

## **Development of Primary School Sports Trainers' Inclusive Competences in Two Physical Education Programs: Comparative Analysis**

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### **ABSTRACT**

The purpose of this research was: to compare the effectiveness of the two educational programs for the formation of inclusive competencies of future primary school teachers. The sample for this research consisted of 411 students of Rivne State University for the Humanities (51 males and 360 females) at the age of 19-20 years. 215 of them formed an experimental group. The research considers the importance of a special educational program in comparison with a university one for the formation of inclusive competence for future teachers working in a general secondary education institution with inclusive education courses included in it. Inclusive competence was assessed through an oral and written survey. The results showed that students who studied in a special educational program have achieved better results in the development of inclusive competence than students who studied in a university vocational training program at a higher education institution. This study proves that a special educational program provides future teachers with special competencies before they begin their future work in an inclusive environment at a general secondary education institution. Special education curriculum subjects could be integrated into higher education programs to enhance the capacity of future teachers to teach students with special needs in general secondary education.

### **1. Introduction**

The reformation of pedagogical education in Ukraine is characterized by the special attention paid to the issue of teacher preparation for the work with pupils with special needs (Concept, 2010).

However, the university training of future teachers to work in an inclusive environment of a general education institution should meet the public demands formulated in professional and educational standards, take into account global trends and recommendations of influential international organizations. The lack of a special educational program in Ukrainian pedagogical education is an obstacle to the creation of a qualitative system of training and professional development of teachers to work in an inclusive environment in general education institutions, and then the formation of their inclusive competence (Shevtsiv, 2017).

## 2. Literature Review

There is no possibility to accelerate the training of future primary school teachers to work with students with special educational needs, because in Ukraine the system of inclusive education is seen as a dialectical synthesis of medical and social models. According to the following scientists, a non-social model of disability has emerged. Therefore, the focus is on the training of specialists for inclusive education in correctional pedagogy and psychology institutes (Shevtsov, 2012), the theoretical development of which is carried out in the Institute of Pedagogy of Special Education of the Academy of Pedagogical Sciences of Ukraine (Kolupayeva, Taranchenko, Danilavichute, 2014). Attention is being paid to the training of diverse specialists in the field of correctional education (Mironova, 2007; Shevtsov & Ilina, 2017).

However, an important condition for the effective functioning of inclusive education in Ukraine is the training of teachers of the general education institution at the level not lower than that available in the current system of special education (Bondar, 2011). Therefore, the teaching of inclusive education course is important for the preparation of teachers for teaching students with special educational needs in general education institution. Studies in the field of higher education on the professional development of future teachers to work in an inclusive environment at a general secondary education institution were conducted by Gordiychuk, 2015; Karpenko, 2017; Shved, 2015; Shevtsiv, 2017, etc. The lack of teacher's competence to function in an inclusive environment has been identified as an obstacle to the successful implementation of inclusive education in a general education institution. The issue of communicative and inclusive competence formation, communicative and axiological readiness of future specialists as a component of the future professional training of teachers and educators of general and preschool education institutions is revealed in the publications of domestic and foreign scientists (Khafizullina, 2008; Pelekh, 2009; Zimnukha, 2011; Filonenko, 2012; Demchenko, 2013; Borodina, 2014; Budnyk, 2014; Gnoyevskaya, 2016; Diachenko-Bohun, 2019; Hrytsai, 2019, etc.).

But one of the most important problems is that higher education institutions do not have a special educational program to train primary school teachers to work with students with special educational needs.

At the same time, the problem of teacher training for inclusive education is widely discussed and studied by foreign scientists. In particular: Pantic, Closs & Ivošević, 2011; Hodkinson, 2005; Ofsted, 2004; Scott, Vitale & Masten, 1998; Abu El-Haj & Rubin, 2009; Fisher, Frey & Thousand, 2003; Kershner, 2007; Pugach, 2005; Stayton & McCollum, 2002; Hajkova, 2007 argue that the teaching of students in inclusive classes is seen as a teacher's problem, but not a student's problem (Florian, Linklater, 2010). In an inclusive education system, the joint learning of students with normative development and intellectual disabilities involves the interaction of primary school teachers and teacher assistant of inclusive education, the understanding of the role and responsibility in the management of the educational process, and the definition of complementary responsibilities in a general secondary education institution (Strogilos, 2013). Therefore, it is difficult to even assume that teachers do not have the necessary knowledge and skills to co-educate all students in an inclusive classroom, or are unable to communicate with a team of professionals who assist in the adaptation processes of students with special educational needs (Florian, Linklater, 2010).

Therefore, based on years of practical experience, we are convinced that at the stage of obtaining formal education the future primary school teacher should be familiar with the peculiarities of psychophysical development of such persons and special methods of teaching students in an inclusive environment. Consequently, there are increasing requirements for the training of professionals in general and for their competence in particular, which in its turn necessitates the development of special competences among teachers of inclusive education. It has been confirmed that for this purpose, the training strategies for future teachers used in the higher education institution's educational process can be adapted to the training of future specialists in inclusive education (Florian, Young, & Rouse, 2010). The importance of inclusive education course for teacher training is highlighted in the studies of Rabi, Ghazali & Piragasam (2018). Despite everything, it has been noted that, in most cases, teachers in primary schools, as key players in the implementation of an

inclusive world, are neutral or negative about the inclusion of children with special needs in general secondary education (Anke de Boer, Sip Jan Pijl & Alexander Minnaert, 2010).

Thus, we affirm that theoretical principle of the inclusive education study do not provide adequate training of primary school teachers, formation of their inclusive competence to work in an inclusive environment, and require for this purpose training in a special educational program. Taking into account the need for such training of students, in 2014-2018 we have developed a special educational program for training future primary school teachers to work in an inclusive environment of general secondary education on the basis of the educational program of university training of future primary school teachers, specialty 013 "Primary Education". This problem has not received proper scientific attention in Ukraine.

Consequently, the purpose of this study is: to compare the effectiveness of the two educational programs in building inclusive competencies for future primary school teachers to work in an inclusive environment of a general education institution.

The following questions were answered to achieve this purpose:

1. What is the difference between an educational program for preparing future primary school teachers and a special educational program for preparing future primary school teachers for working in an inclusive environment?
2. Is there a difference in improving the development of inclusive competencies of students through the acquisition of a special educational program to prepare future teachers to work in an inclusive environment compared to the university program 013 "Primary Education"?

### 3. Method

#### General Background

The study uses a quasi-experimental project that was introduced to assess the impact of a special education program on the development of inclusive competence. Students were assigned to an experimental group (EG), which studied under a special educational program and a control group (CG), which studied under the university educational program of training future primary school teachers. Students were diagnosed in two stages: the first stage - at the beginning of the 4th semester, the second stage - in 4 months. The experiment involved surveying students to test their knowledge, skills and abilities to develop inclusive education and inclusive competence skills. This experimental study had the advantage of not interfering externally with the development of inclusive competencies for future teachers to work in an inclusive environment in general secondary education and of not violating the conditions of study and upbringing in higher education institution.

#### 3.1. Participants

The sample consisted of 411 students of the 2nd year of study (4th semester), in the age from 19 to 20 years old. Of which 51 were male and 360 female. Two groups were formed: one group, in which students studied under the university education program (CG, n = 196, of which 22 male students from 19 to 20 years old, 174 female students from 19 to 20 years old) and the other group, in which students studied under special education program (EG, n = 215, of which 29 male students from 19 to 20 years old, 186 female students from 19 to 20 years old). The selection criteria were the student's interest in studying the inclusive pedagogy course and their desire to continue working in an inclusive class. Recipients were selected on the basis of random selection.

#### 3.2. Materials

Using student's reflections and their answers to 1-11, 14, 15 questions of the questionnaire, they received



information on the basic knowledge of pedagogical activity of primary school teachers in the inclusive environment of general education institution, forms and methods of work with various children in the inclusive class. Students were able to assess their knowledge at the following levels: a) high; b) average; c) sufficient level. The same author's questionnaire was used to study the formation of the necessary professional skills and abilities of inclusive activity in an inclusive environment (questions No.No. 12, 13, 16-30).

### 3.3. Procedure

The quasi-experimental project involves a representative sample of students of the pedagogical faculty of Rivne State Humanitarian University, specialty 013 "Primary Education". The available knowledge on the study was determined using the author's version of the "Unfinished Proposal" methodology (N. Samsonova). On the test form, 10 unfinished proposals, which should be continued, expressing own opinion we submitted. The processing of the results contains qualitative and quantitative analysis. For obtaining additional information on In order to obtain more information on the introduction of inclusive education in the general education institution and the attitude towards the problem, a survey of students was carried out on the answers to 10 special questions. An author's questionnaire (Shevtsiv, 2017), developed on the basis of a questionnaire, was used to identify students' level of inclusive competence (Budnik, 2014). The questionnaire consists of 30 questions.

### **A program of university training for future primary school teachers to work in the inclusive environment of a general education institution.**

#### *Special Education Preparation Program*

The educational program of university training of future primary school teachers on specialty 013 "Primary education" is aimed at obtaining the first level of higher education. To accomplish this key objective, the training volume amounts to 240 credits of the European Credit Transfer System (ECTS), which are determined by the Bachelor's degree curriculum. The duration of the educational program is 4 years. This program was attended by 196 students (CG) aged from 19 to 20 years, of whom 22 are males aged from 19 to 20 years, 174 are females aged 19 to 20 years. The program is designed for students aged 19-20 years. The purpose of the educational program is to ensure the qualification of primary school teachers, the acquisition by students of theoretical and practical skills to carry out teaching activities in general education institutions, which acquire general and special competences and competences of teaching students with normative development. The list of educational program components does not include a course on inclusive education. The students were trained in a special educational program for 1 year and 4 months.

#### *Inclusive Education Program*

A special education program has been developed to train competitive primary education specialists capable of working in an inclusive environment of general education institutions. It defines integral, general and professional competences that determine such professional abilities to correctional-rehabilitation, socializing, inclusive, teamwork, communicative, special-methodical, prognostic, patronage, security and protection, diagnostic and organizational work.

This program provided training for 215 students, 29 of whom were males aged from 19 to 20 years, 186 females aged from 19 to 20 years, who formed an experimental group (EG). The program is aimed at students aged 19 to 20 years who are enrolled in the first level of higher education (bachelor's degree). It focuses on the theoretical and practical training of future teachers to carry out the professional activities of primary school teachers in an inclusive environment of a general education institution, on their acquisition of modern methods and technologies of organizing inclusive learning, general and specialized (professional) competencies. The educational program is aimed at preparation of the



future specialist on the actual specialization "Inclusive education" in the context of the specialty 013 "Primary education". The volume of the educational program is 240 credits. The block of educational program in comparison with the educational program of specialty 013 "Primary education" is 75% of the total number of credits in the educational program; the block of disciplines in the specialty - 25%. The list of selected subjects of the educational program includes a course on inclusive education, "Didactics of inclusive education", "Fundamentals of correctional pedagogy", "Fundamentals of social work", "Assessments in inclusive education", "Management of inclusive education", "Organization of inclusive education in primary school", including a discipline "Fundamentals of inclusive pedagogy" (Shevtsiv, 2018) as a propaedeutic for a course of inclusive education. The education program is designed for a period of 4 years. The students were studying under a special educational program for 1 year and 4 months.

#### Statistical Analysis

All data of the experiment result were presented through descriptive statistics with determination of the mean value, standard deviation, dependence between the data and statistically reliable differences between groups. The analysis was performed with the SPSS v.13 computer program for Windows. To determine the quantitative and qualitative parameters and interpretation of the results of the conducted research we used the methods of mathematical statistics, and the statistical reliability was carried out using the  $\chi^2$  (chi-square) criterion.

#### 4. Results

The first task was to check whether the knowledge on inclusive education of students who studied under the university education program and special before studying the discipline "Fundamentals of inclusive pedagogy" differed significantly.

In order to obtain information on the introduction of inclusive education in the general education institution and perception of the problem, a survey of students was carried out. The data of the survey result were entered in Table 1.

Table 1: Answers on student attitudes towards the introduction of inclusive education in Ukraine, %

№ of the question	Question	Answers	CG	EG
1	What is the definition for the "children with special educational needs"?	high level	12,2	10,2
		middle level	61,5	62,1
		sufficient level	26,3	27,7
2	Your attitude towards these kind of children?	positive level	89,3	87,4
		neutral	10,7	12,6
		negative	-	-
3	What educational institutions should be attended by children with special educational needs?	General education institutions, but in special classes	37,8	34,4
		special education institutions	34,1	35,0
		general education institutions	26,1	31,6
4	Would you like to have a child with special educational needs in your class?	would like to	12,8	15,3
		not ready	41,3	46,9
		in special education institutions	45,9	37,8
5	What is the purpose of teaching a child with special educational needs in educational institutions?	socialization and adaptation	75,0	55,8
		development of social and educational skills	15,0	24,2
		obtaining of education	10,0	20,0
6	What form of education for children with special needs do you support?	Inclusive classes in general education institutions	2,5	2,3
		Special classes in general education	22,5	20,0

	institutions		
	Special education institutions	75,0	77,7

Analyzing the survey data presented in Table 1, we found that the answers to the first question indicate that only 12.2% (CG) and 10.2% (EG) of individuals know the essence of the definition at a high level, as well as the information about children in the group defined as those with special educational needs; 61.5% (CG) and 62.1% (EG) - at an average level; 26.3% (CG) and 27.2% (EG) - at a sufficient level. Thus, the majority of students do not understand which group of children are covered by inclusive education in institutions.

When answering the second question, the majority of students 89.3% (CG) and 87.4 (EG) defined as positive, only 10.7% (CG) and 12.6% (EG) as neutral.

Answering the third question, the students were almost equally divided in their views, like this: 26.1% (CG) and 31.6% (EG) of individuals admit children with special educational needs to inclusive classes in general education institutions; Education in general education schools, but in special classes noted 37.8% (CG) and 34.4% (EG); 34.1% (CG) and 35.0% (EG) of students believe that children should study in special schools by the profile of health disorders or other socio-pedagogical problems, and all exclude individual education of students with special educational needs at home. Thus, the majority of students - 63.8% (CG) and 66.0% (EG) - are convinced that children with special educational needs should study in general education institutions.

The student's answers to the fourth question indicate that 12.8% (CG) and 15.3% (EG) confirmed their desire to teach children in inclusive classes; (41.3% (CG) and 46.9% (EG) are not ready to have a child with special educational needs in their class; 45.9% (CG) and 37.8% (EG) of students believe that such children should attend special schools. However, 54.1% (CG) and 62.2% (EG) support the need to educate children in general education institutions.

Answering the fifth question, 75.0% (CG) and 55.8 (EG) of students noted adaptation and socialization of children in society, 15.0% (CG) and 24.2 (EG) - development of all general education and social skills, and 10% - education. The majority of students believe in developing the potential of students with special educational needs in the learning process.

Answering the question No. 6, students identified special classes in general educational institutions, special institutions and inclusive classes with a teacher's assistant as an exception - an individual form of education. However, at the same time, only 2.5% (CG) and 2.3% (EG) of students indicated the possibility of educating children with special educational needs in general education schools; 22.5% (CG) and 20.0% (EG) of individuals have doubts whether such children should be educated in general educational institutions, and 75.5% (CG) and 77.7% (EG) of students are categorically opposed to inclusive education.

At the same time, the overwhelming majority of respondents to the question "What category of children with special educational needs did you meet? Provide an answer: with children with language and speech disorders, supporting-motor apparatus disorders, mental retardation, hearing impairment, autism and Down syndrome.

Answering the question "What qualities should a teacher have for working with children with special educational needs? Respondents mainly indicated affection for children, friendliness, empathy, patience, responsiveness, and then professionalism.

We were interested in the answers to the question "What organizational and methodical work will you conduct at the lesson, if a child with special educational needs will study in the class? They were like this: "to use the principle of individual approach", "to carry out training according to the individual curriculum of the special school", "to work with them after lessons", "to carry out a lesson, giving such pupils individual tasks" and "I don't know".

In response to the question about the organization of assistance to parents of children with special educational

needs, students showed a low level of knowledge. In addition to conducting interviews and lectures on relevant topics, they were unable to offer other forms of assistance to parents.

On the basis of the answers analyzed, it was concluded that it is advisable to introduce the knowledge of inclusive pedagogy into the professional training of future primary school teachers.

The analysis of results on the level of basic knowledge on inclusive competencies of future primary school teachers to ensure readiness and ability to work in an inclusive environment at ascertaining stage convinces us of the need to make adjustments in the educational process of vocational training in order to raise student's awareness of teaching in an inclusive environment.

The available knowledge on the study was determined using the author's version of the "Unfinished Proposal" methodology (N. Samsonova). Qualitative analysis was carried out in order to objectively assess the subjective judgment on the essence of the issues on inclusive education. These answers were worked out using the methods of mathematical statistics and the results of testing were shown in Table 2.

**Table 2. Here are the test indicators for determining the level of knowledge about inclusive education**

Levels	total of students		CG (N=196)		EG (N=215)	
	n	%	N	%	N	%
sufficient	225	54,8	98	50,0	127	59,1
average	146	35,5	78	39,8	68	31,6
high	40	9,7	20	10,2	20	9,3
Total	411	100,0	196	100,0	215	100,0

The data in Table 2 shows that there are no significant discrepancies in the availability of inclusive knowledge in both groups. To confirm the reliability of the data, it is necessary to compare not only the percentage indicators, but also the initial proportions of the levels of formation of the control (CG) and experimental (EG) groups of students. Critical value was obtained in the Excel spreadsheet processor. Since  $\chi^2_{emp} \approx 3.552 < \chi^2_{0.05} \approx 5.991$ , then the statement about the absence of disagreements between empirical distributions is accepted at the  $\alpha = 0.05$  significance level. This conclusion indicates that before the formation experiment the students of both control (CG) and experimental (EG) groups had equal starting opportunities, i.e. they had the same parameters for the investigated feature.

Thus, based on the results of the students' self-assessment on the level of knowledge on inclusive education, it was concluded that the level of knowledge of students is insufficient to ensure the ability to perform professional activities in an inclusive environment of a general education institution, which requires the development of a new special training program for students in higher educational institutions.

When solving the second task of the study, the criteria of inclusive competence (sufficient, medium, high) were developed, the components of which determined the cognitive and activity components. Inclusive competence was understood as an indicator of integrated personal neoplasm characterized by the synthesis of theoretical knowledge, practical skills and abilities for the ability to use them to solve problems associated with the education of diverse children in an inclusive environment of general education institution.

In order to diagnose the cognitive and activity components at the stated stage the respondents of the control group (CG) and the experimental group (EG) were offered to answer the questions on the author's questionnaire. The results of our survey of students on determining the existing level of inclusive competence are presented in Table 3.

**Table 3: Here are the test indicators for the identification of inclusive competence, averages, %**

Components of inclusive competence	Competency levels					
	sufficient		high		average	
	CG	EG	CG	EG	CG	EG
cognitive components	28,1	26,73	57,69	55,06	14,21	18,21
activity components	30,7	30,1	54,6	55,5	14,7	14,4

The data obtained from the diagnosis suggest that, in general, the future primary school teacher does not have an adequate level of skills that will ensure the ability to work in an inclusive environment of a general education institution. Besides, it is possible to prove using the  $\chi^2$  criterion that the students of both control (CG) and experimental (EG) groups do not differ from each other in their structure as well. In this case, the value of the empirical criterion of  $\chi^2_{emp} \approx 0.206$  is obtained.

According to the results before the beginning of the study, it was concluded that the level of inclusive competence of future primary school teachers to work in an inclusive environment of general education institution does not meet the current requirements for a highly qualified specialist on the labor market. This underscores the need to introduce the "Fundamentals of Inclusive Pedagogy" discipline (author Shevtsiv, 2018) as a propaedeutic course of inclusive education into a special educational program.

After the completion of the experiment, a positive dynamics of the increase in the level of formation of inclusive competence in the selected components (cognitive, activity) is traced among EG students, whereas in CG such changes turned out to be less significant. The generalized results of the comparative analysis obtained in the process of their diagnostics after the introduction of the author's method are presented in Table 4.

**Table 4. Dynamics of the levels of formation of structural components of inclusive competence among future primary school teachers to work in an inclusive environment of a general education institution**

Component	Levels of formation	Before starting		After finishing		Dynamics $\Delta$	
		CG	EG	CG	EG	CG	EG
Cognitive	Sufficient	50,0	59,1	49,5	33,5	-0,5	-25,6
	Average	39,8	31,6	39,8	41,8	0	+10,2
	High	10,2	9,3	10,7	24,7	+0,5	+15,4
Activity	Sufficient	58,7	56,8	49,5	33,5	-9,2	-23,3
	Average	32,1	33,0	39,8	41,8	+7,7	+8,8
	High	9,2	10,2	10,7	24,7	+1,5	+14,5

Thus, according to the obtained data, we have come to the conclusion that after the experiment completion there is a stable tendency to a significant decrease in the number of students (by  $\Delta = 25.6\%$ ) for a sufficient level of formation of the cognitive component of inclusive competence and simultaneous increase in the number of students who have reached the average and high level ( $\Delta = 10.2\%$  and  $\Delta = 15.4\%$ , respectively). In order to check the developed significance of the introduction of a special educational program of university training of future primary school teachers for the formation of inclusive competence, the  $\chi^2$  criterion (chi-square) was applied. In the control group for all components of inclusive competence the value of empirical criteria of  $\chi^2_{emp}$  does not exceed the values of theoretical (critical)  $\chi^2_{0.05}$ , namely:  $\chi^2_{emp} = 0.030 < \chi^2_{0.05} = 5.991$  - cognitive. This indicates that there were no significant statistical changes in the CG before and after the training of future primary school teachers under the university education program. For all components of inclusive competence in EG, the empirical criteria value of  $\chi^2_{emp}$  exceeds the theoretical (critical)  $\chi^2_{0.05}$  values, namely:  $\chi^2_{emp} = 33.182 > \chi^2_{0.05} = 5.991$  - cognitive;  $\chi^2_{emp} = 7.349 > \chi^2_{0.05} = 5.991$ ,



$\chi^2_{emp} = 6.073 > \chi^2_{20.05} = 5.991$ ,  $\chi^2_{emp} = 6.989 > \chi^2_{20.05} = 5.991$  - professional.

## 5. Discussion.

We believe that the introduction of inclusion in Ukraine is possible due to the development of a positive opinion about the joint education of students with disabilities in general educational institutions. It is relevant to develop inclusive competencies among future primary school teachers to work in an inclusive environment as early as the period of training in higher educational institutions.

The aim of the study was to determine the effectiveness of the two university educational programs for training of the future primary school teachers to work in an inclusive environment of general education institution. The results of the study clearly indicate that inclusive education in general education institutions is a phenomenon of pedagogical activity that has the right to exist. However, the full inclusion of children with disabilities in the educational process of general educational institution is criticized and questioned. For example, Rouse (2008) has stated that there are concerns that inclusion policies are complicated because teachers are not yet sufficiently trained to work in an inclusive environment. Knight, 1999, Thomas & Loxley (2001), argue that inclusion has not been proven to work effectively and produce positive results. There is discussion about the fact that special education programs are more effective in special educational institutions, as they employ professionals with improved teaching methods of teaching such students (Slavcovic & Memisevic, 2019). Most scholars believe that a positive contribution to the development of inclusive education is the development of teachers' qualifications (Pajares, 1992). However, based on the results of the study, it was concluded that the introduction of a special program allows students to be prepared for the work in an inclusive environment, as well as inclusive competence to work in the future as a primary school teacher in an inclusive class of a general education institution.

A special educational program was introduced in the discipline "Fundamentals of Inclusive Pedagogy" (Shevtsiv, 2018) as a science of inclusive education pedagogy, with its own subject and objectives. Although there is debate about whether inclusive pedagogy can be a science (Florian, 2009)? However, the scientific discourse argues that the application of pedagogy in inclusive education is a didactic approach that underpins the methodology of teaching all students in an inclusive class and is based on the use of different learning technologies (Corbett, 2001). The results of the study show that the introduction of inclusive pedagogy into the special education program for future primary school teachers has improved the effectiveness of their inclusive competence development. Before starting their future work, they mastered methods and techniques for teaching students with special educational needs, strategies for planning student development and improving learning. The introduction of the "Fundamentals of Inclusive Pedagogy" discipline confirms the idea of Florian & Linklater (2010) that every person involved in the inclusive process should know how to improve teaching and learning, how to use innovations in learning, what strategies of teaching are most productive in assessing the success of students, what cognitive strategies can be used to improve learning.

At the same time it has been noted, that working with a teacher assistant is particularly important in the work of a primary school teacher in an inclusive environment (Anderson & Ostlund, 2017). However, taking into account previous studies, the data presented in this paper did lead to some conclusions about the fact that the knowledge gained through the study of inclusive pedagogy does not fully enable us to obtain the ability to interact with students with special educational needs. Therefore, the further development could be the research on the introduction of the disciplines "Didactics of Inclusive Education", "Psychology of Communication", "Assisting in Inclusive Education" into the special educational program.

## 6. Conclusions

On the basis of the study, we can state that a special education program has advantages over a university education program in terms of preparing future primary school teachers to work in an inclusive environment and developing inclusive competencies. The results of the experiment show that the number of students with a sufficient level of inclusive competence is steadily decreasing, while the number of students who have reached the average and high level respectively is increasing.

The results of the study provide the grounds for clarifying the sectoral standards of education in the field of "Primary education". We recommend the developed special educational program for the introduction to teachers with "Inclusive Education" specialization. It is recommended that the discipline "Fundamentals of Inclusive Pedagogy" be introduced into the educational programs of all faculties of teacher training universities that carry out training of future teachers of the first and second levels of higher education. Through this course, future teachers will not only be familiarized with the training of students with special educational needs, but will also acquire practical skills of joint training of neurotypical students and students with special educational needs in general educational institutions.

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## References

1. Abu El-Haj, T.R., & Rubin, B.C. (2009). Realizing the equity-minded aspirations of detracking and inclusion: Toward a capacity-oriented framework for teacher education. *Curriculum Inquiry*, 39(3), 435–463.
2. Anderson, L., & Ostlund, D. (2017). Assessments for learning in grades 1-9 in a special school for students with intellectual disability in Sweden. *Problems of Education in 21st Century*, 75(6), Continuous presented at the December/2017.
3. Anke de Boer, Sip Jan Pijl & Alexander Minnaert (2010). Regular primary schoolteachers' attitudes towards inclusive education: A review of the literature. *Journal of Inclusive Education*, 15, 331-353. Retrieved from <http://dx.doi.org/10.1080/13603110903030089>.
4. Barnes, C. & Sheldon, A. (2010). Disability, politics and poverty in a majority world context. *Disability & Society*, 25(7):771–782.
5. Bondar, V. (2011). Inclusive education as a socio-pedagogical phenomenon. *Native school*. No. 3. p. 10-14.
6. Borodina Oh, (2014). Formation of the inclusive competence of the future health teacher. *Vocational education in Russia and abroad* number 1 (13), 75-79.
7. Budnyk, E. (2014). Action-technological readiness of future primary school teacher for social and educational activity (based on the results of experimental study). *Science and Education a New Dimension. Pedagogy and Psychology*, II (11), Issue: 22, P. 6–10.
8. Concept of inclusive education development [Order of the Ministry of Education and Science of Ukraine from 01.10.2010 № 912] Retrieved from <http://firstedu.org.ua/index.php> (Last accessed: 26.08.2019).
9. Corbett, J. (2001). Instructional approaches that support inclusive education: connective pedagogy. *British magazine Special Education*, 28 (2): 55–59.
10. Demchenko, I. (2013). Algorithm of quasi-professional preparation of the future teacher of elementary school to work in conditions of inclusive education. *Psychological-pedagogical problems of rural school..* No. 45. P. 40-49 Retrieved from file:///C:/Users/User/Downloads/znpkp\_sp\_2012\_19(1)\_32.pdf.
11. Diachenko-Bohun, M., Rybalko, L., Grygus, I. & Zukow, W. (2019). Health Preserving Educational Environment in the Condition for Information Technologies. *Journal of History Culture and Art Research*, 8(2), 93-101.



12. Filonenko, M. (2012). Psychology of communication [text]: textbook. 2nd view. recycling and add. Kyiv.
13. Fisher, D., Frey, N., & Thousand, J. (2003). What do special educators need to know and be prepared to do for inclusive schooling to work? *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 26(1), 42–50.
14. Florian L., Linklater H. (2010). Teacher training for inclusive education: the use of inclusive pedagogy to increase the efficiency of teaching and learning for all. *Cambridge Journal of Education*. Iss 4. 369.
15. Florian, L., & Black-Hawkins, K. (2010) Exploring inclusive pedagogy. *British Educational Research Journal*, First published on: 20 July 2010 (iFirst). Retrieved from <http://dx.doi.org/10.1080/01411926.2010.501096>; accessed 21 July 2010.
16. Florian, L., Young, K., & Rouse, M. (2010). Preparing teachers for inclusive and diverse educational environments: Studying curricular reform in an initial teacher education course. *International Journal of Inclusive Education* 14(7), 709–722.
17. Florian. L. (2010) The concept of inclusive pedagogy. In G. Hallett, & F. Hallett (Eds.), *Transforming the role of the SENCO* (pp. 61–72). Buckingham: Open University Press.
18. Gnoyevskaya, O. (2016). Formation of correctional competence of a teacher of a comprehensive educational institution with an inclusive form of study: Extended abstract of candidate's thesis.. Kyiv.: Nats. ped Untitled MP Drahomanov.
19. Gordiychuk O. Y. Scientific-methodical work as a component of the professional training of future primary school teachers for inclusive activities. URL:<https://www.sworld.com.ua/simpoz5/45.pdf> (Last accessed: 26.08.2019).
20. Guralnick, M.J. (2011). Why early intervention works: A systems perspective. *Infants and Young Children*. 24 (1); 6–28.
21. Hafizullin, I. (2008). Forming inclusive competence for future teachers in the learning process. Extended abstract of candidate's thesis. Astrakhan.
22. Hajkova, V. (2007). The new professionalism of teachers in inclusive school practices. In O. Simonik, J. Skrabankova & J. Stava (Eds.), *Dimension of pedagogical work with gifted pupils. The dimensions of educational work with gifted students.* (pp.94-103). Proceedings from an International Seminar. Brno: MSD. ISBN 978-80- 7392-006-7. CD-ROM.
23. Hodkinson, A. (2005). Conceptions and misconceptions of inclusive education: A critical examination of final-year teacher trainees' knowledge and understanding of inclusion. *Research in Education*, 73, 15. Retrieved from <https://journal.iitta.gov.ua/index.php/itlt/article/viewFile/192/178>.
24. Hrytsai, N., Diachenko-Bohun, M., Grynova, M., Grygus, I., & Zukow, W. (2019). Methodical Training System Enhancements of Future Biology Teachers at Pedagogical Universities. *Journal of History Culture and Art Research*, 8(1), 30-38.
25. Karpenko, O. (2017). The European dimension of modernization of higher pedagogical intensity in Ukraine. *Human Studies*. Vol. 5 (37), pp. 39-47
26. Kershner, R. (2007). What do teachers need to know about meeting special educational needs? In L. Florian (Eds.), *The Sage handbook of special education* (pp. 486–498). London: Sage.
27. Knight B.A. (1999). Towards the inclusion of students with special educational needs in the classroom. *Training support*, 14 (1): 3–7.
28. Kolupayeva, A., Taranchenko, O. and Danilavichute, E. (2014), *Special Education Today in Ukraine, Special Education International Perspectives: Practices Across the Globe* (Advances in Special Education, Vol. 28), Emerald Group Publishing Limited, pp. 311-351.
29. Lindsay, G. (2003). Inclusive Education: A Critical Perspective. *British Journal of Special*. Vol. 30. Issue 1.

30. Loreman, T., Deppeler, J.M. & Harvey, D.H.P. (2005). Inclusive education: A practical guide to supporting diversity in the classroom. Crows Nest NSW Australia, 273 p.
31. Mironova, S. (2007). Teacher training for correctional work in the education system for children with intellectual disabilities: a monograph. Kamyans-Podilsky: Abetka-Nova, 304 p.
32. Oftsted. (2004). Special educational needs and disabilities: Towards inclusive schools (HMI 2276). London: Ofsted.
33. Pajares, M.F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307–332.
34. Pantic, N., Closs, A., & Ivosevic, V. (2011). Teachers for the future: Teacher development for inclusive education in the Western Balkans. Torino, Italy: European Training Foundation.
35. Pelekh, Yu. (2009). Professional training of the future teacher in the competence-value dimension: the philosophical and cultural aspect. *Information technology and teaching aids*. No. 5 (13).
36. Pijl, S. J., Meijer, C. J. & Hegarty, S. (1997). Inclusive education: A global agenda. Psychology Press.
37. Pugach, M.C. (2005). Research on preparing general education teachers to work with students with disabilities. In M. Cochran-Smith, & K. Zeichner (Eds.), *Studying teacher education: The report of the AERA Panel on Research and Teacher Education* (pp. 549–590). Mahwah, NJ: Lawrence Erlbaum Associates.
38. Rabi, N. M., Ghazali, N. H. C. M. & Piragasam, G. A. G. (2018). The Importance of Inclusive Education Course for Preparing Pre-Service Teacher to Teach Students with Special Needs in School. *International Journal of Academic Research in Business and Social Sciences*, 8(11), 1848–1858.
39. Rouse, M. (2008). *Developing Inclusive Practice: A Role for Teachers and Teacher Education*. University of Aberdeen.
40. Salamanca Declaration (1994). Framework for Action on the Education of Persons with Special Needs: Materials of the World Conference. by images. persons with special needs (Salamanca, Spain, June 7-10, 1994). UNESCO, 40 p.
41. Scott, B.J., Vitale, M.R. & Masten, W.G. (1998) Implementing instructional adaptations for students with disabilities in inclusive classrooms: A literature review. *Remedial and Special Education*, 19(2), 106–119.
42. Shevtsiv, Z. (2017). Some aspects of the preparation of the future teacher of elementary school to work in the inclusive environment of a comprehensive educational institution. *Studies in Humanities: Sb. sciences Drohobych Ave: Editorial Publishing Department of Ivan Franko DDP, 2017. Vip. 5/37. Pp. 269-277.*
43. Shevtsiv, Z. (2018). *Basics of Inclusive Pedagogy: Textbook. 2nd view. recycling and add.* Kyiv: Center for Educational Literature, 248 p.
44. Shevtsov, A. (2012). Justification of orthoped agogy. Coll. Sciences Works of Kamyans -Podilsky National University Named of Ivan Ogienko, Series: socio -pedagogical, IXX, 1, 274-284.
45. Shevtsov, A., Ilina, O. (2017). Indexes of emotional intellect in the structure of psychological readiness to professional activity of future Ortopedagogies Fundamental and applied researches in practice of leading scientific schools, 21 (3), 21–26. Retrieved from <https://farplss.org/index.php/journal/article/view/174>
46. Shved, M. (2015). *Osnovy inkluzivnoi osvity*. Lviv: Ukrainskyi katolytskyi universytet, 360 p.
47. Slavcovic, M., & Memisevic, H. (2019). Comparison of special education preschool program and inclusive preschool program for math achievement. *Problems of Education in 21st Century*, 77(1), Continuous presented at the Februar/2019.
48. Stayton, V.D., & McCollum, J. (2002). Unifying general and special education: What does the research tell us? *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 25(3), 211–218.
49. Strogilos, V (2013). Inclusive and collaborative practices in co-taught classrooms: Roles and responsibilities for teachers and parents *Teaching and Teacher Education* 35:81-91.
50. Thomas, G. & Loxley, A. (2001). Deconstruction of special education and the construction of inclusion. Second

edition. Maiden's head: an open University Press.

51. UNESCO. Inclusion in education Education transforms lives Leading Education 2030. Retrieved from <https://en.unesco.org/themes/inclusion-in-education>.

52. Walmsley, J. (2001). Normalization, emancipatory research and inclusive research in learning disability. *Disability and Society*, 16(2):18–205.

53. Zimnukha, T.Yu., Kozhekina T.V. & Kondratyev V.V. (2011). Formation of the inclusive competence of future teachers as a component of their professional competence. *Vocational education. The capital* No. 03.