Case Study

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# Encouraging the Motivation of Students in Primary School - A Case Study

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**Abstract:** The aim of the research is to examine the current practice of encouraging motivation for learning in the teaching process in the elementary school "Dr Boško Vrebalov" in Melenci from the perspective of teachers and students. The sample of students consisted of 22 teachers and 159 students. Two instruments, constructed in the form of a five-point Likert-type scale, were used in the research: the Instrument for Teachers and the Instrument for Students. The applied instruments collected data on the prevalence of procedures for stimulating students' motivation to learn from the perspective of teachers and students. Also, the opinion of students on the motivational role of the observed procedures of the teaching process on the motivation to learn was examined. Motivational procedures included three segments: preparation and planning of the teaching process, activities of teachers during the teaching process and the use of information and communication technology (ICT) in teaching. The results presented in this paper showed that all the observed procedures during the planning of teaching and learning, as well as the procedures related to the application of ICT, are very common in the teaching process. With minor deviations, there is agreement between teachers and students on their representation. The lowest prevalence and the greatest disagreement in the opinion of teachers and students concernen the application of ICT in teaching. Teachers notice that students use ICT to a lesser extent in teaching in relation to students' opinions. The obtained results showed that students assigned a high motivational role to all examined procedures, which suggests that students should be more stimulated to use computers in teaching and extracurricular activities for educational purposes.

*Keywords: motivation for learning, preparation of the teaching process, effective teaching, application of ICT in teaching.*

## Introduction

Teachers are key actors shaping the learning environment and one of their main tasks is to provide a learning environment that will increase and maintain student motivation and engage students in learning (Eccles and Roeser, 2011). Research has shown that teachers have a critical role in creating a positive learning environment that increases students' interest and motivation for learning (Tambunan, 2018). By planning and making decisions in the teaching process, the teacher influences students' motivation to learn, but also vice versa, students' reactions to teaching cause changes in teachers' behavior and the application of strategies that teachers believe will have better effects on learning and motivation (Schunk, Pintrich and Meece, 2013). Research has shown that teachers, by creating a learning environment, form and change the motivational orientations of students. Motivation permeates all aspects of teaching and learning (Schunk, Pintrich and Meece, 2013) and represents an important factor of success in learning (Boiché and Stephan, 2014). One of the goals of teachers is to find the most effective strategies to motivate students to learn and improve learning effects (Morgan, 2006; Radulović, 2021; Županec et al., 2018). In this paper, the theoretical frame-works is a model of motivation, which aims to encourage students to learn and master the provided material, while respecting various factors of the school environment. This model is called the TARGET (Ames, 1992) and includes six elements of the teaching process. TARGET is an acronym that contains six key terms: Task - planning teaching activities; Authority - procedures to support student autonomy, Recognition - procedures of praise and reward, Grouping - forms of group interaction in the teaching process, Evaluation - evaluation procedures and Time - time limits of classes.

1. Planning of teaching (Task) refers to the process of designing teaching activities and tasks (Epstein, 1983) with the aim of increasing student participation in the teaching process, the quality of

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their engagement and developing their interests. When creating activities, teachers should choose those activities that are interesting to students, that are diverse and represent personal challenges for students. Students need to understand the reasons why they participate in certain activities in class (Brophy, 2010).

2. Authority support procedures (Authority) provide opportunities for students to achieve leadership roles, develop a sense of personal control and independence in the learning process (Ames, 1992). Motivational strategies should encourage active student participation and a sense of independence in the learning process. Teachers who support student autonomy promote the importance of school to students, provide more choices for students, ask what they want to do, and praise them as they progress (Reeve, 2006).

3. Recognition procedures refer to the formal and informal use of rewards, incentives, and praise in the teaching process (Epstein, 1983). The type of rewards, the reasons for rewarding and the distribution of rewards have a significant impact on the development of students' interest, self-esteem and learning satisfaction. Brophy (2010) points out that students should be commended for a wide range of achievements, and the highest recognition should take the form of appreciation of effort and progress.

4. Forms of group interaction in the teaching process (Grouping) are based on the ability of students to work effectively with others on a common task (Ames, 1992). The goal is to establish an environment in which individual differences are accepted and students develop a sense of belonging to a group.

5. Evaluation procedures include methods used to assess and monitor the learning process (Epstein, 1983). Evaluation is one of the most important elements of the teaching process. In schools, normative evaluation is a ubiquitous phenomenon and children conclude that only those activities that are assessed are important, which can result in a decrease in students' motivation to learn (Covington and Beery, 1976).

6. Time limits of classes (Time) refers to the time organization of the teaching process and the time provided for the completion of teaching activities and tasks (Epstein, 1983). This dimension is closely related to the design and structure of teaching activities. The time provided for the completion of the activity must be adjusted to the interests and abilities of the students.

Numerous studies within school-based education contexts have shown associations procedures included in the TARGET framework with student behavioral, cognitive, and affective outcomes (Braithwaite, Spray and Warburton, 2011). Manipulation of the procedures covered by this model leads to the creation of an optimal motivational climate that has lasting effects on learning (Digelidis et al., 2003).The results of foreign research (Almolda-Tomás et al., 2014; Braithwaite, Spray and Warburton, 2011) and reasearch conducted in Serbia (Bojović, 2017) that find theoretical foundation in the TARGET model show that there is a strong correlation between the prevalence of different characteristics of the teaching process and their impact on student motivation to learn.

**The purpose of the research study**

What procedures do teachers apply in current practice? What motivational role do students assign to teaching procedures? These are issues that we consider very important for student learning motivation and achievement. No matter what subject is taught, the teacher is a powerful factor whose adequate motivation strategies increase student motivation to learn (Bernaus and Gardner, 2008; Moskovsky et al., 2013; Papi and Abdollahzadeh, 2012) and can strongly influence student achievement (Drakulić, 2019). Thus, the teacher has a very important role "as a motivator to increase students' interest and motivation to achieve" (Tambunan, 2018, p.148). However, previous research has tended to focuse on teacher perspectives. To fill the gap in the literature, the present research focuses on both teacher and student perceptions of different motivational procedures that teachers use. Thus, we formulated the following research questions: 1. Do teachers and students similarly perceive the representation of teaching procedures? 2. How much do the different teaching procedures motivate students to learn?

## Materials and Methods

The aim of the research is to examine the current practice of encouraging motivation for learning in the teaching process in the elementary school "Dr Boško Vrebalov" in Melenci from the perspective of teachers and students. Motivation is seen as a multidimensional concept that includes planning of the teaching process, the teaching itself and the application of information and communication technologies (ICT).

The sample of students consisted of 22 teachers and 159 students of the elementary school "Dr Bosko Vrebalov" from Melenci. The subsample of students consisted of 48% males and 52% females who

in 2020/2021 were students in the fifth to eighth grade of elementary school. In terms of school success at the end of the previous school year, 44.7% of students had outstanding records, 39.6% were above average and the remaining 15.7% had average grades. The teachers included in this research had an average work experience of 15.9 years and are members of seven professional councils in the school: the Serbian language council, the council for mathematics, the council for foreign languages, the council for natural sciences, the council for history and geography, the council for art and culture, and the council for sports.

Two instruments, constructed in the form of a five-point Likert-type scale, were used in the research: Instrument for teachers and Instrument for students, which represent a revised and adapted version of the instruments of the same name (Bojović, 2017). The Instrument for Teachers contained 20 claims related to the representation of procedures for stimulating students' motivation to learn: preparation and planning of the teaching process, teachers' activities during the teaching process and the use of information and communication technology (ICT) in teaching. Teachers answered by selecting a number from 1 to 5 (1 - I do not apply at all to 5 - I fully apply).

The statements in the Instrument for Students are formulated based on the statements in the Instrument for Teachers. For example, the statement intended for teachers is "You choose or create tasks according to the student's abilities" in the Student Instrument reads "The tasks we solve in class correspond to the individual abilities of each student." The instrument for students consisted of two parts. The first part contained statements that examine the opinion of students about the representation of certain procedures in the teaching process. For each statement, the students expressed their opinion on the extent to which these procedures are represented in the teaching process (1 - not represented at all to 5 - fully represented). In the second part of the questionnaire, the students expressed their opinion on the impact of the mentioned teaching procedures on the motivation for learning (A - completely demotivates to E - fully motivates).

Research procedure and course. The research was conducted online using the Google questionnaire during December 2020. Respondents participated in the study voluntarily and anonymously. At the beginning of the questionnaire, they were informed about the purpose of the research and the use of the results exclusively for scientific purposes. Also, the respondents were informed about the possibility of giving up further participation in the research at any time.

## Results and Discussions

The research collected data on the prevalence of certain procedures to encourage student motivation to learn from the perspective of teachers and students. The applied instrument consisted of statements that made up three subscales: 1) preparation and planning of the teaching process; 2) effective teaching and 3) use of information and communication technologies. In addition, students assessed how much the observed procedures of the teaching process motivated them to learn. The obtained results show how teachers and students perceive the presence of observed procedures and the extent to which these procedures motivate students to learn from their perspective.

The arithmetic means for each subscale are shown in Figure 1. The results showed that in all three observed dimensions of the educational process, the arithmetic mean is higher than the theoretical arithmetic mean (2.5), whether viewed from the perspective of teachers or students. Also, teachers and students assessed the activities in the phase of preparation and planning of the teaching process and teaching as highly represented. There are differences in the perception of the application of ICT in teaching from the perception of students and teachers. Students believe that ICT is used to a greater extent than teachers say. The existence of disparity in the perception of teachers and students has been observed in previous research (Drakulić, 2019; Bernaus and Gardner, 2008). The students assessed that all activities on all three dimensions were highly motivating for them. The results of previous research have determined that the more represented certain actions are, the greater their motivational role (Bojović, 2017).

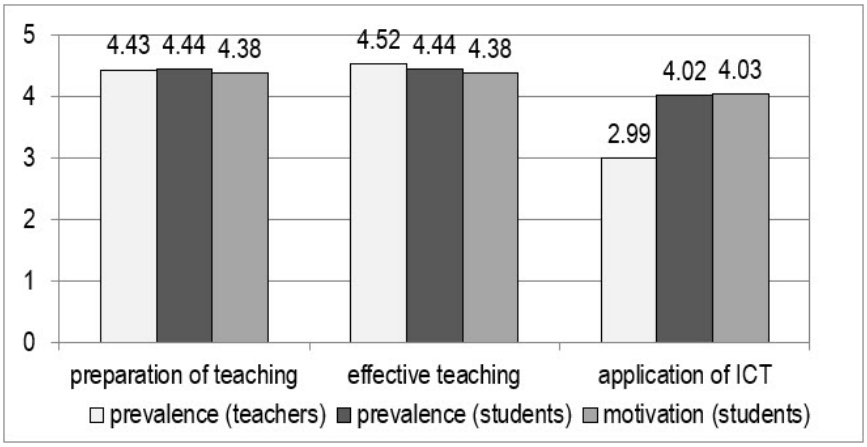


*Figure 1.* Characteristics of the teaching process from the perspective of teachers and students

Details on all three observed dimensions of the teaching process (preparation and planning of the teaching process, efficient teaching and use of ICT) from the perspective of teachers and students are given in the following text.

*Preparation of the teaching process*

The subscale Preparation of the teaching process contained items related to the process of preparation of tasks for students, designing procedures to support student autonomy, awarding student recognition, and encouraging group interaction. The arithmetic means for each of the examined segments within this subscale are shown in Table 1.

**Table 1**

*Descriptive statistics of evaluation of items in Preparation of the teaching process segment*

| | items | teachers | | students | | | |
|---|---|---|---|---|---|---|---|
| | | prevalence | | prevalence | | motivation | |
| | | M | SD | M | SD | M | SD |
| 1. | Preparation of assignments for students | 4.43 | 0.67 | 4.36 | 0.79 | 4.28 | 0.82 |
| 2. | Support for student autonomy | 4.50 | 0.58 | 4.48 | 0.76 | 4.45 | 0.81 |
| 3. | Recognition | 4.68 | 0.53 | 4.57 | 0.72 | 4.49 | 0.80 |
| 4. | Forms of group interaction | 4.11 | 0.82 | 4.35 | 0.93 | 4.29 | 0.91 |

Teachers are key actors in shaping the learning environment and one of their main tasks is to create a learning environment that improves and maintains student motivation and engages students in learning (Eccles and Roeser, 2011; Tambunan, 2018). Students are motivated or demotivated by school situations such as teaching content, work organization, method of processing materials, requirements for students, ways of monitoring their work, success criteria and school grades (Havelka, 2000). Table 1 shows that teachers and students consider all the observed procedures arising from the phase of preparation and planning of the teaching process to be highly represented in the teaching process. Also, students perceive them as highly motivating for learning. Arithmetic means and standard deviations for each observed statement are shown in Table 2.

**Table 2**

*Descriptive statistics of evaluation of items in Preparation of the teaching process segment (1 - Preparation of assignments for students; 2 - Support for student autonomy; 3 - Recognition; 4 - Forms of group interaction)*

| | items | teachers | | students | | | |
|---|---|---|---|---|---|---|---|
| | | prevalence | | prevalence | | motivation | |
| | | M | SD | M | SD | M | SD |
| 1. | The tasks we solve in class correspond to the individual abilities of each student. | 4.41 | 0.67 | 4.41 | 0.74 | 4.31 | 0.79 |
| | The tasks we solve in class are related to our previous knowledge from various school subjects and experience from everyday life. | 4.45 | 0.67 | 4.30 | 0.84 | 4.24 | 0.86 |
| 2. | The teacher monitors what we do in class, listens to us carefully and tries to understand our behavior. | 4.36 | 0.66 | 4.48 | 0.76 | 4.37 | 0.88 |
| | Each student is given the opportunity to show independence in the learning process. | 4.64 | 0.49 | 4.48 | 0.75 | 4.53 | 0.74 |
| 3. | The teacher clearly expresses the way in which he will monitor our success and progress in learning. | 4.55 | 0.67 | 4.52 | 0.74 | 4.42 | 0.80 |
| | The teacher monitors and praises the work of each student when he notices that he has progressed in learning and when the student tries to do the task as well as possible. | 4.82 | 0.39 | 4.62 | 0.70 | 4.55 | 0.79 |
| 4. | The teacher encourages us to cooperate with each other in class. to set and achieve a common goal of learning, not to compete. | 4.36 | 0.66 | 4.45 | 0.85 | 4.36 | 0.90 |
| | When we do tasks in a group, the teacher forms groups so that the members have different characteristics (they are of different genders, different interests ...) | 3.86 | 0.99 | 4.26 | 1.02 | 4.22 | 0.93 |

Note: The statements are given from the Student Questionnaire; teachers answered corresponding questions in the Teachers Questionnaire.

Cooperation is a common form of learning in primary schools. However, in this research it has been found that teachers use the least of the technique of cooperative learning with heterogeneous groups of students. In addition, this result contradicts the findings of previous research. Some researchers (Saleh, Lazonder and de Jong, 2007) found that grouping students of different abilities is more often used probably because teachers assume the higher achieving students will help their less able peers. Our results also revealed that students assigned a smaller motivational role to working in heterogeneous groups. This suggests that additional support is needed in order to strengthen collaborative learning in heterogeneous groups of students. Learning that occurs in heterogeneous groups depends on providing guidance and explanation, which is positively related to learning outcomes (Saleh, Lazonder and de Jong, 2007).

Our results pointed out that teachers and students similarly perceive teacher practice that supports autonomy in the classroom. In order to support autonomy in learning, it is important that teachers appreciate perspectives and feelings of students and to simultaneously show high expectations. Some previous studies (Hall and Webb, 2014) have also showed that autonomy supportive teacher practice is positively related to student motivation.

**Effective teaching**

The methodological literature abounds in guidelines for effective teaching. According to some authors (Bojović, 2017), in order for teaching to be effective, it is necessary to start the lesson with a brief overview of previously learned material; explain the objectives of the class; present new material in small chunks, where students should practice each step; provide clear and detailed instructions and explanations; provide a high level of activities and exercises for all students. Questions can stimulate student thinking and provide the teacher with feedback regarding students' knowledge and understanding (Dohrn and Dohn, 2018).

The results shown in Figure 1 show that the activities that characterize effective teaching are highly represented in the teaching process. Table 3 shows the arithmetic means of the evaluation of individual claims of effective teaching.

**Table 3**
*Descriptive statistics of evaluation of items in Effective teaching segment*

| | items | teachers | | students | | | |
|---|---|---|---|---|---|---|---|
| | | prevalence | | prevalence | | motivation | |
| | | M | SD | M | SD | M | SD |
| 1. | Teachers explain the importance of the topic covered in class, as well as the goals of class work. | 4.52 | 0.68 | 4.55 | 0.73 | 4.50 | 0.75 |
| 2. | Teachers ask questions about the material we learned in previous lessons. | 4.55 | 0.67 | 4.57 | 0.73 | 4.50 | 0.75 |
| 3. | Teachers give examples of life situations in which the material we process can serve us. | 4.59 | 0.59 | 4.42 | 0.75 | 4.28 | 0.87 |
| 4. | Teachers present the material in small chunks, give detailed explanations and instructions for work. | 4.50 | 0.51 | 4.30 | 0.82 | 4.31 | 0.89 |
| 5. | Teachers give us the opportunity to practice everything we learn in class. | 4.23 | 0.75 | 4.56 | 0.72 | 4.49 | 0.83 |
| 6. | Teachers ask a lot of questions to check how much we really understand the material. | 4.57 | 0.60 | 4.20 | 0.92 | 4.09 | 0.92 |
| 7. | When evaluating the success in the work, the teachers consider the final products of our work (the answers we give, the drawings we made, the speed with which we solve the task, etc.), as well as the effort we invest. | 4.68 | 0.57 | 4.46 | 0.77 | 4.46 | 0.81 |

Note: The statements are given from the Student Questionnaire; teachers answered corresponding questions in the Teachers Questionnaire.

The results presented in Table 3 showed that all examined procedures of effective teaching are highly represented in the teaching process both from the perspective of teachers and from the perspective of students. Also, they are assigned a great motivational role for learning. Minor discrepancies in the responses of teachers and students were noted on several statements. The biggest difference relates to the extent to which teachers explain the importance of the topic being covered in class, as well as the goals of class work. Teachers assessed this activity as less representative in relation to its representation from the perspective of students.

Differences in perception can be explained by the fact that teachers know how important it is for students to understand the goal and importance of the material studied, because if students perceive activities as valuable and meaningful, they will engage and make more efforts to reach the goal (Pintrich and Schunk, 1996). Therefore, they perceive this activity as an activity that should be applied to a greater extent in the teaching process.

The statements that refer to the activities that indicate the application of scientific knowledge in everyday life were also assessed by the students as highly motivating. The results of foreign research have shown that students were motivated to learn activities that are interesting and applicable in everyday life (Glynn, Taasoobshirazi and Brickman, 2007).

In the segment of effective teaching, the lowest average value (but still high compared to the theoretical average, i.e., M = 4.20) was reached by the statement about teachers asking many questions, in order to check how well students understand the material. One possible reason is the fact that teachers have a limited time to teach within the curriculum. In terms of motivation, students estimated that this activity has the least motivational role of all observed in relation to the teaching process. The results of the research have showed that the use of well-formulated questions contributes to increasing student activity (Hrastinski et al., 2021) and stimulates students to think (Dohrn and Dohn, 2018). However, it should be borne in mind that there are different types of questions with respect to the type of answer that is expected. It would be beneficial for future research to examine the effects of different types of questions on student learning. More recent evidence suggests that it is possible to coach teachers to be focused on asking questions rather than on the transmission of information (Hrastinski et al., 2021).

**Use of information and communication technology**

One of the tasks of the research was to examine the representation and motivational role of the application of information and communication technologies in the teaching process. The results of previous research have shown that the use of ICT encourages motivation to learn, encourages cooperation between students and teachers, as well as interactivity (Radulović, 2021; Sabzian, Gilakjani

and Sodouri, 2013), and contributes to higher student achievement (Knežević, Županec and Radulović, 2020; Radulović, Stojanović and Županec, 2016; Radulović and Stojanović, 2019; Shapely, Maloney and Caranikas-Walker, 2010).

Application of ICT during the preparation of teachers for teaching and during assessment as well as the extent to which students apply technology were examined in this research. Arithmetic means for the observed segments that indicate the application of ICT in teaching by teachers and students and their motivational role are shown in Figure 2.

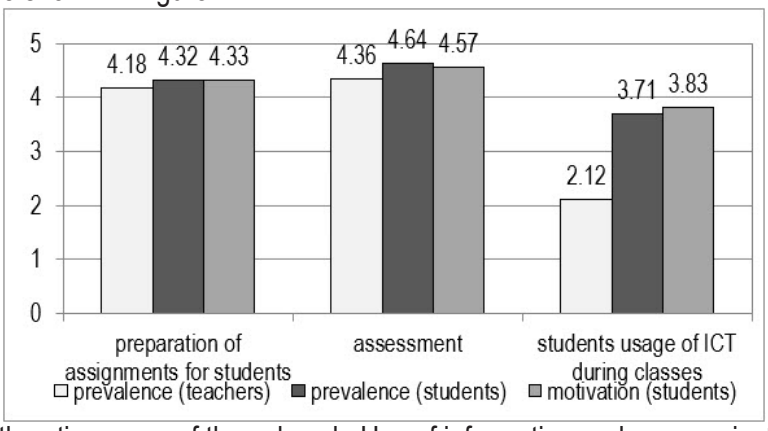


*Figure 2.* Arithmetic means of the subscale Use of information and communication technology

The results presented in Figure 2 show that teachers and students agree that teachers largely use ICT during the preparation of materials for students as well as during grading process to record grades and achievements. The students rated the above as highly motivating for learning. However, they assessed differently the prevalence of activities related to the use of computers by students during classes. While teachers rated it as very low (M = 2.12), students rated it as moderate (M = 3.71). This primarily refers to the use of computers during the presentation of information, work on computers during class and the creation of images, presentations, and other multimedia projects (Table 4). One possible explanation for the different perceptions of ICT use by students is the fact that the research was conducted during the coronavirus pandemic when much of the teaching was conducted online, and students assessed their current use of computers. The obtained result suggests that students should be stimulated to a greater extent to use computers during classes and extracurricular activities.

**Table 4**

*Descriptive statistics of evaluation of items in Use of information and communication technology (1 - Preparation of assignments for students; 2 - Assessment; 3 – Students usage of ICT during classes;)*

| | items | teachers | | students | | | |
|---|---|---|---|---|---|---|---|
| | | prevalence | | prevalence | | motivation | |
| | | M | SD | M | SD | M | SD |
| **1.** | Teachers use a computer in order to prepare learning materials for students. | 4.18 | 1.01 | 4.32 | 0.95 | 4.33 | 0.93 |
| **2.** | During a lesson, students work individually or in groups using a computer. | 1.86 | 0.96 | 3.61 | 1.24 | 3.55 | 1.28 |
| **3.** | Using a computer students present information to peers. | 1.76 | 0.94 | 3.55 | 1.37 | 3.65 | 1.30 |
| **4.** | Students create images/presentations/multimedia projects using ICT. | 2.76 | 1.26 | 3.99 | 1.19 | 4.06 | 1.07 |
| **5.** | Teachers record grades and students' achievements using a computer. | 4.36 | 1.26 | 4.64 | 0.66 | 4.57 | 0.78 |

The interesting result is that the students assigned a smaller motivational role to their own use of ICT than the use of ICT by their teachers. The obtained result is in contradiction with several previous researches which have recorded that the use of technology in teaching encourages the development of students' interests (Brophy, 2010; Nikou and Economides, 2016). Namely, the school provided computers to students who, due to poor material conditions, do not have their own computers. Therefore, it can be assumed that students have not yet fully mastered computer skills and do not have a developed sense of self-efficacy associated with goal setting, selection and implementation of effective learning strategies,

understanding, and evaluating their own progress (Schunk and Pajares, 2009). Ryan and Deci (2000) confirm this, by stating that self-efficacy is one of the most important motivational beliefs.

Based on these results, it can be concluded that the actions that the students marked as highly represented in the teaching process were also marked as highly motivating. Thus, the more represented certain actions are, the greater their motivational role.

## Conclusions

The aim of the research was to examine the practices of encouraging student motivation for learning from the perspective of teachers and students. Those motivational procedures were planning of the teaching process, effective teaching, and the use of ICT. The sample included students from fifth to eighth grade and their teachers.

The results presented in this paper showed that all the observed procedures during the planning of teaching and learning, as well as procedures related to the application of ICT, are very common in the teaching process. With minor deviations, there is the agreement between teachers and students on their prevalence. By linking the current teaching practice with the opinion of students to what extent the examined procedures stimulate their motivation to learn, it is noticed that the more prevalent a procedure is, the greater is its motivational role. Therefore, all examined procedures were assigned a high motivational role.

In general, the obtained results show that teachers frequently apply different motivational procedures and strive to create a positive motivational climate in the classroom. This result has a significant practical contribution because it indicates the actions that students perceive as motivating factors and leave room for further improvement of teaching practice - specifically: interaction between students, greater use of digital textbooks, use of audio and video recordings of teachers for teaching purposes, use of applications and tools to increase student motivation

Finally, it is necessary to mention the limitations of the present research. To obtain the reliable assessment of of teachers' actions, the research included both teachers and students. However, the examination of the current teaching practice was conducted in one school and the obtained results cannot be generalized for all schools. In future research, it would be desirable to include larger and more heterogeneous samples of students. In addition, a descriptive statistical analysis was performed on the collected data, and in further work it is possible to conduct more complex statistical analyses on the collected data in order to examine statistically significant differences in the perception of motivational procedures between students of different classes, different genders, school success, etc.

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### Conflict of interests

The authors declare no conflict of interest.

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