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## The Inclusion of Differentiation in Literacy Lessons in the First and Second Grades of Slovenian Primary School

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☞ In the modern educational process, teachers adapt lessons to the student's individual abilities, prior knowledge, interests and social skills. The present study, whose aim is to examine the inclusion of differentiation in literacy lessons in the first and second grades of Slovenian primary schools, was carried out on a smaller scale ( $N = 79$ ). It aims to determine the views of first- and second-grade primary school teachers on differentiation, and to find out how differentiation takes place in literacy lessons and which factors affect student performance in class. The results show that the inclusion of differentiation in literacy lessons is present in the entire initial literacy teaching process, and that Slovenian teachers undergo regular training and professional development courses in this area, thus contributing to the educational success of students and affecting their personal growth and development. Teachers estimate that the intertwining of individual abilities, family environment, engagement in co-curricular activities and well-developed social skills represents a key factor in student success. It was expected that internal differentiation would be more effective than external differentiation. Surprisingly, however, teachers report that heterogeneous groups do not enhance educational efficiency.

**Keywords:** differentiation, lessons, student, teacher, teaching literacy

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## Vključevanje diferenciacije pri pouku opismenjevanja v prvem in drugem razredu osnovne šole

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≈ V sodobnem vzgojno-izobraževalnem procesu učitelji prilagajajo pouk učenčevim individualnim zmožnostim, predznanju, interesom in socialnim spretnostim. Raziskavo, katere namen je bil preučiti vključevanje diferenciacije pri pouku opismenjevanja v prvem in drugem razredu slovenske osnovne šole, smo izvedli v manjšem obsegu ( $N = 79$ ). Cilji raziskave so bili ugotoviti, kakšna so stališča učiteljev, ki poučujejo v 1. in 2. razredu osnovne šole, do diferenciacije. Želeli smo izvedeti, kako poteka diferenciacija pri pouku opismenjevanja in kateri dejavniki vplivajo na uspešnost učencev pri pouku. Rezultati so pokazali, da je vključevanje diferenciacije v pouk opismenjevanja prisotno v celotnem procesu začetnega opismenjevanja in da se slovenski učitelji redno izobražujejo in izpopolnjujejo na tem področju ter s tem vplivajo na uspešnost učencev na učnem in osebostnem področju. Učitelji ocenjujejo, da so med glavnimi dejavniki za uspešnost učencev preplet individualne zmožnosti, družinskega okolja, vključenosti učencev v šolsko dejavnost in razvite socialne spretnosti. Pričakovana je ugotovitev, da je notranja diferenciacija učinkovitejša od zunanje, presenetljiva pa je ugotovitev, da heterogene skupine po mnenju učiteljev ne prispevajo k večji učinkovitosti.

**Ključne besede:** diferenciacija, opismenjevanje, pouk, učenec, učitelj

## Introduction

In 1996, the Primary School Act was adopted in Slovenia (Official Journal of the Republic of Slovenia, No. 81/06 – official consolidated text, 102/07, 107/10, 87/11, 40/12 – Financial Balance Act, 63/13 and 46/16 – Organisation and Financing of Education Act), which states in Article 40 that teachers are obliged to differentiate lessons and other types of organised work in accordance with the students' abilities. This applies to all primary school students (grades 1 to 9). Differentiation was introduced into teaching after the Second World War, in 1958, with the abolition of the dualistic system and the introduction of eight-year, and later nine-year, primary school (Blažič et al., 2003). In the 1970s, internal differentiation and individualisation also began to be implemented in practice, followed by flexible differentiation, which was introduced slightly later (Strmčnik, 2001).

The present article focuses on differentiation in literacy lessons in Slovenian schools. The Slovenian legislation stipulates that a child has to be enrolled in school in the calendar year in which s/he reaches the age of six. If a child is not yet mature enough to enter school, school enrolment may be delayed for one year based on a proposal submitted by parents or healthcare services (Official Journal of the Republic of Slovenia, No. 81/06 – official consolidated text, 102/07, 107/10, 87/11, 40/12 – Financial Balance Act, 63/13 and 46/16 – Organisation and Financing of Education Act).

Early literacy lessons – that is, learning the alphabet, acquisition of reading and writing techniques – take place in the first and second grades of primary school, whereas in the third grade, literacy lessons are focused on consolidation (Primary School Curriculum: Slovenian Language. Syllabus, 2018).

During the period of early literacy lessons, the foundations for further reading and writing lessons are laid. Due to the large differences between students upon entering school, it is essential for teachers to be aware of the importance of individualisation and differentiation, which should be used in class on a regular basis. This is precisely why the present article aims to analyse the situation in the field of differentiation in literacy lessons in Slovenian primary schools.

## Overview of the literature on differentiation

Tomlinson (2004) defined differentiation as a teaching concept that ensures that the knowledge obtained by the student corresponds with the student's academic readiness or his/her ability level and interests, as well as the learning techniques that prove to be most suitable for the student. Differentiation is a

teaching concept that takes into account the talents and learning styles of the individual (Morgan, 2014). Differentiation techniques have been designed to satisfy students' needs, ensuring that students consequently develop certain virtues such as responsibility, cooperation and mutual assistance (Grimes & Stevens, 2009). Strmčnik (2001) defines differentiation as an organisational measure used by the teacher to guide and manage students in accordance with their specific differences. Students are split into homogeneous or heterogeneous learning groups, either temporary or permanent, in order to achieve better social and individual educational results by adapting objectives, content and didactic-methodical teaching concepts. Differentiation begins with the teacher's reflection on the content and teaching methods, as well as on the assessment of knowledge or progress and the student's understanding. During a working day, students can be split into different groups according to their needs and abilities.

In schools around the world, the Response to Intervention (RTI) differentiated approach has been introduced in classrooms. Within this approach, students are placed in three different tiers according to their abilities. Students placed in tier 1 are provided with high-quality lessons that are not differentiated; in tier 2, differentiated work takes place in small groups; and in tier 3, students acquire basic knowledge and need extra support and assistance (Jefferson et al., 2016). The latter is often provided outside the framework of regular classes, in the form of remedial classes, individual learning support and additional professional assistance (Pečjak & Potočnik, 2011). The teacher monitors the student's progress and identifies his/her interests, and when tier 1 knowledge has been reached, the student is moved to a higher level (tier), which will facilitate his/her further progress (Policastro et al., 2019).

Modern education aims to develop social, emotional, moral and intellectual abilities that allow students to become integrated into the community (Stropnik Kunič, 2012). In differentiated learning, the teacher has to take into account the differences between students that emerge as a result of their individual abilities, which include intellectual and verbal abilities, and due to their family environment and other factors, such as social skills and student participation in co-curricular activities (Marjanovič Umek, 2007). In Slovenian schools, migrant children and Roma children represented a special group of students. In their case, language barriers should be taken into account as the major obstacle faced by students in literacy learning (Klopčič, 2013; Knez, 2009).

## Differentiation strategies in literacy lessons

The teacher's role is to adjust learning objectives in accordance with student abilities, and to create a learning environment that promotes students' progress and success (Waldron & McLeskey, 2001). Tomlinson (2003) includes differentiation in literacy lessons in three different ways: the use of reading materials at different levels; preparation of literacy centres containing activities with certain adjustments that are in line with the abilities and interests of students in a certain class; and the establishment of a centre where the teacher can work individually with a student who still has knowledge gaps.

Literacy teaching is defined in the literature as a process that involves all four communication skills, i.e., listening, speaking, reading and writing (Grginič, 2005; Haughbrook et al., 2017). Pečjak and Potočnik (2011) define it as a perceptual decoding process that includes: 1) letter recognition, resulting in the ability to visually distinguish and use support keys in decoding, which includes a grapho-phonetic or phonetic-letter key, a semantic key and a syntactic key; and 2) phonological awareness, which includes phonemic analysis and the ability to distinguish different phonemes.

The 2018 updated syllabus for the Slovenian language states that early literacy lessons take place individually, gradually and systematically throughout the first educational period (students aged 6 to 8), not only in Slovenian language but also in other subjects (Primary School Curriculum. Slovenian Language. Syllabus 2018).

The student population in primary school is very diverse, and the work therefore needs to be differentiated. However, it is precisely this diversity and the variety of student needs that may result in the same teaching strategies not suiting all students (Puzio et al., 2020). The teacher must therefore know his/her students well, formulate clear goals, take into account different student abilities, and plan the teaching materials according to the students' needs and interests. In order to accomplish the syllabus goals and objectives, the teacher must be flexible and take into account the level of difficulty of the teaching material and its compliance with the students' development level and abilities. In the light of the above, the International Reading Association identified differentiation as a core teaching competence (International Reading Association, 2000).

The work of Arquette (2007) contains some suggestions for the successful implementation of differentiation in literacy lessons that could be also appropriate in Slovenian classes. The author suggests that teachers should establish classroom centres for various activities that can increase student motivation and engagement in literacy learning. The Reading Centre should be

equipped with materials that are appealing to students (e.g., fairy tales, comics, picture books) and provide reading tasks (e.g., reading with a friend, writing down questions and unknown words). The Big Book Centre should be separated from the Reading Centre, as it will allow students to undertake tasks that apply to certain books only (e.g., reading aloud to a classmate). In the Listening Centre, students have access to listening devices and can listen to various texts. Post-listening activities should be well thought out and should keep students active and engaged. The Reading and Listening Centres should encourage students with reading difficulties to make progress using the applications that motivate them to read, including sound recordings with correct pronunciation, which is extremely beneficial for students. The Writing Centre is designed to improve students' writing skills. Students write letters to their classmates and can also practise writing on a computer. In the ABC/Word Study Centre, students work on letter recognition, practise writing, and develop visual and auditory perception.

### **Differentiation in literacy lessons in Slovenia**

The Slovenian Language Syllabus (2018) states that students are to reach their goals through activities adapted to their age, their communicative, cognitive and imaginative abilities, and their experience and interests, which means that the teacher is obliged to plan lessons that use differentiated instruction (DI) to suit the student's distinct aptitudes. Differentiation has been present in the Slovenian school system for a long time. Research findings (Pečjak & Potočnik, 2011; Žalik, 1988) in the field of differentiation have shown that the teacher's role is to perceive students' abilities upon their entry into school; rather than viewing students as equal, the teacher should allow them to make progress at their own pace. Differentiation requires teachers to be flexible and is very time consuming. Consequently, teachers often wonder how to plan for differentiation successfully. It is important that the teacher takes into account the characteristics and abilities of the student that are necessary for the development of reading and writing skills, while also seeking to optimise the development of the student's abilities. In doing so, teachers are often confronted with factors that may hinder differentiation, e.g., the number of students in the class, restrictions and regulations, as well as fear that internal differentiation may turn into external differentiation. The most effective model of differentiation, also in Slovenia, is the RTI model (Pečjak & Potočnik, 2011), which separates teaching into three tiers:

In tier 1, the lessons are intended for all students. The lessons must be

of high quality and should involve differentiated instruction and opportunities to promote the development of students' interests. Within this tier, the teacher identifies students struggling with reading and writing gaps, who therefore need extra help. In this regard, it would be good for teachers to have a table with goals, where they would mark the status of each student with regard to the attainment of their objectives. Students may have problems in different areas and each student needs support and assistance (Yssel et al. 2014).

In tier 2, the lessons are held in smaller groups and student progress is monitored more often than in tier 1. The teacher uses student progress data to prepare an individualised programme for each student and to plan the transition from one tier to another. In tier 2, the teacher's duty is to assist students in performing tasks at the appropriate level of difficulty (Adams et al., 2012). Tier 2 work is limited to 30 minutes per day. It is performed in such a way that the teacher assists a group of students with reading and writing difficulties, while other groups are left to work on their tasks independently (Pečjak & Potočnik, 2011).

Tier 3 comprises students who need more support and assistance than tier 2 can offer. Lessons can be based on group work or individual work, depending on the students' needs.

Tier 3 lessons are even more systematic and focused on the individual student. This tier comprises students with serious reading and writing difficulties. Lessons are usually held outside regular school hours. The RTI differentiation model proves effective and suitable for students with reading and writing difficulties as well as for high-performing students (ibid.).

## **Research problem and research questions**

The study aims to examine the inclusion of differentiation in the first and second grades of primary school in Slovenia. In her doctoral dissertation, Pečar (2018) deals in detail with differentiation in general as well as teachers' attitudes towards differentiation. This paper presents the results of a small-scale study concerned with differentiation in literacy lessons. The study aims to establish the attitudes of teachers of first- and second-grade students in primary school towards differentiation in literacy lessons. The aim was to find out the ways in which differentiation takes place in literacy lessons, and to determine which students are provided with differentiated learning. We examined which factors, according to teachers, affect students' performance in literacy lessons, how the inclusion of differentiation affects literacy lessons in various teaching strategies, and the correlation between the teacher's attitude towards differentiation in literacy lessons and its frequency in various teaching strategies.

The research questions were as follows:

1. How important is the inclusion of differentiation in literacy lessons for teachers, and which elements of differentiation do teachers consider important or unimportant?
2. Which differentiation methods are used by teachers in literacy lessons and which students are, with regard to their abilities, most frequently provided with differentiation?
3. In the opinion of teachers, which factors have the greatest impact on student performance in literacy lessons?
4. In the view of teachers, how does the inclusion of differentiation affect literacy lessons in various teaching strategies? What is the correlation between the teacher's attitude towards differentiation in literacy lessons and the frequency of differentiation in various teaching strategies?

Hypotheses:

- H1: Teachers consider differentiation in literacy lessons to be very important, as it significantly affects the development of students' personality traits, social skills and learning abilities.
- H2: In literacy lessons, teachers differentiate their work by using various teaching methods and strategies, and it is those students who deviate from the average population who are most commonly provided with differentiated instruction.
- H3: According to teachers, student performance in literacy lessons is affected by students' intellectual abilities, their home environment and social skills.
- H4: Teachers maintain that different teaching strategies significantly affect student performance, while also having a powerful impact on student motivation and self-confidence. The teacher's attitude towards differentiation affects the frequency of differentiation in various forms of teaching.

## Method

### *Sample*

Due to the fact that, according to the syllabus, early literacy lessons take place in the first and second grades of primary school, teachers who taught first- and second-grade students in the 2019/20 school year were invited to participate in the survey. A total of 79 participants<sup>2</sup> decided to take part in the

<sup>2</sup> The results cannot be generalised to the entire population.



survey, of which 78 (98.7%) were female and 1 (1.3%) was male. Precisely 48 participants (60.8%) taught the first grade and 31 (39.2%) taught the second grade.

Participation in the research study was voluntary and the responses were anonymous.

### *Research instrument*

For the purpose of this research study, an online questionnaire was created. It was based on the literature on the subject of differentiation, which had been previously studied and examined. The online survey questionnaire comprises questions that are used to either confirm or reject the previously stated hypotheses. The questionnaire contains the demographic data needed to present the sample and provide data analysis. The survey questionnaire encompasses five-point (the first part of the questionnaire) and three-point (the second part of the questionnaire) Likert scales, which are used to measure the respondents' opinions about a given subject. The table of the five-point scale assessing attitudes and opinions contains a variety of statements about the inclusion of differentiation in literacy lessons. The survey participants had to assess the relevance of each statement related to the implementation of their lessons.<sup>3</sup> The three-point-scale table also contains statements about the inclusion of differentiation in literacy lessons. The participants had to evaluate the extent to which each statement pertains to the implementation of their lessons.<sup>4</sup> The survey questionnaire filled out by the teachers also contains the following open-ended question: "Considering the results in your class, what are the positive effects of differentiation?"

### *Research design*

On the basis of the literature and subsequent research questions, we prepared a survey questionnaire for teachers who taught the first or second grade of primary school in the 2019/20 school year. The survey questionnaire was distributed to teachers through an online portal in one phase only. The questionnaire was completed by 79 teachers. The data obtained was transferred from the web collector to Excel, and later to an SPSS document. The survey questionnaire showed a high degree of reliability, as the Cronbach's alpha coefficient is .92 for the first part of the questionnaire and .81 for the second part. The third part of the questionnaire comprised an open-ended question, which was analysed by means of a descriptive research method.

3 The set of statements covers a range of options that vary from one extreme to another: 1 – unimportant, 2 – of little importance, 3 – moderately important, 4 – important, 5 – very important.

4 The assessment of statements covers a range of options: 1 – agree, 2 – partly agree, 3 – disagree.

## Results and Discussion

The survey results bring to light the responses to the research questions.

The first research question aims to determine the views of first- and second-grade primary school teachers on differentiation in literacy lessons. Their responses were obtained in the first part of the questionnaire, where they assessed the importance of various statements, as well as in the third part of the questionnaire, where the respondents had to provide answers to an open-ended question on the positive effects of differentiation.

Data analysis shows that the teachers regard differentiation in literacy lessons as very important ( $f = 43$ ; 54.4%) or important ( $f = 31$ ; 39.2%), which is also confirmed by the data for the statement regarding the time spent on preparing differentiation strategies in literacy lessons. The majority of the teachers answered that they spend a lot of time on differentiation ( $f = 36$ ; 45.6%) or that this statement is at least partly true ( $f = 41$ ; 51.9%). It can therefore be concluded that particular attention is given to this teaching technique by the teachers.

The third part of the questionnaire contains an open-ended question on the positive effects of differentiation in literacy lessons. The results show that most teachers focus their attention on the individual student, while the positive impact of differentiation on students represents a great professional success for teachers. This demonstrates that there is a connection between students and teachers, which is consistent with the findings of Tomlinson (2003), who claims that teacher-student relationships play a key role in the planning and implementation of differentiated teaching.

When asked about the positive effects of differentiation, most of the respondents stated that students' self-esteem is boosted during differentiated literacy lessons. As students progress from lower to higher taxonomic task levels, they gain a sense of success and accomplishment.

The survey questionnaire shows that teachers consider the element of differentiation to be very important ( $M = 4.58$ ). The teachers surveyed believe that students are more motivated to work if literacy lessons are based on differentiation and if they are performed in a dynamic way, characterised by group work and subject content that is consistent with students' abilities, interests and needs. The first part of the questionnaire examines the importance of student motivation regarding literacy lessons, and the third part explores the situation in the respondents' classes. It was established that the correlation between the results of the survey statements is statistically significant ( $p = 0.038$ ), which suggests that the teacher should ensure additional student motivation in literacy lessons, providing s/he finds it important.

The vast majority of teachers assessed the adaptation of lessons to students' abilities as important (the first part of the survey questionnaire) ( $M = 4.54$ ). They also assessed as important the fulfilment of student needs ( $M = 4.35$ ) and the adjustment of lessons to student interests ( $M = 3.67$ ).

The surveyed teachers devote a great deal of attention to the didactic-methodological way of teaching, which they consider very important in their work ( $M = 4.41$ ). They also listed some interesting teaching strategies that may increase student interest in reading and writing: the use of the phonomimic method of teaching alphabet letters, learning letters through songs and rhymes, and learning by movement. When executing these activities, the teachers are autonomous and they find it important to adjust the learning content ( $M = 3.99$ ) and goals ( $M = 4.00$ ) in literacy lessons for the benefit of their students. The teachers also listed some other elements of differentiation that they consider important in literacy lessons: the development of responsibility ( $M = 3.2$ ) and independence ( $M = 4.48$ ), and encouraging students to help and assist each other ( $M = 4.44$ ). The teachers stated that all of these elements represent a positive outcome of differentiation in literacy lessons in their teaching practice.

The second research question was intended to check which differentiation methods are used in literacy lessons in practice, and which students are most frequently provided with a differentiated teaching approach.

The response to the first research question exposed some of the teaching methods used by teachers while giving lessons (the phonomimic method, learning through rhymes and songs, learning by movement). In addition to teaching methods, we were also interested in teaching strategies used in differentiated literacy lessons. We wanted to find out which teaching strategies are most frequently used by teachers in literacy lessons.

**Table 1**

*Teaching strategies most frequently used by teachers in literacy lessons*

Statements	True		Partly true		Not true		Total	
	f	f %	f	f %	f	f %	f	f %
In literacy lessons, I most frequently use the frontal teaching method.	3	3.8	51	64.6	25	31.6	79	100.0
My literacy lessons are most frequently based on group work activities, with all groups having the same task.	0	0.0	46	58.2	33	41.8	79	100.0
My literacy lessons are most frequently based on group work activities, with each group working on tasks that are adjusted to the students' abilities.	28	35.4	50	63.3	1	1.3	79	100.0

The results presented in Table 1 illustrate that, in most cases, literacy lessons are rather diverse. The teachers use the following three types of teaching strategies in class: frontal teaching, groupwork with all groups doing the same tasks, and groupwork where the tasks are adjusted to individual students and their abilities. Each of these strategies plays an important role in the individual stages of literacy lessons, and it is important not to favour one strategy over others: they need to be given equal importance and should be intertwined.

Only 3 teachers (3.8%) most frequently use the frontal teaching strategy in literacy classes, while this is partly true for 51 teachers (64.6%). Some teachers stated that they perform the frontal teaching strategy mainly in the introductory part of the lesson – e.g., singing a song related to a certain letter of the alphabet – and in the final part, when they revise the subject matter covered during the lesson. The results show that group work with all groups working on the same task is the least frequently used teaching strategy in literacy lessons. The respondents stated in their answers that this teaching strategy is used primarily to assess and evaluate their students' existing knowledge. The activities that the majority of the teachers (28 respondents or 35.4%) tend to use most frequently are group work activities adapted to the students' abilities. With the exception of one teacher, the other respondents evaluated this statement as partly true. The teachers maintain that the group work method is the most effective in the consolidation stage, when reading and writing skills are reinforced. By means of the listed teaching methods, differentiation can be performed in all three tiers of the RTI model. Tier 3 can be additionally strengthened by using forms of assistance outside regular school hours, such as remedial classes (for low-performing students) and supplementary lessons (for high-performing students). Are literacy lessons included in this type of extra help and assistance as well?

**Table 2**

*The inclusion of literacy lessons in remedial and supplementary classes*

Statement	True		Partly true		Not true		Total	
	f	f %	f	f %	f	f %	f	f %
I often teach literacy in remedial classes.	45	57.0	21	26.6	13	16.5	79	100.0
I often teach literacy in supplementary lessons.	25	31.6	33	41.8	21	26.6	79	100.0

Table 2 shows that academically weak students are more likely to be placed in tier 3. A study by Jožef (2019) explains why teachers do not focus so much on developing communication skills in supplementary classes,

demonstrating that teachers conducting supplementary classes mostly focus on preparing their students for competitions and therefore seek to improve student performance in mathematics. We are very critical of this argument, as the development of communication skills represents the foundation for developing skills in other areas.

**Table 3**

*Students who are, with regard to their abilities, provided with differentiated instruction*

Statement	True		Partly true		Not true		Total	
	f	f %	f	f %	f	f %	f	f %
Academically weak students	60	75.9	19	24.1	0	.0	79	100.0
High-performing students	55	69.6	24	30.4	0	.0	79	100.0
Average students	49	62.0	30	38.0	0	.0	79	100.0

Table 3 shows that differentiation is used in literacy lessons by all teachers, who, at least partly, employ differentiated instructional strategies by devoting more attention to academically weak students. As expected, teachers consider differentiation especially important in the case of academically weak students, as these students would not accomplish their objectives without additional support and assistance. However, the results show that teachers use differentiation in other groups as well, since none of the teachers opted for the answer “*Not true*” for any of the groups.

Nevertheless, it would have been preferable for the response “*True*” to score better (to achieve a higher percentage) in the case of high-performing and average students, since the main goal of differentiation is to create an environment in which student abilities are optimally developed under the teacher’s guidance. In the modern school, we should not only strive to gain basic knowledge, but to maximise the progress of each individual student.

The third research question aims to determine which factors, according to teachers, have the most significant effect on student performance in literacy lessons: individual abilities (intellectual and speaking skills), family environment, student engagement in co-curricular activities or their social skills.

The survey questionnaire contains questions regarding these factors, along with corresponding statements and a three-point attitude scale to measure the teachers’ opinions.

**Table 4**

*Factors that, in the teachers' opinion, have the greatest impact on student performance in literacy lessons.*

	<i>M</i>	<i>SD</i>	<i>N</i>
The impact of individual abilities	1.52	.503	79
The impact of family environment	1.76	.430	79
The impact of social skills	2.05	.658	79
The impact of student engagement in co-curricular activities	1.81	.482	79

As maintained by the teachers (Table 4), it is the individual abilities of students, which include, inter alia, intellectual and speaking abilities, that have the most significant impact on student performance. According to Musk (2014), these two types of ability represent a precondition for achievements in the field of mental abilities, independent of physical and psychomotor skills. As reported by the teachers, it is the following factors that significantly affect student performance (in order of importance): family environment, student engagement in co-curricular activities, and students' social skills ( $M = 2.05$ ), which, according to Rozman (2006), include cooperation, listening, discussions, empathy, manner of expression, having consideration for oneself and others, conflict resolution, and the ability to use one's own internal resources.

All of the claims about various types of impact on student performance in literacy lessons were assessed by the teachers as "*partly true*", which can be explained by the fact that the influences are intertwined and mutually affect each other: if one of the influences becomes stronger, the others become stronger as well.

The purpose of the fourth research question was to establish the effects (success, motivation, self-confidence) that, according to the teachers, differentiation has in various teaching strategies (frontal teaching, groupwork – homogeneous grouping, groupwork – heterogeneous grouping, remedial classes and supplementary lessons). We also wanted to gather the teachers' opinions on the importance of integrating differentiation in literacy lessons using various teaching strategies.

The results related to the effects of differentiation in various teaching strategies showed that, in the teachers' opinion, frontal teaching does not affect the students' performance, motivation and self-confidence. In homogenous groups, students deal with the same or different tasks that help them achieve common learning goals, while at the same time having an opportunity to

cooperate and, with regard to their abilities, boost their progress. In the teachers' view, this teaching strategy affects student performance but does not have an impact on their motivation and self-confidence. According to the teachers, activities in heterogeneous groups, in which students are assigned either the same or different tasks, affect neither student performance nor the motivation and self-confidence of students. This result is rather surprising, as more able students can help academically weaker students in heterogeneous groups, which could increase the motivation of all group members, both those who give and those who receive help. We also wanted to find out more about the teachers' views on the importance of external differentiation in the form of remedial classes and supplementary lessons. The teachers believe that remedial classes do not significantly affect students' performance, motivation and self-esteem. As a matter of fact, the teachers report a positive effect of remedial classes on student performance and motivation, yet they also claim that remedial classes do not improve students' self-esteem. While the positive impact on student performance and motivation can be attributed to the individualised teaching approach, the absence of a positive effect on student self-esteem can be linked to prejudice about remedial classes, which are offered to academically weak students. In supplementary lessons, teachers set higher-order learning objectives for their advanced students (in accordance with Bloom's Taxonomy Levels of Learning), which promotes the development of their mental processes and consequently brings about students' progress and success. Students involved in co-curricular activities usually show interest in additional learning activities and are motivated to work. A link between the teachers' assessment of the importance of integrating differentiation in literacy lessons and the organisation of different teaching strategies was established. Statistically significant results were identified in the following three cases: the assessment of the importance of differentiation and frontal teaching ( $p = 0.000$ ), the assessment of the importance of differentiation and groupwork with students working on the same tasks ( $p = 0.003$ ), and the assessment of the importance of differentiation and groupwork with students tackling different tasks ( $p = 0.000$ ). There are no statistically significant links between the teachers' assessment of the importance of integrating differentiation and remedial classes and supplementary lessons. The results are as expected, since all three types teaching strategy – one frontal and two groupwork strategies – take place during regular classes with students of different ability levels learning together in heterogeneous groups. In this process, the teacher should take into account the students' abilities and strive for the progress of each individual student. Remedial classes and supplementary lessons each comprise students with similar abilities, and this results in

the formation of homogeneous groups, which means that the teaching strategy itself is differentiated.

## Conclusion

The research presented in this paper is based primarily on teachers' views obtained by a survey questionnaire. The results would most likely have been different if lesson observations had been conducted, which would also have allowed for greater objectivity.

The research results demonstrate that first- and second-grade primary school teachers devote a lot of their time and attention to differentiation in literacy lessons. When planning such work in the classroom, teachers devote particular attention to the positive effects of differentiation on students. Teachers believe that in differentiated literacy lessons, students boost their self-esteem due to the fact that they gain a sense of accomplishment and success by completing the easiest tasks first and then working their way up to more demanding tasks. Teachers maintain that students make greater progress and are more motivated if lessons are adapted to students' abilities, interests and needs. Moreover, students are more likely to become actively engaged in dynamic lessons with a variety of teaching methods, and if reading and writing skills are practised through movement, singing and reciting. At the same time, teachers often adapt the learning objectives and literacy content to their students. By means of differentiation, teachers also contribute to the development of students' personal traits, especially independence and a sense of responsibility, while students are also encouraged to help their peers and support each other. In the classroom, however, differentiation alone does not fully meet students' needs. According to differentiation principles, one should also take into account individualisation or the adaptation of the learning process to each individual student (Pečar, 2018). Research by Pečar (2018) showed that teachers believe it is essential for them to determine students' prior knowledge and to link the subject matter with students' interests if they want to ensure successful adaptation of their lessons. In this way, student motivation is increased and they are encouraged to persevere in the process. Differentiation in literacy lessons is organised in various ways: frontal teaching, groupwork with students working on the same task, and groupwork with students doing different tasks depending on their abilities. All of the survey participants use these teaching strategies, which are often intertwined. Teachers select their teaching strategies according to the stage of student learning: the introductory stage, where students are introduced to the new topic; the revision and consolidation stage;



and the knowledge assessment stage. Although literacy lessons are carried out in remedial classes and supplementary lessons, the research data suggests that little attention is paid to tier 3 in these classes. During literacy lessons, most students are provided with differentiation, but those students who stand out – either as high-performing or low-performing students – are more likely to be provided with differentiation. Teachers divide students into groups that are either heterogeneous or homogeneous. Students in heterogeneous groups are selected either randomly or systematically, whereas a homogeneous grouping of students is planned by the teacher in advance. The purpose of groupwork is to promote collaborative learning that helps develop students' communication skills, in our case reading and writing (Rot Vrhovec, 2015). In her study, Pečar (2018) also highlights adjustments with regard to the number of tasks, as well as teaching methods and the learning environment. It is interesting to note that teachers adapt their lessons mainly in mathematics and Slovenian, while lessons are adapted to a lesser extent in other subjects.

According to teachers, student performance is affected by four factors: students' individual abilities, their family environment, student engagement in co-curricular activities, and students' social skills. Although teachers maintain that student performance is mainly affected by individual abilities, none of the other three parameters deviates greatly from the leading one, which means that all of the parameters are interdependent and affect each other. Research by Pečar (2018) demonstrates that, according to teachers, students' performance is mostly affected by their family environment, followed by students' active engagement in co-curricular activities. It is extremely important to develop the abilities of the individual student as optimally as possible. Slovenian primary school teachers who teach first- and second-grade students are well aware of the importance of this principle, and they take it into account in their literacy lessons. Research has shown that academically weak students and gifted students are provided with differentiation to a greater extent than average students. The findings of the present paper are in line with those outlined in research by Pečar (2018), who also established that teaching is adapted mainly to high-performing and low-performing students. Pečar maintains that teachers are in favour of differentiation, but they often encounter obstacles such as state regulation of class size, a lack of time for differentiation, curriculum overload, discipline problems, and students' lack of interest. Rot Vrhovec (2020) points out, among other things, the importance of adapting lessons to foreign students, but further research would be required on this topic.

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