

Research on elisions in preschool age children

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RESUMO

As atividades-chave no desenvolvimento da consciência fonética da criança são as que requerem manipulação com os fonemas. Uma das possibilidades de trabalhar no nível dos fonemas e treinar a capacidade de manipulação dos fonemas são as elisões. Essas tarefas pressupõem as capacidades das crianças para isolarem fonemas (ou unidades maiores) e, em seguida, omiti-los. O objetivo é identificar o resto da palavra que foi criada, omitindo o fonema, sílaba ou partes da palavra correspondente. Este estudo teórico-empírico apresenta algumas questões teóricas relacionadas com o tema e centra-se nos resultados obtidos com crianças em idade pré-escolar na Eslováquia. A pesquisa foi realizada com 866 crianças na idade de 4 a 7 anos. Focou-se na capacidade de perceber a elisão de fonemas, ou seja, isolar o som em uma palavra e, depois, pronunciar a palavra que surge da omissão de um determinado som. O teste de elisão fonética mostrou que é a competência fonética mais exigente para as crianças participantes no estudo. O sucesso geral em todas as categorias de idade foi de apenas 23%. O teste revelou crianças com capacidade desenvolvida acima da média para a norma estabelecida. Os resultados são parte de uma pesquisa mais ampla que tem como foco o desenvolvimento de um complexo instrumento de avaliação do nível de consciência fonética. O trabalho é resultado do projeto VEGA nº. 1/0637/16 intitulado "O Desenvolvimento do Instrumento Diagnóstico para Avaliação do Nível de Consciência Fonética de Crianças em Idade Pré-escolar".

Palavras-chave: Elisão; Isolamento de fonema; Omissão de som; Consciência fonológica e fonética.

ABSTRACT

The key activities in child's phonemic awareness development, are those which require manipulation with phonemes. One of the possibilities for work on the phoneme level and train the ability to manipulate with phonemes are elisions. These tasks assume the children's skills to isolate phonemes (or larger units) and then omit them. The aim is to identify the remaining part of the word that was created by omitting the corresponding phoneme, syllable or parts of the word. This theoreticalempirical study presents some theoretical issues connected with the topic, and it focuses on the results acquired from children in the preschool age in Slovakia. The research was conducted with 866 children at the age of four to seven years. It was focused on the ability to realize phoneme elision, i.e. to isolate the sound in a word and afterward pronounce the word which arises from omitting a certain sound. Testing the phoneme elision has shown that it is the most demanding phonemic ability for children taking part in the research. The overall success in all age categories was only 23%. The test revealed children with above the average developed ability to the established norm. The results are part of a more extensive research which is focused on the development of a complex tool used to evaluate the level of phonemic awareness. The paper is the outcome of the VEGA project no. 1/0637/16 entitled The Development of the Diagnostic Instrument for the Assessment of the Level of Phonemic Awareness of Preschool Age Children.

Keywords: Elision; Phoneme isolation; Sound omission; Phonological and phonemic awareness.

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1. Introduction

Pre-literate activities are an important part of language acquisition realized in preschools. Although reading instruction begins later at the primary school, some important skills which are included in phonological awareness must be mastered prior to reading (Máčajová et al., 2017). Urquhart (2000) writes that pre-reading children are not good at detecting phonemes, but other kinds of sensitivity to the sounds in the words occur. Therefore, the ability to detect the individual sounds that make up a word, comes only after children have begun to be instructed in reading, rather than being a factor that precedes and causes reading achievement. According to many authors (Adams, 1990; Jošt 2011; Kulhankova & Malkova, 2008; Torgesen et al., 2005) phonological awareness is one of the strongest predictors of reading success. It consists of various abilities and the child's level of these abilities, at the end of preschool age, is important for the future acquisition of reading and writing skills.

Phonological awareness can be defined as a conscious ability to differentiate and manipulate with larger units than phonemes. It includes the abilities of analysing and synthetizing, and analysing includes rhyme awareness, syllable and phonemic awareness (Jošt, 2011; Máčajová & Grofčíková, 2016).

Phonemic awareness relates to the ability to hear and identify individual phonemes. It can be defined as knowledge that words are made up of sounds (phonemes), which we can manipulate in words (Býtešníková, 2012; Jošt, 2011; Máčajová et al., 2017). It refers to the ability to perceive, identify or detect and consciously operate with the smallest units, phonemes in the speech. Torgesen et al. (2005) define phonemic awareness as knowledge about characteristics of individual sounds or that words consist of separate phonemes, smaller units than syllable. Phonemic awareness is the top phase in the development of phonemic hearing and shows sensitivity to sounds in spoken words. It is the ability to identify, segment, analyze, synthetize and manipulate the sounds in speech (Gatial, 2015; Mikulajová & Dujčíková, 2001).

As described above, phonemic awareness plays an important role in the development of speech, but it also significantly influences the process of teaching reading and writing. Pupils with phonemic awareness skills can manage reading and spelling better than pupils with difficulties in the basic phonological abilities. Therefore, skills can be practiced in various activities and tasks consisting of rhyming, matching rhyme and alliteration, syllable blending and splitting, full phoneme segmentation and manipulation (e.g. deleting, substituting). It assumes that the child is aware of the acoustic form of spoken language and can isolate the content of the word, utterance; through hearing, the child can isolate the words in sentences, syllables in words, and sounds in words, or their order, number, etc. (Mikulajová & Dujčíková, 2001).

Four operations are required from the child in the process of phonological awareness. First, the acoustic perception of a certain speech segment is required. Subsequently, the child needs to hold it in memory long enough for the required operation to be carried out. There is the performance of the given operation (manipulation, leaving out, identification, etc. of speech segment), and finally, the result of the operation must be communicated, most often orally (McBride-Chang, 1995).

Kulhánková and Málková (2008) present a set of tasks detecting the level of phonological skills.

- 1. Tasks for revealing differences, in which a child compares words to one another and identifies whether they differ phonetically. The difference between words can be in the first, final or middle phoneme, whose identification is the most difficult.
- 2. Tasks for matching the phonemes, in which a child compares words and identifies which are phonetically similar. Identifying words which begin with same sound.
- 3. Tasks for compounding, in which occurs blending individual phonemes into words. For example, a child joins the sounds /d/, /o/, /g/ and creates a word.
- 4. Tasks for manipulating the phonemes, in which a child modifies, changes individual phonemes, then omits them (elisions), rearranges (transposition) or adds a new phoneme to the word.
- 5. Tasks for segmenting the phonemes, in which a child isolates the individual sounds in the word and pronounces them one by one (breaking a word into individual sounds).

Cséfalvay and Lechta (2013) refer that phonemic awareness abilities are acquired in the following order:

1. rhyming of words, beginning with rhyme perception, then gradually becoming aware of the fact that, for example, the word "cat" rhymes with the word "hat";



- 2. splitting words into syllables;
- 3. identification of the first sound in the word (word /cat/ begins with /k/), analyzing the initial sound;
- 4. identification of the last sound in the word (word /hat/ ends with /t/), analyzing the final sound;
- 5. identification of the middle sounds in the word like CVC (e.g. cat), CCVC (e.g. skin), analyzing the middle sound; and other longer words;
- 6. to compose words from sounds (trousers, rhinoceros, etc.), synthesizing and segmenting the words into the individual phonemes;
- 7. manipulation and play with sounds in words and exchanges of sounds; deletion, omission of individual phoneme in the word.

One of the ways to develop phonological abilities and test these abilities are the tasks where elisions are practiced. The word "elision" has a Latin origin and means separation, reduction. It is a process when one or more phonemes, syllables or words are usually omitted to simplify pronunciation. The child should omit a part of the word or only one sound (phoneme) and say a new word. We can recognize phoneme elisions, e.g., in the word "pláva" (swim) is the first sound omitted and a new word is "láva" (volcano's lava); syllable elisions, e.g., in the word "domček" (small house) is a second syllable omitted and a new word is "dom" (house); and elisions where larger utterances are omitted e.g., in the word "strojvedúci" (supervisor), we can omit the second part of the word "vedúci" and a new word is "stroj" (machine) (Jošt, 2011).

As in the case of elisions, it is also used in pseudo-words (non-existing words, nonsense words). These pseudowords are constructed according to the same morphological and phonological rules as real words, but they are not meaningful. They are used to filter out the semantic effect, for example, a nonsense word "flin", the task is to omit second sound and say "fin". Jošt (2011) presents the tasks for transposition, which require the exchange of sounds among several words, e.g., a child has to exchange the initial sounds in these two words "pám" and "lás" (nonsense words) and create new words "lám" (break) and "pás" (belt).

2. Method

The study presents research findings and results aimed at detecting abilities of preschool children to realize phoneme elisions, i.e., to isolate or omit the sound in the word and pronounce a new word which arises from removing the certain sound. The results are part of a larger research which is focused on the development of a complex instrument for evaluating the level of phonemic awareness. The test for the assessment of phonological and phonemic awareness (Macajova, 2013) diagnoses the abilities which are closely related to phonemic awareness: work with rhymes; ability to analyze and synthesize at the word, syllable and sound level; phoneme and syllable omitting; phoneme and syllable isolation; word differentiation and localization of changes in sentences. In the area where activities for omitting are tested, focus is on diagnosing the two abilities: sound omission and syllable omission. The study results are indicators of the level of Slovak children in their ability to isolate the certain sound in the target word. Based on this, the research question was: What is the level of Slovak children in individual age categories in the area "Sound omission"?

2.1. Participants

The research was conducted in 28 kindergartens in Slovakia. Children were at the age of 4 to 7 years. Together there were 866 respondents, 446 girls and 420 boys. The children with speech disorders and children with a delayed schooling start were excluded from the testing. In total, we have evaluated 4330 children's utterances (5 tested items).

2.2. Procedure

Interviews with teachers in kindergartens showed that the tasks for omitting the sounds (phoneme) and syllables followed by the formation of new words that remain after the removing certain sounds and syllables rarely occur in the pedagogical practice in pre-primary education. Basic selection criteria were applied. We have taken in consideration a requirement that a newly created word must be existing, meaningful and easy



to pronounce. It seemed to be useless to increase the level of difficulty and select words which have never been heard of or are meaningless and challenging in pronunciation for children. We suppose that even easily pronounced words can correctly diagnose the ability to omit sound in the word and pronounce this new word. Other criteria for selecting words were related to the length of the word (the number of syllables and sounds) and arranging sounds in the words. According to the above-mentioned criteria, we have decided to include the following target or tested words:

- 1. Zem (earth) is one-syllabic word where the first consonant "z" is omitted.
- 2. Ema (girl's name) is two-syllabic word and the first/initial vowel "E" is omitted.
- 3. Nos (nose) is one-syllabic word where the final consonant "s" is removed.
- 4. Hroch (hippo) is one-syllabic word, in which the middle consonant "r" is omitted.
- 5. Vesta (vest) is two-syllabic word and the middle consonant "s" is removed.

We have also administered words "med" (honey) and "krava" (cow) which served for the task of practicing. Instruction for the teacher: the teacher says the word to the child, for example "hluk" (noise) and at the same time to separate sound "h". The child should pronounce "luk" (bow). In the test, the sound which must be omitted is in brackets.

Instruction for the child: we are playing that we are reporters. You will answer the questions. What word will remain if we do not say the sound "h" in the word "hluk" (noise)?

Assessment: If child omits the certain sound in the word correctly, 1 point is recorded. If child doesn't omit the sound correctly and pronounces a different word or doesn't pronounce any, 0 is recorded.

3. Results

The first word in which the children should omit the sound "z" was the word "zem" (earth). They should pronounce "em" without the 1st phoneme. It is one-syllabic word consisting of a consonant-vowel-consonant. The overall results in all age categories are presented in Table 1.

						zem	(z)							
	Age category													
ANSWERS	4,0-4,5 4,6-5,0		5-5,0	5,1-5,5		5,6-6,0		6,1-6,5		6,6-7,0		OVERALL		
	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%
CORRECT	3	3,61	18	11,25	27	20,77	58	30,21	96	47,06	38	39,18	240	27,71
INCORRECT	80	96,39	142	88,75	103	79,23	134	69,79	108	52,94	59	60,82	626	72,29
OVERALL	83	100	160	100	130	100	192	100	204	100	97	100	866	100
% SUCCESS	4%		1	1%	2	21%		30%		47%		39%		28%
% FAILURE	96%		8	9%	7	9%	7	0%	5	3%	6	51%	1	72%
MEDIAN		0		0		0		0		0		0		-

Table 1. Omission of the sound "z" in the word "zem" (earth)

The overall success of children is significantly less than half, exactly 28%. From a structure point of view, this tested word is considered as easy one, therefore we are surprised with the low success rate. In all age categories the percentage success ranged from 4% to 47%. We cannot confirm our assumption that the percentage success in testing increases with age, because children between 6,1 - 6,5 years were more successful in testing than the older age group. Based on percentage success in all age categories, we can also see that median value is "0".

According to our findings, children from the age of 4 to 7 do not have to cope with this task. In relation to the testing the sound omitting "z" in the word "zem" (earth), the results demonstrate that:

- 1. Children between age of 4 to 7 years do not have to answer correctly what word remains when they omit sound "z" in the word "zem". The median value for all age categories is "0".
- 2. Children between age of 6,1 to 6,5 years were the most successful in this task, it was 47%.



3. In this word "zem", it is not confirmed that the ability to omit the sound and to create a new word without this consonant increased with age. The oldest age group was less successful than younger children.

The overall success rate is 27,71%, which means that only 28% of the children between 4 to 7 years can isolate the sound "z" and by omitting this sound they can create a new word "em". However, 72% of the tested children do not cope with this task.

The second tested word was a girl's name "Ema". In this task, the initial sound (vowel) "e" is omitted and children should say "ma". It is two-syllabic word consisting of vowel "e" in the function of a syllable at the beginning of the word. Generally speaking, results have confirmed that children are very successful in testing such kind of words. Table 2 presents the overall results in all age categories.

						Ema (E)								
	Age category														
ANSWERS	4,	4,0-4,5		6-5,0	5,1	-5,5	5,6	-6,0	6,1	1-6,5	6,	6-7,0	OVE	RALL	
	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	
CORRECT	5	6,02	22	13,75	34	26,15	72	37,5	114	55,88	49	50,52	296	34,18	
INCORRECT	78	93,98	138	86,25	96	73,85	120	62,5	90	44,12	48	49,48	570	65,82	
OVERALL	83	100	160	100	130	100	192	100	204	100	97	100	866	100	
% SUCCESS		6% 14		4%	20	6%	38%		56%		51%		-	34%	
% FAILURE	9	94%		6%	7	4%	62	2%	4	4%	4	19%	-	66%	
MEDIAN		0		0		0		0		1		1		-	

Table 2. Omission of the sound "E" in the word "Ema" (girl's name)

The results in the word "Ema" are very similar to the previous ones related to the word "zem". The overall success of the children is less than 50%, exactly 34% and in all age categories the percentage success ranged between 6% to 56%. This word is very simple in sound structure and it is a one of the first words presented in reading and writing instruction in the 1st grade of primary school. In this way, we were again surprised with the low success. We can't confirm our assumption that the percentage success increases with age in testing, because children between 6,1 to 6,5 years were again more successful in testing than the older age group. In testing the sound omission of "E" in the word "Ema", the results demonstrate that:

- 1. Children between age of 4 to 6 years do not have to answer correctly what word remains when they omit sound "E" in the word "Ema". The median value for that age categories is "0".
- 2. Children from 6,1 to 7 years were able to answer correctly, although the results are very close to 50%. Children between age of 6,1 to 6,5 years were more successful in this task than the older ones. However, the median value for both age categories is "1".
- 3. In this word "Ema", it is not confirmed that the ability to omit the sound and to create a new word without this vowel increased with age. The oldest age group was less successful than the younger children.
- 4. The overall success rate is 34,18%, only 34% of the children between 4 to 7 years can isolate the sound "E" and by omitting this sound they can create a new word "ma". A high percentage of tested children (66%) can't handle this task.

The third tested word was "nos" (nose), the final sound (consonant) "s" was omitted, and the children should pronounce "no". It is a one-syllabic word compound of a consonant-vowel-consonant. The structure of the word is like the 1st tested word "zem", but the difference is in the position of the omitting sound which is at the end of the word. Table 3 presents the overall results in all age categories.



						nos ((s)								
	Age category														
ANSWERS	4,0-4,5		4,6	5-5,0	5,1	l-5,5	5,0	5-6,0	6,1	l-6,5	6,	6-7,0	OVE	RALL	
	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	
CORRECT	5	6,02	22	13,75	29	22,31	66	34,38	95	46,57	41	42,27	258	29,79	
INCORRECT	78	93,98	138	86,25	101	77,69	126	65,62	109	53,43	56	57,73	608	70,21	
OVERALL	83	100	160	100	130	100	192	100	204	100	97	100	866	100	
% SUCCESS	6%		14	4%	2	22%		34%		47%		42%		30%	
% FAILURE	9	94%		6%	7	8%	6	6%	5	3%	5	58%	-	70%	
MEDIAN		0		0		0		0		0		0		-	

Table 3.	Omission	of the so	ound "s"	in the wor	d "nos"
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The overall success rate of children is only 30%. This result is very insufficient. In all age categories the percentage success ranged from 6% in the youngest age group to 47% (in age group between 6,1 to 6,5 years). As it was in previous tested words, we cannot again confirm our assumption that the percentage success increases with age, because children between 6,1 to 6,5 years were more successful in testing than the older age group. None of the age groups achieved a percentage success rate above 50% and the median value for all of them is "0". It means that children between 4 to 7 do not have to manage this task. In testing the sound omission of "s" in the word "nos" (nose), the results demonstrate that:

- 1. Children between age of 4 to 7 years do not have to answer question correctly. The word which remains if we omit the sound "s" in the word "nos". The median value is "0" for all age categories.
- 2. In the word "nos", it is not confirmed that the ability to omit the sound and to create a new word increases with age. The older age group was less successful than children at the age between 6,1 to 6,5 years, although neither these children reached more than 50% success.
- 3. Overall, the success rate was 29,79%, only 30% of the children between 4 to 7 years can omit the sound "s" in the word "nos" and pronounce "no". Up to 70% of the tested children have failed this task. In comparison with the previous tested word, results are very similar.

The fourth tested word was "hroch" (hippo) and sound "r" was omitted. Children should pronounce the word "hoch" without the second sound (consonant). This word is difficult because of the consonant cluster at the beginning. This word was selected deliberately and aimed at children with higher phonemic abilities. The new created word "hoch" is a one-syllabic word with a consonant-vowel-consonant pattern. The overall results in all age categories are presented in Table 4.

						hroch	(r)							
Age category														
ANSWERS	4,	0-4,5	4,6	5-5,0	5,1-5,5 5,6-6,0			6,1-6,5		6,6-7,0		OVERALL		
	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%
CORRECT	2	2,41	13	8,13	9	6,92	26	13,54	49	24,02	24	24,74	123	14,20
INCORRECT	81	97,59	147	91,87	121	93,08	166	86,46	155	75,98	73	75,26	743	85,80
OVERALL	83	100	160	100	130	100	192	100	204	100	97	100	866	100
% SUCCESS		2% 8%		3%	7	/%	14%		24%		25%		-	14%
% FAILURE	9	98% 9		2%	93%		86%		76%		75%		-	86%
MEDIAN		0		0		0		0		0		0		-

Table 4. Omission of the sound "r" in the word "hroch" (hippo)

The overall percentage of success reflects the difficulty of the task, only 14% of children have managed the task. Achieved results are adequate to the difficulty of the tested word. It was expected that the word "hroch" will be the most difficult word. However, the results are not satisfying even in the oldest age group. In all age



categories, the percentage success ranged from 2% in the youngest age group to 25% in the oldest age group. In this word, the assumption that the success is increasing with age has been confirmed, although children from 4,6 to 5 years were more successful in testing than children in the age group from 5,1 to 5,5 years, the difference is only 1% and it not significant. Median value for all age groups is "0". It means that children at the age of 4 to 7 do not have to cope this task. In testing sound omission of "r" in the word "hroch" (hippo), the results demonstrate that:

- 1. Children at the age of 4 to 7 years do not have to answer correctly the question "what word remains if the sound "r" is omitted in the word "hroch". The median value is "0" for all age categories.
- 2. Overall success rate was very low, only 14,20%, which means that 14% of children from 4 to 7 years can omit sound "r" in the word "hroch" and create new word "hoch". Up to 86% of tested children have failed in this task.

The last tested word in the Sound omission field, was "vesta" (vest). Children should omit the sound "s" in the word "vesta" and produce a new word "veta". This word is quite difficult for sound omitting, but it was selected because of the character of newly created one, meaningful word "veta" (sentence). This two-syllabic word is compound of two opened syllables and this word is in children's passive vocabulary (they comprehend the word but are not able to explain its meaning). Table 5 presents the overall results in all age categories.

						vesta	(s)							
Age category														
ANSWERS	4,	0-4,5	4,6	5-5,0	5,1	-5,5	5,	6-6,0	6,1	-6,5	6,	6-7,0	OVE	RALL
	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%
CORRECT	2	2,41	9	5,63	9	6,92	15	7,81	42	20,59	21	21,65	98	11,32
INCORRECT	81	97,59	151	94,37	121	93,08	177	92,19	162	79,41	76	78,35	768	88,68
OVERALL	83	100	160	100	130	100	192	100	204	100	97	100	866	100
% SUCCESS	í	2%		%	7	%	:	8%	21%		22%		-	11%
% FAILURE	9	98% 94		4%	93%		92%		79%		78%		-	89%
MEDIAN		0		0		0	0		0		0		-	-

Table 5. Omission of the sound "s" in the word "vesta" (vest)

From all the tested words, in the word "vesta" we recorded the lowest success rate of children, only at 11.32%. Again, we were surprised by the low level of tested ability in this word. In all age categories, the percentage success ranged from 2% in the youngest age group to 22% in the oldest age group. Our assumption that the success is increases with age has been confirmed. A more significant percentage increase was recorded in the age group of 6.1 years (21%). In fact, in all younger age groups, it was not over 10%. The median value is "0" in all age categories. This means that children between 4 and 7 years of age may not be able to undertake the task. In testing the sound omission of "s" in the word "vesta" (vest), the results demonstrate that:

1. Children between the age of 4 to 7 years do not have to answer correctly the question "what word remains if the sound "s" is omitted in the word "vesta". The median value is "0" for all age categories.

2. The overall success rate was very low, only 11,32%, which means that 11% of children between 4 to 7 years can omit the sound "s" in the word "vesta" and create a new word "veta". Up to 89% of the tested children have failed this task.

3. A more significant improvement of the sound omission ability was recorded in the age of 6,1 years.

3.1. Summary of the results in the area Omission of the sound

Omission of the sound is the first area in which children were tested in their ability to omit a certain sound (phoneme) in the words and produce new words. The results presented below (Table 6), point to the percentage success in each tested word, and to the median as a valid standard. The overall percentage rate in the area Omission of the sound is at a very low level, i.e. 23%. All average success rates show a significant variance around this percentage, varying between 11% (word "vesta") to 34% (word "Ema"). The analysis of



the percentage success rate with respect to the age categories does not confirm the assumption that the success of children increases with age. The best ability of children to create a new word by removing one of its sounds is recorded in the age category between 6,1 to 6,5 years. Summary assessment has confirmed it.

		S	OUND ON	AISSION				
					E CATEG	ORY		
		4,0-4,5	4,6-5,0	5,1-5,5	5,6-6,0	6,1-6,5	6,6-7,0	Overall
ZEM (z)	Correct answers	3	18	27	58	96	38	240
Earth	% success	4%	11%	21%	30%	47%	39%	28%
	MEDIAN	0	0	0	0	0	0	0
EMA (E)	Correct answers	5	22	34	72	114	49	296
	% success	6%	14%	26%	38%	56%	51%	34%
	MEDIAN	0	0	0	0	1	1	2
NOS (s)	Correct answers	5	22	29	66	95	41	258
nose	% success	6%	14%	22%	34%	47%	42%	30%
	MEDIAN	0	0	0	0	0	0	0
HROCH (r)	Correct answers	2	13	9	26	49	24	123
hippo	% success	2%	8%	7%	14%	24%	25%	14%
	MEDIAN	0	0	0	0	0	0	0
VESTA (s)	Correct answers	2	9	9	15	42	21	98
vest	% success	2%	6%	7%	8%	21%	22%	11%
	MEDIAN	0	0	0	0	0	0	0
OVERALL	Correct answers	17	84	108	237	396	173	1015
	% success	4%	11%	17%	25%	39%	36%	23%
	MEDIAN	0	0	0	0	1	1	2

Table 6. Overall results in sound omission

Taking into consideration the arithmetic means and percentage success, we can establish the following order of words:

- The best results were achieved in the second tested word where children should produce the new word by omitting the sound "E" in the word "Ema". Success rate was 34%. This word is the simplest in its sound structure. The first sound "e" (vowel) has a syllable function at the beginning of the word.
- 2. In the word "nos", the success rate was 30%. In this one-syllabic word, the last sound (consonant) "s" was omitted. The percentage difference compared to the previous word is only 4%.
- 3. The third word with 28% success is "zem", the first sound (consonant) "z" was omitted.
- 4. In the word "hroch", the second sound "r" was omitted, and overall, only 14% success was gained. This task was difficult, and we can see a significantly low level of the tested ability.

The worst ability to produce a new word by omitting sound was detected in the word "vesta". The third sound (consonant) "s" was omitted. Two-syllabic word consists of two opened syllables and this word gained only 11% of success rate.

4. Conclusion

Our research results in testing Omission of the sound have demonstrated that the overall success rate of children between the age of 4 to 7 years is only 23%. The median value "1" was established for only the word "Ema" in the age category between 6,1 to 7 years. It means that children at this age can produce a new word "ma" which originated from the word "Ema" by omitting the initial sound (vowel). In all other age categories and in all other tested words, the median value was "0". Children from 4 to 7 years do not have to produce or create new words if some sound in the tested words is omitted (except of the above-mentioned word). In evaluating the success of children, we can classify the words into two categories. The first group included



these tested words, "zem", "Ema", "nos" which were similar in character and structure. "Zem" and "nos" are one-syllabic words (in both cases, the consonant was omitted) and "Ema" is two-syllabic word where the first syllable consists of one sound (vowel) and takes the function of the syllable at the beginning of the word. As all three words had the same features, the research findings were similar. The percentage success ranged between 28% to 34%. The second category included the words "hroch" and "vesta". Both words were challenging, but new words, which were produced by omitting a certain sound, seemed to be easy in their structure, length of syllables and alternation of sounds. However, results and percentage success rates didn't support this idea. The difference in the success rate between these two words was minimal, "vesta (only 11%) and "hroch" (14%), but we expected that word "vesta" is better managed by children.

The aim of the paper was to present partial results of the larger research on phonological and phonemic awareness of children in preschool age in Slovakia. Certain level of phonological skills is a predictor of later ability to read and write. The diagnostics of many preschool participants caters for the creation of a norm for phonological and phonemic awareness as one of the indicators of literacy difficulties.

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References

Adams, M. J. (1990). *Beginning to read: Learning and thinking about print*. Cambridge Massachusetts: The MIT Press. Adams, M. J., Foorman, B. R., Lundberg, I., & Beeler, T. (1998). *Phonemic awareness in young children: A classroom*

curriculum. Maryland: Paul Brookes Publishing Co.

- Bytešníková, I. (2012). Komunikace dětí předškolního věku. Praha: Grada Publishing.
- Cséfalvay, Z., & Lechta, V. (2013). Diagnostika narušené komunikační schopnosti u dospělých. Praha: Portál.

Gatial, V. (2015). Rozvíjanie jazykových schopností detí s narušenou komunikačnou schopnosťou, Nitra: PF UKF.

Jošt, J. (2011). Čtení a dyslexie. Praha: Grada Publishing.

- Kulhánková, E., & Málková, G. (2008). Fonematické uvědomování a jeho role ve vývoji gramotnosti. *E-psychologie,* 2(4), 24-37. Retrieved from &
- Máčajová, M. (2013). *Diagnostika fonologického a fonematického uvedomovania v predškolskom veku*. Habilitačná práca. Nitra: PF UKF.
- Máčajová, M., & Grofčíková, S. (2016). Analýza pojmoslovia v oblasti fonematického uvedomovania. *International Journal on Language, Literature and Culture in Education, 3*(special edition), 265-281. Retrieved from http://files.jolace.webnode.sk/200003022-0cc7f0dc00/LLCE_2016_special_edition1.pdf
- Máčajová, M., Grofčíková, S., & Zajacová, Z. (2017). *Fonologické uvedomovanie ako prekurzor vývinu gramotnosti*. Nitra: PF UKF.
- Mcbride-Chang, C. (1995). What is phonological awareness? *Journal of Educational Psychology*, *87*(2), 179-192. Retrieved from http://dx.doi.org/10.1037/0022-0663.87.2.179
- Mikulajová, M., & Dujčíková, O. (2001). *Tréning fonematického uvedomovania podľa D. B. Eľkonina. Metodická príručka.* Bratislava: Dialóg.
- Torgesen, J. K, Al Otaiba, S. A., & Greek, M. L. (2005). Assessment and Instruction in Phonemic Awareness and Word recognition skills. In H. W. Catts, & A. G. Kahmi (Eds.), *Language and reading disabilities* (2nd edition). New York: Pearson Education, Inc., 127-156.
- Urquhart, I. (2000). Teaching reading. In D. Whitebread (Ed.), *The psychology of teaching and learning in the primary school*. London: Routledge Taylor and Francis Group.