# THE EFFECT OF INTEGRATION AMONG 1<sup>st</sup> Grade Primary School Students on the Writing of Letters and Words

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Abstract The integration of immigrants into the Slovenian school environment is still topical. As a result, some primary schools have significantly more foreign students than others. The inclusion of multicultural students brings mainly difficulties in the knowledge of Slovene and also a lack of literacy. The study examined 190 first grade students. A comparative method was used at the level of describing facts with the aim of discovering similarities and differences in the writing of letters and words in 1st grade students. The first group included more foreign students than the second group. The results of the t-test for independent samples reflected a statistically significant difference between the groups in writing letters and words of varying difficulty. The inclusion of multicultural students influences the teaching of Slovene in the 1st grade and requires the differentiation and individualization of teaching.

#### Keywords:

letter writing, word writing, 1<sup>st</sup> grade of primary school, immigrant inclusion, multicultural students



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## 1 Introduction

Children encounter writing in preschool. In a stimulating environment, children are surrounded by a variety of activities that encourage them to write spontaneously. Writing is a demanding communicative activity that is often consciously learned later, in primary school in systematic literacy. The child says what they want to write, out loud or in their mind, so we say that writing is the conversion of sounds into letters. Writing can also be explained as a transformation in form – from auditory to visual (Križaj Ortar et al., 2000; Curriculum, 2002; 2011). To convert sounds into letters, children need to hear individual sounds in a word and break them down. Individual sounds are strongly connected in syllables and are more difficult to perceive, distinguish, and parse. Some sounds have an instantaneous pronunciation, yet others have an extended pronunciation. All of this affects the conversion of sounds into letters. Students learn letters and sounds together in monographic letter processing procedures.

Systematic learning of writing requires certain skills, including posture when writing, hand posture, positioning and use of various pens, orientation on paper, direction of writing (from left to right), and drawing basic strokes that are an integral part of the letters and digits (Ropič et al., 1999; Curriculum, 2002).

Research highlights the link between phonological awareness and reading and writing. Poorly developed phonological awareness skills bring difficulties in initial reading and writing. Early systematic stimulation of phonological awareness has a positive effect on the ability to decode (Tafa, 2008; Manyak, 2008; Strickland, 2011; Papadimitriou & Vlachos, 2014).

Phonological awareness includes several levels that follow one another in a particular sequence (Chard & Dickson, 1999). In the period at the end of preschool and at the beginning of the 1<sup>st</sup> grade, we pay the most attention to the initial sound, the final sound, the sound within the word, and the sounding out (breaking down the word into individual sounds). Research shows that the ability of phonological awareness is significantly influenced by exercises in the preschool period and at the beginning of school (Ropič, 2014; 2016; 2017; Ropič Kop, 2020).

Primary schools in Slovenia also include children whose mother tongue is not Slovene. These children have immigrated to Slovenia with their parents in recent years. What they all have in common is that they have problems communicating in Slovene. Their parents also have language problems and are unable to help their children. Primary schools in Slovenia include differing numbers of immigrant students. In fact, some primary schools have more immigrant students and others fewer (Hanuš, 2010), but all have some degree of integration. The inclusion of immigrant students in 1<sup>st</sup> grade is a challenging task, so special attention is drawn to the immigrant students involved. Teachers and professional teams in primary schools provide appropriate assistance to these students. The effectiveness of the assistance is also reflected in the number of immigrant students in the same institution.

The immigrant students involved are often affected by the poorer socioeconomic status of their families. Children from different cultural, linguistic, and socioeconomic backgrounds do not progress as expected by researchers (Lathouras et al., 2019) even after prolonged provision of additional organized help (oral narration, vocabulary comprehension, phonological awareness). A study in Latin America that examined the effects of help (phonological awareness, spelling, fluent reading, and comprehension) on students with poor family socioeconomic status and poor language skills showed only partial effects (Balbi et al., 2020).

At the beginning of 1<sup>st</sup> grade, the quality of life in the preschool period is reflected in the students. The involvement of children in kindergarten in Slovenia is actively linked to activities that promote language skills. The kindergarten curriculum ensures active participation in the communication process. In addition to all this, the role of educators (both male and female included) is important because they set a speech example for the child in all activities. It is also said to have a direct impact on the development of a child's language ability. In addition, children in kindergarten receive literary education and pre-literacy. Pre-literacy includes visual discernment and dissection, auditory discernment and dissection, care for the expansion of children's vocabulary, etc. Children have the opportunity for verbal and nonverbal communication, symbolic play, etc. In kindergarten, children are also introduced to the concept of printing letters. The educators read to the children, tell them stories, and play audio and video cassettes to the children (Kindergarten curriculum, 1999). In recent decades, we have been confronted with the term "emerging literacy". The term includes pre-literacy skills that a child develops in the period before formal learning in a printed word environment (Grginič, 2005). The authors (Goodman, 1992; McGee, 1987; Miller, 1996; in Grginič, 2005) describe the initial reading and writing development of a child as a process of spontaneous birth of literacy or emerging literacy. D. Golli (1991) coined the term "initial literacy" for spontaneously acquired literacy before primary school. This term is still used by primary school teachers. The term "family literacy" is also often used in connection with literacy. Children also experience spontaneous emerging literacy at home, in the family. The biggest differences in the acquisition of emerging literacy in children can be predicted right in the home environment.

Since there has been an increase in intercultural classrooms in the 1<sup>st</sup> grade of primary school in recent years, the goal of this study was to research the effect of intercultural classrooms on prior knowledge in the field of writing letters and words in a group with a higher share of multicultural students.

## 2 Methodology

The study examined whether integration had an effect on students' ability to write letters and words at the beginning of 1<sup>st</sup> grade, or whether there was a difference in this ability between groups of students, where integration was present and where it was not or was rarely seen. Students come to Slovenia from Bosnia, Kosovo, Macedonia, Syria and other countries. The number of these students is not evenly distributed across primary schools. The null hypothesis was that there is no statistically significant difference between the two arithmetic means in the ability to write letters and words.

For this purpose, the study included a random sample of 190 first grade students from northeastern Slovenia, who were divided into two groups. In group 1 multiculturalism was present, which contributed to various problems in the knowledge (mastery) of Slovene and certain deficits in prior knowledge in the field of literacy. There were 96 students in this group, of which the authors recognized interculturality in 45 students. There were 94 students in group 2, six of whom had immigrated to Slovenia. The inclusion of multiculturalism in this group was very weak, which meant that in general the students' mother tongue was Slovene. All these students attended kindergarten before entering school.

At the beginning of the 1<sup>st</sup> grade of primary school, the students were tested individually in writing letters and words from dictation. The selected letters N, U, G and R differ in the complexity of the basic strokes, namely the letter N is a combination of basic strokes (vertical, oblique), the letter U is a combination of the basic arc stroke, the letter G is a combination of the basic strokes of a left semicircle and a horizontal line, and the letter R is difficult from the perspective of writing, as it is a combination of various basic strokes (vertical, right semicircle, oblique). The test was performed in two phases. In the first phase, four letters were dictated to the students to write down. If they were not successful in writing any of them, the test was not continued. In the second phase, the students had to write four dictated words: NA, MIŠ, JEŽEK, ČEBELA, in order from the easiest to the more difficult words. In both tests, the spelling of the correctly written letter/word was graded with one point. Incorrect letters, including mirrored letters, were not considered. The data were processed with the SPSS program. The t-test for independent samples was used to determine the differences between the groups in writing letters/words.

#### 3 Results and Interpretation

#### 3.1 Writing the Letters N, U, G and R

The last part of the table shows a statistically significant difference between groups 1 and 2. Statistical testing of the homogeneity of variances (Levene's Test for Equality of Variances) showed a statistical characteristic between groups 1 and 2 (p = .000). The difference between the groups in the spelling of the **letter N** was statistically significant, as p = .024. The students in group 2 were more successful in writing the letter N. In group 1, the influence of multiculturalism was present, and this was reflected in their weaker ability to write at the beginning of the 1<sup>st</sup> grade. *Table 1* shows that there was a significant difference between the arithmetic means of the two groups and a smaller one in the standard deviation. A few students in both groups had no prior knowledge of writing letters at the beginning of 1<sup>st</sup> grade. The results of writing the **letter U** by dictation show a significant arithmetic difference between students of group 1 and group 2. There was also a significant difference in the standard deviation of the two groups that there

would be no statistically significant difference between the arithmetic means was rejected, since there was a statistically significant difference of .001 between group 1 and group 2. The students in group 1 had significantly less prior knowledge in the field of writing the mentioned letter at the beginning of 1<sup>st</sup> grade.

The results of writing the **letter G** show a statistically significant difference (p = .040) between students of groups 1 and 2. The arithmetic means indicated higher performance in group 2 compared to group 1. There were no major differences in groups 1 and 2 in the standard deviation. In comparing the arithmetic means of writing the individual letters in groups 1 and 2, the students of both groups were least successful in writing the letter G. The results show that the notation of this letter was the most demanding.

*Table 1* shows a statistically significant difference between students in groups 1 and 2 in the writing of the **letter R** at the beginning of 1<sup>st</sup> grade (p = .019). The students in group 2 showed greater ability in writing, and they had greater prior knowledge. In the arithmetic means of groups 1 and 2, there was a greater difference in the writing of the letter R, but not between the standard deviations. Both groups were the most successful in writing the letter R.

The t-test showed a statistical difference in the spelling of the **letters N, U, G, R** between students of groups 1 and 2, namely p = .003. The students in group 2 were significantly more successful in the joint writing of letters. The students in group 2 were able to write almost three out of four letters on average, while the students in group 1 managed only 2.3. The difference in standard deviation between the groups was smaller. The multicultural students certainly had an impact on the lower writing performance in group 1. Individual students in group 1 had a weak vocabulary in Slovene, as Slovene was not their mother tongue. An additional problem was that the parents of the mentioned students did not know Slovene or their knowledge of it was insufficient. A certain proportion of students in group 1 only communicated in Slovene at school or in their free time with their peers but not at home with their family. These students received additional professional help at school.

Letter	Group	Ν	Μ	SD	F (p)	t (p)	
Ν	1	96	0.61	0.489	19.878 (.000)	-2.277 (.024)	
	2	94	0.77	0.426			
U	1	96	0.57	0.497	37.361 (.000)	-3.240 (.001)	
	2	94	0.79	0.411			
G	1	96	0.48	0.502	6.099 (.014)	-2.071 (.040)	
	2	94	0.63	0.486			
R	1	96	0.65	0.481	22.425 (.000)	-2.362 (.019)	
	2	94	0.80	0.404			
Total	1	96	2.29	1.660	15.706 (.000)	-3.057 (.003)	
	2	94	2.97	1.379			

Table 1: Results of the t-test for independent samples of the students in groups 1 and 2 in writing the letters N, U, G, R

#### 3.2 Writing the Word NA

As can be seen in *Table 2*, there was a statistically significant difference between the groups of 1<sup>st</sup> grade students in the writing of the **word NA** (p = .002). The arithmetic mean between the groups reflects a significant difference but not in the standard deviation. The presence of prior knowledge in the field of writing the word NA was less shown in group 1 students, which stems from different language groups, varying preparation of children for school, and different sociocultural environments.

*Table 2* shows the results of the t-test of differences between the groups of students in the correctness of the **letter N** in the word NA and is reflected in the statistical difference (p = .004). The students in group 1 students were less successful in writing the initial consonant of the given word, as evidenced by the significant difference of arithmetic means. The standard deviation shows that there were differences in the ability to write between the students of both groups, but among the students of group 1, the individual differences were even greater.

The difference between the groups of students in writing the **letter A** from the word NA is statistically significant (p = .005). In comparing these findings with others, one can conclude that there is a connection with Lenin's findings (2007). Students were more successful in writing the first letter – the consonant – as it allows easier perception. The second letter – the vowel A – represents a more demanding perception in the field of phonological awareness. This is also reflected in writing.

	Group	Ν	Μ	SD	F (p)	t (p)
Word NA	1	96	0.44	0.499	( 500 ( 011)	2120(002)
	2	94	0.66	0.476	0.589 (.011)	-5.159 (.002)
Letter N ( <u>N</u> A)	1	96	0.49	0.503	16.173 (.000)	-2.877 (.004)
	2	94	0.69	0.464		
Letter A (NA)	1	96	0.46	0.501	8.685 (.004)	-2.838 (.005)
	2	94	0.66	0.476		

Table 2: Results of the t-test for independent samples of the students in groups 1 and 2 in writing the word NA

## 3.3 Writing the Word MIŠ

The results of the t-test (*Table 3*) in the writing of the **word MIŠ** showed a statistically significant difference (p = .001). The arithmetic mean showed lower performance in group 1. These students were successful in writing the word with an average of 0.21 words. The arithmetic mean in group 2 indicates much greater prior knowledge, since the students were successful at 0.43. The standard deviation, however, indicates individual differences among students of both groups.

The results do not show a statistically significant difference between the students in group 1 and group 2. They nevertheless show a tendency (0.056), which reflects poorer ability in writing the **letter M** in the word MIŠ in group 1 compared to group 2. In both groups, a certain proportion of students were able to write the first letter in the word. The initial letter is a consonant, which facilitates the perception of the sound in the word and affects the writing.

*Table 3* presents the results of the t-test, which did not show a statistically significant difference between student groups at 0.083. However, there was a tendency that indicated that the students of group 2 had greater prior knowledge in the field of writing. This was also confirmed by the arithmetic mean. The standard deviation indicates large individual differences between students in the ability to write. The students in both groups were less successful in writing the second **letter I** in the word MIŠ. "I" is a vowel that allows for extended pronunciation, which affected proper perception and correct spelling.

*Table 3* shows the results writing the **letter Š** in the word MIŠ, which showed a statistically significant difference between group 1 and group 2 (p = .001). There was a significant difference between the arithmetic means of both groups. The standard

deviation in group 1 and 2 also indicated significant individual differences between students in the ability to write the letter Š in the word MIŠ. The word MIŠ has two consonants, the initial and final sound in the word. These results are comparable with other studies (Levin, 2007; Ropič, 2016). The consonant as an initial or final sound facilitates phonological awareness. It also affects phonological awareness of shorter and non-syllabic words. This applies not only to phonological awareness, but also to the ability to write at the beginning of 1<sup>st</sup> grade.

	Group	Ν	Μ	SD	F (p)	t (p)
Word MIŠ	1	96	0.21	0.408	38.300 (.000)	-3.288 (.001)
	2	94	0.43	0.497	_	
Letter M ( <u>M</u> IŠ)	1	96	0.49	0.503	6.489 (.012)	-1.925 (.056)
	2	94	0.63	0.486	_	
Letter I (M <u>I</u> Š)	1	96	0.41	0.494	2.371 (.125)	-1.740 (.083)
	2	94	0.53	0.502		
Letter Š (MI <u>Š</u> )	1	96	0.23	0.423	35.531 (.000)	-3.392 (.001)
	2	94	0.46	0.501		

Table 3: Results of the t-test for independent samples of the students in groups 1 and 2 in writing the word MIŠ

## 3.4 Writing the Word JEŽEK

In the ability to correctly write the **word JEŽEK**, there was a statistically significant difference of 0.036 between groups 1 and 2. The arithmetic means showed lower performance in the students in group 1. Writing the word JEŽEK is challenging, as the word consists of five letters. It follows the sequence: consonant, vowel, consonant, vowel, and consonant. The initial sound/letter and the final sound/letter are consonants that contribute to successful perception (Levin, 2007). The standard deviation indicated individual differences in both groups.

The writing of the **letter J** showed a statistically significant difference (p = .040) between groups 1 and 2. The students in group 2 were more successful, which was also confirmed by the arithmetic mean. In both groups of students, the authors observed mirrored writing of the letter J. There were also individual differences in the students of both groups, which was shown by the standard deviations.

*Table 4* shows a statistically significant difference (p = .001) in the writing of the second letter from the word JEŽEK, the **letter E**, which appeared in the test for the first time here. The arithmetic means indicated large differences in the ability to write a vowel that comes second in a word.

The writing of the **letter**  $\check{\mathbf{Z}}$  showed a statistically significant difference (p = .030) between groups 1 and 2 in favour of the students in group 2. In comparing the ability to write the first consonant in this word -J – and the third letter in the word  $-\check{\mathbf{Z}}$ , which is also a consonant – a small difference is found between the arithmetic means of the writing of J and  $\check{\mathbf{Z}}$ . Consonants facilitate the ability of phonological perception, and this can also be related to writing (Levin, 2007; Ropič, 2016). The ability to write in both groups decreased at the third letter in the word.

	Group	Ν	Μ	SD	F (p)	t (p)
Word JEŽEK	1	96	0.09	0.293	19.321 (.000)	-2.114 (.036)
	2	94	0.20	0.404	_	
Letter J (JEŽEK)	1	96	0.20	0.401	17.382 (.000)	-2.073 (.040)
	2	94	0.33	0.473	_	
Letter E (J <u>E</u> ŽEK)	1	96	0.26	0.441	27.542 (.000)	-3.334 (.001)
	2	94	0.49	0.503		
Letter Ž (JE <u>Ž</u> EK)	1	96	0.16	0.365	20.047 (.000)	-2.186 (.030)
	2	94	0.29	0.455		
Letter E (JEŽ <u>E</u> K)	1	96	0.13	0.332	48.489 (.000)	-3 (.001)
	2	94	0.32	0.469	_	
Letter K (JEŽE <u>K</u> )	1	96	0.16	0.365	62.282 (.000)	-3.932 (.000)
	2	94	0.40	0.493		

Table 4: Results of the t-test for independent samples of the students in groups 1 and 2 in writing the word JEŽEK

*Table 4* shows a statistically significant difference (p = .001) between the students in groups 1 and 2 in writing the **letter E** in the word JEŽEK, which is the fourth letter in the word. This is the letter's second appear in this word. The arithmetic mean demonstrated that significantly worse results were achieved by the students in group 1. The authors also paid attention to the results of the arithmetic mean of both groups in the first and second notation of the letter E in the word JEŽEK. The students' ability to write the letter E was lower in the second case. This can be explained by the connection of phonological awareness abilities and not by the ability to write.

*Table 4* shows statistically significant differences between the students in groups 1 and 2 in the ability to write the **letter K** in the word JEŽEK. The arithmetic means in the writing the letter K reflected the biggest difference in the spelling of the word JEŽEK. The letter K is in fifth position, which is also a more difficult task for phonological awareness (the perception of the sequence of sounds in the word).

# 3.5 Writing the Word ČEBELA

The writing of the **word ČEBELA** showed a statistically significant difference (p = .005) between groups 1 and 2. The arithmetic mean of 0.28 in group 2 showed higher performance in the ability to adequately write down the said word compared to group 1, where the students were successful only 0.11 on average. The standard deviation indicated individual differences in the writing ability of students in both groups. These were even higher among the students in group 1. The structure of the word ČEBELA consists of three simple syllables. Each of these syllables has a consonant and a vowel. The initial letter (sound) is a consonant, which offers help in the ability of phonological awareness, namely it is easier to detect the initial consonant (Levin, 2007, Ropič, 2016). Students who have properly developed phonological awareness and the ability of knowing how to write individual letters were successful in writing the word.

The writing of the letter  $\check{C}$  showed a statistically significant difference between the students in groups 1 and 2 in the ability to write the initial  $\check{C}$  in the word  $\check{C}$ EBELA. The arithmetic mean showed greater performance in students from group 2. The standard deviation indicated individual differences between students in both groups, however, they were larger in group 1.

The writing of the second **letter E** in the word ČEBELA reflected a statistically significant difference (p = .000) between the students in groups 1 and 2. The writing of this letter in the word ČEBELA showcased the largest difference between groups in the ability to write. Individual differences in the ability to write were present in both groups, although again there were larger differences in the ability to write among the students in group 1. The poorer results can also be explained by the students' lower phonological awareness, the division (segmentation) in distinction (discrimination) of sounds.

The difference in the writing of the third letter in the word ČEBELA between the groups was statistically significant (p = .005). The students in group 2 were more successful in writing the **letter B**. The standard deviation indicated greater individual differences among the students in group 1, which included students from different cultures, languages, etc. To write the word ČEBELA, the students needed successful sound analysis, perception of the sequence of sounds, and proper spelling of the letter.

*Table 5* shows a statistically significant difference (p = .001) between the students in groups 1 and 2 in the writing of the **letter E** in the word ČEBELA, which stands in fourth place. Differences in the arithmetic means of both groups indicated significantly lower performance in the students from group 1. The writing of this letter also showed significantly greater individual differences among the students in group 1. The students were similarly successful in writing the letter E in both positions in the word. Also, in both cases, the ability to divide a vowel next to a consonant in a word had a similar effect. Thus, in group 2, the spelling "ČEBLA" was noted, which is a typical error in the field of weak phonological awareness (sound omission – vowel).

*Table 5* presents a statistically significant difference (p = .005) between groups 1 and 2 in the writing of the **letter L**, which stands at the penultimate position in the word. The students in group 2 were significantly more successful, which was also shown by the arithmetic means. Special attention was also paid to the standard deviation in group 1, which again pointed out the very large individual differences between students.

The results presented in *Table 5* show that there was a significant difference (p = .002) between the arithmetic means of the two groups (1, 2) in the writing of the **letter A** in the word ČEBELA. The standard deviation indicated large individual differences between students, which was certainly influenced by the inclusion of multicultural students. In comparing the arithmetic means of the writing of individual letters in both groups (1, 2), the greatest ability was found in writing the letter A in the word ČEBELA. This phenomenon is logical. It is a longer word in which the student focuses first on the initial sound/letter, then on the other sounds/letters, and finally on the final sound/letter. The appearance of the

sound/letter A is equally as important in the everyday environment (e.g., "A" in the name: at the beginning, end, within the name).

	writing the word CEBELA							
	Group	Ν	Μ	SD	F (p)	t (p)		
Word	1	96	0.11	0.320	26 417 (000)	-2.855 (.005)		
ČEBELA	2	94	0.28	0.450	- 30.417 (.000)			
Letter Č	1	96	0.20	0.401	27 (4( (000)	-3.161 (.002)		
( <u>Č</u> EBELA)	2	94	0.40	0.493	- 37.646 (.000)			
letter E	1	96	0.17	0.375	EQ 407 (000)	-3.890 (.000)		
(Č <u>E</u> BELA)	2	94	0.41	0.495	- 58.497 (.000)			
Letter B	1	96	0.20	0.401	21 (02 (000)	-2.852 (.005)		
(ČE <u>B</u> ELA)	2	94	0.38	0.489	- 31.092 (.000)			
Letter E	1	96	0.18	0.384	45.050 ( 000)	-3.382 (.001)		
(ČEB <u>E</u> LA)	2	94	0.39	0.491	45.050 (.000)			
Letter L	1	96	0.21	0.408	20 220 (000)	-2.825 (.000)		
(ČEBE <u>L</u> A)	2	94	0.39	0.491	50.559 (.000)			
Letter A	1	96	0.23	0.423	22 02E ( 000)	-3.085 (.002)		
(ČEBEL <u>A</u> )	2	94	0.44	0.499	- 52.025 (.000)			

 Table 5: Results of the t-test for independent samples of the students in groups 1 and 2 in writing the word ČEBELA

#### 4 Discussion

The feature of this study is that it found differences between the students in groups 1 and 2 - the significantly lower ability to write letters was found in the group 1. In group 2, there was little inclusion of multicultural students, as the children had gone to kindergarten, and their mother tongue was Slovene. The basic idea of the study was to reflect on integrated classrooms on the prior knowledge of writing at the beginning of the 1st grade of primary school. The students in both groups were individually tested in writing four dictated letters. At the beginning of the 1st grade, significant differences in the prior knowledge of letter writing became apparent. More than half of the students in group 2 wrote all four dictated letters. All students from this group had gone to kindergarten in Slovenia and had partaken in a program that promoted the basics of writing (Curriculum for Kindergartens, 1999). A large proportion of children from group 1 had also attended kindergarten. Nevertheless, poorer performance was recorded in group 1. This could be explained by the fact that certain students came from a weaker socioeconomic background and had a poorer knowledge of Slovene along with their parents. It is important to point out that some students in this group were very successful, but there were fewer than in group 2. These results are consistent with research that also points to a weaker foundation in literacy (Lathouras et al., 2019; Balbi et al., 2020). Students from

different cultures, with poorer language skills and from weak socioeconomic environments also need long-term help in acquiring the basics of writing.

The results of writing the word NA confirmed the claim that students have fewer problems with phonological awareness in shorter words and words where the initial sound is a consonant (Levin, 2007; Ropič, 2016). Students in both groups were most successful in writing this word. Prior knowledge in the field of writing was greater in group 2. In both groups, there were large individual differences in the ability to write the word NA. In focusing on the spelling of an individual letter in a word, the students had greater success in writing the initial consonant compared to the final vowel.

The percentage of students who could already write simple words was significantly reduced when writing the word MIŠ compared to the word NA. The students in group 1 were significantly less successful in writing this word. Their writing ability was significantly affected by the presence of major language problems and inferior phonological awareness. Certain students were less motivated at first glance and reflected a language deficit. After a detailed review of the writing performance of individual letters, the authors found that the students in group 2 were more successful in writing the letter M. This can be explained by the fact that non-syllabic or short words and words that begin with a consonant facilitate the ability of phonological awareness (Levin, 2007; Ropič, 2016). It was also found that writing was aggravated by the second letter in the word, which in this case was a vowel (I). The latter allows for a pronounced pronunciation, but the vowel elsewhere in the word causes problems in the case of insufficiently developed phonological awareness. An even greater difference occurred among students in their ability to write the last letter in this word. The sound/letter was a consonant. Words that have a consonant at the beginning or at the end allow for better perception. The students who had gone to kindergarten and had previously done phonological awareness exercises were more successful in their ability to break down words into sounds and in their writing skills. The latter findings can also be confirmed by various research (Levin, 2007; Ropič, 2016).

Writing the word JEŽEK was the most challenging task for the students in both groups. The word's structure is interesting from the point of view of phonological awareness. It starts with a consonant, ends with a consonant, there is a consonant in

the middle of the word, and the same vowel E appears in the second and fourth place. Very few students in group 1 and slightly more in group 2 were able to write the word JEŽEK. When writing the letter J, the authors came across mirrored writing of the letter in both groups. There were also a few similar examples when writing the letter Ž. This error is an error in writing caused by improper stroke direction. Because of this, it cannot be said that the students had problems with phonological awareness or with the ability to detect the initial consonant. The latter is considered an easier task (Levin, 2007). In the writing of the whole word and in the writing of all individual letters, the authors observed significantly lower writing ability in group 1, which was certainly also influenced by its interculturality. Furthermore, the largest difference was observed in the writing of the letter K, and then in both letters E. In the word JEŽEK, the letter E is in the second and penultimate position. The students had already demonstrated their ability to write this letter in its first appearance in the word. If they had had well-developed phonological awareness, they would have also written the second letter E in the appropriate place. But that was not the case. The students in group 1 had the most problems with this sound and consequently with the letter. The students had developed varying levels of phonological awareness, which is also associated with other findings (Ropič, 2017).

Word length affects the ability to perceive sounds in a word (Levin, 2007; Ropič, 2016). The authors anticipated that the most difficult word to write down would be ČEBELA. The results of the study did not confirm this. In both groups, the most difficult challenge was the word JEŽEK, where mirrored writing appeared. The students will acquire the appropriate direction of writing when reading the letters.

The students' phonological awareness in group 2, namely the initial sound in the word, the final sound in the word, and all other sounds in the word, also enabled greater success in writing the word ČEBELA and in writing all individual letters in the word. The largest difference between the students in groups 1 and 2 was recorded in their performance in writing the three vowels (E, E, A). The results of the study can be linked to other research (Levin, 2007; Ropič, 2016), which found that the perception of vowels is more demanding than the perception of consonants. When writing the letter Č, the authors noticed mirroring of the letter or partially written letters (without a tick) in both groups. A longer word with six letters does

not pose an obstacle in writing for students who have developed the ability of phonological awareness.

### 5 Conclusion

Systematic teaching of phonological awareness should be carried out in the preschool period, and it should continue in the 1<sup>st</sup> grade of primary school. It is also necessary to emphasize the duration and frequency of exercises. Phonological awareness provides valuable knowledge that students also use in writing. Determining students' prior knowledge in the field of reading and writing before systematic literacy is crucial. Teachers urgently need information about reading and writing skills to differentiate and individualize literacy lessons. The notation of the observed words was sufficient in presenting individual students' prior knowledge of writing. Writing letters and words from dictation is assessed as appropriate for individual checking (teacher-student).

Based on the test results, phonological awareness exercises can be planned in class. Certain writing difficulties (mirrored writing) can also be used in the initial phase to create informed decisions in teaching writing.

This study has confirmed that writing is a complex activity. Writing in 1<sup>st</sup> grade is primarily influenced by phonological awareness abilities and the basics of writing.

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