

FACTORS OF RECOGNITION AND RESPECTING INDIVIDUAL DIFFERENCES IN THE EDUCATIONAL PROCESS FROM THE STUDENTS' POINT OF VIEW

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ABSTRACT

The theoretical framework of this study consists of the concepts of individualization, inclusion, and individual abilities (differences) of preschool children in the educational process. Considering the importance of identifying and respecting individual abilities (differences) of children for their complete and optimal development in the educational process in kindergarten, we studied the attitudes of preschool education students of the first and second cycle of the university study in three countries (Bosnia and Herzegovina, Croatia and the Republic of Slovenia) about that issue. The aim of this quantitative cross-sectional design study was to investigate students' attitudes towards the factors of recognition and respecting individual abilities (differences) of preschool children in the educational process. Relevant data were collected using the scaling technique with respect for ethical principles. Factor analysis of the obtained data identified two factors that indicate the students' point of view: recognition and respecting children's non-cognitive abilities (differences) and recognition and respecting children's cognitive abilities (differences) and a statistically significant difference was found between the factors in favor of the second factor.

Keywords: individual abilities (differences) of children, individualization, inclusion, cognitive and non-cognitive aspects of development.

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INTRODUCTION

In the last decade, thanks to the contribution of many pedagogues in the field of education, reflection has developed on a new way of theorizing education and care in early childhood, i.e. on essential prerequisites for cognitive development and identity building in the first years of life [1].

Modern pedagogy starts from the recognition of children's abilities, individual specific features, knowledge and experience, as a prerequisite for development, and the educator's response to children's differences, more precisely, developmental abilities. The term development implies changes that occur throughout life. Children differ in aspects of development such as physical, cognitive and social-emotional development [2], and we can talk about individual abilities (differences) of children in the context of physical, cognitive, social and emotional aspects of development [3]. Children of preschool age can differ greatly in terms of their developmental abilities, both cognitive and non-cognitive [4] and in order to create optimal predispositions for development, it is necessary to recognize and respect these differences in the educational process through the process of individualization and inclusion [5].

As a didactic principle, individualization implies an approach to the educational process in which the child is enabled to develop optimally in accordance with his/her abilities [6] by respecting his/her personal features from the beginning of the child's development, which enables him/her to accept himself/herself, his/her own inclinations and potentials and to develop them in the optimal direction [2]. Inclusion in education is the process of respecting the needs of every child in upbringing and education, which means to respect all differences and to use the necessary resources to provide adequate support for children's development and learning, [7] primarily children with barriers to learning and participation, as well as gifted and talented children [8], i.e. those children who particularly deviate from the hypothetical average. It implies no labeling and focusing on the individual needs, abilities and interests of each child [9].

In his theory of multiple intelligences (MI theory), Gardner states that each person has nine intelligences/abilities, some of which are developed above average, some average, while some are below average, and from their combination and connection a specific set of abilities is created, different for every person [10] [11]. The insights he gained can be applied in the everyday educational process and thus eliminate the predominance of cognitive (mathematical-logical) development over the unjustifiably neglected, but equally significant development of non-cognitive abilities [12] [13] [14].

Recognizing and respecting the differences between children is also represented in the concepts of Montessori, Steiner, Malaguci, Pikler, as well as in modern curricula [3]. Recognizing, identifying and respecting differences in working with children are the basic assumptions of individualization, inclusion and the modern educational process, which starts from the uniqueness of each individual child and respects everything that the child brings to the learning process [15].

METHOD

Research design

The aim of this empirical quantitative study is to examine the perspective of Bosnian and Herzegovinian, Croatian and Slovenian students of the first and second cycle of preschool education programs on the factors of recognition and respecting individual differences of preschool children in the educational process. The quantitative research approach applied in the study has the characteristics of a cross-sectional design, with elements of a descriptive and correlational approach. The technique used to collect relevant data is scaling. In doing so, ethical consideration was respected, and data collection was voluntary and anonymous. The research was approved by the decision of the Committee for Ethical Research Assessment of the Faculty of Educational Sciences of Juraj Dobrila University in Pula, with a note that the research will be conducted in Croatia, Bosnia and Herzegovina and Slovenia.

Sample

The survey was conducted on a sample of 321 students of the first and second cycle of the preschool education program at the Faculty of Humanities of the University of Banja Luka (103 students), the Faculty of Educational Sciences of Juraj Dobrila University in Pula (113 students) and the Faculty of Education of the University of Primorska (105 students). The research was carried out in the period from November

2022 to March 2023. In order to achieve more objective results, the outlying answers of 5 students which were an extreme deviation from the mean with a highly atypical data value that distorts the mean within a sample, were omitted. The statistical analysis was carried out on a sample of 317 respondents. The basic characteristics of the sample of respondents - students are shown in Table 1.

Table 1. Sample structure

Sample characteristics		Frequency	Percent
Country	Bosnia and Herzegovina	100	31,50
	Croatia	113	35,60
	the Republic of Slovenia	104	32,80
Year of study	First year	70	22,10
	Second year	91	28,70
	Third year	75	23,70
	First year (MA)	51	16,10
	Second year (MA)	30	9,50
Years of service	No work experience	155	48,90
	Less than a year	54	17,00
	From 1 to 3 years	36	11,40
	More than 3 years	72	22,70
Gender	Female	304	95,90
	Male	12	3,80
	Other	1	0,30
	Total	317	100,00

Instrument

For the purposes of the research, we independently created a research instrument, a questionnaire consisting of two parts. The first part of the instrument consisted of four items and related to basic information about the respondents. The second part of the instrument contained 22 items with a five-point Likert-type scale, through which data were collected on the identification and respecting of cognitive, social, emotional and physical abilities/differences of preschool children in the educational process from the point of view of students of preschool education of the above-mentioned faculties from three countries. The second part of the instrument was created with the use of relevant literature on individual differences and their respecting in the educational process[3], as well as insights from practice. After the factor analysis procedure, the number of items in the second part of the instrument was reduced to 13 statements. Cronbach's Alpha coefficient of the reduced scale is $\alpha = 0.795$, with corresponding item total correlation values, which indicates acceptable internal consistency (reliability) of the instrument.

Data analysis

When analyzing the obtained data, Principal Component Analysis was used, along with the Varimax factor rotation method. An analysis of descriptive statistical indicators (Mean, Standard deviation, Skewness, Kurtosis) and correlation analysis (Pearson correlation coefficient) and Paired sample T test (t-ratio) were performed on the isolated factors. IBM SPSS Statistics 26 statistical software was used during data processing.

RESULTS

At the beginning, it was determined that the essential prerequisites for the application of factor analysis were met. Namely, the number of respondents is satisfactory ($317 > 101$). The Kaiser-Meyer-Olkin measure of sampling adequacy value is $KMO = 0.771$ and is greater than 0.70, which according to Field (2017) is an adequate prerequisite. Also, Bartlett's test of sphericity is satisfied ($\chi^2 = 954,096$, $p < 0.001$). The number of two factors was chosen based on the Kaiser-Gutmann criterion of eigenvalues, Horn's parallel analysis and Katel's scree test. In the rotated matrix of factor loadings, two factors were singled out (Table 2).

Table 2. Rotated factor loadings: Recognition and respecting abilities/differences of preschool children in the educational process

Items	Component	
	1	2
Depending on whether the child is friendly, a leader, a team player, unadaptable, insecure and similar, the teacher should offer the child different tasks and social roles in daily activities in the group that will help him/her overcome difficulties and weaknesses, and to develop his/her strong sides.	0,691	
Children of the same age differ among themselves in agility, dexterity and endurance.	0,666	
For children who find it difficult to control their emotions, the teacher should (with a professional associate) plan individualized activities to support the emotional development of these children.	0,666	
In accordance with the interest in agile games and physical activities of the children in the group, the teacher designs and offers contents, props and prepares the space.	0,599	
Children should be taught tolerance and acceptance of differences from an early age.	0,566	
Children with physical disabilities have the right to be included in regular educational groups.	0,547	
Some children prefer to participate in group activities, while others prefer independent activities.	0,477	
The teacher adjusts the educational work in accordance with the fact that each child acquires knowledge at a certain pace.		0,721
It is important to propose and respect the personal inclinations and preferences of each child, how he/she best acquires and processes information, and in this connection offer different contents, social and material environment.		0,692
Children differ among themselves in the development of their speech and vocabulary.		0,666
Working in small groups of children with similar intellectual abilities is desirable because it allows the teacher to offer contents of different complexity depending on the degree of intellectual ability.		0,622
Children differ in the level of development of social competences.		0,536
Children of the same age do not learn at the same pace, they do not have the same prior knowledge and intellectual abilities.		0,480

The singled-out factors are named as follows:

- first factor: recognition and respecting children's non-cognitive abilities (differences) (NC),
- second factor: recognition and respecting of cognitive abilities (differences) (and social competences) (C).

These two factors explained 50% of the total variance, of which the first factor accounts for 25.4%, the second factor 24.6% of the variance of the examined phenomenon.

Table 3 Descriptive statistics and correlations between factors

Variable	M	SD	Sk	Ku	NC	C	t	p
NC	4,43	0.46	-0.665	-0.052	-	0.213**	3,494	0,001
C	4.54	0.43	-0.835	0.257		-		

Remarks: NC – recognition and respecting non-cognitive differences; C - recognition and respecting cognitive differences; M – arithmetic mean; SD – standard deviation; Sk – skewness; Ku – kurtosis; ** – statistically significant at the 0.001 level; t – ratio; p – statistical significance of t - ratio

The established statistical indicators (Table 3) indicate that students highly value the recognition and respecting non-cognitive differences of preschool children in the educational process (M = 4,43, Sd = 0.46). A high evaluation of the recognition and respecting cognitive differences of preschool children is even more prevalent (M = 4.542, SD = 0.43). The correlation between the factors is positive, equal to 0.213, significant at the level of 0.001, and indicates the connection of the extracted constructs (factors). The values of the shape of the distributions (Skewness and Kurtosis) indicate minor deviations from the values characteristic of normally distributed data. The calculated t-ratio is 3.494, significant at the 0.001 level, and indicates that there is a statistically significant difference between the arithmetic means of the extracted factors C and NC in favor of the factor C. In other words, respondents value more the recognition and respecting cognitive than non-cognitive differences of preschool children in the educational process.

Recognition and respecting non-cognitive abilities (differences) (NC-factor)

The NC-factor was singled out on the basis of the students' answers, and the affirmative attitudes of the students on this issue were recognized (Tables 2 and 3). The NC-factor includes seven items on physical, emotional and social differences/abilities of children, as well as individualization and inclusion in the educational process in accordance with the mentioned non-cognitive specific characteristics of children (Table 2).

Recognition and respecting cognitive abilities (differences) (C-factor)

The C-factor was extracted on the basis of the students' answers and indicates the emphatically affirmative attitudes of the students regarding the recognition and respecting the cognitive abilities of preschool children (Tables 2 and 3). The C-factor includes five items related to cognitive predispositions such as pace and speed of learning and knowledge acquisition, learning style, speech development, volume of vocabulary, degree of intellectual ability, intellectual prior knowledge and one item related to the social competence of preschoolers (Table 2). The item related to the social competence of preschoolers indirectly belongs to this factor because, as observed by Katz and McClellan [16], the cognitive processing that is the basis of social knowledge and social understanding is an essential component of children's social competence, and Goleman [17] points to the fact that understanding others is an essential assumption of social success.

CONCLUSION

In the study, two factors were singled out that indicate that students of preschool education highly value the recognition and respecting non-cognitive and cognitive individual abilities of preschool children in the educational process. Nevertheless, the factor related to cognitive specificities is statistically more significantly represented in the answers of students, which indicates that priority is given to cognitive over non-cognitive abilities of children. Numerous studies indicate that in the educational process, children's non-cognitive abilities are underestimated in relation to their cognitive abilities, [10][11] but that educational practice can ensure the complete development of a child's personality by encouraging both cognitive and non-cognitive aspects of children's development [12] [13][14]. The results of this study indicate the need to modernize university teaching with the aim of optimally preparing students for the creation of an educational process that will evenly develop the overall potential of children in accordance with their individuality, regardless of whether they are cognitive or non-cognitive.

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