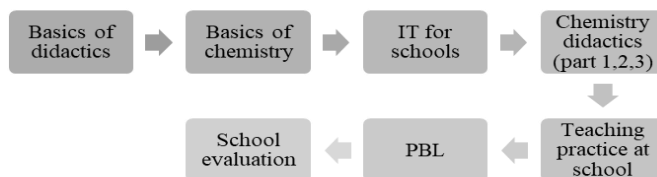
No educational system is able to prepare a future teacher to overcome all the didactic and educational problems they will face in the future. Reflexion is the tool that such an apprentice student needs and which he can acquire and improve in the process of education. According to Griffiths (2000) on teacher education and teacher professional development, a reflective concept of teacher education proposed by Schön (1997) should be considered.

Based on a situational understanding of events, as well as reflexion and analysis of their own actions, professional knowledge is created. It is the result of problem solving and taking into account the skills of interpretation in pedagogical activity, empathy, and reflectiveness; Castañeda-Trujillo, López & Molina Santana (2022) also distinguishes the most valuable element of the teaching profession: practises.

## **1 Pre-service teacher training - an example from Jagiellonian University**

The Faculty of Chemistry of Jagiellonian University in Kraków offers the opportunity to obtain the qualification to teach chemistry at school by starting students' participation in pre-service training. In 2019 new standards for teacher education standards have emerged (<https://isap.sejm.gov.pl/isap.nsf/DocDetails>).

xsp?id=WDU20190001450). This was the reason for modifying the curriculum of courses for pre-service chemistry teacher training. The pre-service chemistry teacher training programme consists of various courses (see Figure 1).



*Figure 1.* Scheme of courses for pre-service chemistry teacher training.

The practise of teaching in school is a crucial part of the pre-service teacher training (Kirbulut & Bektas, 2011). As Chong and Low (2009) reported, teaching practise is effective in the decision of students whether to become a teacher or not; after teaching practise, students (future teachers) decided whether or not to pursue the teaching profession. The practise of teaching in schools must precede good theoretical preparation. Students learn methods, strategies, rules, and didactic tools. The following topics in the student meeting are planning lessons, completing tasks, preparing didactic tools, and writing the outline of the lesson.

Before the four-week internship at school (teaching practise at school), university students have the option of conducting three lessons at school. This is done through a course called Chemistry didactics (part 2). One lesson is conducted at the primary school level (during winter semester), and the next two lessons at a secondary school (during summer semester), basic and extended level of the chemistry core curriculum (<https://podstawaprogramowa.pl/Liceum-technikum/Chemia>).

## **2 Purpose of the study**

The purpose of the research was to explore how students (future teachers) deal with theories of effective teaching as well as if and which elements of theories were implemented during two chemistry lessons that they conducted at the secondary school level.

Furthermore, the research was designed to provoke trainees to reflect on their preparation for lessons and their ability to provide learning opportunities and positive classroom outcomes, also in the aspect of expected change.

Collected opinions allow for recognition of areas requiring support and further development.

The research problem was analyzed using sub-problems listed below:

Research question no.1: Did the students who proposed their own intriguing title for the lesson in the form of an affirmative sentence perform the experiments in the classroom?

Hypothesis: Suggesting one's own intriguing topic of the lesson affects the fact that experiments are made during the lesson.

Research question no.2: Did the students who proposed their own intriguing title of the lesson in the form of an affirmative sentence conduct lessons according to a schedule that assumed low teacher activity (40% or less on the activity scale during 45 minutes of lessons)?

Hypothesis: Suggesting one's own intriguing topic of the lesson affects the fact that during the lesson the activity of the teacher is lower (40% or less on the activity scale during 45 minutes of the lesson) than the activity of students.

Research question no.3: Did the students who proposed their own lesson title in the form of a problem question use the problem method in the lesson?

Hypothesis: Proposing your own intriguing topic for the lesson in the form of a problem question influences the fact that the lesson was conducted using the problem method as the leading teaching method in this lesson.

### **3 Methodology**

#### *3.1 Participants*

Participants in this study were university students who enrolled in various pre-service teacher education courses: 72 students (80% female, 20% male; aged 22-23). During March 2021 to June 2021 and March 2022 to June 2022, students were escorted by the university supervisor, visited the secondary school, met the school supervisor for the first time, and conducted their own lessons (lesson no.2 and lesson no.3). During the winter semester of the academic year 2020/2021 and 2021/22, university students conducted the first lesson themselves at primary school (lesson no.1).

#### *3.2 Context*

University students go to the upper secondary school to practice chemistry teaching under the supervision of a school supervisor and a university supervisor. Each student conducts two lessons: the first at the basic level and the second at the level with an extended chemistry program. During the "preparation of the lesson" part, the student prepares a detailed lesson plan (scenario). This plan is sent to a school supervisor to prepare the final version based on the comments received. While the student conducts the lesson, the rest of the group fills in the observation sheet. Each lesson is followed by a discussion phase. It is obvious that conducting a lesson is not enough to develop and make some changes for future work as a teacher. There must be reflection. Reflective

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practise is a process that facilitates teaching, learning, and understanding, and plays a central role in the professional development of teachers (Mathew et al., 2017; Priya et al., 2017).

*3.3 Research tool and data collection*

The study was carried out using observation as a diagnostic method (Braun & Clarke, 2006; Black & Wiliam, 2010; Bell et al., 2019). Observation is a basic source of human knowledge. In the literature, there are five observation techniques for data collection (Adler, 1998; Patton, 1990; Rossi et al., 1999; Vierra & Pollock, 1992).

The authors created an observation sheet (teacher observation protocol) as a tool (see Table 1) that was designed to provide information on some details of the lessons (Chionidou - Moskoglou et al., 2019) and to stimulate students to reflect on their own lesson and the lesson conducted by other students.

This observation sheet has universal form and can be used for different science school subjects.

Table 1

*Details of an observation sheet*

The teacher gave the title of the lesson:		Yes	No
The teacher used teaching aids:		Yes	No
What was their use and was its use justified?			
During the lessons, the teacher used methods and forms of work / forms of teaching: lecture / individual work / discussion with students / group work / students solving a problem on their own / discussing the method of the obtained solution			
The teacher created the possibility of individual work of the students:			
Yes		No	
What was the activity of the students during the lesson (in %)?		What was the teacher's activity during the lesson (in %)?	
During the lessons, the teacher showed content in everyday life and gave some examples.			
Yes		No	Interesting examples:
Did the teacher correct the incorrect statements of the student?			
Yes		No	
The teacher summarised the lesson:		The teacher gave homework:	
Yes		No	Yes
		No	
Was the idea for the lessons good?		Did the teacher remember the principles of teaching? Which? And what has he forgotten?	
Yes		No	Comments:
Have the main goals of the lesson been achieved based on the topic of the lesson and your own interpretation of the flow of the lesson?			
Yes, completely		Yes, partly	No (and why?):
Noticed chemical and didactic mistakes; suggestions, comments, opinions, proposals for changes, etc.			

Students who did not conduct the lesson, as observers, completed an observation sheet.

This pilot study took place during the months March 2021 to June 2021, and March 2022 to June 2022. In these periods, 72 students conducted two lessons at the upper secondary school level, for which 118 observation sheets were implemented. Each observed lesson lasted 45 minutes.

The essence of this method is to evaluate what is happening during the lesson. The study was exploratory-descriptive in nature (Eisenhardt, 1989).

### *3.4 Data analysis*

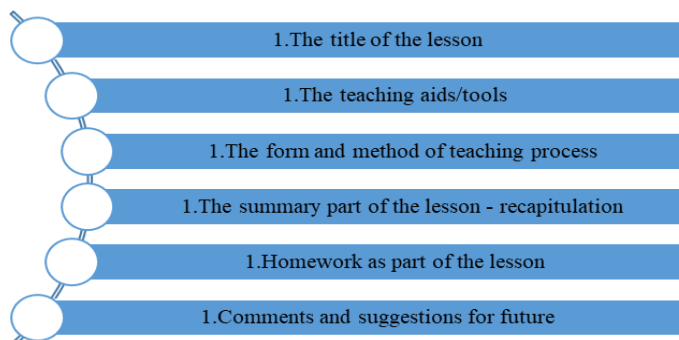
For the purposes of this article, some parts of an observation sheet have been selected for simple qualitative and quantitative analysis.

Each observation sheet was coded prior to the analysis process. The analysis of the observation sheet was performed by a person who did not participate in the lessons of the students.

Furthermore, statistical calculations were performed using the Statistica 13 programme of the StatSoft company for the assumed significance level equal to  $\alpha=0.05$ . Pearson's chi-squared test ( $\chi^2$ ) was used in order to demonstrate the relationships for the nominal variables, we obtain statistical significance in the event that the calculated p-value is lower than the assumed significance level  $\alpha=0.05$ .

## **4 Results and discussion**

Figure 2 shows the elements chosen from the lesson plan (scenario) which are in the observation sheet and included in the analysis.



*Figure 2.* Selected elements of the lesson scenario analysed.



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What is the purpose of a title of the lesson? A good title captures the interest of the student and is related to the main topic. As Iqbal et al. (2021) said, the theme in the form of an interrogative sentence is typical for problem lessons, as it contains an issue that needs to be solved. An interesting lesson title may play an important role in school students and engagement during the lesson (Derri et al., 2015; Bolliger & Martin, 2018).

Some researchers clearly emphasise the importance of teaching aids/tools in education (Augustinovič, 2019; Almasri, 2022; Daz Montes & Barrera Zapata, 2022; Gül, 2023). Teaching aids increase not only the attractiveness of lessons, but their proper use (the right form and the right moment in the lesson) increases motivation to learn, students' participation, and interest in the subject. Pekdag and Le Maréchal (2010) pay special attention to the proper use of videos in the lesson.

Well-designed didactic situations based on the work of individual school students are needed to increase awareness and responsibility for the learning process (Kholmuratovich et al., 2020).

#### *4.1 The title of the lesson*

In the case of two lessons conducted (1.7%), the title of the lesson was not given. The overwhelming majority of the lesson titles come directly from the curriculum (70%). But some interesting titles also emerged, such as these colours of chrome, magic halogens, all shades of manganese, and on the other side of the mirror. Some of the titles appeared in the form of a question, for example: Who rules in organic chemistry?, Gives back or downloads? Who is the head of the chemical reaction?

Formulating an interesting lesson title requires more time and a creative approach. Students may not have experience creating their own interesting lesson topics and do not want to make mistakes. It is necessary to explain to university students why it is important.

#### 4.2 Teaching aids/tools

During the lessons different types of teaching aids/tools were used (see Figure 3).

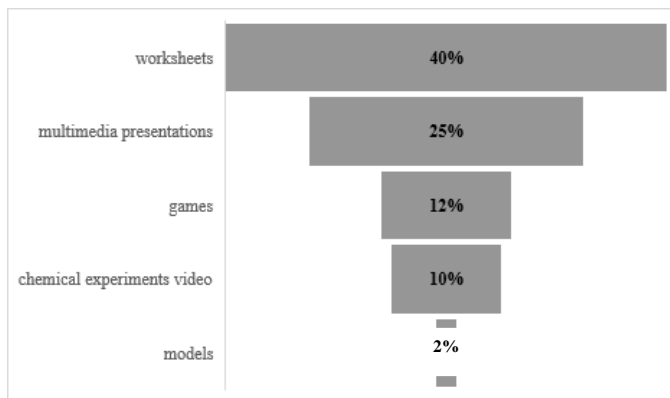


Figure 3. Frequency of occurrence of different forms of teaching aids.

All students used teaching aids during their lessons, but only 25% of respondents considered the use of teaching aids justified. The rest of the respondents did not complete this part of the observation sheet. The lack of justification for the choice may indicate an unwillingness to reflect, an unfamiliarity with the available aids or did not feel the need to use them.

The didactic / teaching aids most frequently used were worksheets (40%). According to the authors, it is valuable because, in addition to teaching chemistry, the physical act of writing activates the motor memory of the brain and strengthens the learning process (Sotáková et al., 2020; Pei et al., 2021). Multimedia presentations were popular during the lessons (25%) and chemical games were relatively rarely used (12%). All presentations were prepared by students.

Approximately, the chemical experiment video was used quantitatively the same number of times as games. The authors underlined that sometimes teachers may use chemistry movies during lessons; there are some benefits such movies provide students in the school environment. However, on the other hand, some recommendations for the training of teachers who are involved in using chemistry movies as a method to engage or motivate classes are needed.

Models were the least frequently used aid. Perhaps students did not find a ready-made model for their lesson or were unable to create their own model (no idea of a model).

#### *4.3 The form and method of the teaching process*

According to the respondents, during the lessons, discussions with school students occurred very often (about 48%). The dominant form of interaction was small talks. However, on the other hand, the lecture format was also often used (35%). Only in the case of 3% of the lessons conducted was the possibility of individual school student work.

What was the activity of the students during the lesson? Almost half of the lessons were characterised by the activity of the students above 70%; and every third allowed for 90% activity during lessons. It is worth highlighting that the students appreciated the interesting questions that were asked of them. Asking questions plays an important role in the teaching-learning process and stimulates students to be active during lessons (Chin, 2004).

In the authors' opinion, the above results indicate frequent use of active forms of work with the school student, but there is a need to show university students more opportunities to work with individual school students during lessons.

Group work was carried out in each lesson, although its duration varied considerably. Working in a group has many benefits for effective learning and prepares school students for future work (Burdett, 2003; Sarica & Çetin, 2020; Matúšová & Kollár, 2023). According to Vrieling-Teunter et al. (2022), the students had the potential to develop their inquiry skills, problem solving skills, team learning, relationship and increase motivation.

Each fifth lesson allows students to make chemical experiments on their own. According to the authors, the result is not satisfactory as the topics of the lessons conducted were suitable for making experiments. Perhaps it is fear and uncertainty that causes students not to carry out chemical experiments during their lessons. Chemical education should be based on making experiments, and this is the area that requires our greatest support. This is especially important in relation to science subjects. Shaping the student's research attitude will be possible through the use of an appropriate methodology, e.g., inquiry-based science education (Minnet et al., 2010; Delclaux & Saltiel, 2011; Crafword, 2000; Kožuchová et al., 2023) or STEM methodology (Craig et al., 2019).

#### *4.4 The summary part of the lesson*

The lesson must be recapitulated to consolidate the new knowledge taught to the school students in their minds - 89% of students (future teachers) summarised the lessons. University students used a variety of forms of task (e.g., rebus, logograph, domino, trimino, memo, puzzles), but Kahoo and Quizzes were the most widely used forms (70%). The authors attribute this to effective strategies adopted during the period of COVID-influenced education (Puspitarini & Hanif, 2019; Adnan, 2020; Brown, 2021).

#### *4.5 Homework as part of the lesson*

94% of the teachers gave homework to consolidate the new content learnt in the lesson.

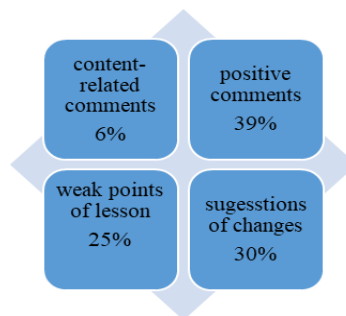
Cooper et al. (2006) and Marković et al. (2010) wrote that a well-designed homework task can strengthen classroom learning by posing challenges to the student, who will thus gain a better understanding of the essence of the matter and further develop their ability to apply theoretically gained knowledge in practise.

Only in 30% of the observed lessons, homework appeared as original assignments created by the students. The rest of the tasks came directly from the workbook; they represented different forms, true or false, matching, chemograph, and simple open tasks, and they also required critical thinking and deep understanding of the topic. Explain this situation, analyse this situation, compare, design an experiment allowing, write an explanation of your choice, and here are some example commands for school students, tasks.

#### *4.6 Comments and suggestions*

As the respondents underlined, all the lessons had a good idea, but this part of the questionnaire was completed in 62%. The objectives of the lesson and their implementation during the lesson were the next step to be taken into account. In 93% of the lessons, the objectives were fully achieved; in the remaining lessons, the goals were only partially achieved. The authors emphasise that these are the opinions of university students based on their own interpretation of the observed lesson.

On the lesson observation sheet, students could also propose changes and make comments. Each observation sheet was competed in that area. 109 is the general number of all comments. The comments were divided into four groups (see Figure 4).



*Figure 4.* Different types of comments and percentage of their occurrence.

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6% of all comments are content-related comments. The students, as observers, noticed the following errors: an incorrect compound formula, an incorrect name of chemical substances, and incorrectly balanced chemical equations. Students also noticed incorrect definitions of terms or an ambiguous definition. The authors perceive it positively. Students demonstrate vigilance and up-to-date chemical knowledge.

30% of all comments consider the weak point of the lesson, for example, no summary of the lesson, imprecise formulation of questions for students, chaos, fast pace of the teacher's speech, conversation only with the student at the blackboard, standing with his back to the class, the teacher practically does not move around the room classroom, standing only at the desk or at the blackboard, standing in one place all the time and looking at the floor too often. It was also noted that the knowledge was presented and transferred during the lesson, but there was no time to use it to solve various problems, even typical ones.

39% of all comments are positive. Among them, attention was drawn to an interesting idea for lessons, a well-thought-out timetable with the right balance of time, a good pace of discussion, the conduct of lessons, the use of various teaching aids and frequent references to everyday life. It was emphasised that the teacher walks around the classroom, checking what the students have in their notebooks.

It seems interesting that the observers also comment on the student's behaviour in terms of his/her position in the classroom during the lesson. Each second lesson was characterised by the student not leaving the space between the desk and the blackboard.

25% of all comments are suggestions for change, for example, for worksheets, for the use of teaching aids at a given moment in the lesson, for example, chemical models of molecules, for making a simple experiment using materials available at home (an example of this experience is given) instead of the experience video that was shown in the lesson. Additionally, it was proposed that instead of dictating certain content, information can be prepared in appropriate worksheets, which additionally allows time gain. It is worth mentioning that the proposed changes are related to various areas. It is true that only every fifth student suggested changes; nevertheless, according to the authors, it is a good starting point for greater awareness of the need for a reflective attitude of teachers.

The respondents also described the lessons in terms of the following:

- a) 69% of the teachers showed content in the context of daily life,
- b) 98% of the teachers corrected the incorrect statements of the student.

The teacher should show the content in the context of everyday life, give examples of everyday life, and also show the usefulness of knowledge in everyday life. Contextual teaching and learning involve making learning

meaningful for students by connecting with the real world. It can be difficult for students, especially in the initial phase of pre-service teacher training. More specific examples of contextual teaching and learning are needed because applying this will make the educational process more interesting, engaging, and effective (Pekdag & Le Maréchal, 2010; Christensson & Jesper, 2014).

There were not enough data to confirm the significance of the hypothesis that those students who related the topic of the lesson to everyday life much more often than others showed content in the context of daily life (chi-square test = 30.611;  $p > 0.05$ ).

It is important that university students correct the statements of school students. The authors appreciate the fact that university students respond appropriately to what is happening during the lesson.

Noise, chaos, and lack of skills and tools to cope with such situations were also troublesome for the trainees surveyed. Respondents indicated that the failure to cope with maintaining discipline is their main obstacle in the pedagogical area. Additionally, it was difficult for them to retain the attention and concentration of the school students.

In summary, reflective practices are an important factor in shaping the emotional bond with the profession and the professional environment (Cochran-Smith, 2003; Juuti et al., 2018). Therefore, it performs variety functions (see Figure 5).

cognitive	agility	integrative	personality formation	checking
<ul style="list-style-type: none"> <li>• allows for a better understanding of the processes of teaching and learning</li> </ul>	<ul style="list-style-type: none"> <li>• affects the improvement of methodological skills and educational</li> </ul>	<ul style="list-style-type: none"> <li>• allows students to integrate the knowledge acquired during your studies, within various subjects</li> </ul>	<ul style="list-style-type: none"> <li>• develops personality (e.g. interpersonal skills) and motivation to perform professional tasks through direct contact with the school student and school teachers</li> </ul>	<ul style="list-style-type: none"> <li>• enables the practical verification of professional competences and chemical knowledge</li> </ul>

*Figure 5.* Variety functions of reflective practices at school.

Conclusion of research question no.1: Students who proposed their own intriguing lesson title in the form of an affirmative sentence definitely more often

than others made experiments during the lesson (chi-square test = 42.13;  $p < 0.05$ ).

Conclusion for research question no.2: Students who proposed their own intriguing lesson title in the form of an affirmative sentence definitely more often than others conducted a lesson during which the teacher's activity is lower (40% or less on the scale of activity during 45 minutes of the lesson) than the activity of the students (chi square = 57.6,  $p < 0.05$ ).

Conclusion of research question no.3: Students who proposed their own intriguing title for the lesson in the form of a problem question much more often than others used the problem-based method as the main teaching method in their lesson (chi-square test = 32.44;  $p < 0.05$ ).

### **Conclusions**

Reflecting on your lesson is the result of peer review of the student (peer assessment). In recent years, peer evaluation has been used more and more often in the educational process (Double, McGrane, & Hopfenbeck, 2020). Despite the prevailing view that peer assessment has a positive impact on the learning process, it is important to remember that there are various factors that can affect the effect of peer assessment. Hongli Li and others (2020) explicitly point out that the assessment format, assessment criteria, and frequency of peer assessment, and most importantly the training of the assessors, can be used to determine how to effectively use peer assessment as a learning tool.

The pilot research was intended to provoke the trainees to reflect on school practices, also on the aspect of expected change. Based on the research conducted, certain conclusions could be drawn for a pre-service teacher training program.

Here, it is worth taking care of motivating students to active participation in university teaching activities, encouraging them to look for their own creative solutions, departing from traditional paths.

Research was limited and did not allow large-scale generalizations and deep analysis of correlation based on statistical methods.

Among others, the following skills and personality traits were considered necessary and even indispensable in the teacher's work: the skills of proper communication, reflective manner, regularity, conscientiousness, and empathy.

During the preparation for the teaching profession, the focus should also be on improving skills in the field of interpersonal relations. The area which, based on the reflections of the respondents, requires a change is as follows: acquiring methods, means, and tools to deal with educational situations, from standard ones (e.g. silencing, focus on a task) to particularly difficult (e.g. verbal and non-verbal aggression).

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The proposed observation sheet is a valuable tool, and collected information and comments provide a proper starting point for discussion.

According to Arrington (2023), pre-service teachers who engaged in the process of self-reflection experienced a significant increase in self-efficacy; their engagement, forms of classroom management, and teaching styles changed; teachers noticed increased concentration and better engagement of their students in class (Syam et al., 2023).

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**References**

- Abell, S. K. (2008). Twenty years later: Does pedagogical content knowledge remain a useful idea? *International Journal of Science Education*, 30(10), 1405-1416. <https://doi.org/10.1080/09500690802187041>
- Adler, A. (1998). Understanding children with emotional problems. *Journal of Humanistic Psychology*, 38(1), 121-127. <https://doi.org/10.1177/0022167898038101>
- Adnan, M., & Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students' perspectives. *Journal of Pedagogical Sociology and Psychology, Online Submission*, 2(1), 45-51. <https://doi.org/10.33902/JPSP.2020261309>
- Aglazor, G. (2017). The role of teaching practise in teacher education programmes. Designing framework for best practise. *Global Journal of Educational Research*, 16(2), 101-110. <https://doi.org/10.4314/gjedr.v16i2.4>
- Almasri, F. (2022). Simulations to teach science subjects: Connections between student participation, self-confidence, satisfaction, and learning styles. *Education and Information Technologies*, 27(5), 7161-7181. <https://doi.org/10.1007/s10639-022-10940-w>
- Arrington, N. M. (2023). Enhancing preservice teachers' self-efficacy for teaching diverse learners: Capturing young students' attention through a read-a-loud and music. *Journal of the Scholarship of Teaching and Learning*, 23(2). <https://doi.org/10.14434/josotl.v23i2.33527>
- Augustinovič, A. (2019). Educational opportunities of natural science motivation for students with special educational needs: The viewpoint of natural science teachers. *Pedagogika*, 136(4), 141-152. <https://doi.org/10.15823/p.2019.136.9>
- Bell, C. A., Dobbelaer, M. J., Klette, K., & Visscher, A. (2019). Qualities of classroom observation systems. *School Effectiveness and School Improvement*, 30(1), 3-29. <https://doi.org/10.1080/09243453.2018.1539014>



*Acta Educationis Generalis*  
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- Beño, P., Havan, P., & Šprinková, S. (2020). Structured, analytical and critical thinking in the educational process of future teachers. *Acta Educationis Generalis*, 10(3), 111-118. <https://doi.org/10.2478/atd-2020-0024>
- Black, P., & Wiliam, D. (2010). Inside the black box: Raising standards through classroom assessment. *Phi Delta Kappa*, 92(1), 81-90. <https://doi.org/10.1177/003172171009200119>
- Borko, H., Putnam, R., Berliner, D., & Calfee, R. (1996). Handbook of educational psychology. In *Learning to Teach* (pp. 673-708). New York: MacMillan.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Brown, W. S. (2021). Successful strategies to engage students in a COVID-19 environment. *Frontiers in Communication*, 6, 641865. <https://doi.org/10.3389/fcomm.2021.641865>
- Bucart, R. (2005). Implications of chemistry education research for teaching practice: Pedagogical content knowledge as a way forward. *Chemistry Education International*, 6(1), 1-2. <https://doi.org/10.1039/B4RP90025A>
- Burdett, J. (2003). Making groups work: University students' perceptions. *International Education Journal*, 4(3), 177-191.
- Caires, S., Almeida, J., & Vieira, D. (2012). Becoming a teacher: Student teachers' experiences and perceptions about teaching practice. *European Journal of Teacher Education*, 35(2), 163-178. <https://doi.org/10.1080/02619768.2011.643395>
- Castañeda-Trujillo, J. E., López, A. F., & Molina Santana, M. (2022). Empirical in-service teachers' identities in an ELT education program. *Actualidades Pedagógicas*, 1(78), 4. <https://doi.org/10.19052/ap.vol1.iss78.4>
- Chin, C., & Chia, L. G. (2004). Problem-based learning: Using students' questions to drive knowledge construction. *Science Education*, 88(5), 707-727. <https://doi.org/10.1002/sce.10144>
- Chionidou-Moskofoglou, M., Skoumios, M., & Karamelas, K. (2019). Primary teachers' teaching practices in Mathematics and Science classes. A descriptive research approach. *Mediterranean Journal for Research in Mathematics Education*, 16, 7-18. <https://www.cymsjournal.com/wp-content/uploads/2021/05/MJRME-Volume-16-Final-June-2019.pdf>
- Christensson, C., & Sjöström, J. (2014). Chemistry in context: Analysis of thematic chemistry videos available online. *Chemistry Education Research and Practice*, 15(1), 59-69. <https://doi.org/10.1039/C3RP00102D>
- Cochran-Smith, M. (2003). Learning and unlearning: The education of teacher Educators. *Teaching and Teacher Education*, 19(1), 5-28. [https://doi.org/10.1016/S0742-051X\(02\)00091-4](https://doi.org/10.1016/S0742-051X(02)00091-4)
- Cooper, H., Robinson, J. C., & Patall, E. A. (2006). Does homework improve academic achievement? A synthesis of research. 1987-2003. *Review of Educational Research*, 76(1), 1-62. <https://doi.org/10.3102/00346543076001001>
- Chong, S., & Low, E. L. (2009). Why I want to teach and how I feel about teaching-formation of teacher identity from pre-service to the beginning teacher phase. *Educational Research for Policy and Practice*, 8(1), 59-72. <https://doi.org/10.1007/s10671-008-9056-z>

*Acta Educationis Generalis*  
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- Craig, C. J., Evans, P., Verma, R., Stokes, D., & Li, J. (2019). A tribute to 'unsung teachers': teachers' influences on students enrolling in STEM programs with the intent of entering STEM careers. *European Journal of Teacher Education*, 42(3), 335-358. <https://doi.org/10.1080/02619768.2018.1523390>
- Crawford, B. A. (2000). Embracing the essence of inquiry: New roles for science teachers. *Journal of Research in Science Teaching: The Official Journal of the National Association for Research in Science Teaching*, 37(9), 916-937. [https://doi.org/10.1002/1098-2736\(200011\)37:9<916::AID-TEA4>3.0.CO;2-2](https://doi.org/10.1002/1098-2736(200011)37:9<916::AID-TEA4>3.0.CO;2-2)
- Delclaux, M., & Saltiel, E. (2011). An evaluation of local teacher support strategies for the implementation of inquiry-based science education in French primary schools. *Education*, 41(2), 138-159. <https://doi.org/10.1080/03004279.2011.564198>
- Derri, V., Vasiliadou, O., & Kioumourtzoglou, E. (2015). The effects of a short-term professional development program on physical education teachers' behaviour and students' engagement in learning. *European Journal of Teacher Education*, 38(2), 234-262. <https://doi.org/10.1080/02619768.2014.947024>
- Díaz Montes, L. A., & Barrera Zapata, R. (2022). Uso de recursos educativos digitales y ambientes virtuales de aprendizaje para la enseñanza de matemáticas en ingeniería. Sistematización de la experiencia docente. *Actualidades Pedagógicas*, 1(77), 5. <https://doi.org/10.19052/ap.vol1.iss77.5>
- Double, K. S., McGrane, J. A., & Hopfenbeck, T. N. (2020). The impact of peer assessment on academic performance: A meta-analysis of control group studies. *Educational Psychology Review*, 32, 481-509. <https://doi.org/10.1007/s10648-019-09510-3>
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532-550. <https://doi.org/10.2307/258557>
- Gabalán-Coello, J., & Vásquez-Rizo, F. E. (2021). Una propuesta metodológica didáctico-constructivista para fomentar el aprendizaje de la modelación estadística a nivel universitario. *Actualidades Pedagógicas*, 1(76), 61-79. <https://doi.org/10.19052/ap.vol1.iss76.3>
- Gabel, D. (1999). Improving teaching and learning through Chemistry education research: A look to the future. *Journal of Chemical Education*, 76(4), 548-554. <https://doi.org/10.1021/ed076p548>
- Garrett, R. M. (1986). Problem-solving in Science education. *Studies in Science Education*, 13, 70-95. <https://doi.org/10.1080/03057268608559931>
- Griffiths, V. (2000). The reflective dimension in teacher education. *International Journal of Educational Research*, 33(5), 539-555. [https://doi.org/10.1016/S0883-0355\(00\)00033-1](https://doi.org/10.1016/S0883-0355(00)00033-1)
- Guskey, T. R. (1989) Attitude and perceptual change in teachers. *International Journal of Educational Research*, 13(4), 439-453. [https://doi.org/10.1016/0883-0355\(89\)90039-6](https://doi.org/10.1016/0883-0355(89)90039-6)
- Gül, G. (2023). Use of technology-supported educational tools in general music education and its contribution to the process of music education. *Acta Educationis Generalis*, 13(2), 63-81. <https://doi.org/10.2478/atd-2023-0014>

*Acta Educationis Generalis*  
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- Iqbal, M. H., Siddiqie, S. A., & Mazid, M. A. (2021). Rethinking theories of lesson plan for effective teaching and learning. *Social Sciences & Humanities Open*, 4(1), 100172. <https://doi.org/10.2139/ssrn.3800865>
- Johnson, P. A. (2011). Problem-based, cooperative learning in the engineering classroom. *Journal of Professional Issues in Engineering Education and Practice*, 125(1), 8-11. [https://doi.org/10.1061/\(ASCE\)1052-3928\(1999\)125:1\(8\)](https://doi.org/10.1061/(ASCE)1052-3928(1999)125:1(8))
- Junior, J. B. B. (2020). Assessment for learning with mobile apps: Exploring the potential of quizzes in the educational context. *International Journal of Development Research*, 10(1), 33366-33371.
- Juuti, K., Christophersen, K. A., Elstad, E., Solhaug, T., & Turmo, A. (2018). Finnish teacher education and its contributions to pre-service teachers' instructional self-efficacy. *Issues in Educational Research*, 28(2), 422-437.
- Kholmuratovich, M. K., Mardanaqulovich, A. S., Ravshanovich, J. R., Sharifovna, K. U., & Shodiyevna, B. O. (2020). Methodology of improving independent learning skills of future fine art teachers (On the example of still life in colorful paintings). *International Journal of Psychosocial Rehabilitation*, 24(5), 2043-2048. <https://doi.org/10.37200/V24I5/17074>
- Kirbulut, Z. D., & Bektas, O. (2011). Prospective chemistry teachers' experiences of teaching practice. *Procedia Social and Behavioral Sciences* 15, 3651-3655. <https://doi.org/10.1016/j.sbspro.2011.04.351>
- Kožuchová, M., Barnová, S., Stebila, J., & Krásna, S. (2023). Inquiry-based approach to education. *Acta Educationis Generalis*, 13(2), 50-62. <https://doi.org/10.2478/atd-2023-0013>
- Krzeczowska, M. (2020). How students – future teachers identify themselves with the issue of organic reaction mechanisms in the context of Chemistry lesson carried out at schools. *Annales Universitatis Paedagogicae Cracoviensis. Studia ad Didacticam Biologiae Pertinentia*, 10(1), 134-141.
- Li, H., Xiong, Y., Hunter, C. V., Guo, X., & Tywoniu, R. (2020). Does peer assessment promote student learning? A meta-analysis. *Assessment & Evaluation in Higher Education*, 45(2), 193-211. <https://doi.org/10.1080/02602938.2019.1620679>
- Marković, M., Trivic, D., Markovi, M., Randjelović, M., & Randjelovi, M. (2010). Practical homework assignments as part of chemistry teaching and learning. *Necatibey Eğitim Fakültesi Elektronik Fen ve Matematik Eğitimi Dergisi*, 4(2), 69-78.
- Martin, F., & Bolliger, D. U. (2018). Engagement matters: Student perceptions on the importance of engagement strategies in the online learning environment. *Online Learning*, 22(1), 205-222. <https://doi.org/10.24059/olj.v22i1.1092>
- Mathew, P., Mathew, P., & Peechattu, P. J. (2017). Reflective practices: A means to teacher development. *Asia Pacific Journal of Contemporary Education and Communication Technology*, 3(1), 126-131.
- Matúšová, S., & Kollár, V. (2023). Labour and education markets in Industry 4.0. *Acta Educationis Generalis*, 13(1), 1-25. <https://doi.org/10.2478/atd-2023-0001>
- Meyers, C., & Jones, T. B. (1993). *Promoting Active Learning. Strategies for the College Classroom*. San Francisco: Jossey-Bass Inc.

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- Michael, J. (2006). Where's the evidence that active learning works? *Advances in Physiology Education*, 30, 159-167. <https://doi.org/10.1152/advan.00053.2006>
- Minner, D. D., Levy, A. J., & Century, J. (2010). Inquiry-based science instruction - What is it and does it matter? Results from a research synthesis years 1984 to 2002. *Journal of Research in Science Teaching: The Official Journal of the National Association for Research in Science Teaching*, 47(4), 474-496. <https://doi.org/10.1002/tea.20347>
- Munir, M. T., Baroutian, S., Young, B. R., & Carter, S. (2018). Flipped classroom with cooperative learning as a cornerstone. *Education for Chemical Engineers*, 23, 25-33. <https://doi.org/10.1016/j.ece.2018.05.001>
- Patton, M. Q. (1990). *Qualitative evaluation and research methods*. SAGE Publications, Inc.
- Pei, L., Longcamp, M., Leung, F. K. S., & Ouyang, G. (2021). Temporally resolved neural dynamics underlying handwriting. *NeuroImage*, 244, 118578. <https://doi.org/10.1016/j.neuroimage.2021.118578>
- Pekdag, B., & Le Maréchal, J. F. (2010). Movies in chemistry education. *Asia Pacific Forum on Science Learning and Teaching*, 11(1), 1-19.
- Puspitarini, Y. D., & Hanif, M. (2019). Using learning media to increase learning motivation in elementary school. *Anatolian Journal of Education*, 4(2), 53-60. <https://doi.org/10.29333/aje.2019.426a>
- Sancar, R., Atal, D., Deryakulu, D. (2021). A new framework for teachers' professional development. *Teaching and Teacher Education*, 101(2), 03305. <https://doi.org/10.1016/j.tate.2021.103305>
- Sarıca, R., & Çetin, B. (2020). The process of inquiry-based teaching practices from the perspective of prospective Mathematics teachers. *Acta Educationis Generalis*, 10(3), 1-33. <https://doi.org/10.2478/atd-2020-0018>
- Schön, D. A. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions* (1st ed.). San Francisco: Jossey-Bass.
- Sotáková, I., Ganajová, M., & Babincáková, M. (2020). Inquiry-based science education as a revision strategy. *Journal of Baltic Science Education*, 19(3), 499-513. <https://doi.org/10.33225/jbse/20.19.499>
- Syam, F., Resyadi, H., & Sanusi, A. P. (2023). Unveiling the journey: exploring the personal experience of a novice EFL teacher in the classroom. *International Journal of Research on English Teaching and Applied Linguistics*, 4(1), 24-33. <https://doi.org/10.30863/ijretal.v4i1.5008>
- Trávníčková, P. (2021). The view of student teachers on the teacher's profession. *Acta Educationis Generalis*, 11(3), 23-34. <https://doi.org/10.2478/atd-2021-0019>
- Vrieling-Teunter, E., de Vries, N., Sins, P., & Vermeulen, M. (2022). Student motivation in teacher learning groups. *European Journal of Teacher Education*, 6, 1-17. <https://doi.org/10.1080/02619768.2022.2086119>

## **Investigating Factors that Affect Reading Literacy Skills in PISA Turkey Sample**

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### **Abstract:**

**Introduction:** In this study, it was aimed to examine the relationships between the variables that related the reading skills of the students and the variables related to the opportunities that the student, family, and the school have. Variables related to students' reading skills (reading skills scores/PVIREAD, perception of competence in reading/SCREADCOMP and perception of difficulty in reading/SCREADDIFF) comprised the criterion variable set, and variables related to students' socio-economic and cultural characteristics (cultural possessions/CULTPOS, home educational resources/HEDRES, index of economic, social, and cultural status/ESCS, joy/like reading/JOYREAD, teacher's stimulation of reading engagement perceived by student/STIMREAD, subjective well-being: Sense of belonging to school/BELONG, student-teacher ratio/STRATIO, shortage of educational material/EDUSHORT, student behavior hindering learning/STUBEHA, teacher behavior hindering learning/TEACHBEHA) comprised the predictive variable set.

**Methods:** Between two sets of variables, used canonical correlation analysis to examine, simultaneously, the relationship between these two sets and the contribution of the variables to each set. Turkey data of the PISA 2018 organized by OECD was used as the sample. PISA 2018 Turkey data consisted of 6890 Turkish students from the 15-year-old age group. The variables PVIREAD, SCREADCOMP, SCREADCOMP, SCREADDIFF, CULTPOS, HEDRES, ESCS, BELONG, STIMREAD and JOYREAD in the student survey and the variables STRATIO, STUBEHA, TEACHBEHA, EDUSHORT in the school survey in the PISA 2018 were used as data collection tools.

**Results:** A summary of the results of the canonical correlation analysis revealed that the most important factor in the predictive variable set was liking/enjoying reading, followed by the student behaviours that hinder learning, economic and

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socio-cultural status, cultural position, sense of belonging to the school, and teacher behaviours that hinder learning, respectively. In the criterion variable set consisting of students' reading skills, the most important factor was the perception of reading competence, followed by reading scores and perception of reading difficulty, respectively. In this context, it can be said that the variable that had the most relationship with the reading literacy skills of the students was the variable of like/enjoy reading.

**Discussion:** It is important for teachers to include additional materials that students can enjoy in the teaching process. Positive school climate is one of the factors that help increase student achievement.

**Limitations:** This study focused on variables related to students' socio-economic and cultural characteristics and school-related variables as predictors of reading literacy. In addition to the variables, studies can examine the effect of the categorical variables such as gender and school type.

**Conclusions:** The results of the study showed that the variable that had the most relationship with the reading literacy skills of the students was the variable of like/enjoy reading. This variable was followed by student behaviours that hinder learning and the socio-economic cultural status of the students respectively. In line with the results of this study, positive school climate is one of the factors that help increase student achievement. In order for the school climate to be positive, student or teacher behaviors that prevent learning should be minimized. Thus, students can learn more easily in a school climate where there are no obstacles to learning. Finally, as the socio-economic and cultural status of the students increased, it was observed that the reading scores increased.

**Key words:** reading literacy, reading skills, Canonical Correlation Analysis.

## **Introduction**

Education is one of the most important factors determining countries' social, economic, and political levels (Guler & Veysikarani, 2022). Baykul (2000) considered education to be a system. Accordingly, the education system has input, process, control assessment, and output elements. Through the assessment element, one can determine the extent to which a student, who is the most important input of this system, has achieved the educational goals. Essentially, the assessment provides an opportunity to identify the system's flaws and deficiencies (Tan, 2014, p. 14). At this point, the problems in the system stem not only from the teacher and the student. Additional problems arise due to the suitability of education programs and the financial resources allocated to education. Unfortunately, the "level of spending per student," which is an important indicator of quality in education, is quite low in Turkey compared to other OECD (Organization for Economic Co-operation and Development) countries (Demirtasli, 2014; Tan, 2014). Thus, to understand the problems in the

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education system and conduct reliable analyses, it is necessary to compare the achievement levels of students with those of their peers in different countries. In this context, countries participate in evaluation platforms using international large-scale tests (Berberoğlu & Kalender, 2005). The Program for International Student Assessment (PISA), launched within the OECD in 2000, is one platform enabling such a comparison. PISA, which operates on a three-year cycle, compares the students aged 15 in OECD countries in terms of math, science, and reading literacy. Additionally, it focuses on one of the three main types of literacy for each cycle (OECD, 2019). Reading literacy was the main focus of assessment of PISA 2018 (i.e., the most recent iteration).

With regard to PISA cycles' definitions of reading literacy, PISA 2000 maintained the following definition: "understanding, using and reflecting on written texts, in order to achieve one's goals, to develop one's knowledge and potential, and to participate in society." PISA 2009 added "engagement in reading" to the definition of reading literacy. This definition also appeared in 2012 and 2015. PISA 2018 defined it as follows: "Reading literacy is understanding, using, evaluating, reflecting on and engaging with texts in order to achieve one's goals, to develop one's knowledge and potential and to participate in society." Unlike the definitions in previous years, this one omitted the word "written" and added "evaluating ... texts" (OECD, 2019).

Reading literacy includes linguistic competencies, such as vocabulary, grammar, and textual information for comprehension. It also includes cognitive competence (integrating meaning with knowledge) and metacognitive competence (using appropriate strategies in processing texts). The term "literacy" indicates an individual's knowledge in a particular field. One can express reading literacy as individuals' reading of written or printed information and applying this information in different situations (OECD, 2019). PISA evaluates students in the 15-year-old age group with different profiles from different countries. Some of these students will pursue academic careers, some will enter the workforce directly without proceeding to higher education, and some will enter the workforce after completing their university education. To put their knowledge into practice in these different situations, students must acquire reading literacy.

Literacy is a very important skill not only in education but also in daily life. It is necessary for individuals to fully participate in society, acquire various information; and reflect this acquisition (Gulleroglu, Demir, & Demirtasli, 2014). In other words, individuals must understand and relate to content in different situations or fields (Coombe, Vafadar, & Mohebbi, 2020). In this context, students' success depends on their ability to use, in real life, the knowledge and skills they gained at school (Haladyna, 1997). In addition, the importance of reading literacy in school life is not limited to literature lessons. Reading literacy is equally important, as reading and comprehension are

necessary for other subjects such as math and science. Studies show the relationship between reading literacy and other lessons. For example, Caponera, Sestito, and Russo (2016) confirmed the effect of Italian students' reading literacy skills on mathematics achievement. Another study found that reading literacy supports geometry achievement (Capraro & Capraro, 2006). Essentially, a student who does not read well is unlikely to be successful because every lesson requires "reading" (Sengul, 2011). Therefore, according to the PISA 2018 results, determining the variables related to Turkish students' reading literacy will not only provide the opportunity to improve their reading skills but also help develop students' skills in other areas.

In the last 10 years, rapid developments have occurred in the field of digitalization. In turn, significant changes have occurred with regard to the future professions and social interactions of young people. Young people are spending more time with computer screens and smartphones rather than with printed materials, which has changed the structure and format of texts in the field of reading. Along with these developments, the measurement of reading literacy skills in PISA 2018 was computer-based. The platform applied an individualized test design (computer adaptive testing), which made the next question different. The PISA 2018 reading literacy assessment framework defined cognitive processes as "locate information," "understand," and "evaluation and reflection." However, the cognitive process of "fluent reading," which was taken as a separate process for the first time in PISA 2018, forms the basis of other cognitive processes. The test used two different types of questions to measure reading literacy (OECD, 2019b): items requiring selection (multiple-choice, yes/no; true/false items) and items requiring structuring by the student. Eight proficiency levels described students' PISA 2018 reading literacy scores. These levels showed what students could and could not achieve in terms of reading skills (1.c, 1.b, 1.a, 2, 3, 4, 5, 6).

PISA also applies surveys to collect data about students' motivations, opinions about themselves, psychological characteristics with regard to learning processes, school environment, and families. Thus, research focuses on how students' reading literacy skills relate to these variables. Studies examining the relationships between these variables and PISA reading scores differ in their methods and variables. For example, one study performed multiple regression analysis to predict reading performance by socio-economic and demographic variables (Koyuncu & Firat, 2020). It revealed that economic, social, and cultural status and metacognition affect reading literacy. Another study, using regression analysis, examined the effect of online chatting on reading literacy and reported a negative effect (Luyten, 2022). Yet another study used hierarchical linear modeling (HLM) to investigate variables affecting reading literacy at both student and school levels and thereby revealed the effect of classroom climate



(Ertem, 2020). Another study using HLM analysis revealed that the increase in school digital capacities makes it easier to perceive reading literacy tasks (Ari & Keskin, 2021). Ma, Luo, and Xiao (2021), who employed academic self-concept and academic enjoyment as mediating variables, revealed that perceived teacher support together with these variables affected reading literacy. Another study investigating the effects of teacher-related variables on reading literacy showed that metacognitive strategies had a significant effect on reading success (Memisevic & Cehic, 2022).

Different studies examined the factors affecting students' reading literacy. According to these studies, multiple factors, such as students' or parents' economic, cultural, and social variables, play a role in the development of reading performance. Most of the studies used regression analysis to examine the variables predicting literacy (Koyuncu & Firat, 2020; Muratkyzy, 2020; Luyten, 2022; Memisevic & Cehic, 2022). The present study uses PISA 2018 to group factors affecting students' reading literacy skills. The aim is to reveal the relationship between reading literacy performance and socio-economic and cultural variables. In addition to socio-economic and cultural variables, the effects of motivation sources for reading and school-related variables, which are thought to be effective in reading performance, were also examined. Unlike the studies in the literature, the present study considers the framework of reading literacy together with the perception of difficulty and the perception of competence in reading, as well as reading scores. These variables (reading scores/PV1READ, self-concept of reading: perception of difficulty/SCREADDIFF, self-concept of reading: perception of competence/SCREADCOMP) formed the criterion variable set. The variables investigating the relationship with the criterion variable set are the students' motivation for reading, family background, home environment and the school-related factors. If we call these indicators (which are supposed to affect students' reading literacy) the predictive variable set, they consist of: cultural possessions (CULTPOS), home educational resources (HEDRES), the index of economic, social, and cultural status (ESCS), and joy/like reading (JOYREAD), teacher's stimulation of reading engagement perceived by student (STIMREAD), subjective well-being: Sense of belonging to school (BELONG), student-teacher ratio (STRATIO), shortage of educational material (EDUSHORT), student behavior hindering learning (STUBEHA), teacher behavior hindering learning (TEACHBEHA). Canonical correlation analysis examined the relationship between these two variable sets.

Thus, the main goal was to determine the relationship between the predictor variable set, which consisted of factors related to students' socio-economic and cultural status and school-related factors and the criterion variable set, which

consisted of factors related to students' reading skills. The research questions were as follows:

- (1) What level of relationship exists between the predictor variable set (students' socio-economic and cultural status and school-related factors) and the criterion variable set (factors related to students' reading skills)?
- (2) To what extent do factors related to students' socio-economic and cultural status and school-related factors predict students' reading skills?
- (3) What is the relative importance of factors within the predictor and criterion variable sets consisting of variables related to students' reading literacy achievement?

## **1 Method**

### *1.1 Research model*

The model of the present research, which aims to determine the relationship between the factors related to Turkish students' reading skills (constituting the criterion variable set) and the factors related to students' socio-economic and cultural status and school-related factors (constituting the predictor variable set), is relational. The relational research model aims to determine whether a relationship exists between two or more variables and the degree of this relationship (Fraenkel & Wallen, 2006).

### *1.2 Sample and data*

The data of this study, the PISA 2018 Reading Literacy test and the Turkey student questionnaire, came from the official website of OECD ([www.oecd.org](http://www.oecd.org)). PISA 2018 Turkey data consisted of 6890 Turkish students from the 15-year-old age group.

The basic assumptions (normality, homoscedasticity, linearity, multicollinearity) underwent testing before the canonical correlation analysis, which is one of the multivariate statistics (Tabachnick & Fidell, 2007). At the stage of controlling the assumptions, firstly, the analysis did not include missing data. Because the amount of missing data was less than 5%, data assignment was not necessary (Tabachnick & Fidell, 2007, p. 63). Converting each variable to the z-score determined the univariate outliers. In addition, for each variable, Mahallanobis distances determined multivariate outliers. Computation of VIF and tolerance values between variables resulted in the detection of multicollinearity correlations. The variable of home possessions (HOMEPOS) was highly correlated with other predictor variables (multicollinearity) and was therefore left out as a predictor variable to the data. This was because HOMEPOS consisted of WEALTH, CULTPOS, and HEDRES variables. Levene's test and Box's statistics checked homoscedasticity. As a result, the canonical correlation analysis covered 6160 participants of PISA 2018.

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*1.3 Data collection tools*

The data in this research obtained from the PISA 2018 reading literacy skills test, the student questionnaire and the administrator's questionnaire. The data sources included in the criterion variable set in the study constitute the framework of reading literacy. These data sources are reading literacy skills scores, perception of difficulty, and perception of competence in reading. The data sources in the student questionnaire, which constitute the set of predictor variables in the study, are cultural possessions, home educational resources, index of economic, social, and cultural status, and joy/like reading, while the data sources in the administrator's questionnaire are teacher's stimulation of reading engagement perceived by student, subjective well-being: sense of belonging to school, student-teacher ratio, shortage of educational material, student behavior hindering learning and teacher behavior hindering learning. The study's criterion and predictor variables, and their codes, appear in Table 1.

Table 1

*Criterion and predictive variables used in the research and PISA 2018 codes*

<u>Name of Canonical Variable Set</u>	<u>Variable Name</u>	<u>Variable Code</u>
<i>Criterion Variable Set</i>	Perception of difficulty in reading	SCREADDIFF
	Perception of competence in reading	SCREADCOMP
	Reading skills scores	PVIREAD
<i>Predictor Variable Set</i>	Cultural possessions	CULTPOS
	Home educational resources	HEDRES
	Index of economic, social, and cultural status	ESCS
	Student-teacher ratio	STRATIO
	Teacher's stimulation of reading engagement perceived by student	STIMREAD
	Subjective well-being: Sense of belonging to school	BELONG
	Joy/like reading	JOYREAD
	Shortage of educational material	EDUSHORT
	Student behavior hindering learning	STUBEHA
	Teacher behavior hindering learning	TEACHBEHA

The variables mentioned above formed two different sets of variables of the canonical analysis. The variables in the predictor variable set (CULTPOS, HEDRES, ESCS) appear as indexes in the PISA data set. Therefore, the study treats these scores as continuous.

#### *1.4 Data analysis*

Canonical commonality correlation analysis determined the common effect of the model with the variables affecting reading literacy. Firstly, SPSS 22 statistical software checked the basic assumptions of multivariate analyses as mentioned above. After the data provided the basic assumptions, the canonical correlation analysis (CCA) began. CCA employed the R packages “Ggally,” “CCA,” and “CCP.” The reason for preferring this analysis is that it can reveal the relationship between more than one independent variable set and dependent variable set (Tabachnick & Fidell, 2007). In other words, CCA determines the relationships between two sets of variables assumed to be related (Capraro & Capraro, 2001). This analysis expects that the total number of observations will be 20 times the variable set. Because the model contains 13 variables, the amount of data (6160) was sufficient.

## **2 Findings**

This study considered CULTPOS, ESCS, HEDRES, JOYREAD, STRATIO, STIMREAD, BELONG, EDUSHORT, STUBEHA and TEACHBEHA as the predictor variables set and PV1READ, SCREADDIFF, and SCREADCOMP as the criterion variables set. Before the canonical correlation analysis, an examination of the correlations between the variables in the criterion and predictor variable sets took place. As seen in Table 2, the correlations in the criterion variable set range from 0.181 to 0.366. The correlations in the predictor variable set range from 0.00 to 0.560. An examination of the relationships between criteria and predictor variable sets revealed that the highest correlation was between the variables HEDRES and ESCS. The other correlation values were low.

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Table 2

*Correlation coefficients between variables*

Criterion Variables	PV1READ			SCREADDIFF			SCREADCOMP				
	SCREAD DIFF	ESC S	CULT POS	HED RES	STIMR EAD	JOYR EAD	BEL ONG	STRA TIO	EDUS HORT	STUB EHA	TEACH BEHA
Predictor Variables	SCREAD COMP	0.179**			-0.385**						
Predictor Variables	CULTPOS	0.517**	1**	0.450**							
	HEDRES	0.560**	0.450**	1**							
	STIMREAD	0.038*	0.098**	0.106**	1**						
	JOYREAD	0.052**	0.187**	0.037*	0.190*	1**					
	BELONG	0.041**	0.086**	0.069**	0.169*	0.115*	1**				
	STRATIO	-0.204**	-0.120**	-0.131**	0.004	0.065*	0.045**	1**			
	EDUSHORT	-0.184**	-0.100**	-0.135**	-0.004	-0.019	-0.010	0.168*	1**		
	STUBEHA	-0.160**	-0.103**	-0.097**	0.044*	0.098*	0.056**	0.064*	0.268**	1**	
	TEACHEHA	-0.098**	-0.050**	-0.037*	0.049*	-0.032*	0.005	0.090*	0.300**	0.483*	1**
	Predictor and Criterion Variable Set	PV1READ	0.355**	0.252**	0.238**	0.083*	0.230*	0.096**	0.043*	-0.196**	-0.362*
SCREADDIFF		-0.096**	-0.143**	-0.078**	0.101*	0.311*	0.180**	0.046*	0.028*	0.085*	-0.001
SCREADCOMP		0.079**	0.225**	0.091**	0.198*	0.552*	0.173**	0.025*	-0.007	-0.022	0.013

Note. \*: p<.05, \*\*: p<.001

Canonical correlation analysis produced three canonical variable pairs, calculated as the number of variables in the variable set containing fewer variables. Table 3 shows canonical correlation values, Wilks' lambda, F values, degrees of freedom, and significance tests between these canonical variable sets. Wilks' lambda and F values provide information about the significance level of the calculated canonical correlation values. Table 3 shows that all the canonical variable sets were significant (p<0.001). The square of the canonical correlation coefficients indicates the common variance explained between the criteria and predictor sets. Accordingly, the common variance explained by the first, second and third canonical variable pairs was 0.40%; 0.20% and 0.01% respectively. Because the common variance explained by the third canonical variable pair was

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less than 10%, it can be said that the interpretation was not significant (Capraro & Capraro, 2001). Based on this finding, the first and the second canonical correlation coefficients explained the important relationships between the predictor and criterion variable sets.

Table 3

*Significance tests of canonical variables*

	<u>Canonical Correlation</u>	<u>Wilks' Lambda</u>	<u>F</u>	<u>DF</u>	<u>Sig.</u>
1	0.632	0.477	172.711	30	<0.001
2	0.446	0.794	83.451	18	<0.001
3	0.095	0.991	7.025	8	<0.001

Note: DF: degrees of freedom, Sig.: significance level

Table 4 shows the standardized canonical correlations indicating the weight of each variable in forming the linear combination of the variable set. These coefficients show the part that the variables explained in their own sets. Therefore, one can write the equation of the first canonical variable pair, found to be significant before, formed with standardized canonical coefficients, as:

$$U_1 = -0.174 * CULTPOSS + -0.194 * ESCS + -0.762 * JOYREAD + -0.048 * HEDRES + -0.070 * STRATIO + 0.081 * EDUSHORT + -0.104 * STIMREAD + 0.219 * STUBEHA + -0.130 * TEACHBEHA + -0.162 * BELONG$$

$$Y_1 = -0.484 * PV1READ + 0.162 * SCREADDIFF + -0.701 * SCREADCOMP$$

Examination of the equations revealed that the variable contributing the most to the first canonical variable were JOYREAD in the predictive variables set ( $U_1$ ) and SCREADCOMP in the criterion variables set ( $Y_1$ ). The equation of the second canonical variable pair, found to be significant, formed with standardized canonical coefficients is as follows:

$$U_2 = 0.108 * CULTPOSS + -0.549 * ESCS + 0.435 * JOYREAD + -0.038 * HEDRES + -0.147 * STRATIO + 0.195 * EDUSHORT + 0.069 * STIMREAD + 0.691 * STUBEHA + -0.219 * TEACHBEHA + 0.087 * BELONG$$

$$Y_2 = -0.892 * PV1READ + 0.080 * SCREADDIFF + -0.629 * SCREADCOMP$$

The variable that contributed the most to the second canonical variable in the predictor variables set was STUBEHA, as seen both in the equation and in Table

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4. The variable contributing the most to the second canonical variable in the criterion variables set was PV1READ.

Table 4

*Standardized canonical coefficients and canonical loadings of the variables in the predictor and criterion variable set*

<i>Canonical Variable Pair</i>		<i>1</i>		<i>2</i>	
		$\beta$	$r_s$	$\beta$	$r_s$
	CULTPOS	-0.174	-0.479	0.108	-0.160
	ESCS	-0.194	-0.384	-0.549	-0.582
	JOYREAD	-0.762	-0.869	0.435	0.375
	HEDRES	-0.048	-0.303	-0.038	-0.334
<i>Predictor Variables</i>	STRATIO	-0.070	-0.073	-0.147	-0.041
	EDUSHORT	0.081	0.165	0.195	0.376
	STIMREAD	-0.104	-0.309	0.069	0.131
	STUBEHA	0.219	0.324	0.691	0.677
	TEACHBEHA	-0.130	0.051	-0.219	0.192
	BELONG	-0.162	-0.329	0.087	0.085
<i>Criterion Variables</i>	PV1READ	-0.484	-0.650	-0.892	-0.759
	SCREADDIFF	0.162	0.551	0.080	0.103
	SCREADCOMP	-0.701	-0.850	-0.629	-0.500

Note:  $\beta$ : Standardized canonical coefficient,  $r_s$ : Canonical loadings

The canonical loadings in Table 4 show the variance that each variable in the related set explained. The percentage of explained variance is calculated by the square of each canonical loading. The variable of JOYREAD indicated the highest loading (-0.869) in the predictor variable set, explaining 76% of the variance. In the criterion variable set, the SCREADCOMP variable had the highest loading (-0.850), explaining 72% of the variance. In the second pair of canonical variables, the variable of STUBEHA indicated the highest loading (0.677) in the predictor variable set, explaining 46% of the variance. In the criterion variable set, the PV1READ variable had the highest loading (-0.759), explaining 58% of the variance.

To promote understanding, Figure 1 shows correlations between canonical variables and canonical loadings for the first and second canonical variable pairs.

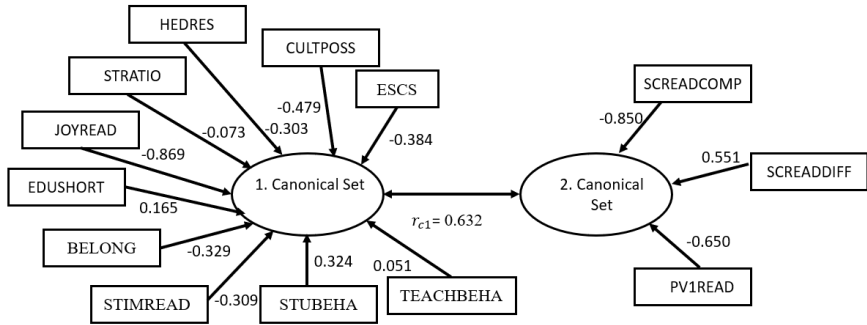


Figure 1. First canonical correlation pair.

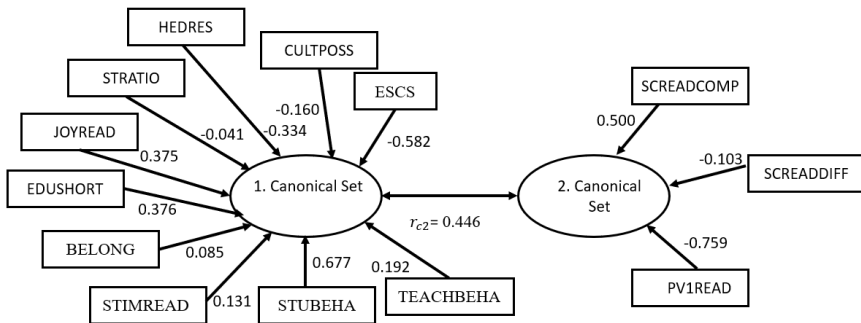


Figure 2. Second canonical correlation pair.

Table 5

*Proportion of variance explained*

<i>Canonical Variable</i>	<i>Set 1 by Self</i>	<i>Set 1 by Set 2</i>	<i>Set 2 by Self</i>	<i>Set 2 by Set 1</i>
1	0.156	0.062	0.483	0.193
2	0.128	0.025	0.279	0.055
3	0.099	0.001	0.238	0.002

Finally, the proportions of variance explained by canonical variable pairs in the cross set and in the own set were calculated. Table 5 shows that the three



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canonical variables in the second set explain 100% ( $0.483 + 0.279 + 0.238$ ) of the variance in set 2. And all these variables showed a significant relationship. The canonical variables in the first set explain 25% ( $0.193 + 0.055 + 0.002$ ) of the variance in set 2.

A summary of the results of the canonical correlation analysis revealed that the most important factor in the predictive variable set was liking/enjoying reading, followed by the student behaviours that hinder learning, economic and socio-cultural status, cultural position, sense of belonging to the school, teacher behaviours that hinder learning and teacher's stimulation of reading engagement perceived by student respectively. The variables of home educational resources, student-teacher ratio and shortage of educational materials had very low canonical coefficients and were less important than other variables. In other words, these variables contributed less to explaining the relationship of the first canonical variable pair. In the criterion variable set consisting of students' reading skills, the most important factor was the perception of reading competence, followed by reading scores and perception of reading difficulty, respectively. For the second canonical variables pair, the most important factor in the predictor variable set was the student behaviours that hinder learning, followed by economic and socio-cultural status, liking/enjoying reading, teacher behaviours that hinder learning, shortage of educational materials, student-teacher ratio, and cultural position, respectively. The variables of home educational resources, teacher's stimulation of reading engagement perceived by student and sense of belonging to the school contributed less to explaining the relationship of the second canonical variable pair. In the criterion variable set consisting of students' reading skills, the most important factor was the reading scores, followed by perception of reading competence and perception of reading difficulty, respectively.

The negative canonical loadings of the variables in the predictor and criterion variable sets mean that the decrease in one variable is associated with the decrease in the other variable. The variables of SCREADIFF, EDUSHORT and STUBEHA had positive loading in the first canonical variables set. Because these variables were the perception of difficulty in reading, shortage of educational materials and student behaviours that hinder learning the expectation was that it would be negatively correlated with reading literacy skills. Therefore, the more the student likes to read, and as the student's socio-economic level increases, the student's reading score and perception of reading competence increase, while the perception of difficulty in reading decreases. Similarly, as the shortage of educational materials and student behaviors that hinder learning increase, the student's reading score and perception of reading competence increase, while the perception of difficulty in reading decreases. However, for the first canonical variables pair, the shortage of educational materials, home

educational resources and student-teacher ratio had very low canonical loadings and therefore did not have much of an effect on reading score. According to the results of canonical correlation analysis for the second canonical variable pair, as student behaviors that hinder learning decreases and as the student's socio-economic level increases, the student's reading score and perception of reading competence increase, while the perception of difficulty in reading decreases.

### **3 Discussion**

In this study, it was aimed to examine the relationships between the variables that related the reading skills of the students and the variables related to the opportunities that the student and the school have. The effects of motivational sources were also examined. The study, in which variables related to students' reading literacy comprised the criterion variable set and in which variables related to the students' socio-economic and cultural status and school-related factors comprised the predictive variable set, used canonical correlation analysis to examine, simultaneously, the relationship between these two sets and the contribution of the variables to each set.

Among the linear combinations of the criterion and predictor variable sets, the first canonical variable explained the most variance (40%). In this linear combination, the most important variable in the predictive variable set was the students' liking/enjoyment of reading. Among the linear combinations of criterion and predictor variable sets, the second canonical variable explained 20% of the common variance. In this linear combination, the most important variable in the predictive variable set was the student behaviors that hinder learning. According to the results of canonical correlation analysis, in addition to the best predictors, the students' economic and socio-cultural status and teacher behaviors that hinder learning were found to be significantly related to students' reading scores in both canonical variable sets.

In many studies examining the relationship between enjoyment of reading, which can be described as an intrinsic source of motivation for reading, and reading literacy, it has been observed that students' enjoyment of reading positively affects their reading literacy (Coşguner & Güzeller, 2015; Doğaç, 2021; Ertem, 2020; Tavşancıl, Yıldırım & Bilican Demir, 2019). Kasap, Dogan, and Kocak (2021) found that the best predictor of the reading literacy was liking/enjoyment of reading. Accordingly, it is important for teachers to include additional materials that students can enjoy in the teaching process. For example, in Coşguner and Güzeller's study (2015), it was stated that planning reading activities that students can enjoy reading will have positive results to students' reading skills. In addition, researches show that students who enjoy reading use higher-level strategies to learn more (Tavşancıl, Yıldırım, & Bilican Demir, 2019; Weibel, Wissmath, & Mast, 2011). So, individuals who like reading use

more high-level mental skills while reading a text. Studies have also shown that as the time spent on reading increases, students enjoy reading more and their academic success increases (eg. Baker, Dreher & Guthrie, 2000). Considering that reading literacy is necessary for all lessons, it is an expected result that academic success increases as students enjoy reading.

In addition to intrinsic motivators, there are also studies showing that extrinsic motivators such as teacher's stimulation of reading engagement or student-perceived teacher-support are positively related to reading scores (Lan & Yu, 2022; Ma, Luo, & Xiao, 2021). In this study, it was found that the teacher's stimulation of reading engagement perceived by student, which was considered as an extrinsic motivation source, positively affected students' literacy skills, although it did not have a large effect.

In the study, the criterion variable set included the variables of perception of competence in reading and perception of difficulty in reading, as well as reading scores within the framework of reading literacy. Therefore, enjoyment of reading was the best predictor of these variables, too. The SCREADIFF variable in the criterion variable set had opposite canonical loading compared to the other variables. In other words, as students enjoy reading, their perception of competence in reading increases and their perception of difficulty in reading decreases.

Other variables affecting students' reading skills were the student behaviors that hinder learning, students' economic and socio-cultural status and teacher behaviors that hinder learning. Most of the previous studies in the literature showed that variables related to socio-economic and cultural status of students and families were related to reading literacy (Arıcı & Altıntaş, 2014; Aydın, Selvitopu, & Kaya, 2018; Büyükatrak, 2022; Chiu ve Chow, 2015; Demirel & Yağmur, 2017; Doğaç, 2021; Güler & Veysikarani, 2022; Gülleroğlu, Bilican Demir, & Demirtaşlı, 2014; Koçak, 2022; Mavi, 2022; Okatan, 2021; Özdemir & Gelbal, 2014; Polat & Madra, 2018; Dadandı, Dadandı & Koca, 2018; Woessmann & Fuchs, 2004). As can be seen, in the majority of previous studies, socio-economic variables were investigated as predictors of reading literacy. And as expected, in these studies it was observed that as the socio-economic level of the students increased, their reading skills increased. On the other hand, Dadandı, Dadandı and Koca (2018) emphasized that it may not be correct to take only parental income as the socio-economic variable and to make a linear relationship between income level and reading literacy. In this context, the determining factor in terms of students' reading skills is to which sources family income is allocated. This finding was supported in this study. As well as the ESCS index, the CULTPOS variable was an important predictor of reading literacy. Students' possession of cultural assets such as literature books, works of art, etc. increased their reading literacy. This finding supported in studies

employing data from different countries as well as studies with Turkish samples (Dong & Hu, 2019; Gülleroğlu, Bilican Demir, & Demirtaşlı, 2014; Ho & Lau, 2018).

Another important factor affecting reading literacy in the present study was found to be student behaviors that hinder learning. In Gómez and Suárez's (2020) study, student and teacher behaviors that hinder learning were addressed together under the school climate factor. It is accepted that school climate positively affects learning as a protective factor by helping to reduce negative situations related to school (Hapson & Lee, 2011). The findings of their study showed that school climate and, indirectly, behaviors that hinder learning are important moderator variables on learning. Another study investigating the effect of school-related factors on students' achievement in PISA showed that student behaviors that hinder learning are a significant predictor of student achievement (Lee & Lee, 2021). As expected, the variable of student behaviors that hinder learning was found to be inversely related to student achievement in studies conducted in Turkey (Arıcı, & Altıntaş, 2014; Cayak, 2021; Üstün, et al., 2019). In line with the results of the studies in the literature and this study, one of the factors that help to increase student achievement is school climate. In order for the school climate to be positive, student or teacher behaviors that hinder learning should be minimized. Thus, students can learn more easily in a school climate where there are no hindrances to learning.

## **Conclusion**

In this study, it was aimed to examine the relationships between the variables that related to the reading skills of the students and the variables related to the opportunities that the student and the school have. There have been many studies in the literature that include variables associated with reading literacy. However, this study handled reading scores and the variable of perception of competence in reading and perception of difficulty in reading within the framework of reading literacy and revealed that the variable most related to these variables was the student' liking/enjoyment of reading.

This research employed only PISA 2018 Turkey data. In the future, studies can handle reading scores in different countries and can examine whether the factors affecting reading literacy differ according to the country. In addition to socio-economic and cultural and school-related variables, studies can also examine the effect of categorical variables such as gender and school type on reading literacy, which could not be done in this study due to the assumptions of canonical correlation analysis. Additionally, in this study, educational resources at home and the teacher's stimulation of reading engagement perceived by student, which is one of the extrinsic motivation sources, were not significant predictors of reading literacy scores. In the studies to be conducted with different data, the

relationship between these variables and reading literacy can be investigated again. Finally, the researcher recommends using canonical correlation analysis in such cases, as it enables the simultaneous analysis of related variable sets both within and between sets.

## References

- Arı, G., & Keskin, H. K. (2021). Examining Turkish students' views on the reading literacy tasks of PISA 2018 in terms of different variables. *International Online Journal of Educational Sciences*, 13(1). <https://doi.org/10.15345/iojes.2021.01.008>
- Arıcı, O., & Altıntaş, O. (2014). An investigation of the PISA 2009 reading literacy in terms of socio-economic backgrounds and receiving pre-school education "Turkey Example". *Ankara University Journal of Faculty of Educational Sciences (JFES)*, 47(1), 423-448. [https://doi.org/10.1501/Egifak\\_0000001333](https://doi.org/10.1501/Egifak_0000001333)
- Aydın, A., Selvitopu, A., & Kaya, M. (2018). Resources invested in education and PISA 2015 results: a comparative study. *Elementary Education Online*, 17(3). <https://dx.doi.org/10.17051/ilkonline.2018.466346>
- Baykul, Y. (2000). *Measurement in Education and Psychology*. Ankara: OSYM Publ.
- Baker, L., Dreher, M. J., & Guthrie, J. T. (Eds.). (2000). *Engaging Young Readers: Promoting Achievement and Motivation*. Guilford Press.
- Berberoğlu, G., & Kalender, I. (2005). Investigation of student achievement across years, school types, and regions: The SSE and PISA analyses. *Journal of Educational Sciences & Practices*, 4(7). Retrieved from [https://www.ebuline.com/pdfs/7Sayi/7\\_2.pdf](https://www.ebuline.com/pdfs/7Sayi/7_2.pdf)
- Büyükkatak, E. (2022). *PISA 2018 Türkiye Örnekleminde okuma okuryazarlık düzeylerinin farklı veri madenciliği sınıflandırma yöntemleri ile incelenmesi* (Unpublished Doctoral Thesis). Ankara: Hacettepe University Institute of Education Sciences.
- Capraro, R. M., & Capraro, M. M. (2001). Commonality analysis: Understanding variance contributions to overall canonical correlation effects of attitude toward mathematics on geometry achievement. *Multiple Linear Regression Viewpoints*, 27(2), 16-23.
- Capraro, M. R. & Capraro, M. M. (2006). Are you really going to read us a story? Learning geometry through children's mathematics literature. *Reading Psychology*, 27, 21-36. <https://doi.org/10.1080/02702710500468716>
- Caponera, E., Sestito, P., & Russo, P. M. (2016). The influence of reading literacy on mathematics and science achievement. *The Journal of Educational Research*, 109(2), 197-204. <https://doi.org/10.1080/00220671.2014.936998>
- Cayak, S. (2021). Parents' perceptions of school climate as a predictor of parents' participation in their children's education. *Acta Educationis Generalis*, 11(1), 14-28. <https://doi.org/10.2478/atd-2021-0002>
- Chiu, M. M., & Chow, B. W. Y. (2015). Classmate characteristics and student achievement in 33 countries: Classmates' past achievement, family socioeconomic status, educational resources, and attitudes toward reading. *Journal of Educational Psychology*, 107(1), 152.

*Acta Educationis Generalis*  
*Volume 14, 2024, Issue 1*

- Coombe, C., Vafadar, H., & Mohebbs, H. (2020). Language assessment literacy: What do we need to learn, unlearn, and relearn? *Language Testing in Asia*, 10, 1-16. <https://doi.org/10.1186/s40468-020-00101-6>
- Coşguner, T., & Güzeller, C. O. (2015). The factors effecting reading literacy in the programme for international students' achievement (PISA) 2009. *Mediterranean Journal of Humanities*, 5(1), 191-206.
- Dadandı, P. U., Dadandı, İ., & Koca, F. (2018). PISA 2015 Türkiye sonuçlarına göre sosyoekonomik faktörler ile okuma becerileri arasındaki ilişkiler. *Uluslararası Türkçe Edebiyat Kültür Eğitim (TEKE) Dergisi*, 7(2), 1239-1252.
- Demirel, G., & Yağmur, K. (2017). An evaluation of Turkish children's higher order thinking skills based on the international PIRLS applications standards. *Journal of Language Education and Research*, 3(2), 95-106. Retrieved from <https://dergipark.org.tr/en/pub/jlere/issue/30938/332468>
- Demirtaşlı, R. N. Ç. (2014). *Measurement and evaluation in education*. Ankara: Anı Publ.
- Doğaç, A. (2021). *PISA 2018 okuma becerilerini açıklayan değişkenlerin çok düzeyli yapısal eşitlik modeli ile incelenmesi* (Unpublished Master's Thesis). Ankara: Hacettepe University Institute of Education Sciences.
- Dong, X., & Hu, J. (2019). An exploration of impact factors influencing students' reading literacy in Singapore with machine learning approaches. *International Journal of English Linguistics*, 9(5), 52-65. <http://dx.doi.org/10.5539/ijel.v9n5p52>
- Ertem, H. Y. (2020). Examination of Turkey's PISA 2018 reading literacy scores within student-level and school-level variables. *Participatory Educational Research*, 8(1), 248-264. <https://doi.org/10.17275/per.21.14.8.1>
- Fraenkel, J. R., & Wallen, N.E. (2006). *How to Design and Evaluate Research in Education*. New York: McGraw-Hill.
- Gómez, R. L., & Suárez, A. M. (2020). Do inquiry-based teaching and school climate influence science achievement and critical thinking? Evidence from PISA 2015. *International Journal of STEM Education*, 7(1), 1-11. <https://doi.org/10.1186/s40594-020-00240-5>
- Güler, E. O., & Veysikarani, D. (2022). Classification of countries based on socioeconomic indicators and PISA scores: The case of the OECD. *Academic Review of Economics and Administrative Sciences*, 15(3), 506-522. <http://dx.doi.org/10.25287/ohuiibf.958903>
- Gülleroğlu, H. D., Demir, S. B., & Demirtaşlı, N. (2014). The prediction of Turkish students' reading literacy skills by SES related variables for PISA 2003-2006-2009. *Ankara University, Journal of Faculty of Educational Sciences*, 47(2), 201-222. [https://doi.org/10.1501/Egifak\\_0000001344](https://doi.org/10.1501/Egifak_0000001344)
- Haladyna, T. M. (1997). *Writing Test Items to Evaluate Higher Order Thinking*. USA: Allynand Bacon.
- Hopson, L. M., & Lee, E. (2011). Mitigating the effect of family poverty on academic and behavioral outcomes: The role of school climate in middle and high school. *Children and Youth Services Review*, 33(11), 2221-2229. <https://doi.org/10.1016/j.childyouth.2011.07.006>

*Acta Educationis Generalis*  
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- Ho, E. S. C., & Lau, K. L. (2018). Reading engagement and reading literacy performance: Effective policy and practices at home and in school. *Journal of Research in Reading*, 41(4), 657-679. <https://doi.org/10.1111/1467-9817.12246>
- Kasap, Y., Dogan, N., & Koçak, C. (2021). Determining variables that predict reading comprehension success by data mining in PISA 2018. *Manisa Celal Bayar University Journal of Social Sciences*, 19(4), 241-258. <https://doi.org/10.18026/cbayarsos.959609>
- Koçak, G. (2022). *Türkiye, Singapur, Estonya ve Kanada PISA 2018 başarılarını etkileyen değişkenlerin karşılaştırılması* (Unpublished Master's Thesis). Ankara: Hacettepe University Institute of Education Sciences.
- Koyuncu, I., & Fırat, T. (2020). Investigating reading literacy in PISA 2018 assessment. *International Electronic Journal of Elementary Education*, 13(2), 263-275. <https://doi.org/10.26822/iejee.2021.189>
- Lan, X., & Yu, Z. (2022). A bibliometric review study on reading literacy over fourteen years. *Education Sciences*, 13(1), 27. <https://doi.org/10.3390/educsci13010027>
- Lee, H., & Lee, J. W. (2021). *Why East Asian Students Perform Better in Mathematics than Their Peers: An Investigation Using a Machine Learning Approach*. CAMA Working Paper No. 66/2021. <http://dx.doi.org/10.2139/ssrn.3896033>
- Luyten, H. (2022). The global rise of online chatting and its adverse effect on reading literacy. *Studies in Educational Evaluation*, 72, 101101. <https://doi.org/10.1016/j.stueduc.2021.101101>
- Ma, L., Luo, H., & Xiao, L. (2021). Perceived teacher support, self-concept, enjoyment, and achievement in reading: A multilevel mediation model based on PISA 2018. *Learning and Individual Differences*, 85, 101947. <https://doi.org/10.1016/j.lindif.2020.101947>
- Mavi, E. (2022). *PISA-2018 Türkiye verisinde okuma becerilerini etkileyen faktörlerin çok düzeyli yapısal eşitlik modellemesiyle incelenmesi* (Unpublished Master's Thesis). Ankara: Hacettepe University Institute of Education Sciences.
- Memisevic, H., & Cehic, I. (2022). The importance of metacognitive strategies in reading literacy results of the PISA testing in Bosnia and Herzegovina. *Journal of Cognitive Education and Psychology*, 21(2), 116-124. <http://dx.doi.org/10.1891/JCEP-2021-0027>
- Muratkyzy, A. (2020). *Equity and excellence in the Kazakhstani Education System: A multilevel analysis of the personal and contextual factors contributing to students' reading literacy performance on PISA 2018* (Unpublished Master's Thesis). Kazakhstan: Nazarbayev University, Graduate School of Education.
- OECD. (2009). *PISA 2018 Technical Report*. Paris, France: OECD Publications.
- OECD. (2019b). *PISA 2018 results: Where all students can succeed - Volume II*. Paris: OECD Publishing.
- Okatan, O. (2021). PISA 2018 reading success in Turkey investigation of some variables. *Mehmet Akif Ersoy University Journal of Education Faculty*, 60, 331-353. <https://doi.org/10.21764/maueufd.825174>
- Özdemir, B., & Gelbal, S. (2014). Investigating factors that affect Turkish students' academic success with canonical commonality analysis according to PISA 2009 results. *Education and Science*, 39(175). <https://doi.org/10.15390/EB.2014.3025>

*Acta Educationis Generalis*  
*Volume 14, 2024, Issue 1*

- Polat, E., & Madra, A. (2018). PISA 2015 ve TIMSS 2015 ışığında Türkiye’de cinsiyete dayalı başarı farkı. *Education Reform Initiative & Aydın Doğan Foundation, 1*, 18. Retrieved from [https://www.egitimreformugirisimi.org/wp-content/uploads/2018/02/PisaTimssBilgiNotuTR.16.02.18.rev1\\_.pdf](https://www.egitimreformugirisimi.org/wp-content/uploads/2018/02/PisaTimssBilgiNotuTR.16.02.18.rev1_.pdf)
- Şengül, A. (2011). *Determination variables which define Turkish students’ PISA 2009 reading literacy with CHAID analysis* (Unpublished Master's thesis). Ankara: Ankara University Institute of Education Sciences.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston: Allynand Bacon.
- Tan, Ş. (2014). *Measurement and Evaluation in Teaching*. Ankara: Pegem Publ.
- Tavşancıl, E., Yıldırım, O., & Demir, S. B. (2019). Okumaktan zevk alma ve öğrenme stratejilerinin PISA 2009 okuma performansı üzerindeki doğrudan ve dolaylı etkilerinin incelenmesi. *Eurasian Journal of Educational Research, 19*(82), 169-190.
- Üstün, U., Özdemir, E., Cansız, M., & Cansız, N. (2019). What are the factors affecting Turkish students’ science literacy? A hierarchical linear modelling study using PISA 2015 data. *Hacettepe University Journal of Education, 35*(3), 720-732.
- Weibel, D., Wissmath, B., & Mast, F. W. (2011). Influence of mental imagery on spatial presence and enjoyment assessed in different types of media. *Cyberpsychology, Behavior, and Social Networking, 14*(10), 607-612.
- Woessmann, L., & Fuchs, T. (2004). *Computers and Student Learning: Bivariate and Multivariate Evidence on the Availability and Use of Computers at Home and at School*. CESIFO Working paper Series No: 1321



## **The Field of Free Time as Tertiary Agency of Socialisation**

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### **Abstract:**

**Introduction:** The authors examine the agencies of socialisation and attempt to reveal a pattern among these agents. They differentiate social elements and agencies of socialisation, and they endow the latter with three conditions: the requirements of scope, time and intensity and specific set of rules.

**Purpose:** The purpose of the paper is to examine which factors satisfy this triple set of requirements.

**Methods:** Explanatory method to expose the issue, based on desk research and secondary analysis was used.

**Results:** Near the family and the school, the free time space meets the three conditions of the socialization environment (scope, time-intensity, specific set of rules).

**Discussion:** The authors believe that these three conditions are not met by any other socialization area.

**Conclusions:** All this means that in postmodern society, the institution of the family, which has been with us since pre-modernity, and the institution of the school, which has been with us since modernity, is accompanied by a third socialization macro-agency.

**Key words:** socialization agencies, leisure time, third socialization scene, free time space, socialization environment.

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## **1 Theories on social scenes**

Giddens (2009) defines groups or social contexts as agencies of socialisation in which social processes occur. According to him, more social scenes can play a crucial role in certain stages of an individual's life, and these scenes can be considered as structured groups or environments. According to certain models, there are two scenes altogether: family can be considered a primary or early scene, while academic socialisation can be considered a secondary or late stage, which actually does not mean subordination but subsequence.

Parson also differentiates primary socialisation, which establishes the basis of individuality in early years, and he distinguishes secondary socialisation, which can be viewed as institutional role learning of social structure (Parsons, 1956). According to a variant of the theory, the most significant scenes of secondary socialisation are school, peer groups and the mass media (Bodonyi et al., 2006).

Other theories determine three groups: primary socialisation is connected to childhood; secondary socialisation is related to academic years and actually involves processes in peer groups; tertiary socialisation means active years of employment (Kiss, 2002). Searching for an answer to the question of whether obscene language use declines after school age, Czeglédi also examines the chronology of social scenes and considers secondary socialisation as school age, tertiary socialisation as years of active employment (Czeglédi, manuscript). Musgrave (1979) also maps the field of work. In his view, the first stage of occupational socialisation is about learning occupational roles associated with occupational networking. After every decision, role repertoire diminishes as fewer further options/choices remain. Musgrave deals with work socialisation in detail, which developmental stages are (hidden) role learning of preliminary work socialisation (time of acquiring occupational knowledge), entering the world of work, entering the job market, the clash of occupational expectations and reality. Finally, actual work socialisation occurs when the individual completes his/her own social engagement that meets the requirements of the particular job. According to Musgrave, when the individual changes careers (or jobs), tertiary socialisation occurs. However, another classification claims that primary socialisation can be viewed as family, secondary socialisation can be considered as compulsory education (primary education), whereas tertiary socialisation means turning to the chosen profession; hence, it involves the years at university or college. Also, Csaba Dupcsik (Dupcsik, n.d.) claims that preparation for a career or a job belongs to tertiary socialisation.

The previously mentioned Giddens (2009) reveals altogether four scenes. According to him, agencies of socialisation can be family, peer group, school/workplace and mass media; however, he remarks that the number of agencies of socialisation are the same as the number of groups or the number of social situations which people are engaged in. Undoubtedly, these agencies of

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socialisation are not able to have any mechanical effect, but in social practice they make people participate in a certain social framework. It means that agencies of socialisation sometimes demand participation from people, sometimes they offer it as an opportunity, sometimes they involve it, and sometimes they allow entering and leaving the framework.

Czeizel (2004)<sup>1</sup> identifies four (macro)environmental effects or components: family, school, peer group and general social environment. According to a further division, socialisation has four scenes: primary socialisation is family, where the individual acquires basic norms and rules; secondary socialisation is kindergarten and school; tertiary socialisation is occupational socialisation (secondary–tertiary education and preparation for a job); quaternary socialisation is workplace<sup>2</sup>. Trencsényi (Gombocz & Trencsényi, 2007) divides social scenes according to organisation structures concerning education (based on the degree of freedom of staying-in or the connections of state finances), hence, he differentiates natural communities and scenes (family, relatives, neighbourhood, peer group); state-run institutions which are financed by the state entirely or partly (paediatric exam rooms, day-nurseries, schools, kindergartens, student hostels, educational counsellors, child protection services (CPS), orphanages, crisis care centres, detention homes, young offender institutions, foster homes, art schools, community centres, multipurpose institutions, cultural centres, cinemas, libraries, theatres, museums, concert halls, danceries, stadiums); services (child cares, clubs, arcades, discos, extra-curricular activities, trainings (language schools, driving schools, dance schools), swimming pools, gyms) and civic initiations (churches, child and teenage organisations, sport unions, cultural unions, art unions (Trencsényi, 2007)). Another classification differentiates seven scenes: childhood family, adulthood family, school, peer groups, mass media, workplace and other social scenes (church-related and civic communities) (Vukovich, 2006). Kozma (1999) also overviews social scenes, and he discusses each segment in detail, however, he does not examine the scene outside family and school unitedly. According to his views, the scene of formal education is school, the scene of non-formal and informal education is family, neighbourhood, workplace, military, politics, religion and mass media. Other theories claim that social scenes are based on special groups and non-usual life situations. Csanád Bodó examines the issue from the aspect of national minorities. According to him, minorities learn the Hungarian language during

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<sup>1</sup> Also, four genetic traits: general intelligence, specific mental ability, creativity, motivation.

<sup>2</sup> An additional perspective can be whether sometimes under the influence of family, or together with the family we go or we do not go to theatre, restaurant, stadium, discotheque, cinema on a scouting trip or to a pioneer camp (Nagy, 2021).

secondary or tertiary socialisation. “Adult speakers also use the Hungarian language in teenagers’ tertiary language socialisation as youngsters are considered adults who are integrated into the world of work by that time, and the use of Hungarian dialect can be considered adequate as it is the language code of typical community activities.” (Bodó, 2013, p. 14).

## **2 Agencies and elements of socialisation**

Concerning their interpretation, a part of the theories (e.g. Giddens, Kozma) focuses on a given period of life and examines the related scenes, life situations, time accurately while the other part analyses and depicts those main social stages that belong to the individual’s developmental phases (e.g. Parsons, 1956; Kiss, 2002; Dupcsik, n.d.; Czeglédi, n.d.). However, between social schools dealing with developmental stages and social schools dealing with time usage analysis, a significant difference can be observed (and frequently the difference can be perceived within the school itself) partly in terms of notion usage (as we can talk about agency of socialisation, field, scene, group, etc.), and in terms of the number of scenes (whether it is two, three or four, etc.); and if it is more than two, which ones they are, what their main moving forces are, what their main principles are.

Partly, regarding term usage, (as we can talk about agency of socialisation, field, scene, group, etc.) there is a difference concerning authors dealing with social environments (frequently within schools as well). There is also a difference concerning the number of scenes (whether it is two, three or four, etc.), and if there is more than two which ones they are, what their main moving forces are, what their main principles are. The basic concept, the background theory, the reason and the explanation of social scenes in the related literature are mostly based on suppositions (moreover, many times they are based on identical expressions but on different terms), they are not really supported by conclusions, rules or axioms. To put it differently, writings concerning agencies of socialisation do not really contain on what basis authors categorize any environments to agencies of socialisation, and due to it, what areas are excluded, what can be considered as a new unite and what are simply the parts of it. It is still also unknown whether this arbitrary categorisation has any criterion (criteria), and if yes, what it is (what they are).

Hence, the following questions arise: on what basis do we categorise something as an agency of socialisation, what criterion is necessary so as to consider something as an agency of socialisation? What can be considered as an agency of

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socialisation? And what cannot be viewed as an agency of socialisation in spite of the fact that it is a part of social field?<sup>3</sup>

In terms of the answer of the first question, based on the writings concerning agencies of socialisation and our experience, we use the following set of criteria so as to consider an agent appearing in a social field as a social scene, an agency of socialisation. In our opinion, the following three factors influence whether social elements can form a separate category:

- Firstly, scope: it is a basic requirement that a social situation can be considered as an agency of socialisation comprehensively if its impact is almost unavoidable for members of the given society. To put it differently, apart from extreme exceptions (truancy, lack of family, etc.), the individual meets the impacts of an agency of socialisation naturally. These encounters have different depths, different features, and moreover, their access can also be varied.
- Secondly, time spent in a social space and its intensity: obviously, it is necessary to have enough time for a social element to function as an agency of socialisation. In this case, intensity means the individual's involvement in the given space, the extent of his/her participation and his/her bonds.
- Thirdly, specific set of rules, unique criteria of participation: it is significant that social elements should not merely be different from each other from time and scope viewpoints. If we intend to handle them as a separate agency of socialisation, they should not be described by the criteria and rules of another agency of socialisation. As far as these criteria are concerned, different levels of participation in rulemaking are important.

It is noteworthy that in this case we do not deal with agencies of socialisation of an individual but with the agencies of socialisation of society (otherwise the requirement of scope would be meaningless). When it comes to examining an individual's social agents, the basic requirements for an agent to function as an agency of socialisation in an individual's life are time spent in a given space and spatial intensity. Hence, it is possible that an agent is extremely important (as it can have a similar quality of an agency of socialisation) in certain cases.

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<sup>3</sup> In order to prevent confusion, we will call a new social surface as a scene (a macro scene), an agency of socialisation; those social agents that cannot be considered as an agency of socialisation (as they provide only new content - e.g. if we enter a new workplace or a group) will be called as a social element or a group. An agency of socialisation refers to a group of social elements, which can be characterised with a new level of quality; it collectively regulates those social elements that take part in the mutual interaction between the individual and community (society). The new level both refers to the abstraction from individual level to general level (see: my family vs. family) and to the abstraction from the concrete element to general ones (family celebrations or the role of weekdays, role of punishment/ reward, vs. family as a universal social agent).

However, in other cases, the same agent may not be considered as an agency of socialisation either at individual or at society level.

To give an example, people living in an ecclesial context mostly spend their time with their family, school and free time in a church-based environment. A youngster who is committed to serving civilians spends his/her free time with public voluntary work, and hence, this agency of socialisation has the most important effect on him/her (Nagy & Trencsényi, 2012).

Those agents can also have an impact on the individual in which he/she is not involved directly, or which he/she consciously rejects (obviously, religion as a social agent has an effect on the individual's socialisation and way of thinking regardless of that fact that he/she detests churches). Thus, the judgment of these agents as an agency of socialisation does not change.

### **3 Methodology**

In our study, we mostly rely on the data from the “Hungarian Youth” - youth research (MIK). In this research, 8,000 young people were interviewed, and sub-samples of 2,000 people were formed in different sections. The MIK results - and our secondary analysis based on them – are representative for the Hungarian population between the ages of 15 and 29. Our qualitative research also uses the 2021 data of Eurostat and the OECD database. These datasets are comparable and representative of all member countries, which includes 27 member states in the case of Eurostat and 38 member states in the case of the OECD. We believe that this data is able to sufficiently support our stated claims, and also provide an opportunity to place the Hungarian data in an international context.

### **4 Family as a primary agency of socialisation: scope and time**

Not only based on the literature concerning socialisation but also according to the terms used in everyday life, and due to the previously mentioned criteria, it is almost undeniable that primary agency of socialisation is family (kinship) (both from time and attribute points of view). The function of family is to acquire intimate relationship patterns, to form the ability of communication, to determine identity, to acquire basic behavioural habits (e.g. health-related behavioural habits). Family as an informal small group is the first base of sampling, it establishes people's habits and behavioural patterns. People first acquire a pattern of roles in diverse relationships, a pattern of symmetric and asymmetric relations; they can learn the status value of these roles, the hierarchy of statuses and principle of mutuality. At this stage, it is possible to care, to provide security, (to learn about love, which is considered to be the first social emotion), to provide an interaction area (to provide models, role-learning), ego, ego system, to establish the bases of inner control functions (to establish action-

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stimulating and action-inhibiting strategies, to establish ability of delay, frustration tolerance, to have the ability of self-regulating reward and punishment) and to provide the order of communication (verbality, non-verbality and their synthesis). In this scene, people learn from their personal experience: participants cannot be substituted; the basic concepts of people's worldview are acquired at this stage (and they can hardly be modified later).

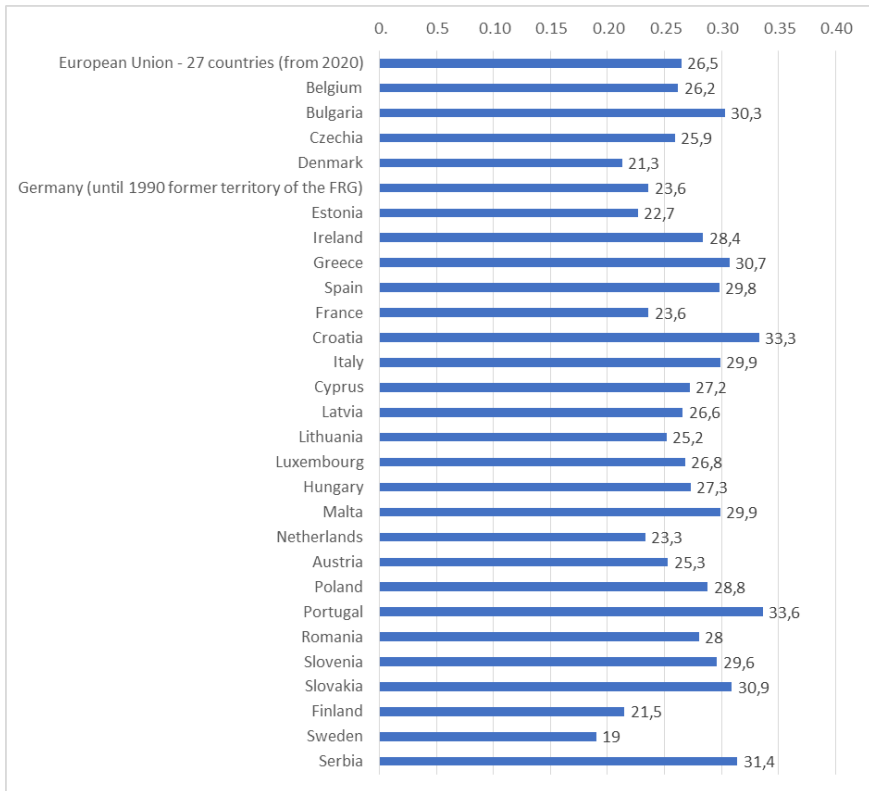
According to the Hungarian Youth Research (2020), 85% of the participants claim that before they turned 14, both their mother and father participated in their education to a certain extent<sup>4</sup>, 7% state that exclusively their mother took part in their education, 1% affirm that they were raised by their father. Less than 1% of the participants were raised in foster homes or foster cares, hence, they are 93-99% suitable for the requirement of scope.

Based on the figures of Eurostat, youngsters spend a long time in their primary agency of socialisation. According to data (2021), they leave their parental home at the age of 26.5 on average in the EU (Chart 1)<sup>5</sup>. The differences between the diverse countries (e.g. early home leaving in Scandinavian countries) can also be explained by specific economic and cultural characteristics of countries. Further research is required so as to provide information on how much time youngsters living together with their parents spend with their family daily, and to what extent this amount of time changes when youngsters grow up. In addition, not only would quantity time be noteworthy but also actual quality time mapping. However, we are not aware of any European big data research analysing the mentioned time usage, and which would be eligible for examining this issue.

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<sup>4</sup> Who brought you up before the age of 14?

<sup>5</sup> Between 2012 and 2021, 67-69% of young adults (aged 18- aged 34) still lived in their parental home in the EU.



*Figure 1.* Estimated average age of young people leaving the parental household (Eurostat, 2021).

The intensity of relationship with parents and different relatives decreases in the course of time, - e.g. secondary socialisation due to participation of academic education - however, its impact is still significant on youngsters. Most members of the interviewed generation claim that they partly spend their free time with their family, which underpins the previous statement<sup>6</sup>. The analysis of the database of MIK (2020) reveals that there is no significant difference between age groups; 47% usually spend their free time with their family, although

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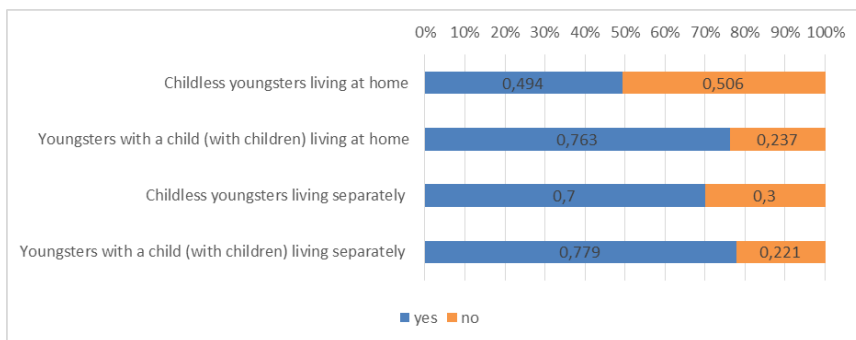
<sup>6</sup> What do you usually do on weekdays/ at weekends?



supposedly, in case of older age groups this information may imply their free time with their own child(ren).

Based on the analysis of free time at weekends, people aged 25-29 mostly spend their free time with their family (59%), and supposedly it is due to the fact that they have an own family. However, numerous members of younger age groups also spend their free time with their family (50%). According to the data of Eurostat, in Hungary in 2010, youngsters aged 15-20 spend 1 hour 58 minutes, youngster aged 20-24 spend 2 hours 25 minutes with activities at home. Obviously, it is still dubious how much real quality time spent together with parents/ family members these amounts mean. It is also unknown that how much those activities that are spent with family but not at home (e.g. outings, eating out with family, family programme) increase the amount of time.

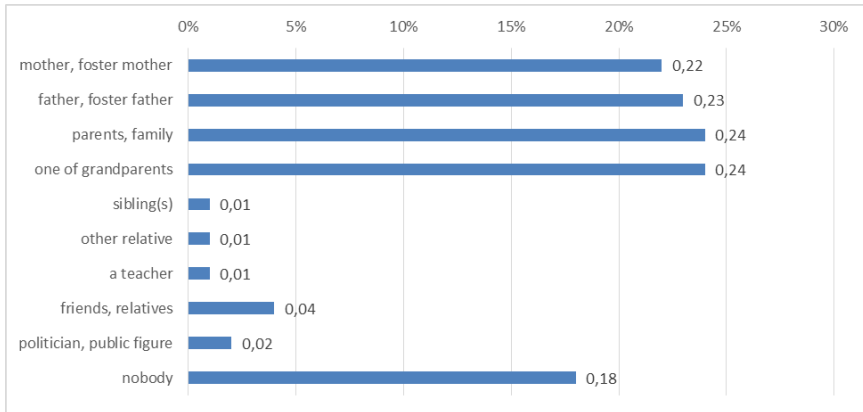
In terms of examining whether the participants spend free time with their family or not, there is a significant difference between those youngsters who live together with their parents and have a child (or children) and those youths who also live together with their parents but have no children (Chart 2.). This difference can be perceived in case of weekdays and weekends as well. Interestingly, in case of those youths who left their parental homes, the birth of their child causes no noticeable difference concerning their weekdays and weekends.



*Figure 2.* Are you together with your family (with your parents, siblings, children) in your free time on weekdays? (MIK2020 N=2000).

Family is remarkably important for youngsters aged 15-29 as the research shows that 80% of the participants consider family as a very important source of information or a rather important source of information. In terms of this question, no noticeable difference can be perceived in diverse age groups. Also, we cannot observe any significant difference if we examine who influences the

participants' political views, values. 45% report that their mother or father influenced them the most (Chart 3).



*Figure 3.* In your opinion who influenced your present political views, values, way of thinking the most? (MIK2020 N=8000).

## **5 School as a secondary agency of socialisation: scope and time**

Also, numerous theories claim that the secondary agency of socialisation is school (kindergarten, see the interpretation of the common feature later). The mostly declared aim of school is to make learners acquire, systematize and comprehend pieces of information, skills, values, form those competencies that society (or a group of society, a subsystem, an organisation, a layer, or a law enforcement organisation, which would require/demand involvement) either considers important, acknowledges or legitimates<sup>7</sup>. Secondary socialisation appears at a later developmental stage in the individual's life (different worldviews from parents' appear), which reveals new sections of society and presents other hierarchies. Opposed to family, where many things were taken for granted, here people are judged primarily by their achievement/performance, characteristics; and expectations, norms disregard concrete persons more and more. One of the special tasks of school is preparation for division of labour,

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<sup>7</sup> For instance, besides the image of school, sense of duty, reliability, punctuality, altruism, democratic behavioural pattern, loyalty, congruence, bravery, other school reviews (e.g. according to theory of hidden curriculum, hypocrisy, cheating in competition, hypocrisy, disloyalty, feeling of humiliation, etc.).

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versatile personal development, efficient transmission of values and their homogenisation from a certain point of view (Ferge & Gázsó, 1986). There are further tasks of this scene as well: on one hand, to loosen family bonds; on the other hand, to support integration into peer groups. Besides, theories of LLL (life-long learning) and LWL (lifewide learning, contents in LLL as the system of interdependent elements) widen these functions, many times they are far beyond the legal organisations of knowledge transfer<sup>8</sup>.

So as to understand to what extent participation in this scene is unavoidable, at first, it is advisable to examine early school leavers. The data of Eurostat claim that the rate of early school leavers among youngsters aged 18-24 decreases continually. From 2020, the rate is lower than 10%<sup>9</sup>. According to the analysis of ISCED levels, the number of early school leavers is merely 2%<sup>10</sup> at ISCED level 2 (lower secondary education)<sup>11</sup> in 2020, the union average is 7%<sup>12</sup> at ISCED level 3 (upper secondary education<sup>13</sup>).

Not only does the number of participants in school education increase, but duration of learning is also extended as youngsters spend more time with their studies. In case of youths aged 25-29, it is perceivable that the number of youths having ISCED levels 5-8 qualification or taking part in ISCED levels 5-8 increases, which is only possible if the spent time in the education system is extended. On average, 41 % of youngsters aged 25-29 reach one of the levels of ISCED levels 5-8 in the European Union in 2021<sup>14</sup> (Chart 4), which means a significant rise in the last decade. Furthermore, if we take the continually increasing expectations of labour market into consideration, we can expect that this rate and the number of years spent on education will increase later as well.

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<sup>8</sup> Based on the similarity of a set of rules, workplace can also belong to this secondary agency of socialisation. Firstly, due to its content and its characteristics, workplace falls into this category. Secondly, we take the theory on youth generation change by Zinnecker for granted, (which claims that the predominance of traditional, “linear” course of life is disappearing) (Zinnecker, 1993), and we still believe that there is some kind of interdependence of school and workplace in case of most youngsters.

<sup>9</sup> In Hungary, it is 12%.

<sup>10</sup> In Hungary, it is 4,5%.

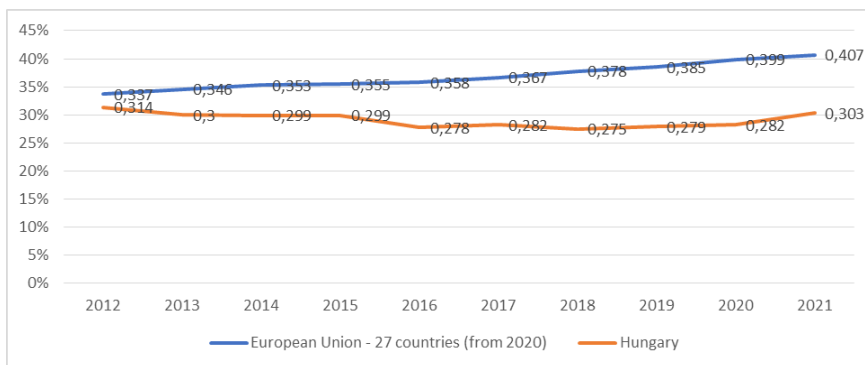
<sup>11</sup> In Hungary, classes from 5 to 8.

<sup>12</sup> In Hungary, it is 12%.

<sup>13</sup> In Hungary, classes from 9 to 12

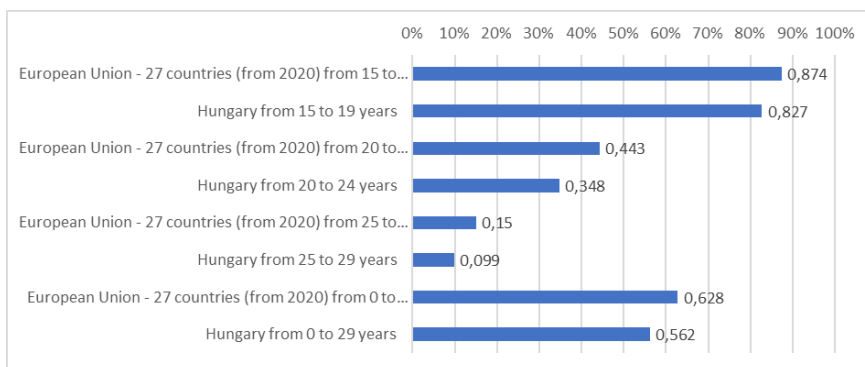
<sup>14</sup> In Hungary, it is 30%.

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*Figure 4.* Reaching ISCED levels 5-8 in group aged 25-29 (EU average and Hungary 2012-2021) (Eurostat, 2021).

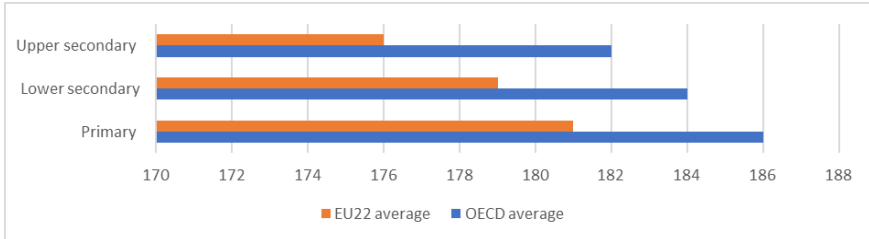
On the whole, we can pinpoint that 87% of European youths aged 15-19, 44% of European youths aged 20-24, in total, 63% of European youths aged 0-29 are connected with the education system (Chart 5).



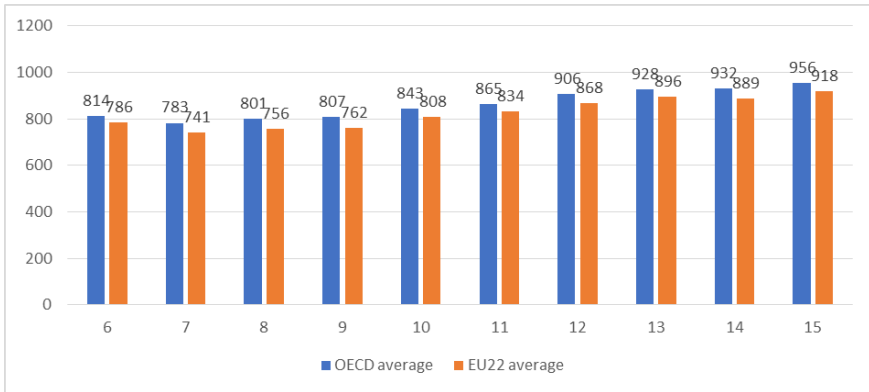
*Figure 5.* Pupils and students in education by age groups - as % of corresponding age population (Eurostat, 2021).

Both OECD data and European Union data show that the number of days spent in school by youth decreases as youngsters grow older, however, the number of their lessons increases. Regardless of weekends, the number of holidays is changeable in every country, it is between 10-18 weeks; on average, it is 14 weeks (Chart 6).

If the average European data on youths aged 6-15 are substituted into the Hungarian education system<sup>15</sup>, it appears that each student has on average 2,3 hours of lessons per day based on total days, but 4,6 hours based on school days only (Chart 7).



*Figure 6.* Average number of instruction days per year (Education at a Glance, OECD Indicators, 2021).



*Figure 7.* Number of hours per year of total compulsory instruction time (Education at a Glance, OECD Indicators, 2021).

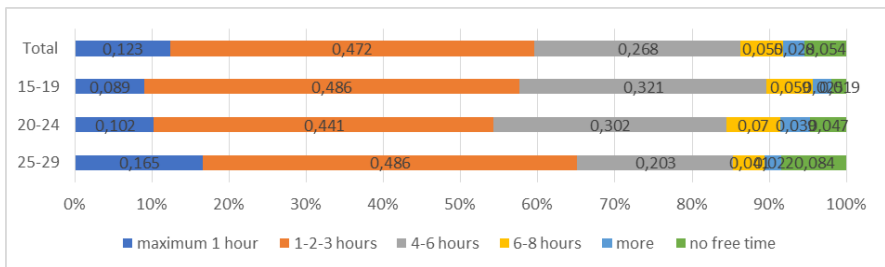
<sup>15</sup> Between 6-9 years: primary education; between 10-13 years: lower secondary education; between 14-18 years: upper secondary education.

**6 The role of the field of free time: scope and time**

It is unrevealed whether relationships outside family and school, friendships, peer relationships, intimate relationships are different from relationships with family or in school. Can we consider a social scene outside family and school as a separate, single tertiary agency of socialisation? To put it differently, can this scene be handled separately? If yes, what peculiar characteristic does it have which makes it different from the other two agencies of socialisation? (See earlier: the three conditions of a separate agency of socialisation are scope, time–intensity and a peculiar set of criteria– separate characteristics). It is also worth discussing whether there is still another agent which can be considered as an agency of socialisation. Let us examine whether the three requirements of an agency of socialisation are fulfilled or not.

Nowadays, free time can hardly be divided from working hours. Not to mention, some free time activities merge with work activities; objective-subjective time perception also causes a problem (Nagy & Trencsényi, 2012). At the same time, based on international research, free time and leisure time can be distinguished. While free time refers to the amount of time spent away from work or chores, leisure time can be defined as beneficial, quality free time.

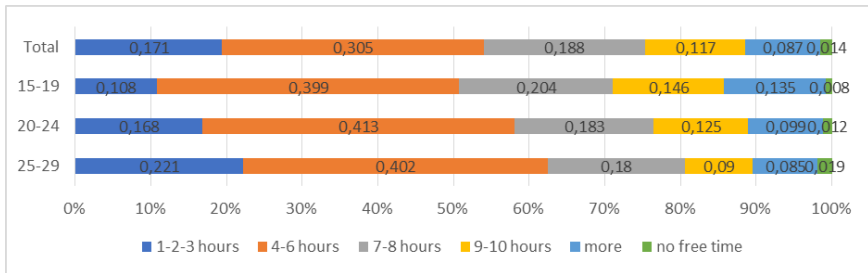
Based on the data of MIK (2020) on the amount of free time<sup>16</sup>, there is a significant difference regarding the amount of free time on weekdays and at weekends in age groups (Chart 8-9).



*Figure 8. Could you tell us how much free time you have after work/learning/household chores on a typical day? (MIK2020 N=8000).*

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<sup>16</sup> Could you tell us how much free time you have after work/learning/household chores on a typical day?



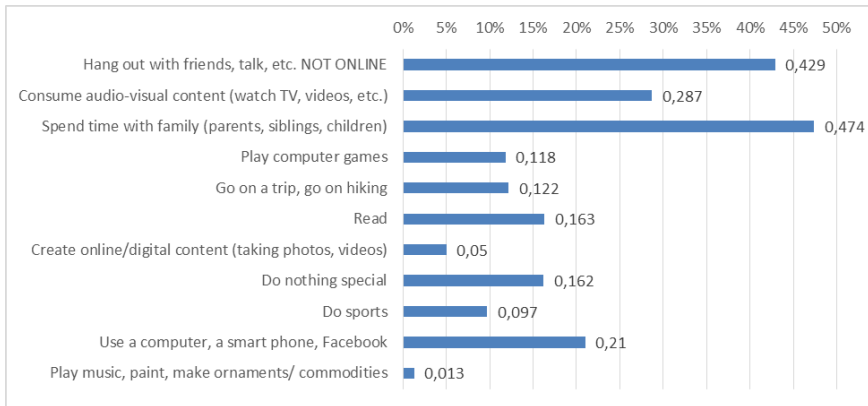
*Figure 9.* Could you tell us how much free time you have after work/learning/household chores on a typical weekend day? (MIK2020 N=8000).

According to the data of MIK (2020), most members of the youngest age group (in our case, youths aged 15-19) have some (some amount of) free time and the number of those youngsters who do not have any free time at all (8%) is in the oldest age group (youths aged 25-29).

Younger people have more free time both on weekdays and at weekends than older age groups, who presumably have a higher labour market participation.

On the whole, 95% of youngsters have some amount of free time on weekdays, 98% of them at weekends. The average amount of their free time is 3.5 hours per weekday, 6.5 hours per day at weekends; hence, the amount of their free time participation can be compared to their time spent with their family and school.

Concerning free time activities, it is noticeable that youngsters spend most of their free time with their family, peers or friends (Chart 10). Regarding concrete activities, besides doing more traditional mental and physical activities (sports, outings, reading), their free time is mostly spent online nowadays. As a consequence, non-participation in information society influences the labour market situation (Fekete, 2018); digital inequalities appear, they can be interpreted in the online space as well.



*Figure 10. 2020: What do you most frequently do in your free time on weekdays? (MIK2020 N=2000).*

## **7 Family, school, the field of free time – specific rules of agencies of socialisation**

We can see that the field of free time influences virtually everybody, almost everyone participates in it; the individual spends a lot of time in this field. Hence, only one condition stands in the way of the requirements of agencies of socialisation: a peculiar set of criteria. Undeniably, this agency of socialisation did not always meet the requirements of sufficient time and intensity in the past (comp.: increase of free time).

Concerning the agency of socialisation outside family and school, its attempts for autonomy and its previous subordinate role are perfectly revealed by utopian or real conquest attempts (e.g. communist views on regulating free time or the world of long-standing English boarding schools). Their common feature is that academic life appears and takes its place outside primary and secondary social scenes.

As far as our society is concerned, in the table below we attempt to show that there are features in this scene which are common for free time activities, and which also make this scene different from the other two ones (Table 1).



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Table 1

*Similarities and differences in social settings*

<i>Features</i>	<i>Family</i>	<i>School</i>	<i>(Free time) activities outside family and school</i>
<i>Main relative feature</i>	Aptitude.	Obligation.	Volunteering (some elements of the field can be used voluntarily).
<i>Organising principle</i>	Unconditionality.	Conditionality.	Free choice (free, independent time management).
<i>Change</i>	Its members cannot be changed, and family as an institution cannot be changed either.	Changes over time.	Relationships can be broken and bonded (Csepeli, 2006).
<i>Correlation</i>	No correlation.	No correlation.	Existing correlation.
<i>Authority</i>	There is pre-determined authority in the agency of socialisation such as natural hierarchy (parents).	There is pre-determined authority in the agency of socialisation such as artificial hierarchy (teachers).	There is no pre-determined authority in the agency of socialisation, there is no pre-defined hierarchy. <sup>17</sup>
<i>Obeying rules</i>	Following disciplinary rules is not voluntary.	Following disciplinary rules is not voluntary.	Following disciplinary rules is voluntary.
<i>Appearance</i>	The agency of socialisation existing from birth.	The agency of socialisation existing from school age (kindergarten).	The need for its elements arises almost at the same time.
<i>Institutionalisation</i>	Rather institutional.	Institutional.	Rather not institutional.

While family is given, its main principle is unconditionality, and the basis of school is compulsoriness, its main principle is conditionality; it is possible to join or to leave the scene outside family and school and its elements. In this agency of socialisation, the individual freely allocates his/her time, he/she starts or breaks relationships voluntarily (Csepeli, 2006). With a few exceptions, family cannot be changed from the viewpoint of its members, its relationships are not reciprocal. School is pre-structured and changes systematically; however, its relationships are also non-reciprocal. Outside family and school, reciprocity can be perceived.

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<sup>17</sup> About family and school authority see more: Vajda-Kósa, 2005 about peer groups see: Csepeli, 2006, Piaget, 1970.

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Family can be considered as a more institutional scene after birth, secondary social scene is an institutional agency of socialisation existing from school (kindergarten) age. However, the scene outside family and school is less institutional; the need for its elements arises when the individual is about 8-12 years old. In family and in school, a given authority as a natural hierarchy exists (parents, teachers), following disciplinary rules is not voluntary. In the agency of socialisation outside family and school, no pre-determined authority can be observed, no pre-defined hierarchy exists, following disciplinary rules is mostly voluntary (Csepeli, 2006).

It is noticeable that the norms and rules of the agency of socialisation outside family and school are fundamentally different from the rules and principles concerning the social scene of family and school. Hence, we seem to manage to meet the 3rd condition of agencies of socialisation. For all these reasons, we can conclude that an agency of socialisation outside family and school definitely exists, which is different from the agency of socialisation of family or school. Furthermore, from a chronological point of view, it appears right after the other two agencies of socialisation; hence, we propose to call it tertiary agency of socialisation (or the field of free time). Tertiary agency of socialisation is an agent which has no pre-defined authority, the need for its elements arises almost simultaneously in case of children. Its relationships can be started and broken voluntarily, its main principle is optionality, its fundamental characteristic is volunteering (and from these aspects, it differs from the agency of socialisation of family and school (primary and secondary agencies of socialisation).

## **8 Results**

Our results show the interpretability of three main - equal importance - socialisation agencies.

They illustrate the importance of the family as the primary socialisation space, as Hungarian data show that 99% of young people are socialised in families. Furthermore, the international surveys show that young people spend a lot of time in this environment, leaving the parental home at the age of 26.5 on average in the European Union. The intensity of the family environment is reflected in our finding that for 80% of young people, the family is a fully or rather important source of information, and we found no significant differences between age groups.

As evidence of the intensity of school as a secondary socialisation agency, we present OECD data showing that the number of days spent in school decreases with age, but the workload increases

We have sought to demonstrate that leisure time can be considered a tertiary socialisation agency by showing that the amount of time young people spend in this field is comparable to the amount of time they spend with their families and

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at school, 3.5 hours per weekday and 6.5 hours per day at weekends. We compared the different age groups according to the amount of leisure time, finding that the youngest age group (15-19 years old) is the one with the highest proportion of leisure time and the oldest (25-29 years old) is the one with the highest proportion of leisure time.

### **Conclusion**

The guardian of the “heritage of pre-modern society” is apparently primary agencies of socialisation such as family or the world of natural communities. Communicative, cultural competencies, the basic value of traditionality have been formed in small natural communities, and a great diversification is typical for this agency of socialisation. It is not able to integrate the functions that are vital for living in a society, but in a pluralistic society only those views are reprehensible which are completely opposed to these traditions. In primary socialisation, the acquisition of elementary, anthropological skills, codes, knowledge, and reference points is predominant. Cultural expectations and thresholds of families are typically different. Secondary agency of socialisation (such as schools, kindergartens, student hostels, other institutions which are the part of the institutional system, e.g. child protection system) is considered to be inherited from “modern industrial society”. In this agency of socialisation, homogenisation of families and small community cultures at national level occurs, which is necessary or sometimes goes beyond what is necessary. “Tertiary agency of socialisation” accompanying postmodern, post-industrial, pluralistic society is the phenomenon of the present; and here freedom “does its job” (Nagy, 2021). Tertiary agency of socialisation is diverse as free time does not only refer to the time when there are no obligations but its main characteristic is freedom. Its elements are not linear, but appear in transitions enriched with life-like shades<sup>18</sup> (Nagy & Trencsényi, 2012; Haglund & Anderson, 2009). Activities in the field of freedom are clearly different from family and school-related activities (Cohen-Gewerc, 2012; Colardyn & Bjornavold, 2004). From the aspect of generations, we can draw the conclusion that time beyond production increases, even if the hunt for time consumes our free time (Tibori, 2003).

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<sup>18</sup> Its characteristic is that the experience of freedom concurs with severe constraints. Even in the case when extraordinarily strong norms appear in a freely joined community (see e.g. the rules of the Putty Club), or when the institutional system actually manipulates with this freedom experience (“He felt that he was living freely”).

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Based on time management examinations and analyses (Tibori, 2003; Demetrovics, Paksi, & Dúll, 2010; Szabó & Bauer, 2009, 2006, 2001), we can draw the conclusion that patterns of the field of free time are opposed to the patterns of obligation-based (secondary) agency of socialisation, and as these patterns appear, they can gain more and more time until adulthood. Those people who are not open to free time either because of their life situation or simply because they have little awareness of the impacts of secondary socialisation are no exception. Moreover, the emergence of the free time paradigm is frequent in their case (singles, unemployed people, workaholics).

In addition to primary and secondary scenes, there is a third type as well, “at first, this new socialisation group agent completes family, later it functions as a counter-sample” (Csepeli, 2006, p. 406). While the impact of traditional social institutions (family, school) decreases, the role of peer groups as a scene of interaction increases. While norms of family require obedience and authoritarian adherence to family, this scene is based on mutual collaboration and agreement (Piaget, 1970). The essence of peer influence is not the often seemingly deviant content, but the process itself, which definitely makes the individual act voluntarily and collectively, which triggers group conformity and transcends individual interests.

The question of whether or not the online space can be considered a quaternary agency of socialisation is not addressed in this study. Since family relationships can be maintained both online and offline, school also has an online and an offline surface (comp.: school attendance during the Pandemic) and in the field of free time, the online world plays an important role besides the offline world, we can draw the conclusion that the online space should not be considered as a single agency of socialisation, but as a surface that intersects all the three agencies of socialisation.

We believe that it is worthwhile to address this topic for both theoretical and practical reasons. At the theoretical level, the distinction between the main socialisation agencies and other socialisation spaces - although it would be worthwhile to see them in a systematic way and treat them according to an objective set of conditions - has so far been made mainly on the basis of expert estimates, and thus appears in textbooks, comprehensive works and research reports. In practice, we need an approach that is capable of seeing socialisation fields in a comprehensive perspective near the large structures of the family and school institutional system.

In the context of further research, it is worth investigating whether there are other macro-agencies (e.g. online spaces) that meet the triple requirements of scope, time-intensity, autonomous rules.

## References

- Bodó, Cs. (2013). *Nyelvi szocializáció és nyelvi tervezés a moldvai magyar–román kétnyelvű beszélő közösségekben*. Retrieved from [https://adatbank.ro/html/cim\\_pdf436.pdf](https://adatbank.ro/html/cim_pdf436.pdf), 2023.05.30
- Bodonyi, E., Busi, E., Hegedűs, J., Magyar E., & Vizely, Á. (2006). *A gyakorlati pedagógia néhány alapkérdése*. Budapest: Család, Gyerek, Társadalom, Bölcsész Konzorcium.
- Cohen-Gewerc, E. (2012). Why leisure education? The Hillel Ruskin Memorial scholar lecture, 2010. *World Leisure Journal*, 54(1), 69-79. <https://doi.org/10.1080/04419057.2012.668046>
- Colardyn, D., & Bjornavold, J. (2004). Validation of formal, non-formal and informal learning: Policy and practices in EU member states. *European Journal of Education*, 39(1), 69-89. <https://doi.org/10.1111/j.0141-8211.2004.00167.x>
- Czeglédi, S. (n.d.). *Az ifjúsági nyelv szóhasználati jellegzetességei egy veszprémi felmérés tükrében* (manuscript). Veszprém: Veszprémi Egyetem Angol Tanszék.
- Czeizel, E. (2004). *Sors és tehetség*. Budapest: Urbis Kiadó.
- Csepeli, G. (2006). *Szociálpszichológia*. Budapest: Osiris Kiadó.
- Demetrovics, Z., Paksi, B. & Düll, A. (2010). *Pláza, ifjúság, életmód*. Budapest: L'Harmattan Kiadó.
- Dupcsik, C. (n.d.). Magyar Virtuális Enciklopédia Szocializáció cikkésző. Retrieved from <https://www.enc.hu/1enciklopedia/fogalmi/szoc/szocializacio.htm>
- Eurostat. (2021). *Database*. Retrieved from <https://ec.europa.eu/eurostat/data/database>
- Fekete, M. (2018). *E-Idő, avagy a szabadidő behálózása*. Szeged: Belvedere Meridionale.
- Ferge, Z., & Gazsó, F. (1986): A közoktatási rendszer társadalmi funkciói és funkciózavarai. In *Szociológiai szöveggyűjtemény* (pp. 156-176). Budapest: Kossuth Kiadó..
- Giddens, A. (2009): *Sociology*. London: Polity Press.
- Gombocz, J., & Trencsényi L. (2007). *Változatok a pedagógiára*. Budapest: Okker Kiadó.
- Haglund, B., & Anderson, S. (2009). Afterschool programs and leisure-time centres: Arenas for learning and leisure. *World Leisure Journal*, 51(2), 116-129. <https://doi.org/10.1080/04419057.2009.9674594>
- Kiss, J. (2002). *Társadalom és nyelvhasználat. Szociolingvisztikai alapfogalmak*. Budapest: Nemzeti Tankönyvkiadó.
- Kozma, T. (1999). *Bevezetés a nevelésszociológiába, A nevelésszociológia alapjai*. Budapest: Tankönyvkiadó.
- Magyar Ifjúság Kutatás 2020 (MIK2020)*. Társadalomkutató Kft.
- Nagy, Á. (2012). Szocializációs közegek a változó társadalomban. Budapest: ISZT Alapítvány.
- Nagy, Á. (2021). The concept of hidden extracurriculum. *Journal of Adventure Education and Outdoor Learning*, 23(1), 14-24. <https://doi.org/10.1080/14729679.2021.1929359>
- Nagy, Á., & Székely, L. (2012). The basis and the structure of the tertiary socialization field and the “youth-affairs” as an autonomous area. *Acta Technologica Dubnicae*, 2(2), 1-18. <https://doi.org/10.1515/atd-2015-0055>

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- Nagy Á., & Trencsényi, L. (2012). *Szocializációs közegek a változó társadalomban*. Budapest: Iszt Alapítvány.
- OECD (2021). *Education at a Glance. OECD Indicators 2021*.  
<https://doi.org/10.1787/b35a14e5-en>
- Parsons, T., & Bales, R. F. (1956). *Family Socialization and Interaction Process*. London: Routledge Publisher.
- Piaget, J. (1970). *Válogatott tanulmányok*. Budapest: Gondolat.
- Szabó, A., & Bauer B. (2001). *Ifjúság 2000 gyorsjelentés*. Budapest: Mobilitás.
- Szabó, A., & Bauer, B. (2006). *Ifjúság 2004 gyorsjelentés*. Budapest: Mobilitás.
- Szabó, A., & Bauer, B. (2009). *Ifjúság 2008 gyorsjelentés*. Budapest: Szociálpolitikai és Munkaügyi Intézet.
- Tibori, T. (2003). *A szabadidő szociológiája*. Budapest: BGF Kereskedelmi, Vendéglátóipari és Idegenforgalmi Kar.
- Trencsényi, L. (2006). Az iskola funkcióiról a nevelési intézmények történeti rendszertanában. In É. Kiss (Ed.), *Pedagógián innen és túl*. Pécs: Veszprém.
- Vajda, Z. (2005). *Neveléslélektan*. Budapest: Osiris Kiadó.
- Zinnecker, J. (1993). A fiatalok a társadalmi osztályok terében (Új gondolatok egy régi témához). In *Civilizációs korszakváltás és ifjúság*. Szeged: Belvedere.

## **Role of Community Resources in Education Planning and Delivery in Ghana**

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### **Abstract:**

**Introduction:** This study explored the involvement of community resources in education planning and delivery in Ghana. It focused on how the involvement of community resources have had an impact on educational planning and development in the Ada East District of the Greater Accra Region of Ghana.

**Methods:** A qualitative method was used, and data collected through structured interview from fifteen participants of parents, teachers, and education officers. The participants were selected by using purposive sampling technique. The data were analysed qualitatively as per the themes that emerged.

**Results:** The findings indicated that communities contribute to the development of effective educational policies by providing insights and perspectives through various channels, such as community forums, advisory committees, and public hearings. Also, communities celebrate and embrace cultural diversity, fostering inclusivity within educational settings.

**Discussion:** To maximize community involvement in education, it is essential to establish collaborative partnerships with community organizations, PTA, SMC, businesses, and institutions. Community organizations, businesses, and institutions can provide a wide range of resources, such as funding, expertise, facilities, and educational materials. These resources can greatly benefit schools and students, improving the quality of education.

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**Limitations:** With just 15 participants, it may be challenging to generalize the findings to the entire population of Ghana, or even a specific region. The small sample size may not adequately represent the diversity of experiences and perspectives within the country.

**Conclusions:** It was recommended that there was a need to establish of strong partnerships between schools, parents, community leaders, and local organizations by the Ghana Education Service is crucial to promote collaboration and shared responsibility in education planning and delivery.

**Key words:** community resources, education planning, education delivery, Ghana.

## **Introduction**

Education planning and delivery in Ghana can be enhanced through a comprehensive approach that extends beyond traditional classroom settings. By engaging community resources, the quality and effectiveness of the education system can be significantly improved. Research conducted by Baku and Puplampu (2021) suggests that integrating indigenous knowledge systems and practices into curriculum development strengthens students' cultural identity and fosters a sense of belonging. Involving community elders, local leaders, and cultural organizations makes education more relevant, meaningful, and inclusive. To support this approach, the concept of education centralization has emerged, wherein the central government covers a portion of the education costs while local communities contribute through the institutionalization of Community-based Organizations (CBOs).

Akyeampong and Käpitän (2019) have highlighted the positive impact of CBOs on education in Ghana. These organizations provide after-school programs, mentorship, and extracurricular activities that complement the formal education system. Through the involvement of CBOs, holistic development is fostered, learning outcomes are improved, and the community takes ownership of education. Notable CBOs in the Ghana Education Service include the District Education Oversight Committee (DEOC), School Management Committee (SMC), and Parent-Teacher Association (PTA). The district education oversight committee (DEOC) has been established by Education Act 2008 (ACT 778) to perform eight strategic functions to holistically improve education in the district localities across the country. Since the enactment of the Act by the Parliament of the Republic of Ghana and the Presidential assent on 6th January 2009, the DEOC has been in force in every district or municipal or metropolitan. The School Management Committee (SMC) was also established purposely to serve as a management unit of the DEOC within the school localities to plan for



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internal improvement plans. To sustain the plans of the SMC, the need to form the Parent Teacher Association (PTA) to become a resource mobilization sourced from parents of school children in supporting improvement plans of the schools.

Communities, families, and parents have many concerns for their children when it comes to education. Amoako-Adjei and Asare (2020) argue that active parental involvement in children's education significantly improves academic outcomes. By participating in school meetings, volunteering as classroom assistants, and providing resources, parents contribute to a nurturing educational environment. This collaboration between schools and parents strengthens the quality of education in Ghana. The yearly government expenditure on education has been increasing just as parents think they have to spend more on their children's education year after year. However, the outcome of education in terms of student performance, teachers and pupils' attendance, infrastructural status and funding is generally said to be below the expectation. It is a general notion that the involvement of SMC, PTA, and DEOC has improved over the years. Basically, the education production function process follows the logical argument of input to outcome ratio thus, the quality and quantity of outcome of education are dependent on the quality and quantity of input made. It is against this background that there is the need to explore the engagement of community resources (PTA, SMC, & DEOC) and its implication for the state of education in the Ada East District. This will help to understand why community involvement is on the increase with concurrent decline school performances and enhance the strategic involvement and utilization of community resources for maximizing educational outcomes in the Ada East District.

*Research questions:*

1. What are the roles of community resources in educational planning for basic schools within the Ada East District?
2. In what ways can community members maximize their involvement in decision-making and planning processes to enhance education in the Ada East District?

### **1 Theoretical framework of the study**

The study was premised on the theory of community participation in educational planning and development. Talbot and Verrinder (2005) have shared the view that a community participating in its educational program brings different stakeholders together to enable improved decision-making and resolve problems confronting the community. They believed that when communities are well involved, resources that would have been otherwise acquired through purchasing

can be obtained without cost. This is especially with land resources, products from the local producers, community people volunteering, readily available teaching and learning materials, among others. Putman (2000) opines that people's engagement in activities within the educational system is essential to promoting quality of life. Similarly, Cole (2007) has argued that participation by a community is necessary to get diverse support systems for educational planning and development. Such support could be those prior to starting a new project, sustaining an existing project, or addressing emerging challenges. The community participation is a developmental process seeking to preserve and assimilate societal dynamism to create a pathway for the community's development. Lacy et al. (2002) posits that community participation in educational development processes can support and uphold local culture, tradition, knowledge, and skill, and create pride in community heritage. Notwithstanding the heavy expenditure borne by the state in educating citizens, the success of education is influenced by internal community factors than the external community factors. Community participation is the hallmark of educational programs that has an affirmation by both local and state bodies.

## **2 Literature review**

Education stands as an essential cornerstone of sustainable development and plays a pivotal role in advancing society. However, in Ghana, as in numerous nations, ensuring access to high-quality education for all remains a critical challenge. One emerging strategy that has gained attention in addressing this issue is harnessing the potential of community resources in education planning and delivery. It focuses on various possibilities and obstacles entailed in adopting this approach, illuminating a path towards overcoming educational challenges in the country.

### *2.1 Community resources for education*

A community resource is anything that has the potential to improve the quality of life in a community. In every community, there are many resources available to enrich classroom-based learning. Community resources that are available to schools are human resources, natural resources, and man-made resources. The use of community resources can take two main forms: community resources into the classroom learning as teaching resource persons, and the class going out into the community on a field trip. Field trip experiences and the use of community resource persons can provide students with a diversity of information, materials, and experiences not available in any textbook (Mpuangan, Amegbanu, & Padhan, 2021). There are several benefits in using community-based resources for teaching and learning. Community-based resource learning provides new information to students and provides students with new experiences. It helps

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students to develop environmental knowledge and problem-solving skills, develops scientific attitude and skills, and provided stimulation and encouragement for individual construction of knowledge.

In Ghana, various languages are spoken in our homes. One observation made by teachers in basic schools is that some children who come from environments where the use of the English language is absent may struggle to learn to speak English. This may not necessarily have a negative impact on their future education but parents speaking the English Language to children at home have a great influence on the early acquisition of English vocabulary in early grade children. The involvement of parents in education has great benefits to school and learning processes. Collaboration between parents and teachers as team workers is the new way of promoting the acquisition of knowledge and attitude in children. Educational accountability is no longer the sole responsibility of the school because once parents are involved, they are equally held accountable as well (Mpuangnan, Amegbanu, & Padhan, 2021). According to National Education Association (2015) website report, parent involvement has the following positive effects on students' performance: earning a higher grade of a test score, enrol in higher-level programs, regular school attendance, acquisition of better social skills, showing improve behaviours, etc. The most common resources committed to education at district and community levels are the parents, families, and communities. Parents form an integral part of education in Ghana through the establishment of PTA besides their natural interest and commitment to their children's education. The families and communities also play vital roles through the SMC and groups or individuals participating in matters of education.

*2.2 Maximizing community resources involvement in educational planning decision making and implementation*

Levels and ways of community participation in educational planning and development certainly will vary from one country to another; however, the essential commonality rests on partnership and informing. Partnership and informing refer to power-controlled body allowing for local people collaboration in implementing formulated policies and giving information on already prepared policies binding on a community without their prior engagement respectively. This is often the line governments have tolled in Ghana despite various state attempts to make local participation broader and effective. According to Leksakundilok (2006), there are six types of community participation (money, materials, and human) in the educational planning process and development. The six ways of committing community resources to educational planning and development in Leksakundilok typology are:

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- i. Empowerment where the community has full control over the development agenda and becomes the lead planner of programs, projects, and policies.
- ii. Partnership in which there is some degree of local influence in development.
- iii. An interaction which gives the local people greater involvement and the recognized right to practice at the local level.
- iv. Consultation of the local community through meetings and engagements to identify valuable information from them and selectively utilize those that benefit the external body at the expense of the locality.
- v. Informing whereby already decided plans about the community are told in which case the local community has no contribution nor say rather than to accept what has been told.
- vi. Manipulation whereby powerful individuals or government takes up development without any discussion with the local people.

Generically, local education authority and local people participation in educational planning processes have not been given much attention since among the six types of involvement postulated by Leksakundilok (2006), the most practiced participation is the consultation, informing and manipulation which gives woefully less prominence and recognizance to local people. For instance, our education act gives the minister the power to decide for the entire nation in matters of education and without his approval, no other powers can operate on any different local developmental process that best suits the locality. The school curriculum, duration of schooling, expenditures, and recruitment of staff is centrally controlled by the power invest in the minister of education. Parents and families sometimes cannot just support because of the bureaucratic educational system in the country.

The adage 'it takes a village to raise a child' is popular African thought that means the development of a child is not the sole responsibility of the father and mother but the community in which the child finds his/herself as well. Younger generation's socialization is communal hence in addition to the role of parents and families; the broader community's contribution to education has long-lasting benefits to the community. Lots of studies have shown that in the past, parent involvement was characterized by assisting in the classroom, fundraising and mothers' volunteers unlike today with a much more inclusive approach. The recent trend is towards bringing the school-family-community partnership to widen the involvement in school goal-oriented activities through the inclusion of business leaders, community groups, and other relatives (NEA, 2008). With the recent increasing demands of students, outcome flows to meet the fast-growing and evolving ecosystem, the input base especially money and human factor supports, has captured the attention of many to meet the demand of the natural system. The ideas and supports of pressure groups, interest groups, and other social intervention groups are necessities for stakeholders' consortiums on

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educational planning, policy roll-out and implementation roadmap for the holistic and robust education system. Studies have also connoted that parent, family, and community involvement in education correlates with higher academic performance and school improvement. Supporting teaching and learning requires addressing students' social service needs, as well as their academic ones, and this broad-based support is essential to closing achievement gaps. The positive impact of connecting community resources with student needs is well documented ("Community in Schools" 2007). In the same vein, Henderson and Mapp (2002) cited that, community support of the educational process is considered one of the characteristics common to high-performing schools.

The Glossary of Education has shared the view that community-based education is one way of maximizing community contribution to local education development. Community-based education has been defined as a wide variety of instructional methods and programs that educators use to connect classroom learning with their surrounding communities, values, cultures, literature and natural environment. The motivation behind the community-based education concept is the belief that communities have intrinsic educational assets and resources that educators can rely on to enhance the learning experiences of learners (The Glossary of Education, 2019). Proponents and advocates of community-based education or community-based learning contend that integrating the community into the classroom also implies extending the classroom into the community. This approach is believed to enable learners to acquire practical skills and knowledge that are more directly applicable to real-life situations. The advantages of adopting community-based learning in education include, but are not limited to, instructional integration and increased community participation.

Miranda (1983) noted that community resources in the classroom are as good as children continue to reside in their local communities and those communities will continue to depend on the school districts to maintain sustainable development. Creating community resource programs to solve a variety of new pressure on children, parents, and teachers are considered a potential teaching tool which also aims at creating a pool of resources for improved community activities. Through the SMC, PTA, and DEOC, new programs that bring the community resources into the classroom can be easily achieved to enhance the connection of the community with what is learned in the school.

### **3 Methodology**

Qualitative research approach was used for this study. Qualitative research presents a subjective and detail collection of data in which the researcher directly interacts with participants in an interview (Cohen, Manion, & Morrison, 2011). To Ugwu and Eze Val (2023), qualitative research is concerned with feelings, ideas, or experiences.

The study encompassed all parents, teachers from 50 basic schools, 550 School Management Committee (SMC) members in the Ada East District, and the entire 13-member District Education Oversight Committee (DEOC). To form the study sample, the target population was divided into six zones. One representative each from Parent-Teacher Association (PTA) chairpersons and School Management Committee chairpersons was purposively selected from each zone. For the District Education Oversight Committee, three members with expertise in their roles were purposively chosen.

As a result, the sample size for the study comprised fifteen individuals, including six selected chairpersons from various PTAs in the Ada East District, six selected chairpersons of SMCs, and three members selected from the District Education Oversight Committee. The specifics of the sample size are detailed in Table 1.

Table 1

#### *Sample size selection for the study*

<i>Population</i>	<i>Number of people selected</i>
PTA chairpersons	6
SMC members	6
DEOC member	3
<i>Total</i>	<i>15</i>

To collect the needed data, a one-on-one interview was used. According to Sidhu (2011), one-on-one interview session allows the interviewee to feel free to express himself fully and truthfully. In preparing the interview guide, the research questions that drive the study were central to the choice of questions. Several questions were framed from each research question. The researchers sought the consents of the participants and used an audio recorder to record the verbal interactions between interviewees and the interviewer and later transcribed into text. As a complement to the audio records is short notes made by the interviewer during the interactions. Thematic data analysis of data was used to analyse the data. The researcher examines the data to identify common themes and patterns of meaning that come up repeatedly in the organized data.

## **4 Findings**

### *4.1 Major roles the communities play towards educational planning and delivery*

The data were collected from all the fifteen (15) participants on major roles their communities have played in supporting educational delivery.

P 1: *“The security of the school compound during and after school sessions is one major role the community play in support of the school. There are several roles community people play at times unconsciously. For instance, a passerby may deter someone who might have come around the school compound to engage in certain harmful. Parents and community members have contributed money in many ways to support the school.”*

All the other fourteen (14) participants shared in the view of Participant 1 that parents and community members contribute to education delivery at the school level by paying levies, donation and offering communal labour.

P 9: *“I remember when the school started under sheds, and we had to gather eroded sand and mould block ourselves to start permanent classrooms project. Town folks were happy by then, unlike today, to do communal labour. Some individuals also gave out some amount of money to buy bags of cement.”*

P 8: *“Whether the teachers are hardworking, punctual, or good role model depends on how the community folks show interest in monitoring attitudes and conduct of teachers.”*

The role of the SMC has an aspect of monitoring the headteacher and staff which Participant 8 has reiterated. The fifteen (15) participants indicated that the school community has lots of roles to play in assisting the school to attain its expected goals. The responses from the interviewees revealed that the community contributes to the development of the school through supporting the headteacher in the administration of the school, gathering resources, ensuring regular maintenance culture, encourage and support students learning both at home and in the school, promote discipline among teachers and schoolchildren.

### *4.2 Administrative roles communities play in supporting schools*

The administrative responsibilities of the School Management Committee and Parent-Teacher Association were a concept that the participant unanimously believed is keen on educational development and improvement. Three main themes emerged as the administrative role communities can play in education delivery. Eight (8) of the participants said planning school activities is the administrative role the community play through the SMC and PTA executive committee meetings with the headteacher.

P 1: *“The SMC and PTA support the administration and management of schools by organizing executive committee meetings to plan for needs, projects and disciplinary matters for pupils and teachers.”*

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P 2: *“Headteachers who know their duties call for meetings with the SMC to plan for the school and find ways of implementing government policies in the school. Parents also help the headteachers in supporting maintenance culture since the chunk of the repair works are borne by PTA funds.”*

P 4: *“Some decision-making in the school cannot be possible without the participation of the SMC, PTA or opinion leaders in the school community. So we are talking decision-making role the community members play in ensuring the progress of managing the school.”*

Five other participants, Participant 5, Participant 8, Participant 9, Participant 12, and Participant 14 gave similar responses to the question about the administrative roles of community resources in education. Indeed, the community plays a vital role in the efficient and effective administration of basic schools in the district. However, less attention has been given to improving teaching and learning since most respondents did not mention budgeting towards the supply of teaching and learning materials as they did for maintenance and discipline.

Four (4) participants also believed that the community plays an additional vital role in monitoring and supervising school capitation grants aside the earlier eight.

P 5: *“We also make sure that SPIP is prepared and the grant that comes is properly used and accounted for by the school. We do budget for the school even though not always due to the difficulty of raising funds.”*

P 6: *“It is the responsibility of the SMC to ensure that monies allocated for activities are used for such activities and that due processes are followed in the disbursement of funds.”*

P 11: *“The SMC comes in anytime the headteacher faces peculiar challenges with the administration. Emergency decisions that are beyond one-man are jointly taken by the headteacher, SMC or and PTA leadership. For instance, siting of new projects on a school compound is collaboratively agreed on by SMC, PTA and the school.”*

P 15: *“We are supposed to assist the school set a target and draw budget yearly for the school. Although we do not set targets to be achieved, we do have checks and balances of daily, termly, and yearly activities in the school.”*

P 7: *“Some unacceptable behaviour among some teachers who live in the community is checked through the community responses and reactions that bring them to the notice of the headteachers.”*

P 10: *“The community has its own way of assessing the school. When we are truthful to report misbehaviour of teachers to the headteacher, it will help him manage the school.”*

P 13: *“I once walked to the headteacher and told him about some two things going on in the school concerning canning and punishing pupils for lateness*



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*during instructional hours which could distract lessons". "These implications extend to the integrity and dignity of teachers within the community, as they are regarded as the expected role models for others to look up to."*

The involvement of the community resources in the administration of the basic schools was ongoing and stronger towards planning. There was one element in the specific functions of the SMC which was absent in the data collected. 'A day with the school' was supposed to be organized by the SMC to give the entire community the opportunity to interact with staff and pupils to enhance good governance. Unfortunately, this was not a common practice among the SMCs in the district probably owing to the infrequent planning and reporting of the state of the school among the school and community.

*4.3 Ways to maximize involvement of community members in decision making and planning of education*

Under this theme, participants 4, 5, 11 and 13 had common sentiment and proposals.

P 4 was convinced that School communities should be given the autonomy to make decisions related to SMC and PTA activities following a democratic process without having to deny any child the right to education. One emotional revelation from P 11 was *"We should be given the chance to suggest what parents and communities expect from our education system that seeks to solicit support from parents and communities to strengthen the progress of education."*

P 13: *"Educationists must try to reduce the seeming too much control of education by politicians so that concerned parents and families can give better support."*

P 11: *"The contribution of communities to the administration and management of basic schools is enormous. The communities have for years planned and assisted headteachers and staff to resolve many challenges as well as development initiatives. But government appointees have disregarded the rich value of local participation by pronouncing ban on SMC and PTA decisions inconsiderately."*

To motivate communities' participation in education, some participants think the central government can introduce national scholarship schemes. The beneficiaries of the schemes will be those community people who have shown the most dedicated commitments to supporting the school activities. P 14 said, every community can plan for awards to motivate parents who have exhibited a dedicated commitment to responding to the school's activities. P 15 also suggested that Children whose parents have been found to be most involved in community education development activities can be given a special scholarship by either the community or the district assembly to encourage community participation. Also, there must be policy decisions for purposeful avenues for

elicit community participation and roadmap for engaging and assessing parental and community participation in education. The implication can be drawn from these data that an educational system totally devoid of political partisanship and allowing the technocrats in the sector to play politically neutral roles for educational leadership is critical for effective educational delivery. Therefore, The Ministry of Education and the Ghana Education Service have the mandate to take collaborative advocacy in bridging the gaps in delivery education in the country.

## **5 Discussion**

The findings highlight the crucial role that communities play in educational planning and delivery. They actively contribute to the development of effective educational policies by providing insights and perspectives through various channels such as community forums, advisory committees, and public hearings. Involving diverse community stakeholders leads to more equitable and sustainable policies, as supported by Rose and Gallup (2019). Communities also contribute valuable resources and support to enhance educational opportunities. Local businesses, organizations, and individuals often donate supplies, equipment, and funds to schools, thereby enabling the provision of quality education. Epstein (2018) emphasizes the significance of community support in improving educational outcomes, and strong community-school partnerships positively impact student achievement. Furthermore, communities foster collaboration between schools and families, which promotes student success. Through initiatives, such as parent-teacher associations, family engagement events, and volunteer programs, communities establish a strong bond between educators and families. The National Education Association (NEA) recognizes the critical role of community collaboration in improving educational outcomes for students. In addition, communities celebrate and embrace cultural diversity, fostering inclusivity within educational settings. They organize multicultural events, advocate for the inclusion of diverse perspectives in curricula, and support initiatives that promote respect for different cultures. Banks (2014) highlights the role of communities in promoting multicultural education and preparing students for living in a diverse society.

The importance of community involvement in decision-making and planning within education is consistently highlighted by research. By engaging community members, educational programs can become more relevant and effective. This involvement fosters a sense of ownership, increases transparency, and allows for the consideration of diverse perspectives. Fernandez (2007) emphasizes the necessity of collaborative decision-making and planning that incorporates the voices of community members, leading to a holistic and inclusive educational environment. Creating partnerships between schools and

parents is crucial for supporting student success. To maximize community involvement in education, it is essential to establish collaborative partnerships with community organizations, PTA, SMC, businesses, and institutions. These partnerships offer valuable resources, expertise, and support, fostering a sense of shared responsibility in decision-making and planning. Working closely with PTAs can serve as a conduit between schools and parents, ensuring that their input is respected and considered during educational decision-making processes (Bosworth, 2018). Additionally, according to Zhang (2019), establishing advisory boards consisting of community members, parents, educators, and stakeholders can provide a platform for collaboration and decision-making. These boards enable the inclusion of diverse perspectives in educational planning processes. By implementing these strategies, educational institutions can foster meaningful community engagement, ensuring that decision-making and planning processes embrace a wide range of perspectives and meet the needs of the community.

## **6 Recommendations**

- i. There is a need to establish of strong partnerships between schools, parents, community leaders, and local organizations by the Ghana Education Service is crucial to promote collaboration and shared responsibility in education planning and delivery.
- ii. Collaborative efforts between schools, local businesses, NGOs, and governmental organizations are essential to enhance school infrastructure, including the provision of safe drinking water, sanitation facilities, and electricity.
- iii. Encouraging community members with specialized skills, such as craftsmen, artists, and entrepreneurs, to actively engage with students through workshops, guest lectures, and hands-on learning opportunities is an effective way to share their expertise and experiences.
- iv. Schools should prioritize the formation of parent-teacher associations and conduct workshops to educate parents about the significance of their involvement in their children's education. Empowering parents to actively participate in decision-making processes, monitor their children's progress, and support learning activities at home is crucial.

## **Conclusions**

Community resources play a crucial role in education planning and delivery in Ghana. By tapping into the strengths and assets of local communities, Ghana can revolutionize its education system, making it more inclusive, effective, and sustainable. A key driving force behind this transformation is the utilization of

community resources. These resources, which encompass infrastructure, funding, volunteerism, and knowledge sharing, provide vital support to education planning and delivery. Through active engagement with community members and organizations, tailored solutions can be developed to address the unique needs and challenges faced by students and schools in different areas. This collaborative approach fosters a sense of ownership and responsibility among community members, leading to increased participation and a stronger commitment to improving education outcomes.

To maximize the impact of community resources, it is crucial for the government, educational institutions, and community stakeholders to forge partnerships and work together. By leveraging these partnerships and ensuring an equitable distribution of resources across all regions, Ghana can amplify the positive influence of community resources on its education system. Through harnessing the power of community resources, Ghana has the opportunity to enhance its education system and create a brighter future for its youth. The collective efforts of all stakeholders involved will pave the way for sustainable progress and inclusive education, driving the nation towards greater prosperity.

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#### **References**

- Akyeampong, K., & Käpitän, M. A. (2019). Community-based organizations and the transformation of education in Ghana: Perspectives from providers. Compare: A. *Journal of Comparative and International Education*, 49(1), 64-83.
- Amoako-Adjei, Y., & Asare, F. (2020). Parental involvement and students' academic achievement in Ghana. *International Journal of Educational Research*, 99, 101508.
- Baku, E. K., & Puplampu, K. P. (2021). Ghanaian indigenous knowledge systems in curriculum development: Perspectives of key stakeholders. *Journal of Education and Practice*, 12(8), 107-116.
- Banks, J. A. (2014). *Cultural diversity and education: Foundations, curriculum, and teaching* (6th ed.). Routledge.
- Bosworth, K. (2018). Building bridges: Collaborative partnerships between parent-teacher associations and school districts. *International Journal of Educational Leadership Preparation*, 13(1), 103-123.
- Cohen, L., Manion, L., & Morrison, K. (2011). *Research Methods in Education*. (7th ed.). London: Routledge.
- Cole, S. (2007). *Tourism, Culture and Development: Hopes, Dreams and Realities in East Indonesia*. Clevedon, UK: Channel View Publications.

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- Epstein, J. L. (2018). *School, Family, and Community Partnerships: Preparing Educators and Improving Schools* (3rd ed.). Routledge.
- Henderson, A. T., & Mapp, K. L. (2002). *A New Wave of Evidence: The Impact of School, Family, and Community Connections on Students' Achievement*. Austin, TX: National Center for Family Community Connections with School, Southwest Educational Development Laboratory.
- Fernandez, M. L. (2007). Creating successful partnerships with parents: An ecological approach to intervention. *Remedial and Special Education*, 28(2), 117-124.
- Kankam, G., & Weiler, J. (2010). *A Guide to Action Research for Colleges of Education and Universities*. Accra, Ghana: Readwide Publishers.
- Lacy, T. D., Marion, B., Stewart, M., & Steve, N. (2002). Public/Private partnerships for sustainable tourism. In *Delivering a Sustainability Strategy for Tourism Destinations*. Asia Pacific Economic Cooperation Apec Tourism Working Group.
- Leksakundilok, A. (2006). *Community Participation in Ecotourism Development in Thailand*. Sydney: The University of Sydney. Geosciences.
- NEA (2008). *Education Policy and Practice*. NW, Washington, D.C.: Department of center for great public schools.
- National Education Association. (n.d.). *Family and Community Engagement*. Retrieved from <https://www.nea.org/advocating-for-change/new-from-nea/family-and-community-engagement>
- Miranda, W. (1983). Using community resources in the classroom. *Educational Horizon*, 61(3), 137-140.
- Mpuangnan, N. K., Amegbanu, V. A., & Padhan, S. (2021). Analysing the methods and approaches for transacting diploma in basic education curriculum in Ghana. *International Journal of Curriculum and Instruction*, 13(2), 1006-1023.
- Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. New York.
- Rose, D., & Gallup, A. (2019). *Community Engagement in Education Policymaking*. Education Policy Center at American Institutes for Research.
- Ugwu, C. N., & Eze Val, H. U. (2023). Qualitative research. *International Digital Organization for Scientific Research IDOSR Journal of Computer and Applied sciences*, 8(1), 20-35.
- Talbot, L., & Glenda, V. (2005). *Promoting Health: The Primary Health Care Approach* (3 ed.). Churchill Livingstone, Australia: Elsevier.
- Zhang, Y. (2019). The importance of community engagement in education: Lessons from Chinese-American experiences. *Journal of School Choice*, 13(3), 347-365.

## **The Mediating Role of Mindfulness in the Relationship between Psychological Resilience and Test Anxiety in Adolescents**

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### **Abstract:**

**Introduction:** The examination of variables such as resilience and mindfulness, which may help adolescents who are enrolled in distance education cope with test anxiety, is important in terms of reducing test anxiety and increasing the efficiency of distance education. For this reason, it was aimed to examine the mediating role of mindfulness in the relationship between students' psychological resilience and test anxiety.

**Methods:** The study group included 840 high school students. Baron and Kenny's causal steps approach was applied to investigate the mediating effect of conscious awareness on the relationship between psychological resilience and test anxiety. In addition, the bootstrapping method proposed by Hayes was used to determine the significance of the mediating effect of conscious awareness.

**Results:** It was observed that there was a negative relationship between psychological resilience scores and test anxiety scores, a positive relationship between resilience and mindfulness scores, and a negative relationship between test anxiety scores and mindfulness scores. While psychological resilience had a negative effect on test anxiety, the indirect effect of psychological resilience on test anxiety was also found to be significant. Mindfulness provided partial mediation of the effect of resilience on test anxiety.

**Discussion:** High levels of awareness and psychological resilience enable students to experience less stress. Conscious awareness, like psychological resilience, is therefore viewed as an important resource that enables a person to manage stressful situations, and it is believed to be effective in reducing one's anxiety.

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**Limitations:** This study was limited to students enrolled in Anatolian high schools in Turkey who could be reached via convenience sampling, whose parents consented to their participation, and who were enrolled in distance education in 2021 due to the COVID-19 pandemic. Thus, a major limitation of the study is that data were only collected from students of Anatolian high schools, and the majority of the participating students were in their first or second years of high school.

**Conclusions:** There is no prior direct research examining the mediating role of conscious awareness in the relationship between psychological resilience and test anxiety among high school students in the literature. In this regard, it is anticipated that this study will contribute to the literature. Within the scope of preventive guidance, educational guidance, and psychological counseling services, face-to-face and online psychoeducation programs based on conscious awareness can be designed by school psychological counselors to enhance psychological resilience, reduce students' test anxiety, and support adolescents in coping with intensely stressful situations such as pandemics.

**Key words:** test anxiety, psychological resilience, mindfulness, distance education, COVID-19.

## **Introduction**

The COVID-19 pandemic is a global public health problem that has deeply affected the physical and mental health of the entire world (Duan & Zhu, 2020). While the pandemic has caused people to experience intense anxiety as a result of the uncertainty brought about by the disease, it has also prevented the continuation of the ordinary flow of life in many areas, especially education. With quarantine measures, schools were closed and distance education was introduced in many countries (Liu et al., 2020). The effects of the pandemic, quarantine measures, and the transition to distance learning led to an increase in student depression, anxiety, and mental illness (Xiang et al., 2020). Adolescence is a transition period that includes, under normal conditions, experiences of hormonal and developmental changes and processes of establishing one's identity (Crone & Dahl, 2012). Adolescents face emotional difficulties while undergoing developmental changes during this growth period. Therefore, it may be more challenging for adolescents to cope with pandemic quarantine measures and complications compared to their adult counterparts. While maintenance of routines is vital to adolescent mental health, the transition to distance learning has required new processes of adaptation. This has affected adolescent psychological health in many ways. Adolescents continuing their education online as a result of COVID-19 quarantine regulations experienced an increase in both test anxiety and general anxiety (Sakka et al., 2020). The literature confirms that psychologically resilient individuals are more successful in coping with challenging life events and have a better ability to protect themselves, both psychologically and physiologically, against stressful events (Bradshaw et al.,

2007). Therefore, psychological resilience is an important variable in reducing test anxiety among adolescents.

Psychological resilience is a dynamic process that can be defined as the ability to successfully adapt to traumas and difficulties (Norris et al., 2009). Psychological resilience makes it easier for a person to cope with difficult situations and adapt to the changes they experience. It also enables one to cope more easily with existing stress and to maintain performance via the development of a positive perspective; moreover, psychological resilience has a negative relationship with test anxiety (Totan et al., 2019). Studies have shown that as students' psychological resilience increases, their test anxiety decreases (Çakıroğlu et al., 2023). High academic performance protects an adolescent's psychological resilience; however, in turn, psychological resilience also allows for greater academic success (Gizir, 2007). During the COVID-19 pandemic, researchers found an increase in depressive symptoms and anxiety in the general population (Taylor et al., 2020). However, not everyone experiences fear and anxiety-inducing processes to the same extent, and a considerable proportion of people may show more psychological resilience in the face of adversity. While studying remotely, students' pandemic anxiety and psychological resilience are both reflected in their anxiety responses to online tests (Selçuk et al., 2021; Sheerin et al., 2018). Considering that students' psychological resilience levels affect their anxiety management processes (Bahmani et al., 2016; Çakıroğlu et al., 2023), psychological resilience may be a protective resource in coping with test anxiety; furthermore, examinations of this relationship may lead to new approaches to preventive and educational guidance (Alfoukha et al., 2019; Çakıroğlu et al., 2023).

Test anxiety entails the cognitive, affective, and behavioral reactions that arise as a result of one's fear of failure upon evaluation. It manifests itself by negatively affecting the student's learning processes before tests and performance during tests. Furthermore, test anxiety prevents students from making use of their full capacity (Gibson, 2014). Students often experience test anxiety as a result of a negative testing history, high environmental and familial expectations, the student's lack of adequate preparation for the test, insufficient self-confidence, or negative thoughts (Onyeizugbo, 2010). Since this anxiety may affect the current performance of the person even more negatively, it is important to examine the causes and solutions of test anxiety. Test anxiety negatively affects the academic, social, and emotional life of the student, and examining the variables that are effective in the relationship between test anxiety and psychological resilience is vital for effective preventive guidance services (Çakıroğlu et al., 2023; Totan et al., 2019).

To cope with anxiety, people can reassess their situations with mindfulness, realize their irrational beliefs and negative inner speeches, and objectively



reassess their situations. Mindfulness is the acceptance of negative life experiences and the awareness of those experiences without judgment. Mindfulness is a valuable resource in coping with stressful life events and strengthening one's psychological resilience (Lindsay & Creswell, 2017). Mindfulness, which includes non-judgmental acceptance of the present moment, allows people to focus their attention on the present moment, increases psychological resilience, and offers a source of distraction in anxiety-provoking situations (Verplanken & Fisher, 2014). With mindfulness, people become more conscious of their feelings, thoughts, and bodily sensations and can develop new perspectives towards them (Önder & Utkan, 2018). Mindfulness also enables people to focus their attention on specific situations and to realize the positive aspects of situations. Studies have shown that mindfulness is an important intervention tool for developing psychological resilience and reducing stress (Matiz et al., 2020). Mindfulness enables individuals to cope with stressful situations more easily; it also facilitates learning by increasing students' well-being, attention, and academic success. Therefore, mindfulness-based practices can be used to reduce test anxiety. Increased mindfulness can aid students in coping with the transition to remote learning, reduce test anxiety, and improve psychological health (Amundsen et al., 2020; Martarelli & Wolff, 2020). In the literature, studies show a positive relationship between well-being and mindfulness (Cash & Whittingham, 2010; Howell et al., 2010). Therefore, as a starting point of the present study, it was assumed that mindfulness and resilience together can reduce adolescents' test anxiety.

The main purpose of this study is to examine the mediating role of mindfulness in the relationship between psychological resilience and test anxiety among adolescents enrolled in high school and pursuing distance education during the COVID-19 pandemic. A previous study conducted with a group of undergraduate and graduate students found that mindfulness played a mediating role in the relationship between students' psychological resilience and test anxiety (Çakıroğlu et al., 2023). However, there have been no similar studies conducted with high school students. It is important to better understand students' physiological and emotional reactions to test anxiety in order to produce permanent solutions to those negative emotions. Therefore, to provide support for preventive and educational guidance activities, this study examines the psychological resilience, test anxiety, and mindfulness of adolescents participating in distance education. The aim of the study is to clarify the mediating role of mindfulness in the relationship between psychological resilience and test anxiety among adolescents pursuing distance education. The sub-objectives were as follows:

- Is there a relationship among adolescents' psychological resilience, test anxiety, and mindfulness?

- Does mindfulness have a mediating role in the relationship between adolescents' psychological resilience and test anxiety?

## **1 Method**

### *1.1 Research model*

The study was designed according to the structural equation model to examine the mediating effect of mindfulness in the relationship between psychological resilience and test anxiety of distance learners. Structural equation modeling is a multivariate statistical technique developed to evaluate the fit of a model to the data, allowing causal effects between latent variables and observed variables to be examined (Stevens, 2009).

### *1.2 Study group*

The study group consisted of high school students from various provinces of Turkey who were enrolled in distance education in Anatolian high schools due to COVID-19 in 2021. Anatolian high schools are public schools that generally admit students on the basis of high scores from the national high school entrance exam. The data collection tools described below were administered to 840 students who could be reached by the convenience sampling method, including 488 (58.1%) female students and 352 (41.9%) male students. While 446 (53.1%) of the students were in the first year of high school, 297 (35.4%) were in the second year of high school, 47 (5.6%) were in the third year, and 50 (6%) were in the fourth year.

### *1.3 Data collection tools*

The Westside Test Anxiety Scale, which Totan and Yavuz (2009) adapted to Turkish, consists of a single dimension and eleven items. Confirmatory factor analysis (CFA) conducted to establish the construct validity confirmed the structure of the scale and the factor loadings ranged between .32 and .78. The reliability and validity study of the scale was conducted for high school students, and it was found to be valid and reliable. CFA was also applied to examine the construct validity of the Westside Test Anxiety Scale. When the fit values and modification indices were examined, the single-factor structure of the scale was confirmed and the model was significant [ $\chi^2(39) = 84.000$ ;  $p < .001$ ;  $\chi^2 / df = 2.15$ ; RMSEA = .04, IFI = .98; CFI = .97; GFI = .98; AGFI = .97; SRMR = .03]. CFA also showed that the factor loadings of the scale's items ranged between .38 and .64, and the path coefficients were significant ( $p < .001$ ). The Cronbach alpha coefficient of the scale for the present study was .80.

The Brief Psychological Resilience Scale for Children and Adolescents was developed by Liebenberg et al. (2013) and adapted to Turkish by Arslan (2015) with a sample of high school students. The analysis confirmed the one-factor

structure of the scale and the Cronbach alpha value was .91. The modification indices were examined to improve the fit values obtained according to CFA and further confirm the construct validity of the scale. It was concluded that the single-factor structure of the scale was valid and the model was significant [ $\chi^2(48) = 103.488$ ;  $p < .001$ ;  $\chi^2 / df = 2.16$ ; RMSEA= .04; IFI= .96; CFI= .96; GFI= .98; AGFI= .97; SRMR= .03]. It was also concluded that the factor loadings of the scale's items ranged between .32 and .64, and the path coefficients were significant ( $p < .001$ ). The Cronbach alpha coefficient of the Brief Psychological Resilience Scale for Children and Adolescents for the present study was .76.

The Child and Adolescent Mindfulness Measure developed by Greco et al. (2011) was adapted to Turkish for adolescents by Çikrikçi (2016) and the one-factor structure of the scale was confirmed. However, following exploratory factor analysis, two items were removed from the scale. The Cronbach alpha coefficient for the final version of the scale, containing eight items, was found to be .73. It was concluded that the scale was valid and reliable for adolescents in the Turkish context. All of the items of this scale are reverse-coded. CFA was applied to confirm the construct validity of the Child and Adolescent Mindfulness Measure; the factor loading cut-off point of the scale's items was found to be .32, and items with factor loadings of .32 and above were accepted as contributing more to the variance. The second item of the scale had a factor loading of .21; because that value was lower than .32, this item was excluded from the analysis. When the modification indices were examined to improve the fit values, it was clear that the single-factor structure of the scale was confirmed based on the correlation of the error values. The model was found to be significant, and according to the fit values, the single-factor structure of the Child and Adolescent Mindfulness Measure is generally highly compatible with the collected data [ $\chi^2(10) = 24.953$ ,  $p < .01$ ;  $\chi^2 / df = 2.50$ ; RMSEA= .04; IFI= .98; CFI= .98; GFI= .99; AGFI= .98; SRMR= .02]. The factor loadings of the scale's items were between .37 and .73 after the exclusion of the second item, and the path coefficients were significant ( $p < .001$ ). The Cronbach alpha coefficient of the scale for the present study was .70.

#### *1.4 Data analysis*

Before the data were further analyzed, the kurtosis, skewness, Z-scores, and Mahalanobis distance were evaluated to confirm the suitability of the data for parametric tests. Twenty-five data points were excluded. Skewness values ranged from -.33 to .03 and kurtosis values ranged from -.48 to -.31. Since these values were between -2 and +2, it was concluded that the distribution was normal (George & Mallery, 2010). To apply the structural equation model, the normality condition must be satisfied, there must be no multicollinearity between variables, and the normality assumption for multiple regression must be met

(Kline, 2011). The variance inflation factors (VIFs) and tolerance values (TVs) of the variables in the model were analyzed to determine whether or not multicollinearity problems were present based on thresholds of  $VIF \geq 10$  and  $TV \leq .10$ . The VIFs of the variables in this model were found to range from 1.04 to 1.16 while the TVs were between .86 and .97, indicating that there were no multicollinearity problems. To confirm the presence of multivariate normal distribution, the Mardia multivariate standardized kurtosis coefficient was calculated and the obtained value was lower than 8. This indicated that the data had a multivariate normal distribution (Kline, 2011). The standardized kurtosis value was -.19 and the assumption of normality for multiple regression was met. Based on the theoretical background, the model was tested, the cause-and-effect relationships between variables were revealed through the paths created, and the significance of those paths was examined based on fit values (Kline, 2011). Specifically, in this study, chi-square ( $\chi^2$ ),  $\chi^2/\text{degrees of freedom (df)}$ , GFI, CFI, AGFI, IFI, SRMR, and RMSEA values were used as goodness-of-fit indices. The causal steps approach of Baron and Kenny (1986) was used to examine the mediating effect of mindfulness in the relationship between psychological resilience and test anxiety. According to this approach, to confirm the existence of a mediating effect, the independent variable should influence both the mediating variable and the dependent variable. When the mediating variable is added to the analysis in the second step, full mediation can be assumed if there is a non-significant relationship between the independent variable and the dependent variable. If there is a decrease in the significance of the relationship between the independent variable and the dependent variable in this step, partial mediation can be assumed. In addition, the bootstrapping method proposed by Hayes was used to determine whether the mediating effect of mindfulness was significant as this method tests the significance of both direct and indirect effects (Preacher & Hayes, 2008). In this context, a new dataset is created by randomly selecting the “n” number of data obtained with the bootstrapping method, and new analyses are performed for the new dataset. In the present study, “n” was taken as 1000. The lower and upper limits of the confidence intervals of the bootstrap coefficient, calculated to determine the significance of the direct and indirect effects established in the model, should not include zero (Hayes, 2013). The AMOS 24.0 program was used for these analyses.

## **2 Findings**

The results of the correlation analysis conducted to examine the relationships among psychological resilience, test anxiety, and mindfulness, constituting one of the sub-objectives of this study, are shown in Table 1 together with the descriptive statistics of the scale scores.

Table 1

*Descriptive values of scale scores and Pearson correlation analysis results*

<u>Variables</u>	<u>n</u>	<u>Min.</u>	<u>Max.</u>	<u><math>\bar{X}</math></u>	<u>SD</u>	<u>1.</u>	<u>2.</u>	<u>3.</u>
1. Psychological Resilience	840	14	55	31.9	.27	1.00		
2. Test Anxiety	840	21	60	43.3	.27	-.17**	1.00	
3. Mindfulness	840	2	32	16.9	.20	.13**	-.35**	1.00

\*\*p< .01; n= 840

As can be seen in Table 1, the relationship between psychological resilience scores and test anxiety scores ( $r = -.17$ ;  $p < .01$ ) was weak and negative, the relationship between psychological resilience and mindfulness scores ( $r = .13$ ;  $p < .01$ ) was weak and positive, and the relationship between test anxiety scores and mindfulness scores ( $r = -.35$ ;  $p < .01$ ) was moderate and negative. Mediation analysis was then conducted in line with the second sub-objective of the study, and the structural equation model developed to determine the direct effect of psychological resilience on test anxiety was tested. The goodness-of-fit values of the model shown in Figure 1 are presented in Table 2.

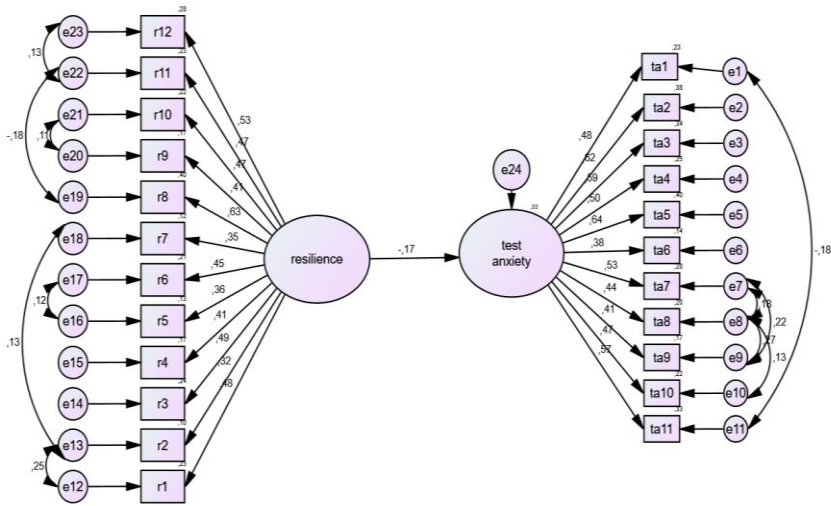


Figure 1. A structural equation model was developed to test the direct effect of psychological resilience on test anxiety.

Table 2

*Fit values of the model developed to test the direct effect of psychological resilience on test anxiety*

<u>Criterion</u>	<u>Good Fit</u>	<u>Acceptable Compliance</u>	<u>Calculated Values</u>	<u>References</u>
$\chi^2 / SD$	$\leq 3$	$\leq 4-5$	1.92	Byrne, 1989
RMSEA	$\leq .05$	.06-.08	.03	Hu & Bentler, 1998
SRMR	$\leq .05$	.06-.08	.04	
CFI	$\geq .95$	.90-.94	.94	McDonald & Marsh, 1990
IFI	$\geq .95$	.90-.94	.94	Bollen, 1989
GFI	$\geq .90$	.89-.85	.96	Jöreskog & Sörbom, 1993
AGFI	$\geq .90$	.89-.80	.95	

When Table 2 is examined, it is seen that the model in Figure 1, developed to examine the direct effect of psychological resilience on test anxiety, fits the obtained data at an acceptable level. Psychological resilience had a negative effect on test anxiety ( $\beta = -.17$ ;  $p < .001$ ) and explained 3% of the variance in test anxiety. The results indicated that the first condition for confirming a mediating effect was satisfied. The goodness-of-fit values of the model in Figure 2, developed to examine the mediating effect of mindfulness in the relationship between psychological resilience and test anxiety, are presented in Table 3.

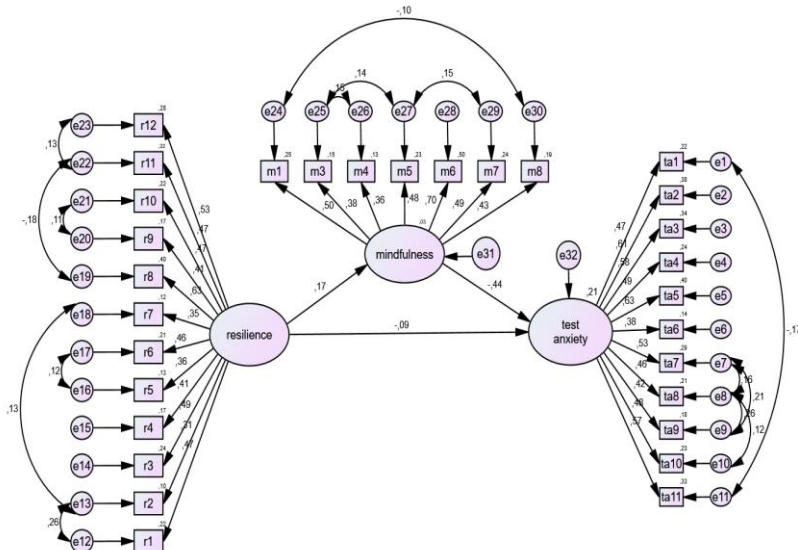


Figure 2. The structural equation model was developed to test the mediating effect of mindfulness in the relationship between psychological resilience and test anxiety.

Table 3

*Fit values of the model developed to test the mediating effect of mindfulness in the relationship between psychological resilience and test anxiety*

<u>Criterion</u>	<u>Good Fit</u>	<u>Acceptable Compliance</u>	<u>Calculated Values</u>
$(\chi^2 / SD)$	$\leq 3$	$\leq 4-5$	2.02
RMSEA	$\leq .05$	.06-.08	.04
SRMR	$\leq .05$	.06-.08	.05
CFI	$\geq .95$	.90-.94	.91
IFI	$\geq .95$	.90-.94	.91
GFI	$\geq .90$	.89-.85	.94
AGFI	$\geq .90$	.89-.80	.93

When Table 3 is examined, it is seen that the model in Figure 2, developed to examine the mediating effect of mindfulness in the relationship between psychological resilience and test anxiety, fits the obtained data at an acceptable level. The indirect effect of psychological resilience on test anxiety was statistically significant ( $\beta = -.10$ ;  $p < .05$ ). This finding indicates that the second condition for confirming a mediating effect was satisfied. Mindfulness provided partial mediation in the effect of psychological resilience on test anxiety ( $\beta = -.07$ ;  $p < .05$ ), and psychological resilience and mindfulness explained 21% of the variance in test anxiety.

In order to provide additional evidence for the direct or indirect significance of the partial mediation model, the bootstrapping coefficient and the lower and upper limits of the 95% confidence intervals (CIs) were calculated according to the results of the bootstrapping process performed with 1000 samples. The results are shown in Table 4.

Table 4

*Bootstrapping results for partial mediation model*

<u>Model Pathways</u>	<u><math>\beta</math></u>	<u>95% CI</u>		<u>p</u>
		<u>Lower Limit</u>	<u>Upper Limit</u>	
Direct impact				
Psychological resilience-mindfulness	.17	.06	.28	***
Psychological resilience-test anxiety	-.09	-.19	-.02	**
Mindfulness-test anxiety	-.44	-.54	-.34	***
Indirect impact				
Psychological resilience-mindfulness-test anxiety	-.07	-.13	-.03	**

\*\*\*  $p < .001$  \*\*  $p < .05$

When the lower and upper limits of a CI do not contain zero, the examined effect is significant (Preacher & Hayes, 2008). Looking at Table 4, it can be concluded

that all of the effects in the model are significant. The bootstrapping confidence intervals of both the direct and the indirect effects do not include zero at the lower or upper limits ( $\beta = -.07$ ; 95% CI:  $-.13$  to  $-.03$ ;  $p < .001$ ). Therefore, based on bootstrapping analysis, it can be said that mindfulness has a partial mediating role in the relationship between students' psychological resilience and test anxiety.

### **3 Discussion**

The main purpose of this study was to examine whether mindfulness had a mediating role in the relationship between the psychological resilience and test anxiety of adolescents enrolled in distance education during the COVID-19 pandemic. Researchers have found that, in stressful times, attending lessons and taking tests remotely constitutes a different experience for both students and teachers. According to several studies, some students who participated in distance education during the pandemic stated that they did not trust remote tests and they experienced various anxieties (Kürtüncü & Kurt, 2020; Sakka et al., 2020). A previous study examining the psychological impact of the pandemic on students found that stress negatively affected their well-being, but psychological resilience was a protective factor in overcoming learning difficulties (Quintiliani et al., 2021). Psychological resilience, which enables people to continue their work and overcome difficult life events, has a negative relationship with test anxiety (Totan et al., 2019). In the present study, psychological resilience was examined as one of the variables that aids in coping with test anxiety.

Psychological resilience helps people experience less anxiety and cope with the difficulties they face more easily. This study found a negative relationship between psychological resilience scores and test anxiety scores. Several previous studies support the results presented here, demonstrating that as students' psychological resilience increased, their test anxiety decreased (Çakıroğlu et al., 2023; Totan et al., 2019). One study found that test anxiety was significantly related to psychological resilience, and the authors recommended the development of resilience training programs to support students suffering from test anxiety (Liu et al., 2021). Another study, which found that students' positive psychological strength was an effective tool against test anxiety, emphasized that supporting psychological strength can be important in reducing anxiety (Khan et al., 2020).

Mindfulness and psychological resilience enable students to experience less stress. Therefore, mindfulness, like psychological resilience, is an important resource in stress management and is effective in reducing anxiety (Matiz et al., 2020). Studies have shown that individuals who develop mindfulness can control their emotions and thoughts more easily, react to stressful situations with more self-control, and improve their coping skills (Coholic, 2011; Palmer & Rodger,



2009). The results of the present study have confirmed the positive relationship between psychological resilience and mindfulness scores and the negative relationship between test anxiety scores and mindfulness scores. In addition, mindfulness provides partial mediation of the effect of psychological resilience on test anxiety. These results support the findings of other studies in the literature regarding the positive relationship between psychological resilience and mindfulness (Yavuz & Dilmaç, 2020). This study also confirms previous research demonstrating that as mindfulness increases, test anxiety decreases (Kielty et al., 2017).

According to the mediation analysis results of this study, psychological resilience and mindfulness explained 21% of the variance in test anxiety. Therefore, psychological resilience is effective in reducing students' test anxiety, and mindfulness is a mediator in this. The results obtained in a previous study conducted with undergraduate and graduate students support the present work, affirming that mindfulness had a mediating role in the relationship between students' psychological resilience and test anxiety (Çakiroğlu, 2023). Multiple studies have shown that increasing one's awareness of stressful situations aids in stress management (Falon et al., 2021). Similar to the results of the present study, research conducted by Reyes et al. (2015) revealed that psychological resilience acted as a protective factor in stressful situations, helping students achieve better academic results. Another study found that mindfulness contributed significantly to reducing students' test anxiety (Ross et al., 2020), while a study that applied various mindfulness interventions to reduce students' test anxiety found that students who used those techniques before a test were more successful. Group therapy for mindfulness-based stress reduction also reduced students' test anxiety (Mohammadi, 2018). In another study examining students' psychological resilience, mindfulness was found to be an important mediator in the relationship between cognitive appraisal and psychological resilience (Zarotti et al., 2020). Considering that tests are a constant reality of students' lives, appropriate interventions should be designed for students with test anxiety to support their academic and emotional development (Çakiroğlu et al., 2023; Mayer, 2008). Other than the present study, no research to date has directly examined the mediating role of mindfulness in the relationship between high school students' psychological resilience and test anxiety. In this respect, this study makes an important contribution to the literature and to the planning of preventive guidance activities.

However, this study has some limitations. The research was limited to students in Anatolian high schools who could be reached via convenience sampling during the COVID-19 pandemic in 2021. Furthermore, only students enrolled in distance education whose parents consented to their participation in the study were included, and a majority of the participants were students in the first or

second year of high school. The study is limited to the answers given by these specific students to the questions of the selected scales.

### **Conclusions and recommendations**

Considering the benefits that distance education can provide in various areas, it is evident that it will continue becoming more and more common in modern life. Therefore, examining the effects of distance education on students from various perspectives is important both for preventive measures and for increasing efficiency in educational practices. Based on the results obtained in the present study, several recommendations can be made.

First of all, in the sphere of preventive guidance, educational guidance, and psychological counseling services, school counselors can prepare mindfulness-based face-to-face and online psychoeducation programs. Such programs would serve to increase psychological resilience, reduce students' test anxiety, and foster the ability of adolescents to cope with stressors such as the pandemic.

Preventive guidance activities can also be carried out for families by school counselors. These activities could focus on the importance of increasing psychological resilience and mindfulness to reduce adolescents' test anxiety.

School counselors can organize seminars for teachers on the importance of psychological resilience and mindfulness in reducing adolescents' test anxiety. Counselors can also guide teachers in arranging their lesson plans on the basis of mindfulness.

Improving the psychological resilience and mindfulness of high school students can play an effective role in reducing test anxiety. Directing students towards athletic or artistic activities that increase their psychological resilience may be beneficial in reducing test anxiety.

School counselors can identify students with test anxiety and provide mindfulness-based individual counseling services to improve their psychological resilience.

The relationships among psychological resilience, test anxiety, and mindfulness can be examined according to the variables of students at different education levels and in different educational environments.

Finally, the relationships among psychological resilience, test anxiety, and mindfulness in adolescents can be analyzed with qualitative methods based on the responses of students, teachers, and families, and different solution methods for reducing test anxiety can be discovered.

## References

- Alfoukha, M. M., Hamdan-Mansour, A. M., & Banihani, M. A. (2019). Social and psychological factors related to risk of eating disorders among high school girls. *The Journal of School Nursing*, 35(3), 169-177. <https://doi.org/10.1177/1059840517737140>
- Amundsen, R., Riby, L. M., Hamilton, C., Hope, M., & McGann, D. (2020). Mindfulness in primary school children as a route to enhanced life satisfaction, positive outlook, and effective emotion regulation. *BMC Psychology*, 8, 71. <https://doi.org/10.1186/s40359-020-00428-y>
- Arslan, G. (2015). Çocuk ve Genç Psikolojik Sağlık Ölçeği'nin (ÇGPSÖ-12) psikometrik özellikleri: Geçerlilik ve güvenilirlik çalışması. *Ege Eğitim Dergisi*, 16(1), 1-12.
- Bahmani, D. S., Hatzinger, M., Gerber, M., Lemola, S., Clough, P. J., Perren, S., von Klitzing, K., von Wyl, A., Holsboer-Trachsler, E., & Brand, S. (2016). The origins of mental toughness-Prosocial behavior and low internalizing and externalizing problems at age 5 predict higher mental toughness scores at age 14. *Frontiers in Psychology*, 7, 1221. <https://doi.org/10.3389/fpsyg.2016.01221>
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Bollen, K. A. (1989). A new incremental fit index for general structural equation models. *Sociological Methods & Research*, 17(3), 303-316.
- Bradshaw, J., Hoelscher, P., & Richardson, D. (2007). An index of child well-being in the European Union. *Social Indicators Research*, 80,133-177. <https://10.1007/s11205-006-9024-z>
- Byrne, B. (1989). *A Primer of LISREL, Basic Assumptions and Programming for Confirmatory Factor Analysis Models*. Springer.
- Cash, M., & Whittingham, K. (2010). What facets of mindfulness contribute to psychological well-being and depressive, anxious, and stress-related symptomatology? *Mindfulness*, 1(3), 177-182.
- Coholic, D. A. (2011). Exploring the feasibility and benefits of arts-based mindfulness-based practices with young people in need: Aiming to improve aspects of self-awareness and resilience. *Child & Youth Care Forum*, 40(4), 303-317. <https://doi.org/10.1007/s10566-010-9139-x>
- Crone, E. A., & Dahl, R. E. (2012). Understanding adolescence as a period of social-affective engagement and goal flexibility. *Nature Reviews Neuroscience*, 13(9), 350-366. <https://doi.org/10.1038/nrn3313>
- Çakıroğlu, S., Yavuz, E., & Arpacıoğlu, S. (2023). Sınav kaygısı ile psikolojik sağlık arasındaki ilişkide bilinçli farkındalığın aracı rolü. *Journal of Cognitive Behavioral Psychotherapy and Research*, 12(1), 10-18. <https://doi.org/10.5455/JCBPR.114077>
- Çıkrıkçı, Ö. (2016). Çocuk ve ergenler için bilinçlilik ölçeği Türkçe formunun geçerlik ve güvenilirlik çalışması. *Kastamonu Eğitim Dergisi*, 24(2), 905-916.

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- Duan, L., & Zhu, G. (2020). Psychological interventions for people affected by the Covid-19 epidemic. *Lancet Psychiatry*, 7(4), 300-302. [https://10.1016/S2215-0366\(20\)30073-0](https://10.1016/S2215-0366(20)30073-0)
- Falon, S. L., Kangas, M., & Crane, M. F. (2021). The coping insights involved in strengthening resilience: The Self-Reflection and Coping Insight Framework. *Anxiety, Stress & Coping*, 1-17. <https://doi.org/10.1080/10615806.2021.1910676>
- George, D., & Mallery, P. (2010). *SPSS for Windows Step by Step: A Simple Guide and Reference*. Pearson Education.
- Gibson, H. (2014). A conceptual view of test anxiety. *Nursing Forum*, 49(4), 267-277.
- Gizir, C. A. (2007). Psikolojik sağlamlık, risk faktörleri ve koruyucu faktörler üzerine bir derleme çalışması. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 28, 113-128.
- Greco, L. A., Baer, R. A., & Smith, G. T. (2011). Assessing mindfulness in children and adolescents: Development and validation of the Child and Adolescent Mindfulness Measure (CAMM). *Psychological Assessment*, 23(3), 606-614. <https://doi.org/10.1037/a0022819>
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.
- Howell, A. J., Digidon, N. L., & Buro, K. (2010). Mindfulness predicts sleep-related self-regulation and well-being. *Personality and Individual Differences*, 48(4), 419-424. <https://doi.org/10.1016/j.paid.2009.11.009>
- Hu, L. T., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3(4), 424-453. <https://doi.org/10.1037/1082-989X.3.4.424>
- Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: Structural Equation Modeling with the Simplis Command Language*. Scientific Software International, Inc.
- Khan, A., Grema, M. A., Latif, A. B. A., Bahar, H., Iswan, I., S, Sriyanto, S., Baranovich, D. L., Kosnin, A. B. M., Rosman, A. S., Mokhtar, M., Hassan, Z., Ismail, S., & Panatik, S. A. (2020). Mediating effect of positive psychological strength and study skills on examination anxiety among Nigerian college students. *Sustainability*, 12(4), 1479. <https://10.3390/su12041479>
- Kielty, M., Gilligan, T., Staton, R., & Curtis, N. (2017). Cultivating mindfulness with third grade students via classroom-based interventions. *Contemporary School Psychology*, 21(4), 317-322.
- Kline, R. B. (2011). *Principles and Practice of Structural Equation Modeling*. The Guildford Press.
- Kürtüncü, M., & Kurt, A. (2020). Covid-19 pandemisi döneminde hemşirelik öğrencilerinin uzaktan eğitim konusunda yaşadıkları sorunlar. *Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi*, 7(5), 66-77.
- Liebenberg, L., Ungar, M., & LeBlanc, J. C. (2013). The CYRM-12: A brief measure of resilience. *Canadian Journal of Public Health*, 104(2), 131-135. <https://doi.org/10.1007/BF03405676>
- Lindsay, E. K., & Creswell, J. D. (2017). Mechanisms of mindfulness training: monitor and acceptance theory (MAT). *Clinical Psychology Review*, 51, 48-59. <https://doi.org/10.1016/j.cpr.2016.10.011>

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- Liu, S., Yang, L., Zhang, C., Xiang, Y.T., Liu, Z., Hu, S., & Zhang, B. (2020). Online mental health services in China during the COVID-19 outbreak. *Lancet Psychiatry*, 7, e17-e18. [https://doi.org/10.1016/s2215-0366\(20\)30077-8](https://doi.org/10.1016/s2215-0366(20)30077-8)
- Liu, Y., Pan, H., Yang, R., Wang, X., Rao, J., Zhang, X., & Pan, C. (2021). The relationship between test anxiety and emotion regulation: the mediating effect of psychological resilience. *Annals of General Psychiatry*, 20, 40. <https://doi.org/10.1186/s12991-021-00360-4>
- Martarelli, C. S., & Wolff, W. (2020). Too bored to bother? Boredom as a potential threat to the efficacy of pandemic containment measures. *Humanities and Social Sciences Communications*, 7(1), 1-5.
- Matiz, A., Fabbro, F., Paschetto, A., Cantone, D., Paolone, A. R., & Crescentini, C. (2020). Positive impact of mindfulness meditation on mental health of female teachers during the COVID-19 outbreak in Italy. *International Journal of Environmental Research and Public Health*, 17(18), 6450. <https://doi.org/10.3390/ijerph17186450>
- Mayer, D. P. (2008). *Overcoming School Anxiety: How to Help Your Child Deal with Separation, Tests, Homework, Bullies, Math Phobia, and Other Worries*, Amacom.
- McDonald, R. P., & Marsh, H. W. (1990). Choosing a multivariate model: Noncentrality and goodness of fit. *Psychological Bulletin*, 107(2), 247.
- Mohammadi, P. K., Zargar, N. A., & Shahidi, M. A. (2018). The efficacy of mindfulness therapy on mindfulness attention awareness and perception of disease in women with breast cancer. *Indian Journal of Public Health Research & Development*, 9(3), 157-161.
- Norris, F., Tracy, M., & Galea, S. (2009). Looking for resilience: Understanding the longitudinal trajectories of responses to stress. *Social Science & Medicine*, 68, 2190-2198. <https://doi.org/10.1016/j.socscimed.2009.03.043>
- Onyeizugbo, E. U. (2010). Self-efficacy, gender and trait anxiety as moderators of test anxiety. *Electronic Journal of Research in Educational Psychology*, 8(1), 299-312.
- Önder, F. C., & Utkan, Ç. (2018). Bilinçli farkındalık ve algılanan stres ilişkisinde ruminasyon ve olumsuz duygu düzenlemenin aracı rolü. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, 14(3), 1004-1019.
- Palmer, A., & Rodger, S. (2009). Mindfulness, stress, and coping among university students. *Canadian Journal of Counselling*, 43(3), 198.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879-891. <https://doi.org/10.3758/BRM.40.3.879>
- Reyes, A. T., Andrusyszyn, M.-A., Iwasiw, C., Forchuk, C., & Babenko-Mould, Y. (2015). Resilience in nursing education: An Integrative review. *Journal of Nursing Education*, 54(8), 438-444. <https://doi.org/10.3928/01484834-20150717-03>
- Ross, S. J., Owens, K., Roberts, A., Jennings, E., & Mylrea, M. (2020). Mindfulness training: Success in reducing first year health professional students' study and exam related stress. *Health Professions Education*, 6, 162-169. <https://doi.org/10.1016/j.hpe.2020.04.001>
- Sakka, S., Nikopoulou, V. A., Bonti, E., Tatsiopoulou, P., Karamouzi, P., Giazkoulidou, A., & Diakogiannis, I. (2020). Assessing test anxiety and resilience among Greek

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*Volume 14, 2024, Issue 1*

- adolescents during Covid-19 pandemic. *Journal of Mind and Medical Sciences*, 7(2), 173-178.
- Selçuk, O., Gencer, T. E., & Karataş, Z. (2021). Sosyal hizmet öğrencilerinin COVID-19 salgını ve uzaktan eğitim sürecine ilişkin tutumları ile psikolojik sağlamlıklarının incelenmesi. *Toplum ve Sosyal Hizmet*, 32(3), 967-994. <https://doi.org/10.33417/tsh.931255>
- Sheerin, C. M., Lind, M. J., Brown, E. A., Gardner, C. O., Kendler, K. S., & Amstadter, A. B. (2018). The impact of resilience and subsequent stressful life events on MDD and GAD. *Depression and Anxiety*, 35(2), 140-147. <https://doi.org/10.1002/da.22700>
- Stevens, J. P. (2009). *Applied Multivariate Statistics for The Social Sciences*. Routledge.
- Taylor, S., Landry, C. A., Paluszek, M. M., Fergus, T. A., McKay, D., & Asmundson, G. J. G. (2020). Development and initial validation of the COVID Stress Scales. *Journal of Anxiety Disorders*, 72, 102232. <https://doi.org/10.1016/j.janxdis.2020.102232>
- Totan, T., Özgül, Ö., & Tosun, E. (2019). Bilişsel ve duygusal düzenlemenin sınav kaygısına olan etkisinde psikolojik dayanıklılığın aracılık rolü. *Muğla Sıtkı Koçman Üniversitesi Eğitim Fakültesi Dergisi*, 6(2), 98-108. <https://doi.org/10.21666/muefd.605853>
- Totan, T., & Yavuz, Y. (2009). Westside Sınav Kaygısı Ölçeğinin Türkçe formunun geçerlik ve güvenilirlik çalışması. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, 9(17), 95-109.
- Verplanken, B., & Fisher, N. (2014). Habitual worrying and benefits of mindfulness. *Mindfulness*, 5(5), 566-573.
- Yavuz, B., & Dilmaç, B. (2020). The relationship between psychological hardiness and mindfulness in university students: The role of spiritual well-being. *Spiritual Psychology and Counseling*, 5(3), 257-271. <https://doi.org/10.37898/spc.2020.5.3.090>
- Zarotti, N., Povah, C., & Simpson, J. (2020). Mindfulness mediates the relationship between cognitive reappraisal and resilience in higher education students. *Personality and Individual Differences*, 156, 109795. <https://doi.org/10.1016/j.paid.2019.109795>
- Quintiliani, L., Sisto, A., Vicinanza, F., Curcio, G., & Tambone, V. (2021). Resilience and psychological impact on Italian university students during COVID-19 pandemic. Distance learning and health. *Psychology, Health & Medicine*, 18, 1-12. <https://doi.org/10.1080/13548506.2021.1891266>
- Xiang, Y. T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., & Ng, C. H. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *Lancet Psychiatry*, 7, 228-229. [https://doi.org/10.1016/S2215-0366\(20\)30046-8](https://doi.org/10.1016/S2215-0366(20)30046-8)

## **The Subjectivity of the Grading Evaluation System in the Religious Class in Greece - A New Approach**

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### **Abstract:**

**Introduction:** The grading process in secondary education is always challenging to navigate since the subjective dimension of the human parameter always seems to interfere dynamically in combination with the variety of the submitted assessment questions grounded on the grading teacher's style. The central questions asked are: a) what are the applied assessment styles among Greek Religious Education (RE) teachers? b) What are their main assessment criteria? Moreover, c) What kind of evaluation plans are used to benefit the students? The above assessment issue is affected by the culture and mentality of each teacher.

**Methods:** The method uses a quantitative survey designed by Google Forms to research the grading and topic patterns used by RE teachers and colleagues of humanities during their class assessments, both oral and written.

**Results:** RE teachers have particular inclinations concerning the students' assessment issues. They consider their discipline demanding and often prefer to apply written form assessments in class. Moreover, more methods emerged, which belong to the new school perception but are still placed statistically as auxiliary assessment weaponry. Microsoft Excel was also used for data visualization and quantitative analysis.

**Discussion:** The assessment point of view might differ in each subject's nature and, indeed, be planned by the objectives of each teacher. However, RE teachers and affiliated colleagues (literature teachers – affiliated colleagues should prioritise adjusting knowledge to the social realm.

**Limitations:** The present research paper aims to stimulate educational interest regarding RE evaluation subjectivity by converting some subjective elements into precise statistical questions. Therefore, the questions used were a few but

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accurate, while the magnitude of the participants needed to be bigger, hindering the accumulation of more statistical information.

**Conclusions:** Written-test assessments are prioritized, though oral inquiries are vital to the RE teachers' methodology because of time scheduling issues explained throughout the text. The whole assessment scenery is grounded on the fact that RE discipline is considered demanding and essential. Some statistical inconsistencies undergird the necessity of applying knowledge in the social praxis to benefit Greek society. The latter lack is a drawback.

**Key words:** subjectivity, evaluation, quantitative method, communication.

## **Introduction**

When the semester is about to end, and grades need to be submitted, students of (upper) secondary education experience a stressful occurrence during the schooling assessment (Trueba et al., 2013, p. 206). However, the assessment process emerges as necessary to improve cognitive and teaching functions and keeps vital data measurements archived for future comparisons (Scheerens, 2000, p. 5). In Greece, the evaluation culture and processes were subdued for numerous decades. There has been no teaching evaluation process or educational statistical measurement archives in Greek Middle Education on a systematic basis since 1980. Only via the New Democracy party on power (2019-2020) did the vertical and horizontal assessment process in the education field revive from the political agenda and be implemented despite the peculiar political and union opposition or other application defects that emerged. The assessment process, though in the present context, adheres to the specific logic by which Religion Education teachers and affiliated disciplines (RE&aff) assess their (upper)secondary students orally or in written form, determining their studentship performance (Scheerens, 2000) without disregarding the importance of the assessment of the teaching processes (Tucker & Stronge, 2005, p.1). On the other hand, RE discipline is not examined at the end of the semester<sup>1</sup> as it used to; thus, RE teachers have all the necessary time to plan their curriculum didactics creatively and sufficiently instead.

In the present context, the student's performance evaluation approach was considered critical in upgrading the RE didactics and advancing the RE teacher's role and effectiveness during class (Hord, 1997, p. 2). Their cumulative assessment was divided into two essential categories: a) oral performance examination and b) written performance evaluation. The former assessment is

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<sup>1</sup> Presidential Decree 126/2016



considered a simple tool for checking the students' studying readiness and critical capacity (Burris, 2011, p. 215)<sup>2</sup>. RE teachers usually draw on their student's oral permanence to formulate their grading portrait. However, there might still be other additional criteria to be considered. The grading portrait is also assessed by their written performance (Sattler, 2008), which might be diverted into two branches: a) fifteen minutes written tests (forty-five minutes is the complete class duration in each discipline in Greek public schools) and b) forty-five minutes written tests, which cover a group of teaching material assessment.

Of course, developing pedagogical teamwork tasks, one-to-one assignments groups of two or more projects, interactive work groups, theatrical or role-play performances, or even producing table games concerning the central teaching plan style is more than welcome to enhance the studying vibration of the class and facilitate in great respect the learning effect (Larson & Keiper, 2013, pp. 8-9). The means mentioned above are more than sufficient to evaluate the students' participation and stance on learning and self-development. Therefore, the assessment process of students becomes more complicated and should be focused on when the criteria seem to be increased; on the other hand, while the learning requirements appear to be decreased, the assessment process is proposed to be simplified on a grand scale accordingly.

## **1 Purpose**

The purpose of the present research is: a) to emerge the necessity of the quantitative or even qualitative evaluation during religion classes as well as the subjective criteria of the teachers used each time (Zaviš & Procházka, 2020, p. 32), b) The evaluation process regarding subjectivity is complex and involves considering various pieces of information about the students. This information plays a significant role in forming a dynamic school strategy, which the religious teacher should keep in mind and adjust accordingly in each student case. c) to illustrate the geographical grading culture diversion of the secondary school units involved in the research and d) to frame a necessary context of a broader evaluation mentality giving students a chance to learn and make progress. (Dojčár, Zaviš, & Pinčková, 2022, p. 216).

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<sup>2</sup> An exciting form of critical capacity implementation is PBL (Problem-Based Learning) in Burris (2017).

## **2 Methodology**

Since RE teachers dispose of a vast teaching creativity freedom during their class (Elton-Chalcraft, 2014, p. 6), the assessment subjectivity issue is gradually increased, making the assessment process feel more relative. The latter holds a lot more during the oral assessment than written because the evaluator-teachers can assess further fundamental cognitive and psychological facts of their students, e.g., judgmental and synthesis capacities, memorising and understanding skills, problem-solving capacities, communication effectiveness, and social stances and character sensitivities. Nevertheless, from a methodological aspect, the examination test inquiries, their combination utility for students' evaluation, and their enhancement by supplementary cognitive questions consist of several objective areas, which have been critically considered for shaping a research survey via Google Forms. The latter was initiated from 11-5-2023 until 30-5-2023 and included nine (9) questions based on multiple choice and Likert scale methodology. The research survey is quantitative (Sukamolson, 2007, pp. 1-20). It accumulates statistical data from (upper) secondary school RE Teachers from South and North Greece, searching for the assessment style adopted in the RE students' evaluation process. Several (upper)secondary schools of Greek islands also participated in the survey. The schools were randomly selected, and the researcher sent the survey link via e-mail to the principal offices accordingly, assuring the recipients of its academic research character and anonymity. The participation of the teacher colleagues was voluntary. The school units that participated are listed below:

Table 1

### Survey schools

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*SURVEY SCHOOLS*

- 1 KASTELLI SECONDARY SCHOOL (C.R.E.T.E.)
  - 2 ARKALOCHORI HIGH SCHOOL (CRETE)
  - 3 ANTIKYRA VIOTIA HIGH SCHOOL
  - 4 28th SECONDARY SCHOOL OF THESSALONIKI
  - 5 5th SECONDARY SCHOOL OF RODOS
  - 6 1st HIGH SCHOOL OF IOANNINA
  - 7 5th HIGH SCHOOL OF IOANNINA
  - 8 36th SECONDARY SCHOOL OF ATHENS
  - 9 9th SECONDARY SCHOOL PIRAEUS
  - 10 2ND SECONDARY SCHOOL OF FARSALA
  - 11 LEPTOKARYA HIGH SCHOOL
  - 12 1st PYRGOS HIGH SCHOOL
  - 13 PYLIS SECONDARY SCHOOL (DERVENOHORIA)
  - 14 1st SECONDARY SCHOOL OF VOLOU
  - 15 TINOS SECONDARY SCHOOL
  - 16 SECONDARY SCHOOL OF MILEON (P.E.L.I.O.N.)
-

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- 17 1st HIGH SCHOOL OF CORFU  
18 ITHAKA SECONDARY SCHOOL  
19 RIZION EVRO'S SECONDARY SCHOOL  
20 2ND SECONDARY SCHOOL OF ATHENS
- 



*Figure 1. Geographical illustration of schools' location.*

RE teachers and RE&aff<sup>3</sup> were encouraged to participate in the survey from the above school units. Thirteen (13) RE&aff finally filled out the questionnaire form, providing a statistical glance at the qualitative (upper) secondary school assessment issues. The above reply pool could not be representative because of its small magnitude. Still, it focuses on the school and academic interest in the study evaluation matter and, therefore, was considered high in this research, providing helpful hints and information. As it would be further depicted, there was and still is an occupational taboo in the education system in Greece regarding mainly the personal adoption or even sharing of a teaching (or evaluation) method (Alstyn & Marshall, 2005, pp. 24-28) among colleagues regardless the best practices culture gradually emerging. Teachers seem unwilling to share teaching methods with others, especially older associates. The study hypothesis was successfully confirmed due to the low participant turnout and lack of analytical response. The school units were randomly selected but still based on the bow logic (the map pointers are shaping a geographical bow)

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<sup>3</sup> RE teachers and affiliated colleagues.

illustration as depicted on the map). Microsoft Excel and the pivot tables produced were used to extract results.

### 3 Results

Interestingly, most of the replies provided descend from secondary schools (76.9%) in contrast with high schools (23.1%). The latter (Table 4.1) is emphasised as normality since most participating schools were categorised as secondary, regardless of the colleagues filling in the survey form (besides, Secondary schools were mostly preferred as survey recipients, after all). Furthermore, when asked about the difficulty of the RE discipline (Table 4.2) or of the one related to it, most participants (38.5%) considered it quite demanding (Ene & Barna, 2015, pp. 50-51), while 30.5% categorised it as requiring (Ene & Barna, 2015). Therefore, the difficulty of the RE issue spectrum is created by focusing on the teaching demands of the RE discipline.

Table 2

#### *School units' participation*

<i>Where do you teach?</i>	<i>Where do you teach?</i>	<i>%</i>
High School	3	23.08
Secondary School	10	76.92
Total	13	100

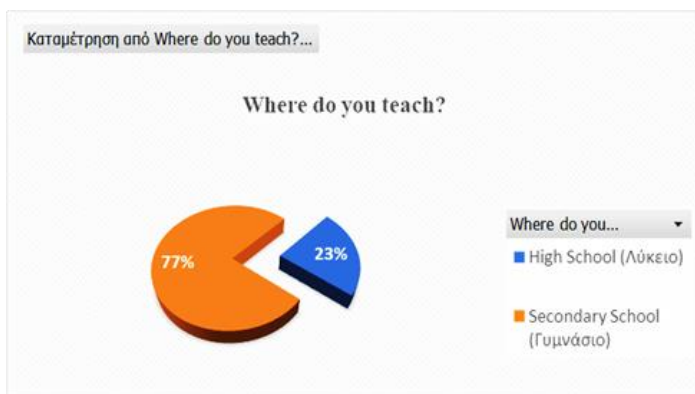
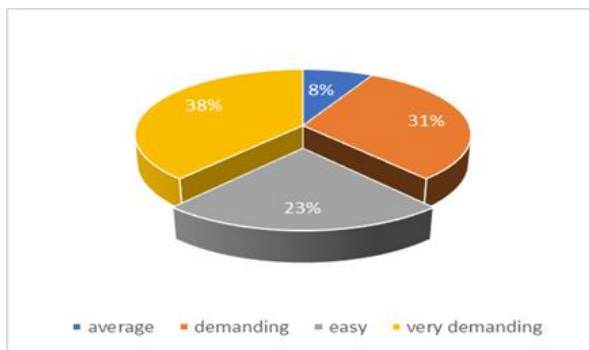


Figure 2. School units' participation

The second researched issue adheres to the range of difficulty of RE discipline (or RE&aff discipline) according to the subjective estimation of each colleague participating in the survey. It emerges that there is a high-difficulty evaluation as follows:

Table 3

<i>Difficulty range</i>	<i>Number</i>	<i>%</i>
<i>In what degree of difficulty would your subject be positioned?</i>		
average	1	7.69
demanding	4	30.77
easy	3	23.08
very demanding	5	38.46
Total		100.00



*Figure 3. Difficulty grade.*

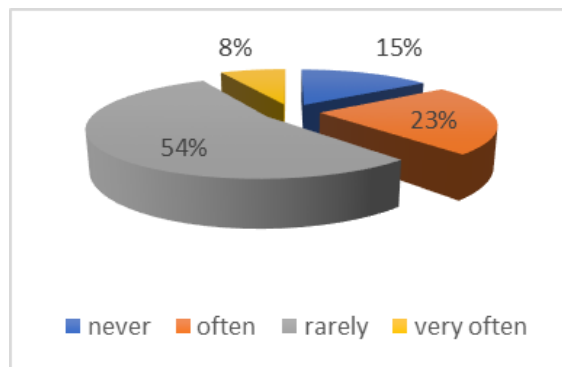
As observed, 38% of the participants regard RE discipline as very demanding, while 31% consider it just demanding. The point is that a challenging subject is usually escorted with test or project assignments regularly<sup>4</sup>. The following results seem to be quite captivating:

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<sup>4</sup> Interestingly, Nigel F. argues: “In research about religious education, there has been considerable attention to curriculum, notably in defining the religions(s) and skills to be learned, and some attention to pedagogy, for example, in terms of classroom talk and dialogue; over the years assessment has received somewhat less attention, but is increasingly in the spotlight.” (Nigel, 2016, p. 2)

Table 4

<i>Assignments frequency</i>		<u>%</u>
<i>How often do you assign written tests to your class?</i>		
never	2	15.38
often	3	23.08
rarely	7	53.85
very often	1	7.69
Total	13	100.00



*Figure 4. Assignment frequency.*

A more dynamic statistical consistency should be applied concerning the correlation between the RE discipline's significance (or the scale of effort) and the test assignment frequency since 54% of the participants confirm that there is no need for systematically written test assignments. Thus, the problem of a high-graded difficulty definition and discipline significance turns out to be more of a theoretical magnitude, or it could even be claimed that there is no such correlation whatsoever. The latter seems odd because essential knowledge (logically correlated with the subject's significance) should be formally assessed for students to have a more concise and solid understanding of their subject. However, as Nigel depicted (2016), systematic assessment in RE was not an initial goal that ultimately corresponds to the Greek educational occasion. The latter includes many truth doses since the RE subject stopped being a final examined one.

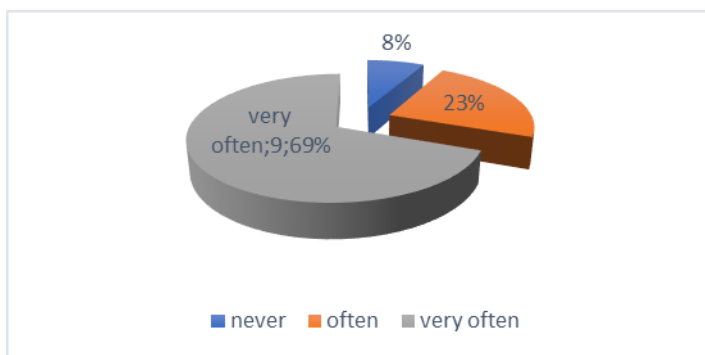
Furthermore, the oral examination on an everyday basis consists of an essential tool for the student's assessment, even if at a subconscious level (if not

willingly), by the RE teachers since oral communication stands primary for verbal connection between teachers and students (Lunenburg, 2010, p. 2). Therefore, through verbal links, students can show their daily academic fluency and readiness (Harris, 2020, p. 8). Thus, the statistical research on this point has been regarded as seminal, and the data that emerged are as follows:

Table 5

*Oral evaluation*

<i>How often do you evaluate your students orally?</i>		
	<i>Numeric frequencies</i>	<i>%</i>
never	1	7.69
often	3	23.08
very often	9	69.23
Total	13	100.00



*Figure 5. Oral evaluation.*

A significant part of the participants, 69%, examine the students orally regularly, while 23% decide to do so just often. In contrast, teachers prefer oral rather than written examinations in praxis. The preference for the oral assessment of the students is logically linked: a) with their everyday systematic preparation and b) with teachers' teaching schedule formation since it is easier and faster for a teacher to assess a student by simply submitting some oral questions on the spot and consequently evaluating their reply.

#### **4 Discussion**

The subjectivity of the assessment process could be tricky sometimes unless most of the essential parts of it could be objectified to the maximum grade, purporting to understand better and consolidate the student's progress effectively (Anderman & Maehr, 1994, pp. 287-309). Thus, all Middle Education teachers, especially RE ones, should scrutinise the vital aspects of the assessment progression and convert its data (where feasible) into quantitative or qualitative ones for better assimilation and understanding under the lens of critique (Srňka & Koeszegi, 2007).

One of the derived problems concerns the oral assessment of Middle Education students, which statistically plays a fixative but not the first role in the classroom context based on the present statistical data. Centered on Western models, the examination style is grounded in the written form (Fenty et al., 2012) due to the philosophy of college preparation. The nature of the question topics is often closed-ended (one answer provided is correct). So, the question emerges immediately: Does oral examination aid in forming a wholistic cognitive personality of the student in Greek Middle Education or not? Or does oral examination even intend to upgrade the holistic students' character? The answer is, unfortunately, depressing for the time being. Greek Middle Education system is oriented to a strict knowledge reproduction (Yusuf, 2010, p. 49), especially in Upper Secondary Education (=high schools), which introduces and sets up the students to the annual general education demands when public examinations are at stake (high school). Unfortunately, primary and secondary education teachers facilitate a similar learning style. RE discipline is a light of exception so far, though, to a not wider extent. However, it must be emphasised that the latter topic is not an object of the present research to be analysed further.

As a result, students learn to memorise correctly and not to digest and criticise effectively (Yusuf, 2010). On the other hand, criticism traits are strongly affiliated with the personality structure, incorporating all family, environmental, and social stimulations. In addition, much research is coming concerning schooling and personality affiliation (Dahmann & Anger, 2014, p. 6). Knowledge could be considered as a system or a net of evaluated information incorporating a possible and dynamic verification mechanism at the disposal of the receiver and could be used to explore the social and material world. That means every social and cognitive item could be an object of research and critique, providing the baselines for further analysis of an individual. Thus, every knowledge item should be reviewed for its value and truthfulness in a verification process grounded on the subjective values of the individual (Oishi et al., 1999). Thus, the verification process embraces a broader application of its mechanism with specific social results for the individual each time. Suppose any learner stays stuck to the content type and memorises it. In that case, critique and



verification processes are inevitably abolished, and the nature of knowledge itself still needs to be improved to benefit the social realm (Nelson & Guerra, 2013, p. 71), which stays helpless until that moment arrives.

Oral assessment processes in Middle Education should drive the scope of education in a different direction. It should lead the students' study work style to discover a particular and personal thinking mode in investigating things around them and discerning the benefits from the nonbeneficial situations. Simultaneously, knowledge should also be converted into a unique mental research tool and stop producing anxiety as the memorisation evaluation system once did (and still does in Greece) without a personal positive impact. Individual imagination and creativity are being introduced into the game of perusing knowledge, perhaps miraculously and extensively. Einstein once said that great things were first born from dreams (Kind, 2018, p. 3); such quotes should inspire future generations. Western schools do not support a Holistic Personality Cognitive Education Approach (H.C.E.A.) yet, which stimulates the brain to produce knowledge and debate it in mutual communication and realisation. The fear of losing the strings attached to the existing knowledge formations as a part of humanity's cognitive history strives against the leading spirit of creating new knowledge in the field of Middle Education. Connections of the past might be better when coming up with change for the better in the future. Better evolution is to enhance the children's flexible personalities through knowledge and social values by incorporating schooling assessment tools heading mostly toward intrinsic improvement rather than democratic or socio-economic enrichment (Postman, 2011, p. 131). An enlightened exception is wide open concerning Western universities in doctoral and post-doctoral studies. However, incorporating knowledge into an umbrella of social and economic benefactor values in a worldwide spectrum still needs much work. At the same time, the case of Middle Education strives between memorisation and free knowledge assessment. The fear of the unknown emerges as the stabling block of the cognitive schooling progress, hindering the application of H.C.E.A. Still, nothing could be inevitable in the human cognitive process. The former stimulating statistical data and the inconsistencies that the reader might find resonate with the previously mentioned possible subjective fear-hoping, though for a quick change for the better.

## **5 Limitations**

The limitations of the present research are primarily twofold: a) The notion of subjectivity was abstract, leading to strict criteria for topic concretisation, and b) the small statistical magnitude of the participants in the quantitative research survey.

## **6 Specific conclusions**

The RE teachers' grading subjectivity (Sedan & Svaricek, 2018, p. 120) seems utterly peculiar when a similar inquiry (as assessment -grading) is being researched. Regardless of the setup criteria, a few diversified assessment models were proposed through the handed results, which stimulated the specific derived conclusions. Those conclusions are the following:

- a) Secondary schools were the essential target of the present research, shaping a geographical bow on the Greek State.
- b) The sample could not be regarded as representative due to its small magnitude; Nevertheless, it provides excellent stimulation for the assessment strategy preferences of the RE teachers in Greece.
- c) Oral assessment of the classroom is considered a priority of the RE teachers because of their time scheduling (oral examination is comparatively a faster process) and the readiness setting up of the classroom.
- d) RE discipline is regarded on a general basis as a demanding field, considering that the research inquiries were also addressed to related disciplines in the context of open and interdisciplinary research.
- e) Concerning the final grade estimation of the students<sup>5</sup>, RE teachers prefer to apply the written form of examination (written performance) enhanced by the oral one to formulate the last progress profile of each student. In addition, the following table (7.1) shows the variety of the rest of the criteria used in the present research field, according to which the second listing preference was the use of the average oral and written performance (15.38%).

Table 6

### *Assessment strategies*

Assessment Strategies	numeric	%
Assigned projects	1	7.69
Average oral, written, and notebook assignments	1	7.69
Average of the oral and written performance	2	15.38
I also take into account the workbook and the students' projects in addition to the written and oral performance	1	7.69
Oral performance enhanced by the written one	1	7.69
Written performance enhanced by the oral one	7	53.84
Total	13	100.00

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<sup>5</sup> Oral examination seemingly is preferred as the everyday assessment classroom tool.

- f) The qualitative table below provides additional assessment methods that could be preferable for the participants, but they were not statistically their first choice. However, they are presented as typed initially during the qualitative part of the research in the table below:

Table 7

*Additional didactic strategies*

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'I boosted the oral grades of weak students who performed poorly on the exam.'

'I consider the whole picture/situation of the student.'

'I usually apply a research paper related to the taught unit. It is done in groups and remotely using the e-class user groups tool and the contribution of the Assignments tool, where grading is done using a tool rubric.'

'In deriving a score, oral and written performance, as well as diligence at home (workbook) and the social education of the student, are taken into account.'

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Based on the above additional criteria, research paper assignments, homework provision on the taught material, and e-class utility are also regarded as supplemental and essential teaching and assessment tools at their teachers' disposal to complete the assessment puzzle of their classrooms. In addition, subjectivity is quite apparent, especially in phrases like: "I boosted the oral grades of weak students who performed poorly on the exam." This minor quote indicates that the teacher's estimation signifies the qualitative result of their school performance (Sedan & Svaricek, 2018).

- g) Another intriguing point is that RE teachers use subdivision inquiries in their written test preparation, indicating either additional cognitive exploration motive or even cognitive explications or specifications of the central submitted question inquiries. The latter method could also be implicated in the oral examination process, enhancing the examined students' focus, memory, and cognitive criteria and aiding students with learning disabilities (Fenty et al., 2012, p.28). The latter hypothesis was also statistically confirmed (Fenty et al., 2012).
- h) Oral and written assessments have equal significance, but still, the former always depicts additional statements during students' evaluation, which do not necessarily appear in written form (Joughin, 1998, p. 368). Further, it is essential to claim that oral assessment shapes a readiness mode, keeping students on edge during their studies and ready to perform the best of their efforts every day. The latter does not exclude the content methodologies of the table (7.1), which remain as auxiliary assessment techniques and, of course, does not abrogate the written form tests (Fenty et al., 2012, p. 647) and

- i) In the context of the assessment process, the whole performance of the student, oral and written, is under the school evaluation lens. Knowledge assimilation is a complex and vital task. Therefore, every assessment method should be oriented towards a twofold aim: a) the sculpturing of the general and critical aspect of the student's personality and b) the wholeness of knowledge assimilation formation; however, adjusting the cognitive environment to the social one should be regarded as the most prominent goal in the schooling culture, especially in the Greek RE situation, which needs it a great deal (Franken & Loobuyck, 2011, p. 151).

### **Conclusions**

A general conclusion derived from the specific conclusions above is the reality that during the oral assessment of the students, the RE teacher is in a position to specify the distinct requirements and potential of the student to penetrate through his/her mental criteria during his/her analytical oral examination and presentation (Frey & Vallade, 2018, p. 27), to see how much students are capable of connecting notions, facts, ideas and criticise if needed and how they react under the pressure of the existence of an audience and time. Most importantly, students can unfold their unique intellectual and psychological persona during oral examinations and assessments. It should be evaluated as the greatest and essential part of the human treasure, which RE has in great esteem.

### **References**

- Alstyne, V., & Marshall, W. (2005). Create colleagues, not competitors. *Harvard Business Review*, 83(9), 24-28.
- Anderman, E. M., & Maehr, M. L. (1994). Motivation and schooling in the middle grades. *Review of Educational Research*, 64(2), 287-309. <https://doi.org/10.3102/00346543064002287>
- Burris, S. H. (2011). Effect of problem-based learning on critical thinking ability and content knowledge of secondary agriculture students (Doctoral thesis). <https://doi.org/10.32469/10355/4180>
- Dahmann, S., & Anger, S. (2014). *The Impact of Education on Personality: Evidence from a German High School Reform*. Nuremberg.
- Elton-Chalcraft, S. (2014). *Teaching Religious Education Creatively*. Routledge.
- Ene, I., & Barna, I. (2015). Religious education and teachers' role in students' formation towards social integration. *Procedia - Social and Behavioral Sciences*, 180, 30-35.
- Fenty, N. S., McDuffie-Landrum, K., & Fisher, G. (2012). Using collaboration, co-teaching, and question answer relationships to enhance content area literacy. *Teaching Exceptional Children*, 44(6), 28-37.
- Franken, L., & Loobuyck, P. (2011). *Religious Education in a Plural, Secularised Society. A Paradigm Shift*. Waxmann Verlag.

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- Frey, K., & Vallade, J. (2018). Assessing students' writing and public speaking self-efficacy in a composition and communication course. *Journal of Communication Pedagogy, 1*(1), 27-39. doi:10.31446/jcp.2018.08
- Harris, A. (2020). *Teaching and Learning in the Effective School*. Retrieved from <https://shorturl.at/mqwQ2>
- Hord, S. M. (1997). *Professional Learning Communities: Communities of Continuous Inquiry and Improvement*. Austin: Southwest Educational Development Laboratory.
- Joughin, G. (1998). Dimensions of oral assessment. *Assessment & Evaluation in Higher Education, 23*(4), 367-378.
- Kind, A. (2018). How imagination gives rise to knowledge. *Oxford Scholarship Online, 227-46*. <https://doi.org/10.1093/oso/9780198717881.003.0011>
- Larson, B. E., & Keiper, T. A. (2013). *Instructional Strategies for Middle and High School*. Routledge.
- Lunenburg, F. C. (2010). Communication: The process, barriers, and improving effectiveness. *Schooling, 1*(1), 1-11.
- Nelson, S. W., & Guerra, P. L. (2013). Educator beliefs and cultural knowledge. *Educational Administration Quarterly, 50*(1), 67-95.
- Nigel, F. (2016). Assessment and examinations in religious education: sixty years of research and analysis. *British Journal of Religious Education, 1-21*. Retrieved from <https://shorturl.at/gvCE3>
- Oishi, S., Diener, E., Suh, E., & Lucas, R. E. (1999). Value as a moderator in subjective well-being. *Journal of Personality, 67*(1), 157-184. doi:10.1111/1467-6494.00051
- Postman, N. (2011). *The End of Education: Redefining the Value of School*. Vintage.
- Sattler, J. M. (2008). *Assessment of Children: Cognitive Foundations*. Jerome M. Sattler Publisher.
- Scheerens, J. (2000). *Improving school effectiveness*. UNESCO.
- Seden, K., & Svaricek, R. (2018). Teacher subjectivity regarding assessment: Exploring English as a foreign language teachers' conceptions of assessment theories that influence student learning. *Center for Educational Policy Studies Journal, 8*(3), 119-139.
- Srnka, K. J., & Koeszegi, S. T. (2007). From words to numbers: How to transform qualitative data into meaningful quantitative results. *Schmalenbach Business Review, 59*(1), 29-57.
- Sukamolson, S. (2007). Fundamentals of quantitative research. *Language Institute Chulalongkorn University, 1*(3), 1-20.
- Trueba, A. F., Smith, N. B., Auchus, R. J., & Ritz, T. (2013). Academic exam stress and depressive mood are associated with reductions in exhaled nitric oxide in healthy individuals. *Biological Psychology, 93*(1), 206-212.
- Tucker, P. D., & Stronge, J. H. (2005). *Linking teacher evaluation and student learning*. ASCD.
- Yusuf, M. (2010). Memorization as a learning style: A balance approach to academic excellence. *OIDA International Journal of Sustainable Development, 1*(6), 49-58.

## **Investigating Perceived Paternal Attitudes of Children Aged between 9 and 17 Years**

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### **Abstract:**

**Introduction:** The study aims to investigate the perceived paternal attitudes of children aged between 9 and 17 years in relation to some variables such as child's gender, child's age, the number of siblings, father's working status, and father's level of education.

**Methods:** The study used a survey design. The sample group consisted of 424 children aged between 9 and 17 years, including 233 girls and 191 boys. The data were collected using the Child Raising Styles Scale developed by Sümer and Güngör (1999), and a General Information Form. The data were analyzed using SPSS software. An independent samples t-test and one-way analysis of variance (ANOVA) were used to test whether there is a single significant difference in the dataset. The Scheffe test was used to determine the groups that caused the significant difference.

**Results:** The level of significance was set at  $p < 0.05$  in all statistical analyses. There was no significant difference in father's acceptance/attention in terms of child's gender and the number of siblings, while a significant difference was found in terms of child's age, father's working status, and father's level of education. There was no significant difference in children's perceived paternal attitudes according to child's gender, child's age, number of siblings, father's working status, and father's level of education in the supervision/control dimension. On the other hand, there was a significant difference according to child's age, child's gender, number of siblings, father's working status, and father's level of education in the acceptance/attention dimension.

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**Discussion:** Taken together, the research results showed that fathers' child-raising attitudes vary. Some results are consistent with earlier studies, and some are contrast to earlier studies. A possible explanation for this might be factors such as place, time, sample, changes in parental attitudes, and socio-cultural changes.

**Limitations:** The sample consisted of 424 children aged between 9 and 17 years including 233 girls and 191 boys.

**Conclusions:** Parents' attitudes and behaviours in raising their children are different. These differences may result from parents' expectations of their children, parents' enjoyment of the parenting role, the number of children, children's birth order, children's gender, children's personality traits, parents' personality traits, and the interaction that parents had with their parents in their childhood. These factors have an impact on parents' attitudes and behaviours and determine the form and quality of the relationship between the mother, father, and child.

**Key words:** adolescence, paternal attitude, child-raising styles, early childhood.

## **Introduction**

The formation of personality is laid in early childhood and settles in adolescence. Personality is shaped by the interaction between individuals' inherited characteristics and their environment. Personality is defined as "a person's general and specific characteristics and how these characteristics guide that person's social approach" (San Bayhan & Artan, 2012). Humans are both biological and social beings. The personality development of children takes place in a social environment that includes blood ties, primarily parents and other family members, non-blood-related adults, and friends within the microsystem which constitutes their closest environment (Slavin, 2011). Family is one of the most important factors in the personality development of children. Given the power and influence of family, no microsystem context is as effective as the family, and the foundation of social qualities in children is laid in the family (Berk, 2015).

Children's first teachers are their parents (Barnová, Tamášová & Krásna, 2019; Erkan, 2015). The foundation of children's knowledge, skills, habits, and attitudes is laid by their parents through experiences at an early age. The basic values, attitudes, and behaviours of parents in raising children play a fundamental role in children's healthy social and emotional development. The father and the mother are the first role models for children. Children consciously and unknowingly try to imitate their parents (Oberuč & Zapletal, 2017). The attitudes and behaviours of parents concerning raising children shape the development and personality of children. From birth onwards, children socialize by interacting with their parents. Children's interactions with their parents form

the basis for their later relationship with the outside world (Gander & Gardiner, 2004; Kuzgun & Eldeleklioglu, 2005). Because parents are important identification models for children, children imitate and model their parents (Yavuzer, 2017). The way the child interacts with their parents becomes a reference for their attitudes and behaviours towards other individuals in social environments (Bekir, Aral, & Aydın, 2018; Çağdaş, 2008; Kandır & Alpan, 2008; Kulaksızoğlu, 2011; Seven, 2010; Tüfekçi Akcan & Deniz, 2016). Parents' child-raising attitudes are passed on from one generation to the next. Parents' internalized child-raising attitudes are also laid by their parents. These attitudes can be transferred with the desired aspects as well as with the undesirable aspects (Santrock, 2012). The family is children's first social environment and is responsible for their care and development. The structure, functions, and differences in family structures have different effects on children. In a wholesome family, it is important for children that family members support each other. Parents should do their best to ensure that their children's development is at the highest level. In this regard, families also have social and emotional responsibilities for their children. Ensuring their socialization, spending quality time with their children, playing games, listening to their children, have a talk with their children are some of the important responsibilities.

The attitudes and behaviours of parents in raising children are various and different. These differences may result from parents' expectations of the child to be born, whether they enjoy the parenting role or not, the number of children, the child's birth order, the child's gender, the child's personality traits, the parents' personality traits, and the interaction that they had with their parents in their childhood. These factors have impacts on the attitudes and behaviours of parents and determine the shape and quality of the relationship between the mother, father, and children (Arı, Bayhan, & Artan, 1995; Savran & Kuşkin, 1995; Yavuzer, 2006). The quality of parent-child relations is vital to the healthy social and emotional development of children (Özgün, 2015).

Parents' attitudes and behaviours are mostly discussed under two basic dimensions: acceptance-rejection and control-autonomy. The acceptance-rejection dimension focuses on warm (accepting or approving) or hostile (rejecting or disapproving) parental behaviours. While the children of parents who have a warm relationship attitude towards their children tend to develop self-control and responsible personality, the children of parents who have a hostile attitude towards their children may tend to show more stubborn and aggressive behaviors (Gander & Gardiner, 2004; Maccoby & Martin, 1983; Santrock, 2012; Yavuzer, 2017).

Children whose parents are not sensitive to their children, do not meet their needs on time or at all, do not show enough attention to their children, and have



an overly intrusive and rejecting attitude start to feel insecure (Crain, 2000). It is parents' responsibility to meet the essential needs of babies from birth to the time when they can meet their own needs. However, the main duty of being a parent is not limited to meeting the needs of the child for growth and development or using positive discipline methods. The duty of parents also includes providing conditions that help children to develop their capacity both in the family and outside the family. Under the conditions of age, while fulfilling these responsibilities, parents should take measures to ensure family integrity and support their children's education and adaptation. These roles of families are much more important in early childhood. The formation of the first sense of trust in children, their first attachment experience, and the sense that they are valued and respected by others is important in children's lives and affect their future.

Hearty and warm family relationships also positively affect children's physical and psychological health. If children grow up in an environment where they are loved or respected, they can express themselves comfortably, be self-confident, have high self-esteem, know and defend their rights, be sociable and open to different views and opinions (Gordon, 2014; Ünal, 2009). On the other hand, isolation and alienation from the family can be observed in children who grow up in an environment that is the opposite of this, and this can often cause children to have behavioural and developmental problems (Berk, 2015).

The second dimension, control-autonomy, focuses on the restrictive or permissive attitudes of parents towards children in enforcing the rules of behaviours. While parents' strict control attitude towards the child causes the child to display the desired behaviours, it also contributes to the child's dependence. Children of parents who show a permissive parenting attitude towards their children are assertive and gregarious, but they can be quite aggressive (Gander & Gardiner, 2004).

Effective parenting practices cover children's physical, cognitive, social, and emotional development, and internal perceptions and overt behaviors provide positive development, while negative or inadequate parenting practices prevent the child from developing healthily (Karraker & Coleman, 2005). The attitudes and behaviours of parents towards their children are also very effective in the formation of personality development such as being active-passive, compatible-incompatible, dependent-autonomous, and introverted-extraverted (Baldık, 2005; Özgüven, 2001). The family, which is the smallest and most important unit of society, provides an environment that shapes children's attitudes and behaviours in their future lives, starting from the day they are born. Parents take pains with their children for years and make an effort to do what is right for them. However, what parents know and do may not always be right for their children and may unintentionally harm them.

Parental attitudes are very important in determining the direction of social skills and socialization, which form the basis of the relationship which children will establish with the outside world from birth and later in life. For this reason, it is important to determine paternal attitudes perceived by children and to make early interventions. For this purpose, children's perceived paternal attitudes were analyzed and evaluated in relation to child's gender, child's age, the number of siblings, father's working status, and father's level of education.

## **1 Method**

### *1.1 Research design*

The study used a survey design, which is one of the quantitative research designs. Survey research aims to describe certain existing characteristics of a group or an existing situation as it is (Karasar, 2018; Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2018).

### *1.2 Sample*

700 children aged between 9 and 17 years who were attending primary and secondary schools in the 2020-2021 academic year in Ankara were reached by random sampling through Google forms. 424 children filled out the form.

### *1.3 Data collection tools*

A General Information Form prepared by the researchers and the Child Raising Styles Scale (CRSS) developed by Sümer and Güngör (1999) were used to determine the adolescent raising styles. The CRSS has 11 items to measure the acceptance/attention dimension and 11 items to measure the control dimension in determining paternal attitudes perceived by children. The internal consistency coefficient of the scale was found to be .91 for the paternal acceptance/attention dimension and .90 for the paternal control dimension.

### *1.4 Data analysis*

Statistical analyses were carried out using Statistical Package for the Social Sciences (SPSS) software version 23 program. The level of confidence was 95%. The mean and standard deviation (SD) values were used for descriptive statistics regarding the personal characteristics of the participants.

Before the analysis, the skewness and kurtosis values of the dataset were checked to test whether the data showed a normal distribution. It is accepted that the data show a normal distribution if skewness and kurtosis take values between -3 and +3 (Kalaycı, 2008, p. 209) or between -2 and +2 (George & Mallery, 2003). Accordingly, the data in this research were normally distributed.

An independent samples t-test was applied to test whether there was a significant difference according to the variables of child's gender and father's working status because the parametric test assumptions were realized. One-way ANOVA was used to determine whether there was a significant difference according to the variables of the number of siblings and father's level of education. In statistical calculations, the level of significance was set at as 0.05. The Scheffe test was used to determine the groups from which the difference arises.

## 2 Findings and discussion

This section presents findings and discussions on whether there is a significant difference in supervision/control and acceptance/attention sub-dimensions of children's perceived paternal attitudes according to the variables including child's gender, age, number of siblings, father's working status, father's level of education.

Table 1

*T-test results regarding the comparison of children's perceived paternal attitudes according to the child's gender variable*

	<i>n</i>	$\bar{X}$	$S_x$	<i>Standard Error of Mean</i>	<i>t</i>	<i>Sd</i>	<i>p</i>
Supervision/ Girl	233	30.37	6.52	0.42	0.35	422	.948
Control Boy	191	30.41	6.04	0.43			
Acceptance/ Girl	233	33.69	8.42	0.55	-0.49	422	.184
Attention Boy	191	34.73	7.34	0.53			

Looking at Table 1, it is seen that there is no significant difference ( $t(424)=0.35$ ,  $p \geq 0.05$ ) between boys ( $\bar{X}=30.41$ ,  $S_x=6.04$ ) and girls ( $\bar{X}=30.37$ ,  $S_x=6.52$ ) in terms of their perceived paternal attitudes in the supervision/control dimension. The same also applies to the acceptance/attention dimension. No significant difference ( $t(424)=-0.49$ ,  $p \geq 0.05$ ) was found between boys ( $\bar{X}=34.73$ ,  $S_x=6.72$ ) and girls ( $\bar{X}=33.69$ ,  $S_x=8.42$ ) in terms of their perceived paternal attitudes in the acceptance/attention dimension.

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Table 2

*Descriptive statistics regarding children's perceived paternal attitudes according to the child's age variable*

		<u><i>n</i></u>	<u><i>Mean</i></u>	<u><i>Sd</i></u>
Supervision/ Control	Age 9-10	55	31.92	6.47
	Age 11-12	67	31.11	6.53
	Age 13-14	110	30.17	6,74
	Age 15 and over	192	29.82	5.86
	<i>Total</i>	<i>424</i>	<i>30.39</i>	<i>6.30</i>
Acceptance/ Attention	Age 9-10	55	38.96	9.07
	Age 11-12	67	34.31	7.37
	Age 13-14	110	34.49	7.81
	Age 15 and over	192	32.55	7.36
	<i>Total</i>	<i>424</i>	<i>34.16</i>	<i>7.96</i>

As seen in Table 2, children aged between 9 and 10 years achieved the highest mean score ( $\bar{X}=31.92$ ) in the supervision/control dimension, while children aged 15 and over received the lowest mean score ( $\bar{X}=29.82$ ). Looking at the acceptance/attention dimension, children aged between 9 and 10 years had the highest mean score ( $\bar{X}=38.96$ ), while children aged 15 and over had the lowest mean score ( $\bar{X}=32.55$ ).

Table 3

*One-way ANOVA results regarding children's perceived paternal attitudes according to the child's age variable*

<u><i>ANOVA Results</i></u>						
	<u><i>Variance Source</i></u>	<u><i>Sum of Squares</i></u>	<u><i>Sd</i></u>	<u><i>Mean Square</i></u>	<u><i>F</i></u>	<u><i>P</i></u>
Supervision/ Control	Between groups	232.558	3	77.519	1.962	.119
	Within groups	16598.451	420	39.520		
	<i>Total</i>	<i>16831.009</i>	<i>423</i>			
Acceptance/ Attention	Between groups	1779.128	3	593.043	9.943	.000
	Within groups	25051.315	420	153.858		
	<i>Total</i>	<i>26830.443</i>	<i>423</i>			

As seen in Table 3, there was no significant difference ( $F(3-420)=1.962$ ,  $p>.05$ ) between children's arithmetic mean scores of perceived paternal attitudes in the supervision/control dimension in relation to the age variable. However, there was a significant difference ( $F(3-420)=9.943$ ,  $p<.05$ .) between their arithmetic mean scores in the acceptance/attention dimension. This significant difference resulted from the fact that the mean scores of children ( $\bar{X} = 38.96$ ) aged between 9 and 10 years were higher than the mean scores of children ( $\bar{X}=31.11$ ) aged between 11

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and 12 years, the mean scores of children ( $\bar{X}$ =30.17) aged between 13 and 14 years, and the mean scores of children ( $\bar{X}$ =29.82) aged 15 years and over.

Table 4

*Descriptive statistics regarding children's perceived paternal attitudes according to the number of siblings variable*

		<i>n</i>	<i>Mean</i>	<i>Sd</i>
Supervision/ Control	One child	59	30.77	7.54
	Two children	130	30.72	6.23
	Three children	109	30.09	6.27
	Four children or more	126	30.12	5.80
	<i>Total</i>	<i>424</i>	<i>30.39</i>	<i>6.30</i>
Acceptance/ Attention	One child	59	35.47	8.47
	Two children	130	34.68	8.17
	Three children	109	34.12	7.93
	Four children or more	126	33.04	7.45
	<i>Total</i>	<i>424</i>	<i>34.16</i>	<i>7.96</i>

Looking at Table 4, it is seen that children without a sibling achieved the highest mean score ( $\bar{X}$ =30.77) in the supervision/control dimension, while children with three siblings had the lowest mean score ( $\bar{X}$ =30.09). While children without a sibling received the highest mean score ( $\bar{X}$ =35.47) in the acceptance/attention dimension, children with four siblings had the lowest mean score ( $\bar{X}$ =33.04).

Table 5

*One-way ANOVA results regarding children's perceived paternal attitudes according to the number of siblings variable*

<i>ANOVA Results</i>						
	<i>Variance Source</i>	<i>Sum of Squares</i>	<i>Sd</i>	<i>Mean Square</i>	<i>F</i>	<i>P</i>
Supervision/ Control	Between groups	41.792	3	13.931		
	Within groups	16789.217	420	39.974	.348	.790
	<i>Total</i>	<i>16831.009</i>	<i>423</i>			
Acceptance/ Attention	Between groups	293.746	3	97.915		
	Within groups	26536.697	420	63.183	1.550	.201
	<i>Total</i>	<i>26830.443</i>	<i>423</i>			

As seen in Table 5, there was a significant difference ( $F(3-420)=1.550$ ;  $p<.05$ ) between children's arithmetic mean scores of perceived paternal attitudes in the acceptance/attention dimension in relation to the number of siblings, while there was no significant difference ( $F(3-420)=1.550$ ;  $p<.05$ ) in the supervision/control dimension.

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Table 6

*T-test results regarding the comparison of children's perceived paternal attitudes according to the father's working status variable*

		<i>n</i>	$\bar{X}$	$S_x$	<i>Standard Error of Mean</i>	<i>t</i>	<i>Sd</i>	<i>P</i>
Supervision/ Control	Not working	121	29.93	5.88	0.53	-.944	422	.346
	Working	303	30.57	6.47	0.37			
Acceptance/ Attention	Not working	121	32.90	8.08	0.73	.983	422	<b>.039</b>
	Working	303	34.67	7.87	0.45			

As seen in Table 6, there was no significant difference ( $t(424)=-.944$ ,  $p \geq 0.05$ ) between children whose fathers were not working ( $\bar{X}=29.93$ ,  $S_x=5.88$ ) and children whose fathers were working ( $\bar{X}=30.57$ ,  $S_x=6.47$ ) in terms of their mean scores in the supervision/control dimension. On the other hand, children whose fathers were working had a significantly ( $t(424)=-.983$ ,  $p \leq 0.05$ ) higher mean score ( $\bar{X}=34.67$ ,  $S_x=7.87$ ) in the acceptance/attention dimension compared to children whose fathers were not working ( $\bar{X}=32.90$ ,  $S_x=8.08$ ).

Table 7

*Descriptive statistics regarding children's perceived paternal attitudes according to the father's level of education variable*

		<i>n</i>	<i>Mean</i>	<i>ss</i>
Supervision/ Control	Primary school	165	29.53	6.26
	Secondary school	80	30.66	5.96
	High school	92	30.47	6.33
	University	87	31.66	6.51
	<i>Total</i>	424	30.39	6.30
Acceptance/ Attention	Primary school	165	32.87	7.52
	Secondary school	80	33.00	7.82
	High school	92	34.14	7.93
	University	87	37.71	8.00
	<i>Total</i>	424	34.16	7.96

Looking at Table 7, children whose fathers were university graduates achieved the highest mean score ( $\bar{X}=31.66$ ) in the control/supervision dimension, and children whose fathers were primary school graduates had the lowest score mean score ( $\bar{X}=29.53$ ). Similarly, children whose fathers were university graduates achieved the highest mean score in the acceptance/attention dimension ( $\bar{X}=37.71$ ), while children whose fathers were secondary school graduates had the lowest score mean score ( $\bar{X}=32.87$ ).

Table 8

*One-way ANOVA results regarding children's perceived paternal attitudes according to the father's level of education variable*

ANOVA Results						
	Variance Source	Sum of Squares	Sd	Mean Square	F	P
Supervision/ Control	Between groups	267.838	3	89.279	2.264	.080
	Within groups	18169.78	420	39.436		
	<i>Total</i>	18384.01	423			
Acceptance/ Attention	Between groups	1479.137	3	493.046	8.168	.000
	Within groups	25351.306	420	60.360		
	<i>Total</i>	26830.443	423			

As seen from the one-way ANOVA results in Table 8, no significant difference ( $F(3-420)=2.264$ ,  $p>.05$ ) was found between children's mean scores of perceived paternal attitudes in the supervision/control dimension in terms of the father's level of education variable. However, there was a significant difference in the acceptance/attention dimension ( $F(3-420)=8.168$ ,  $p<.05$ ). Looking at the reason for this significant difference, it appears that this results from the fact that the mean score of children ( $\bar{X}=37.71$ ) whose fathers were university graduates were higher than that of children ( $\bar{X}=34.14$ ) whose fathers were high school graduates, that of children ( $\bar{X}=33.00$ ) whose fathers were secondary school graduates, and that of children ( $\bar{X}=32.87$ ) whose fathers were primary school graduates.

### 3 Discussion and suggestions

The perceived paternal attitudes of children aged between 9 and 17 years were examined in relation to child's gender, child's age, the number of siblings, father's working status, and father's level of education, and the analysis results were presented above.

According to the analysis results, children's perceived paternal attitudes did not differ according to gender both in the supervision/control and in the acceptance/attention dimensions. In other words, the paternal attitudes that boys and girls perceive in the supervision/control and acceptance/attention dimensions are similar. Looking at earlier studies on paternal attitudes, two studies were found (Bayraktar & Öğretir Özçelik, 2019; Dokuyan, 2016). In these two studies, paternal attitudes did not differ significantly according to the gender variable. Thus, the present finding is consistent with earlier studies. It can be said that fathers' attitudes toward their children do not change according to child's gender. However, some studies show that parental attitudes differ according to gender (Bülbül, 2014; Köseoğlu, 2013; Sorbring, Funnemark, & Palmerus, 2002; Subaşı & Öğretir Özçelik, 2019 & Ünal, 2018).

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According to another study finding, there was no significant difference in the supervision/control dimension in terms of child's age; however, a significant difference was found in the acceptance/attention dimension. The reason for this difference is thought to be related to age. This is because parents act more protectively to protect young children from dangers. Children's independence is restricted if parental attitudes are overly controlling and protective. This prevents children from developing a sense of responsibility, and children gradually become more dependent on their parent (McNeal Jr., 2012). This is not a desirable situation in children development. Another reason is thought to be due to the decrease in the authority of parents over children as children get older. In studies conducted with adolescents by Bülbül (2014) and Dokuyan (2016) that parents become more protective and authoritative as children are younger.

The analysis results also showed a statistically significant difference in children's perceived paternal attitudes in the acceptance/attention dimension in terms of the number of siblings variable. However, there was no significant difference in the supervision/control dimension. The difference in the acceptance/attention dimension was in favour of two siblings. It can be said when the number children are lower, children become more valuable, and fathers can devote more time to their children. In a study conducted by Bülbül (2014) with adolescents, as the number of siblings decreases, parents become more democratic and establish warmer communication with their children. Likewise, Yavuzer (2017) states that as the number of siblings decreases, families become more caring. The fact that children's perceived paternal attitudes did not differ in the supervision/control dimension according to the number of siblings variable suggests that their views are similar.

While there was no significant difference in the supervision/control dimension according to the father's working status variable, there was a significant difference in the acceptance/attention dimension. Fathers' working status did not cause a difference in paternal attitudes perceived by children in the supervision/control dimension. In other words, it can be said that paternal attitudes perceived by the children whose fathers were working and those whose fathers were not working are similar to each other in the supervision/control dimension. In the acceptance/attention dimension, the arithmetic mean score of children with working fathers was higher than the arithmetic mean score of children with non-working fathers. There was a significant difference in paternal attitudes perceived by the children whose fathers were working and those whose fathers were not working in the acceptance/attention dimension. It can be said that this situation is related to the high level of education of working fathers, and thus, they are away from their children for a certain period.

Looking at the analysis results concerning father's level of education, there was no significant difference in the supervision/control dimension, while there was a



significant difference in the acceptance/attention dimension. It can be said that children's perceived paternal attitudes are similar to each other according to the father's level of education variable in the supervision/control dimension. This may be due to the traditional attitudes of fathers. Similarly, the perceived paternal attitudes of children did not differ according to father's level of education in earlier studies conducted with adolescents (Bayraktar & Öğretim Özçelik, 2019; Bülbül, 2014). Considering the difference in the acceptance/attention dimension in relation to father's level of education, the difference was in favour of children whose fathers who were university and high school graduates. A possible explanation can be that as the higher the education level of fathers is, so is their awareness and conscious.

To sum up, there was no significant difference in children's perceived paternal attitudes according to the variables of child's gender, child's age, number of siblings, father's working status, and father's level of education in the supervision/control dimension. On the other hand, there was a significant difference in the variables of child's age, child's gender, number of siblings, father's working status, and father's level of education in the acceptance/attention dimension. As a result, it is seen that fathers' child-raising attitudes vary, and when the relationship between the study and previous studies is examined, there are similarities and differences. It can be said that these similarities and differences are caused by factors such as place, time, sample, changes in parental attitudes, and socio-cultural changes. For this reason, both quantitative and qualitative studies could be conducted with different samples. In addition, to increase fathers' awareness and knowledge about parental attitudes, it may be beneficial to organize family training on parental attitudes, effective communication, and child development in public education centres.

## **Conclusion**

The attitudes and behaviours of parents in raising children are different. These differences may result from several factors such as parents' expectations of the child to be born, whether they enjoy the parenting role or not, the number of children, child's birth order, child's gender, child's personality traits, parents' personality traits, and the interaction that parents had with their parents in their childhood. These factors influence parents' attitudes and behaviours and determine the shape and quality of the relationship between the mother, father, and child.

This may affect children's development positively or negatively. Negative parental behaviours represents a significant risk factor in children's lives as they form a vulnerable social group due to their age and lack of experience (Barnová, Tamášová & Krásna, 2019). For this reason, it is necessary to carry out family education activities to increase parents' knowledge and sensitivity of about

child-rearing attitudes and behaviours. It is also important to remember that parents are role models for their children.

## References

- Arı, M., Bayhan, P., & Artan, İ. (1995). Farklı ana-baba tutumlarının 4-11 yaş grubu çocuklarda görülen problem durumlarına etkisinin araştırılması. *10. Ya-Pa Okulöncesi Eğitimi ve Yaygınlaştırılması Semineri*. İstanbul: Ya-Pa Yayınları.
- Barnová, S., Tamášová, V. & Krásna, S. (2019). The role of resilience in coping with negative parental behaviour. *Acta Educationis Generalis*, 9(2), 93-106. <https://doi.org/10.2478/atd-2019-0010>
- Bayraktar, V., & Öğretir Özçelik, A. D. (2019). 9-17 yaş arasındaki çocukların algıladıkları anne tutumlarının incelenmesi. In *International Symposium on Academic Studies in Educational and Social Sciences (ISES)*. Ankara, Turkey.
- Bekir, H., Aral, N., & Aydın, R. (2018). Çocuk ebeveyn ilişkisinin incelenmesi. In Ö. K. Tüfekçi (Ed.). *Küresel ve Yerel Bakış Açısıyla Sosyal Bilimler Araştırmaları içinde* (pp. 89-100). İstanbul: SRA Academic Publishing.
- Berk, L. E., & Meyers, A. B. (2015). *Infants and children: Prenatal through Middle Childhood*. London: Pearson.
- Bülbül, A. (2014). *Study of Adolescents' Psychological Inclination at their Close Relation Concerning perceived parents' attitude* (Unpublished master's thesis). İstanbul: Haliç Üniversitesi.
- Büyükköztürk, Ş., Kiliç Çakmak, E., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2018). *Bilimsel araştırma yöntemleri*. Ankara: Pegem Akademi.
- Crain, W. (2000). *Theories of Development: Concepts and Applications*. New Jersey: Prentice Hall.
- Doğan Subaşı, D., & Öğretir Özçelik, A. D. (2019). Ergenlerin algıladıkları anne baba tutumlarının çeşitli değişkenler açısından incelenmesi. *Çankırı Karatekin Üniversitesi Karatekin Edebiyat Fakültesi Dergisi*, 7(1), 25-47.
- Dokuyan, M. (2016). 12. Sınıf öğrencilerinde algılanan anne-baba tutumları ile benlik saygısı arasındaki ilişkinin incelenmesi. *Ahi Evran Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 2(2), 1-21.
- Erkan, S. (2015). Aile ve aile eğitimi ile ilgili temel kavramlar. In Z. Fulya Temel (Ed.), *Aile Eğitimi ve Erken Çocukluk Eğitimde Aile Katılım Çalışmaları içinde* (pp. 72-103). Ankara: Anı Yayıncılık.
- Gander, M., & Gardiner, H. (2015). *Çocuk ve ergen gelişimi*. B. Onur çev., Ankara: İmge Kitapevi
- George, D., & Mallery, P. (2003). *SPSS for Windows Step by Step: A simple guide and reference* (4<sup>th</sup> edition). Boston: Allyn & Bacon.
- Gordon, T. (2014). *Etkili anne baba eğitimi*. İstanbul: Profil.
- Kalaycı, Ş. (2008). *SPSS uygulamalı çok değişkenli istatistik teknikleri*. Ankara: Asil Yayıncılık.

*Acta Educationis Generalis*  
*Volume 14, 2024, Issue 1*

- Kalyoncuoğlu, H. N. (2018). *The Effect of Parents' Emotional Intelligence and Parental Attitudes on the Child's Problem Solving Skills* (unpublished master's thesis). İstanbul: Arel University.
- Kandır, A., & Alpan, Y. (2008). Okul öncesi dönemde sosyal-duygusal gelişime anne-baba davranışlarının etkisi. *Aile ve Toplum*, 104 (14), 33-38.
- Karasar, N. (2018). Araştırmalarda Rapor Hazırlama. Ankara: Nobel Akademik Yayıncılık.
- Karraker, K. H., & Coleman, P. K. (2005). The effects of child characteristics on parenting. In T. Luster, & L. Okagaki (Eds.), *Parenting: An Ecological Perspective* (pp. 147-176). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Köseoğlu, A. (2013). *The Analysis of the Correlation between Perceived Parental Acceptance-Rejection and Empathic Tendency Levels of 4th and 5th-Grade Elementary School Students* (unpublished master's thesis). İstanbul: Arel University.
- Kulaksızoğlu, A. (2011). *Ergenlik psikolojisi*. İstanbul: Remzi Kitabevi.
- Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In P. H. Mussen, & E. M. Hetherington (Eds.), *Handbook of Child Psychology: Socialization, Personality, and Social Development* (pp. 1-101). New York: John Wiley & Sons.
- McNeal Jr., R. B. (2012). Checking in or checking out? Investigating the parent involvement reactive hypothesis. *Journal of Educational Research* 105(2), 79-89.
- Oberuč, J., & Zapletal, L. (2017). Family as one of the most important factors in a child's upbringing. *Acta Educationis Generalis*, 7(2), 105-112. <https://doi.org/10.1515/atd-2017-0018>
- Özgün, Ö. (2015). Ebeveynlik ile ilgili kuramlar ve araştırmalar. In Z. Fulya Temel (Ed.), *Aile Eğitimi ve Erken Çocukluk Eğitimde Aile Katılım Çalışmaları* (pp. 72-103). Ankara: Anı Yayıncılık.
- San Bayhan, P., & Artan, İ. (2012). *Çocuk gelişimi ve eğitimi*. İstanbul: Morpa.
- Santrock, J. W. (2012). *Life- Spain Development*. New York: The McGraw-Hill.
- Savran, C., & Kuşkin, İ. (1995). Ana-babalar ile onların ana-babaları arasındaki çocuk yetiştirmeye yönelik tutum ilişkileri. *10. Ya-Pa Okulöncesi Eğitimi ve Yaygınlaştırılması Semineri*. İstanbul: Ya-Pa Yayınları.
- Seven, S. (2010). Sosyal davranış öğretmen değerlendirmesi ölçeğinin türk kültürüne uyarlanması. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 23, 193-200.
- Slavan, R. (2011). *Educational psychology: Theory and practice*. Boston: Pearson Education.
- Sorbring, E., Funnemark, M. R., & Palmerus, K. (2002). Boys' and girls' perceptions of parental discipline in transgression situations. *Infant and Child Development* 12(1), 53-69. <https://doi.org/10.1002/icd.265>
- Sümer, N., & Güngör, D. (1999). Çocuk yetiştirme stillerinin bağlanma stilleri, benlik değerlendirmeleri ve yakın ilişkiler üzerindeki etkisi. *Türk Psikoloji Dergisi*, 14, 35-58.
- Tüfekçi Akcan, A., & Deniz, Ü. (2016). Okul öncesi dönem çocuklarının davranışlarının ebeveynlikuygulaması ve bazı demografik özelliklere göre incelenmesi.

*Acta Educationis Generalis*  
*Volume 14, 2024, Issue 1*

- Uluslararası Sosyal Arařtırmalar Dergisi, Journal of International Social Research*, 9(47), 687-695.
- Ünal, N. (2009). *The Study of Child Rearing Attitudes of the Mothers with Mentally Retarded Children and Behaviours of Children with Normal Development to the Mentally Retarded Sibling*. (unpublished master's thesis). Ankara: Ankara University Graduate School of Natural and Applied Sciences Department of Home Economics.
- Ünal, D. (2018). *Examination of Behavioural Problems and Life Satisfaction in Adolescents According to Attitudes of Parents*. (unpublished master's thesis). Adana: Cukurova University Institute of Social Sciences.
- Yavuzer, H. (2017). *Ana baba okulu*. İstanbul: Remzi Kitabevi.

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