Research in Education and Rehabilitation 2023; 6(2): 201-216. **DOI**: 10.51558/2744-1555.2023.6.2.201

COMMUNICATION SKILLS OF THREE-YEARS-OLD: ENVIRONMENTAL AND DEMOGRAPHIC INFLUENCES

KOMUNIKACIJSKE VJEŠTINE TROGODIŠNJAKA: OKOLINSKI I DEMOGRAFSKI UTICAJI

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Original Scientific Article

Received: 14/10/2023
Accepted: 27/11/2023

ABSTRACT

The paper presents a quantitative research whose goal was to identify the communication skills of three-year-olds using the Gunzberg II test. The purposive sample consists of 312 children aged three years. The main assumption of the research was that the communication skills of three-year-olds are influenced by their gender, birth order, parents' level of education, length of stay in kindergarten and age within the same age group. None of the mentioned variables had a consistent impact on the communication skills of the examined children. Some variables did not affect the emergence of differences at all (e.g. the mother's level of education), and some influenced the realization of at most two tasks (gender, birth order and age within the same age group). This was insufficient to accept the auxiliary, and thus the main hypothesis. In general, three-year-olds did not demonstrate sufficient communication skills in accordance with expectations based on developmental characteristics, which points to the need to intensify, enrich and encourage work on the development of communication.

Keywords: demographic characteristics, communication, speech development, environmental influences, three-year-olds.

SAŽETAK

U radu je prikazano kvantitativno istraživanje čiji je cilj bila identifikacija komunikacionih vještina trogodišnjaka uz upotrebu Gunzberg II testa. Namjerni uzorak čini 312 djece uzrasta tri godine. Glavna pretpostavka istraživanja bila je da na komunikacione vještine trogodišnjaka utiču njihov pol, red rođenja, nivo obrazovanja roditelja, dužina boravka u vrtiću i starost u okviru iste uzrasne grupe. Nijedna od navedenih varijabli nije ispoljila konzistentan uticaj na komunikacione vještine ispitivane djece.

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Research in Education and Rehabilitation 2023; 6(2): 201-216. **DOI**: 10.51558/2744-1555.2023.6.2.201

Neke varijable nisu uopšte uticale na pojavu razlika (npr. nivo obrazovanja majke), a pojedine su uticale na realizaciju najviše dva zadatka (pol, red rođenja i starost u okviru iste uzrasne grupe). To je bilo nedovoljno za prihvatanje pomoćnih, a time i glavne hipoteze. Uopšte uzevši, trogodišnjaci nisu ispoljili dovoljne komunikacione vještine u skladu sa očekivanjima zasnovanim na razvojnim karakteristikama što to upućuje na potrebu da se rad na razvoju komunikacije intenzivira, obogati i podstakne.

Ključne riječi: demografske karakteristike, komunikacija, razvoj govora, sredinski uticaji, trogodišnjaci.

INTRODUCTION

The concept of early childhood has changed in many aspects by modern civilization, such as ways of caring for the child and his speech, but also many other factors that directly or indirectly influence the development of children's communication skills, i.e. "Social and sociological energies persist to rise from contemporary types of media, different cultures and languages, concerns about security, instability in global ecology, unreliable economies, and conflicts" (Saracho, 2017, p. 299). A frequent assessment is that children are not spoken to enough, since parents are committed to other obligations, and this has a direct negative impact on the general literacy of children, conditioned by the skills of a child from the preliteraly phase (Vučković, 2017). An incentive and environment suitable for communication implies that the child is "immersed" in an atmosphere in which he/she receives a lot of communication support, so adults patiently and with many repetitions point to the connection between speech, as a symbolic system, and the reality that is described by this speech. It is particularly important that a child is challenged to be interested in speech, words and communication in general (Wasik & Iannone-Campbell, 2012). The development of the child's communication ability depends on the child's exposure to social communication models that are suitable for the child (Tamaš, Marković & Milankov, 2013). Recent research in a school environment shows that children, for example, do not have a sufficiently developed dictionary, that they even interpret the words in the context more difficulty, that they often do not understand simple oral and written assignments, and that is really hard for them to solve tasks of producing new sentences (Kucan, 2012; Vučković, 2019). Such results are directly related to literacy research (e.g. PISA or PIRLS) and indicate that some children have serious difficulties with understanding what was read, its interpretation and use (OECD, 2018).

Listening and speaking are predecessors of reading and writing, and their (in)adequate development directly precedes the school literacy of children. In this sense, we felt that the roots of the problems must be somewhere in early childhood, in preschool age.

Theoretical basics of research: Development of communicative competence

The basis of our research is the theoretical support for development-communication patterns in the circumstances of sociocultural support to allomorphic development, and on the way in which the child's environment influences this development (Vygotsky, 1978; 1986; Hoff, 2006).

Research in Education and Rehabilitation 2023; 6(2): 201-216. **DOI**: 10.51558/2744-1555.2023.6.2.201

We contemplate this in the context of the fact that the environment and its stimulation shape the development of children's speech and communication in general (Bruner, 1975; 1983; Vygotsky, 1986; Hoff, 2003; Rowe, 2008). The language experience of children and incentives from a responsible environment stimulate linguistic development (Hoff, 2009).

Although the first speech manifestations occur immediately after birth (screams), children do not expose a communicative function in that moment, since their reaction is lacking intentionality. So, intent is what stimulates communication. Until the intention of communication occurs, children go through three phases: perlocutionary, illocutionary, and locutionary phases (Hoff, 2009). In the first phase, children affect their listeners (adults respond to crying); in the second stage can be seen the gradually developed awareness that other people can help the child, and the third phase starts when children include speech in communication situations (Hoff, 2009). The beginning of the third phase does not coincide with the first child's word. Thus, the phenomenon of communication is much wider than the notion of speech (it also includes gestures and mimesis), begins before speech, but it is the fact that speech represents the most obvious, most urgent and most common mean of communication.

About how communication competence is adopted, and especially about its most important component - speech development - there are various theoretical starting points and numerous researches. However, that is expected and if we consider the complexity of the phenomenon, there is no consensus among the researchers. The main starting points are based on three approaches: behaviorism, nativism, and cognitivism. In accordance with the essential characteristics of these approaches, the explanation of the origin, development and adoption of speech are consisted of: a) imitation, repetition and support - behaviorism (Skinner, 1957); b) activation of the Language Acquisition Device (LAD), i.e. the genetic program in which the environment has no influence, and which enables the child to perform the rules of the mother tongue on his/her own, based on examples he/she learns from the environment - nativism (Chomsky, 1965); c) speech is conditioned by cognitive development and is possible according to the stage of mental development of children, and the child is in constant interaction with the environment - cognitivism (Bruner, 1975, 1983; Pijaže & Inhelder, 1978; Vygotsky, 1978, 1986). Today it is certain that:

> the both innate characteristics of children and their experiences with other communicative partners influence the emergence and increasing expression of communicative intent. Having specified the two ingredients of pragmatic development, we have to also conclude that, at present, we do not really know how the two ingredients operate together to produce the developmental result we can observe (Hoff, 2009, p 128).

A training can not influence the innate characteristics - it must respect and adapt them, so that nativism does not give many instructions for concrete pedagogical work with children, except in the domain of understanding the necessity of individualization and inclusion. On the other hand, cognitivism, especially social constructivism, contains many important pedagogical hypotheses for working with children. Thus, Bruner (1975; 1983) especially emphasizes the Language Acquisition Support System (LASS), i.e. points to the necessity of encouraging the child's speech development, which is in accordance with Lev Vygotsky's theory.

Research in Education and Rehabilitation 2023; 6(2): 201-216. **DOI**: 10.51558/2744-1555.2023.6.2.201

Vygotsky's important starting point is that a child constructs meaning and knowledge in social interaction that occurs between an adult and a child. In addition, Vygotsky believes that training should provoke development, i.e. it must go in front of development to wake up and encourage the zone of proximal development (ZPD).

Bruner and Vygotsky suggest that the child's environment, through a rich and stimulating social interaction and use of LASS, has a task to lead a child in a complex process of mastering communication.

The influential theory of cognitive development by Jean Piaget's distinguishes four basic stages: sensomotor, preoperative, concrete and abstract operations, and speech is most intensively developed in the second stage, therefore, significantly before the children perform some terms. Since this is the stage where our respondents are (3-year-old), it is important to point out that it is an age whose characteristic is egocentrism. In the phase of preoperative thinking, according to Piaget and Inhelder (1978), the child is egocentric and his/her speech is basically not communicative because of the preoperative cognitive characteristics. Observing the children in the group, Piaget noticed that in spontaneous communication they did not connect what they said with what predecessor said, and every child had his own monologue. He called such speech manifestations collective monologues, which is a variant of egocentric speech. Egocentric or private speech, in the case of preschool age, is focused on playing or solving a task (Hoff, 2009). Piaget regarded egocentric speech as a mean of language research, and in his opinion, egocentric speech irreversibly disappears with the transition of the child to the stage of concrete operations, when this child's research is directed to specific objects and their properties (Piaget & Inhelder, 1978). In connection with egocentric speech - as an important feature of the speech-age phase from a 2 to a 6 year old - Vygotsky (1986) has a fundamentally different opinion from Piaget. He believes that the function of this speech is focused on the child's control of one's own behavior, i.e. that this speech is a kind of child's self-control, and its disappearance around the age of six does not mean its extinction, but only the loss of the voice. This means that, according to Vygotsky's theory, the egocentric speech around the age of six transfers to the inner plan, i.e. becomes the so-called inner speech and serves for the formation of thoughts (Vygotsky, 1986). Such an evolutionary path of egocentric speech derives from the socio-cultural theory according to which each internal function was created by interiorization of the external activity, which is the claim that shapes the social construction of meaning, i.e. the necessity of social interaction of the child with his environment. This environment should awaken and stimulate those child's functions, which, by natural order, are in the zone of proximal development (ZPD). If a child can not do something alone - to solve a task that is far ahead of his/her current skills - then he/she will be able to do so in cooperation with adults. Egocentric speech helps the child of early age to guide his actions in solving the task (Vygotsky, 1986). From the nature of this speech, it is clear that its role is not in establishing communication with others, but the developmental character of this type of speech is remarkable.

Development of communication skills does not wait for a child to exit the phase of egocentrism, but, on the contrary, it happens simultaneously. The child's understanding of some of the initial principles of conversation is "the understanding that they are supposed to respond to another speaker's utterance" (Hoff, 2009, p. 109), where the first child's reaction to such action type requests is that the child earlier and rather executes an order than reacts

Research in Education and Rehabilitation 2023; 6(2): 201-216. **DOI**: 10.51558/2744-1555.2023.6.2.201

with speech (answer). Research, e.g. show that already four-year-old children recognize some pragmatic situations, i.e. they notice how someone refers to a child, and how to an adult, which is a significant proof that children of this age still have better communication skills than those assumed by Piaget (Hoff, 2009).

According to the results of some research (Huttenlocher, Waterfall, Vasilyeva, Vevea & Hedges, 2010), several demographic factors are predictive for the development of speech.

The gender difference factor is particularly significant in the communication domain. The general conclusion is that, when it comes to communication, girls are more successful than boys, they start to talk faster, to develop their speech better and faster at all language levels, as well as in nonverbal part (Karmiloff & Karmiloff Smith, 2001; Marković, 2017). The latest research suggest that they are more successful than male peers also in reading, and girls enjoy more cooperative learning situations (OECD, 2018). Experiments with children ages 5 to 7 show that girls more successfully master phonological and semantic categories of mother tongue (Kaushanskaya, Gross & Buac, 2013). Preschool age girls prefer to ask adults for help more than their male peers, they are more friendly in communication and more cooperative, in case of conflict they often use speech, while boys are more assertive and demanding, often using the imperative (Hoff, 2009).

Studies show the consistency and multidimensionality of parents' influence on the speech development of 2 and 3-year-old children (Tamis-LeMonda, Shannon, Cabrera & Lamb, 2004). The role of the family in the development of communication is important in a variety of verbal stimulation and in providing voice incentives, starting from talking, singing, asking questions and answering them etc. (Murray & Yigling, 2000; Hoff & Naigles, 2002; Strickland & Riley-Ayers, 2006; Collins, 2012; Hoff et al., 2012), but also in teaching of nonverbal communication (Fernand & Weisleder, 2011; Harris, Golinkoff & Hirsh-Pasek, 2011), from the earliest age. The general ambience of family commitment to preliteracy and literacy has a positive impact on the child's speech (Saracho, 2017). Higher level of involvement of parents in working with children and a communicative incentive environment in the family influence the achievements of those children, which causes a recommendation that special attention should be directed towards those aspects of learning that are happening in the family environment, i.e. programs that train parents for working with children are increasingly important (Ersan, 2015; Hayes, Berthelsen, Nicholson & Walker, 2018). The family environment and learning in this environment is of great importance, and early development will be encouraged if the environment is rich in stimuli and impelling (Ersan, 2015). Besides, parents with a higher education level are expected to have much better communication with children (Harris, 2007; Hoff, 2009; Denmark, Jones Harden & Stapleton, 2016; Arranz Freijo & Rodrigo López, 2018).

The birth order of a child is seen in many researches as an important factor in communication development, which can be explained by Vygotsky's theory. Namely, the first-born child is directly aimed at communicating with adults, while later born children are potentially aimed to more direct communication with older brothers and sisters who are not mature enough to systematically instigate the ZPD of the youngest. Firstborn children are more receptive to speech than those later born according to some studies (Huttenlocher et al., 2010).

Research in Education and Rehabilitation 2023; 6(2): 201-216. **DOI**: 10.51558/2744-1555.2023.6.2.201

Research Context: Preschool program of speech and communication development 3-5 in Montenegro

Attending a preschool institutions is not mandatory in Montenegro, although in the last years the number of children in this education has increased significantly, so for 2015/16 year coverage was 42%, which is a significant increase compared to 17%, which was the coverage of 2001 (Novović, 2017). The increase in the coverage of these children by preschool education is a consequence of a number of activities, especially those that led to creation of the curriculum for preschool education (Mićanović, Novović & Maslovarić, 2017). Research shows that there are large variations in the coverage of children in preschool education in different Montenegrin regions, which in recent years range from 83% in the central and southern regions (which are economically more developed) and up to 27% in the less developed northern region (Prica, Čolić & Baronijan, 2014).

Preschool teachers work with a population of preschoolers (180 ECTS bachelor studies as a prerequisite). The concept of a university program that educates future preschool teachers rests largely on the assumptions of social constructivism in teaching and learning, which, among other things, emphasizes: a cooperative approach to work, work in small groups of children in which interaction is realized, research-based learning, etc. In addition, since inclusion is accepted at the level of the principle in the Montenegrin educational system, individualization in work is necessary both for children who show developmental difficulties and disabilities as well as for all other children given the great differences in all domains of development (Novović, 2018).

During their bachelor studies, preschool teachers are, among other things, specially trained on how to stimulate the development of children's speech, and have received the necessary competencies in monitoring and researching children's speech development, developmental characteristics of speech, methods for promoting vocabulary, for the development of oral communication skills, and nonverbal communication, etc. relevant issues in this field, which are considered necessary to work in this domain of child development and learning (Rosenthal Rollins, 2003; Huttenlocher et al., 2010; Dickinson, 2011; Rowe, 2012; McGillion, Herbert & Pine, 2013). For example, the learning of new words is realized in a planned and intentional manner (Collins, 2010), often related to the activities of talking and listening, and working with a picture book. Special attention is paid to the enrichment of the vocabulary (Collins, 2010; Wasik & Bond, 2001; Vučković, 2019). Through various games and other activities, children are referred to communication, asking and answering questions, which is a proven path to the development of communication skills (Dickinson & Tabors, 2001).

The curriculum for preschool education (2011) is based on a social-constructivist approach and its central part is the learning objectives. The basic starting point for the curriculum of preschool education is

> the concept of a competent child whose childhood is rich in resources and potential, and not from a deficit model that presents a child as immature and dependent on adults, there has been a gradual transition towards a holistic approach within the postmodern paradigm with the intention to fully respect the personal idiom of each participant in the educational context (Novović, 2017, p. 175).

Research in Education and Rehabilitation 2023; 6(2): 201-216. **DOI**: 10.51558/2744-1555.2023.6.2.201

A curriculum for the preschool education was written for ages 3-6 and defines seven groups of development and learning activities. One of these groups is speech-language activities (Curriculum, 2011). Like other groups of activities, this group is focused on achieving basic common goals: "discovering and mastering yourself, developing relationships and building knowledge about others, discovering the world and building knowledge about it" (Curriculum, 2011, p. 6). The objectives for speech development are given in the three previous groups and include all the necessary speech and communication elements that children of this age can master. Curriculum (2011) accents, for example: enriching vocabulary, adopting fluent and accurate speech, developing skills in talking about personal experiences, adventures, etc., the development of speech creativity (speaking games, creating picture books), encouraging conversation and acquiring appropriate skills starting from listening to interlocutors, working on developing nonverbal communication, learning describing skills, asking and answering questions, getting to know literary texts intended for children, and most often in the form of picture books. All these goals are predominantly realized in life and practical activities in the kindergarten, through work in centres of interest and through specially planned specific activities of a playful character that stimulate the communicative, informative and symbolic function of speech. The curriculum predicts that a teacher of preschool education: creates an environment suitable and stimulating for the development of speech, encourages children to participate, making activities pleasant and entertaining for children, chooses games and activities for which children are motivated and interested, systematically monitor the speech development of individual children (records notices in a list of observations), creates conditions for research and problem learning, etc.

However, research shows that the Montenegrin preschool system faces a number of practical difficulties, which refer to the fact that in some groups the number of children exceeds the planned standards, there is a lack of spatial capacity, as well as a lack of support systems, especially when it comes to better inclusion and the continuous professional development of educators (Mićanović & Novović, 2015; Novović, 2017). Namely, it is legally envisaged that in groups of 3-6 year old there may be a maximum of 24 children (which we estimate as too large number in relation to the age to which it relates), but it is often the situation that groups of 35 and more children are enrolled. This is especially the case in major cities in the central and southern regions.

When it comes to the previous effects of preschool programs, a study that was conducted in Montenegro with the aim of better insight into PISA testing results, emphasizes that children who have attended preschool programs for more than a year have achieved better results in reading literacy (Prica et al., 2014).

Research Methodology

The research was carried out using quantitative methodology, with the use of testing techniques. The Gunzberg II test was used as a research instrument. Items related to communication were selected from the four-part test.

Research in Education and Rehabilitation 2023; 6(2): 201-216. **DOI**: 10.51558/2744-1555.2023.6.2.201

The goal of the research was to determine the development of communication skills of three-year-olds from the selected sample in relation to the following variables: gender, birth order, parents' level of education, time spent in kindergarten and the age of the respondents within the same year.

The following research tasks were set:

Research Task (RT) 1: Describe the communication skills of boys and girls from the sample according to the Gunzberg II test.

RT2: Determine the (non)existence of differences in communication skills between first-born and later-born.

RT3: Describe the communication skills of three-year-olds in relation to the level of education of their parents.

RT4: To determine whether there are differences in the communication skills of three-year-olds in relation to the time they attended preschool.

RT5: Describe the communication skills of three-year-olds according to their age within the same year.

The main hypothesis (H) reads: The communication skills of three-year-olds from the selected sample are influenced by: gender, birth order, parents' level of education, time spent in kindergarten and the age of the respondents within the same year.

Auxiliary hypotheses:

H1: Three-year-old girls have better developed communication skills than boys of the same age.

H2: First-born children have better developed communication skills than later-born children of the same age.

H3: Children whose parents have a higher level of education are communicatively more developed than their peers whose parents have a lower level of education.

H4: Children who attend preschool for a longer period of time are more communicatively developed than their peers who have been in preschool for a shorter period of time.

H5: Within the same age group, older children have better developed communication skills than younger ones.

This research was carried out in 2019 using the testing technique that we established in Gunzberg's scale of psychomotor development. The Gunzberg II test was used in the part concerning communication skills for the age of 3 years. The Gunzberg II test usually includes four areas for assessment: socialization, communication, work and self-service, but for the purposes of this research, we singled out only one area. For three-year-olds, the Gunzberg II test has four special items, while the development scale is cumulatively observed. The tasks from the test are recognizable in the tasks of the Curriculum (2011) and correspond to the development map (Baucal, 2012).

The method of testing items in our research is as follows:

Follows simple instructions - the child hears and understands the speech sequence directed to him/her, understands his/her role of the second person (the person to whom the examiner is appealing) and executes simple tasks, the willing reaction for communication is included; one command instructions / orders are given, i.e. activities.

Research in Education and Rehabilitation 2023; 6(2): 201-216. **DOI**: 10.51558/2744-1555.2023.6.2.201

When testing this task, it is done individually with a child and specific tasks are given: Give me the pen, Take the red crayon, Colour this flower, Put your drawing in the shelf ... Let's make a cat... Take a small piece of plasticine… Rub your palms... It's a stomach ... Now take a piece of plasticine... Rub your palms... It's a head... Let's make ears, legs and tail ...

Leads a conversation with him/herself or toys - an egocentric speech is noticed (a monologue or a monologue in a collective) or a dialogue with an animated toy. When testing this task, the child is tracked while playing with a toy only.

Speaks in short sentences of two or three words - on simple questions the child answers with short sentences. Individual work with a child: What do you like to do? What do you like to play? What cartoon do you like to watch?

Understands the orders that are requested - in, behind, below (orientation in space and spatial relationships). The child moves the toy according to the examiner's instruction. Work with a child is individual and specific tasks are given: Put this paper in a box, Put this paper behind the box, Put this paper under the box ...

The testing was done individually and was carried out by the second author of this paper, who has extensive experience in examining/testing children. The examiner primarily took care of the naturalness of the atmosphere and had an extremely warm attitude towards the children. Parents, educators and the management of the institution were familiar with the research and gave their consent for its implementation.

Research sample

There is normally no homogeneous distribution of the number of children in kindergartens, so the range of the number of children tested in kindergartens is from 5 to 31 (Table no. 1). Kindergartens where fewer children were tested belong to suburban areas.

Table 1. Research sample

Kidnergarten	N
Zvjezdice	7
Ciciban	21
Neven	15
Leptir	21
Vrabac	12
Mačak	18
Palčica	15
Zvončić	5
Kuća mašte	21
Bistrica	12
Pčelica	26
Radost	31
Osmijeh	25
Sunce	25
Kosovka djevojka	25
Lastavica	21
Proljeće	12
Total	312

Research in Education and Rehabilitation 2023; 6(2): 201-216. **DOI**: 10.51558/2744-1555.2023.6.2.201

Sample of a 3 year old is balanced in terms of gender (150 female and 152 male) and birth order (164 firstborn, 148 second and later born). Regarding the education of fathers, 123 fathers have Higher education and 189 High education, maternal education: 140 Higher education and 172 High education. By age subgroups, the sample is as follows: 101 children 36-39 months, 98 children 40-43 and 173 children 42-47 months. The largest number of children is in kindergarten for ten months, and the average length of stay is 13 months, with 4.7 months of standard deviation. The average age of the respondents is 41.25 with a standard deviation of 3.5. Generally, all subjects turned 3, so that the sample fully meets the conditions for applying the Gunzberg II test.

RESULTS

The Gunzberg II test implies a binary recording of the phenomenon (yes - no). However, keeping in mind the specifics of age, as well as the specifics of communication with the examiner, we also included an intermediate level (partially), by which we understood that the child can perform the task with repetition of the instruction or with an auxiliary question/instruction.

At the beginning, we list the frequencies achieved on the tasks (table 2).

Table 2. Frequencies

	Follows simple instructions	Leads a conversation with himself/herself or toys	Speaks in short sentences of two or three words	Understands the commands they seek: in behind, below
Yes	137	98	134	87
	43.9%	31.4%	42.9%	27.9%
Partial	144	191	144	215
	46.2%	61.2%	46.2%	68.9%
No	31	23	34	10
	9.9%	7.4%	10.9%	3.2%
Total				312
				100%

The results suggest that a three year old did not sufficiently master the tested concepts. We did not get even 50% of the constantly successful responses, not even for one item, which can be interpreted by the instability of speech function at this age. The weakest reactions were recorded for the second and fourth item. Less than a third of the samples mastered the first and the second task. For the fourth item (orders at the centre of the proposals that determine the spatial position), almost 70% of children doesn't have assurance in realization. More than 60% of children have unstable function of egocentric speech. The best achievements are the tasks in which the child follows simple instructions (single orders) and speaks in short sentences. However, precisely for these items, the most children are unable to realize them (10% for the first and 11% for the third one).

Table 3 contains data on individual items. Although it is quite clear that each child has an individual rhythm of development, we thought it necessary to calculate some average values (Mean and SD - standard deviation) and describe frequency distributions (skewness and kurtosis).

Research in Education and Rehabilitation 2023; 6(2): 201-216. **DOI**: 10.51558/2744-1555.2023.6.2.201

Such data cannot be generalized on this sample and with the application of this methodology, but they can still offer certain insights. The arithmetic mean is represented as a measurement of the mean for categories: 1 (yes), 2 (partial), and 3 (no). If the value of the arithmetic mean is closer to 1, it means that the task was done better

Table 3. Measures of mean value and dispersion for a sample of a three year old.

	N	M	SD	Skewness	Kurtosis
Follows simple instructions	312	1,66	0,65	0,48	-0,7
Leads a conversation with himself/herself or toys	312	1,76	0,57	0,06	-0,41
Speaks in short sentences of two or three words	312	1,68	0,66	0,46	-0,74
Understands the commands they seek: in behind, below	312	1,75	0,5	-0,37	-0,27

There is a greater dispersion for the first and third one, than for the second and fourth tasks. The smallest dispersion is the answer for the fourth task (it is more difficult to keep the children's attention), but this task was done quite poorly - the results were moved to the values "partly" and "no". Skewness values are positive for the first three tasks, which means that the distribution curve is positively asymmetrical, i.e. that the results are shifted to the left, which, for our data, suggests that a greater number of children correctly handle tasks than the number of those who are not successful. However, for the fourth task, skewness has a negative value, indicating a negative asymmetry and means that the number of respondents who have not been able to solve this task is increased. For all four tasks, kurtosis is negative and suggests platykurtic distribution curve. This is interpreted as a consequence of differences in the age of children within the same age, because at this age, the difference of several months can be significant for the development of communication patterns.

When it comes to differences in the sample according to individual independent variables, Table no. 4 shows the values of the Chi-square test and the contingency coefficient, with the corresponding significance of the differences.

Research in Education and Rehabilitation 2023; 6(2): 201-216. **DOI**: 10.51558/2744-1555.2023.6.2.201

Table 4. Differences in independent variables

Variables	Follows simple instructions	Leads a conversation with himself/herself or toys	Speaks in short sentences of two or three words	Understands the commands they seek: in behind, below
Gender				
Chi-Square	2.45	9.37	.61	14.24
Cont. Coef.	.09	.17	.004	.21
Asymp. Sig. (2-sided)	.29	.01	.74	.00
Mother‘s Edu Level				
Chi-Square	.64	.07	.51	.32
Cont. Coef.	.04	.01	.04	.06
Asymp. Sig. (2-sided)	.72	.96	.77	.52
Father’s Edu Level				
Chi-Square	1.98	1.88	1.05	7.20
Cont. Coef.	.08	.08	.06	.15
Asymp. Sig. (2-sided)	.37	.39	.59	.03
Birth Order				
Chi-Square	1.44	12.87	4.62	18.06
Cont. Coef.	.07	.20	.12	.23
Asymp. Sig. (2-sided)	.84	.01	.33	.00
Length of stay				
Chi-Square	2.36	8.37	8.86	18.3
Cont. Coef	.09	.16	.17	.24
Asymp. Sig. (2-sided)	.67	.08	.06	.00
Age groups				
Chi-Square	1.44	12.87	4.62	18.06
Cont. Coef.	.07	.20	.12	.23
Asymp. Sig. (2-sided)	.84	.01	.33	.00

A three year old scored M = 1.71 in all four tasks, resulting in the category “partial”, with the best response to tasks in which they follow simple tasks. Boys (M = 1.71) are more successful than girls (M = 1.81) on the item “they are talking with themselves or toys” (M = 1.81), while on the task “they understand the orders they demand: in, behind, under” girls are more successful (M (m) = 1.78, M (f) = 1.65). Thus, egocentric speech is more present in boys, and girls show better reactions to tasks in which orders are given, i.e. in which social contact is achieved. The education of mothers did not influence the development of communication differences in three-year-old children in our sample, and the education of fathers conditioned the difference in the fourth item, so children whose fathers have completed secondary school are more successful than those whose fathers have a Higher education degree (M = 1.75: M = 1.78). Birth order conditioned the occurrence of differences in the 2nd and 4th tasks, so in the second task the firstborn children were more successful (M = 1.73 for firstborn children compared to M = 1.78 for later born children). In the fourth task, later born children are more successful, and it is interesting that all third born (9 of them) successfully solved the task. The length of stay in kindergarten caused the occurrence of differences only in the fourth task, so children who stayed 4-9 months reached M = 1.8, 10-15 months M = 1.78, while for 16-21 months reached M = 1.68. When it comes to the age of children, significant differences are expected to occur. They happened in the second and fourth tasks, and in the second task, children aged 36-41 months have M = 1.74, and children aged 42-47 have M = 1.69. The similar situation has happened in the fourth task, so for the

Research in Education and Rehabilitation 2023; 6(2): 201-216. **DOI**: 10.51558/2744-1555.2023.6.2.201

younger group of children M = 1.76, while the older ones reached M = 1.70. The second and fourth assignments were displayed as items that show more differences than the other two.

DISCUSSION

If we look at the results in relation to development standards (Baucal, 2012), we observe the following:
(1) Item related to understanding i.e. speech reception. Those tasks are: follows simple instructions (M = 1.66) and understands the commands (M = 1.75). The tasks were not done at the expected level (M below 1.5 closer to correct).
(2) Item of the two-way communication and which implies verbal expression: speaks in short sentences of two or three words (M = 1.68).
(3) Assignments in the domain of pragmatics are more difficult to test on larger samples, so in this test there is only one assignment of this type, and it is item "talking with themselves or toys" for which they achieved M = 1.76, which is the most poorly done task.
Independent variables, as already pointed out, did not show a consistent influence on all items. The gender variable showed statistically significant differences in two items in a three year old, so the first auxiliary hypothesis of the influence of gender on the appearance of differences cannot be accepted. Mother's education has no impact on differences in speech development, and father's education showed a difference only on one item, so the second auxiliary hypothesis was not accepted. Birth order showed differences on two items, which means that the third auxiliary hypothesis was also rejected. The length of stay in kindergarten showed statistically significant differences on one item, which conditions the rejection of the fourth auxiliary hypothesis. Older children within the same age group are more successful than younger ones in answering two tasks, so the fifth auxiliary hypothesis is also rejected.
None of the independent variables showed a stable effect on the dependent variables. This means that we have to reject all five auxiliary hypotheses, which also rejects the main hypothesis.
That of course, it does not mean that the main hypothesis and related secondary ones should not be further tested on a larger and more representative sample.

CONCLUSIONS

The conducted research points to the following conclusions:
(1) The three-year-olds included in this research still do not have stable reactions and answers to the tasks that the Gunzberg II test predicts for this age group, which are in line with the development map.
(2) The independent variables whose possible influence on communication skills we checked did not show a consistent and stable effect. None of them showed an impact on more than two tasks, out of a total of four tested. As already mentioned, we cannot conclude on the basis of this research that these variables have no influence on the wider population, which is a task for some subsequent research.
Among the limitations of this research, those of a methodological nature dominate. Namely, only the testing of children aged three is methodologically demanding and certainly points to

Research in Education and Rehabilitation 2023; 6(2): 201-216. **DOI**: 10.51558/2744-1555.2023.6.2.201

the need to observe the results achieved by children with a dose of relativization, because it is possible that in natural circumstances children use communication skills significantly more successfully. This suggests the need for future research to be done using a different technique, e.g. by systematic observation. In addition, the sample for the research was deliberate, so in some future research, a more representative sample should be sought.

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