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The development of a training model for the formation of positive attitudes in teachers towards the inclusion of learners with special educational needs into the educational environment

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The relevance of the problem presented in the article is based on the implementation of the rights of learners with special educational needs for obtaining an education. They must have architectural and methodological access to education, and also benevolent, tolerant, non-judgmental attitudes towards them on the part of teachers. This phenomenon determines the formation of learner's necessary competencies, as well as the success of their socialisation and adaptation. The purpose of the article is to examine the attitude of teachers towards the inclusion of learners with special educational needs into the educational environment and to subsequently develop a training model for the formation of teachers' positive attitudes towards the idea of inclusion. The leading method of research into this research question and aim is a survey presented to teachers in order to identify their attitudes towards the inclusion of learners with special educational needs into the educational environment. The results showed that teachers' attitudes towards learner's inclusion into the educational environment is determined, above all, by the level of teachers' personal and professional commitment, as well as by the constraints of a learner's performance. The authors suggest a training model for the formation of a positive teacher attitude to the inclusion of learners with special needs in educational environment. The model is a training project comprising methods that could be implemented to develop positive teacher attitudes to the idea of including learners with special needs into an educational environment. The findings of the research and the model developed on the basis of the findings of this research project may be useful for teachers, inclusive education practitioners and for training institutions preparing student teachers for inclusive environments.

Keywords: inclusive education; learners with special educational needs; model for the formation of a positive attitude; teachers' attitudes

Introduction

The beginning of the 21st century is marked by systemic economic and social transformations in Russia, that significantly affected the education system, including education for persons with special needs. The Ministry of Education and Science of Russia approved an interdepartmental comprehensive plan for the organisation of inclusive education and the creation of special conditions for the education of disabled children for 2016–2017 (priority actions). The comprehensive plan includes steps in creating a mechanism to ensure the conditions for education at different levels; the systemic development of psychological and pedagogical support; and actions to improve the quality of pre-school, inclusive, special, distance and supplementary education for learners with special needs. Measures prioritised to implement legislation and regulatory support include the development of mechanisms for interagency cooperation, training and retraining of professional staff, and psychological and pedagogical support.

Ideally, priority should be given to the creation of a barrier-free educational environment. Apart from architectural barriers, the main challenge to the implementation of inclusive education in the practice of educational institutions is the so-called psychological barriers (Heyne, 2003; Ke, Borakova & Valiullina, 2017; Lomofsky & Lazarus, 2001; Pivik, McComas & Laflame, 2002; Yachina & Khuziakhmetov, 2017). The specific attitude to special educational needs on the part of teachers is often characterised by general social stereotypes, prejudices and mental archetypes, and therefore affects, to a large extent, the successful implementation of inclusive education it is in the learning environment that learners with special educational needs realise their personal and social "selves" (Gilmore, Campbell & Cuskelly, 2003); where the environment needs to be without the above-mentioned psychological barriers.

A positive attitude of teachers towards the inclusion of learners with special educational needs into general education facilitates an effective way of social integration for many categories of learners with special educational needs, since they not only receive high-quality education, but also successfully socialise and become integrated in the environment with their peers with typical needs. They become accustomed to the fact that they are subjected to the same requirements as all other learners (Gabdrakhmanova & Guseva, 2016). The

success of any policy of social integration depends largely on the positive attitude of teachers towards the inclusion of learners with special educational needs into the educational environment (Avramidis, Bayliss & Burden, 2000; Can, 2016; Fahrudinova, Konovalov & Boltikov, 2017; Ibragimov, Dusenko, Khairullina, Tikhonova & Yevgrafova, 2016; Kurniawati, Minnaert, Mangun-song & Ahmed 2012; Ngcobo & Muthukrishna, 2011), while a negative attitude hampers social participation and academic performance of these learners in the classroom (Beattie, Anderson & Antonak, 1997; Subban & Sharma, 2005).

The attitude (acceptance/non-acceptance) towards the values of a social phenomenon plays an important role, being the first and most essential step in the formation of the teacher's readiness to interact with a learner with special educational needs. Values act as a link between an individual, his/her inner world, and the surrounding reality. These dictate behavioural acts, implement regulatory functions, which are manifested in all areas of human activity, including vocational and educational areas. Consequently, the development of teachers' values regarding inclusivity should be one of the tasks of Professional Education Development (Hitryuk, 2013).

Much of the success of inclusive education depends on the professional and psychological readiness of teachers (Magomedova & Damadaeva, 2015; Movkebayeva, Oralkanova, Mazhinov, Beisenova & Belenko, 2016). Professional readiness includes information readiness, the possession of pedagogical technologies, as well as the knowledge of the fundamentals of psychology and correctional pedagogy and understanding learner's individual personalities and learning needs. It is based on teachers' willingness to model lessons to be flexible in the learning process, to have knowledge of the individual characteristics of learners with special educational needs, and to be ready for professional interaction and learning. The structure of the psychological readiness includes the emotional acceptance of learners with special educational needs in their developmental phases (adoption-rejection); willingness to include learners with special educational needs into classroom activities (inclusion - insulation); and satisfaction with their own teaching activities (Alekhina, Alekseeva & Agafonova, 2011; Kamalova & Raykova, 2016).

According to experts, the success of inclusion is predetermined by the expert use of a set of pedagogical and psychological resources. These include professional competence of inclusive teachers; reorganisation of the system of training and professional support of teachers; the attitude of teachers and learners with typically needs towards the phenomenon of difference in ability and its impact on the productivity of inclusive education;

as well as changes in curriculum structure and space in the classroom in order to meet the needs of diverse learners (Liventsova, 2011).

As has been argued, one of the steps towards successful integration of learners with special educational needs into the educational environment and teachers' commitment is the attitude to this phenomenon, which depends on the understanding of the inclusive process by teachers at educational institutions, the availability of experience of working experience with learners with special educational needs, and the development of personal and professional commitment. The relevance of the topic and its practical significance stipulated the need for a survey in order to gather primary information about teachers' specific attitudes towards the inclusion of learners with special educational needs into the educational environment, followed by defining the ways to develop these positive attitudes to the idea of inclusion and developing an appropriate training model in this regard.

Methods

This research was undertaken over a period of eight months and consisted of two parts, namely a thorough review of literature in the field of inclusive education and an empiric component through which current attitudes of teachers were explored, based on knowledge gained in the literature review. The study focused firstly on reviewing existing research in the field of inclusive education (Alekhina et al., 2011; Avramidis et al., 2000; Emong & Eron, 2016; Etieyibo & Omiegebe, 2016; Gilmore et al., 2003; Hitryuk, 2013; Liventsova, 2011; Ndlovu & Walton, 2016; Ozoji, 1991).

The research design included the use of quantitative and qualitative approaches in combination as it was thought that it would provide a better understanding of the research problem. We used mixed methods (quantitative and qualitative) based on survey results to describe the current situation in organisations in which learners with special educational needs are educated. The quantitative data were collected using a questionnaire which contained closed multiple choice questions, as well as open questions that allowed participants to provide their own understandings. The qualitative data were collected through the interviews with participants and observation of their professional activities. The qualitative data provided a support aid in the interpretation of the quantitative dataset.

The survey was conducted with 150 respondents, including 90 teachers of secondary education institutions and 60 lecturers of higher education institutions. The quantitative data were collected by means of a questionnaire developed by the researchers with the purpose to collect the

opinions and attitudes towards inclusion of teachers. The questionnaire was based on the initial literature review and included three sections:

- assessment of the availability of conditions for teaching learners with special educational needs and teachers' awareness of the psychophysiological characteristics of learners;
- the attitude of teachers towards including learners with special educational needs in the educational environment, assessment of the level of professional preparedness; and
- the attitude of teachers towards the inclusion of learners with special educational needs reading differences in ability.

The results of the practical study and analysis of literature have become the basis for developing a training model for the development of positive teachers' attitudes towards the inclusion of learners with special needs in educational environments. The model is divided into three stages: informative, formative, and final.

Experimental Research Base

The research was conducted among teachers of secondary and lecturers of higher educational institutions of the Republic of the Crimea. The group of teachers of secondary was made teachers who took courses in the development in the field of inclusive education in the Republic of Crimea. Another group of respondents was made up of the lecturers from V.I. Vernadsky Crimean Federal University, who have experience working with learners with special needs.

Stages of Research

The research was conducted in three stages:

- The first stage - the preparatory stage - analysed the current state of the research problem in the pedagogical theory, and developed a programme of research methodology.
- The second stage - the main stage - carried out a survey of teachers in order to examine their attitudes towards the inclusion of learners with special educational needs into the educational environment. The set of conditions enabling the formation of teachers' positive attitudes towards the inclusion of learners with special educational needs into the educational environment guided the question in the survey.
- The third stage - development of model for the formation of positive attitudes of teachers towards the inclusion of learners with special educational needs into the educational environment.
- The fourth stage - the final stage - carried out analysis, interpretation and synthesis of the research results. It refined the theoretical conclusions, carried out the processing and presentation of the obtained research results and determined the prospects for further research.

Results

Results of the Survey

An important condition ensuring teachers' positive attitude towards the inclusion of learners with special educational needs into the educational environment is the availability of suitable conditions for learners' education at educational institutions, awareness of professionals about the specific features and needs of learners with special educational needs and the specific approaches and experience in such areas. These issues were included in the first unit of the questionnaire (Table 1).

Table 1 Respondents' answers to the questions of the first unit in the questionnaire

Questions	Teachers of secondary education institutions			Lecturers of higher education institutions		
	Yes	No	Do not know	Yes	No	Do not know
Are there suitable conditions for teaching learners with special educational needs?	67.8%	2.2%	30%	63.3%	6.7%	30%
Knowledge of psycho-physiological characteristics of learners with special educational needs	35.6%	13.3%	51.1%	35%	28.3%	36.7%
Knowledge of the specific approaches to teaching learners with special educational needs	32.2%	16.7%	51.1%	20%	38.3%	41.7%
Experience in working with learners with special educational needs	81.1%	18.9%	-	81.7%	18.3%	-

Note. Source: Primary data 2015.

As can be seen, in most educational organisations the conditions for education of learners with special educational needs have been created, and the majority of teachers have experience in teaching learners with special educational needs. Nevertheless, the accessibility of educational organizations' infrastructure does

not take into consideration the needs of all learners. Among the respondents only one-third of teachers are familiar with psycho-physiological characteristics of learners with special educational needs, as well as the specific features of interaction and teaching them.

Analysis of the second unit of the questionnaire allowed us to determine the teachers' attitude towards the inclusion of learners with special educational needs into the educational environment and the teachers' self-assessment of the level of their readiness to work with learners with special educational needs (Table 2).

The results of the study reveal that the teachers working in inclusive organizations have mixed opinions as far as their attitude towards inclusive education is concerned. The respondents' answers shown in Table 2 show the predominantly

positive attitude towards the inclusion of learners with special educational needs into the educational environment. However, 8.9% of teachers of secondary education institutions and 11.7% of lecturers of higher education institutions are indicated negative attitudes towards the studied phenomenon. For example, answering the question during the interview 'why are you against the inclusion of learners with special educational needs?' the teachers replied that they had not had special training, and didn't receive assistance from the school administration.

Table 2 Respondents' answers to the questions of the second unit in the questionnaire

Questions	Teachers of secondary education institutions			Lecturers of higher education institutions		
	Positive	Neutral	Negative	Positive	Neutral	Negative
The attitude towards the inclusion of learners with special educational needs into the educational environment	78.9%	12.2%	8.9%	70%	18.3%	11.7%
The level of preparedness to work with learners with special educational needs	High 13.3%	Medium 61.1%	Low 25.6%	High 50%	Medium 36.7%	Low 13.3%

Note. Source: Primary data 2015.

A comparison of the teachers' responses showed that some of the respondents who identified their professional level of preparedness to work with learners with special educational needs as "high," do not have the necessary knowledge and experience to organise such support for learners with special educational needs. Among the respondents, 33.3% of teachers were not familiar with the peculiarities of the organisation of work and did not know the learners' psycho-physiological features; but assessed their level of preparedness as "medium."

Furthermore, the teachers' responses to the open question in the questionnaire "What knowledge and skills do you need to work with learners with special needs" were analysed. Teachers of educational institutions with a low level of readiness to work with learners with special needs noted the lack of knowledge in the field of special pedagogy, psychological characteristics of learners with various disorders, methods of working with

learners with severe autism, and lack of practical skills in working with learners with different abilities (for example, cerebral palsy and visual or hearing impairment). Among the lecturers of higher education institutions, most have noted the lack of knowledge and practical experience with specific disorder groups such as the behaviour disorders, intellectual disorders, and hearing impairment. The lack of legislative and regulatory support for the organisation of inclusive education, and the difficulties in formulating and solving research problems were also mentioned.

The attitudes of teachers to incorporate learners with special educational needs into the educational environment and collaborative learning with their peers with typical needs also seems to depend on the specificity and degree of their needs and differences. The third unit of the questionnaire allowed us to determine whether the attitude of teachers depends on the main differences (Table 3).

Table 3 Respondents' answers to questions of the third unit of the questionnaire

Types of differences	Teachers of secondary education institutions		Lecturers of higher education institutions	
	Support co-education	Against co-education	Support co-education	Against co-education
Disorders of the musculo-skeletal system	87.8%	-	95%	-
Hearing impairment	72.2%	-	86.7%	-
Impairment of vision	64.4%	-	80%	-
Speech disorders	74.4%	-	83.3%	-
Intellectual disorders	47.8%	5.6%	-	100%
Conduct disorders	65.6%	-	8.3%	63.3%

Note. Source: Primary data 2015.

An analysis of the results reveals that teachers of secondary education institutions and lecturers of higher education institutions feel mainly positive about the idea of co-education of learners with special educational needs and peers with typical needs. It was determined that the specificity of disorders affects the phenomenon under investigation. Thus, the majority of respondents feel positive about the inclusion of learners with mobility, hearing and speech disorders into the educational process, while the inclusion of learners with intellectual disorders has received the lowest percentage of support. The fact that lecturers of higher education institutions do not share the idea of co-education of learners with intellectual disorders and behavioural disorders with learners with typical needs can probably be attributed to two reasons: firstly, the lack of expertise in the field of special methods of teaching of such learners; and secondly, the improbability of obtaining higher education for such learners.

Developing a Training Model

Despite the predominantly positive attitude of teachers towards the idea of including learners with special educational needs, some teachers (8.9% teachers of secondary educational institutions and 11.7% lecturers of higher education institutions) are against joint education with peers with typical needs. At the same time, teachers noted the need for additional knowledge about the individual characteristics of learners with special educational needs, special methods of working with them, and the regulatory framework for implementing inclusive education. This fact requires additional measures that may allow the forming of positive teacher attitudes to include learners with special educational needs in the educational environment. Analysis of the research results and review of the literature allowed us to develop a model for the development of a positive teacher attitude towards the idea of including learners with special educational needs.

The study proposes the use of the following model, which is three stages namely informative, formative and final stage (see Figure 1 below).

Algorithm for Implementing the Training Model

The purpose of the information stage is the formation of a complex system of teachers' knowledge about the specific features of inclusive education, regulatory and legal bases of its implementation, the individual characteristics of learners with special educational needs, the fundamentals of therapeutic and special pedagogy. This stage is realised through lectures, discussions, seminars, trainings, open lessons, master classes, presentations of work experience, discussion of controversial issues, expert consultations, round tables, debates, problem solving, setting up

information stands, creating guidelines, information booklets and organising advanced training courses.

The purpose of the formative stage is the development and formation of teachers' professional important qualities through the implementation of training sessions, organisation of various psychological activities (such as "Week of Tolerance," "Hour of Kindness," "Secret Friend," "Utterance Lane," "Hour of Communication," etc.), watching videos and movies (such as "Learners with disabilities Speak on ...," "Music Inside," "Rain Man," "Forrest Gump" and "Inside I'm Dancing"). The implementation of the training programme includes the following tasks: the enrichment of teachers' knowledge and skills of teaching and developing learners with special educational needs; raising awareness of their own personal qualities and characteristics; the formation of professional and psychological orientation towards differences; the development of motivation for professional work in the conditions of inclusive education and self-improvement; the development of empathy; the formation of the culture of tolerance; the development of psychological insight skills; the capacity for self-regulation; the formation of stress resilience; the mastering of communication skills; the development of reflexivity; the increase of sensitivity; and the deepening of self-knowledge.

The final stage involves the consolidation of the acquired knowledge and skills in situations of real interaction with the participants in inclusive education based on humanistic principles in the implementation of professional, tutorship, and volunteer activities. The implementation of tutorship and volunteer activities can be carried out by means of teachers' participation in charity events, helping learners with special educational needs in training activities, and involves the development of a humane attitude towards them, understanding and accepting of their characteristics, and the formation of experts' readiness to assist others. Involving teachers in the organisation and running of charity events, helping learners with special educational needs in their learning process promotes humane, tolerant, empathic attitudes towards them and consolidates the acquired knowledge and skills of interaction with them.

It is assumed that the model will serve as a basis for the formation of teachers' positive attitude towards the inclusion of learners with special educational needs into the educational process in terms of their actual teaching activities, which is especially important in the process of educational modernisation.

An ongoing programme evaluation research process is envisaged as the model is implemented in order to evaluate its efficiency.

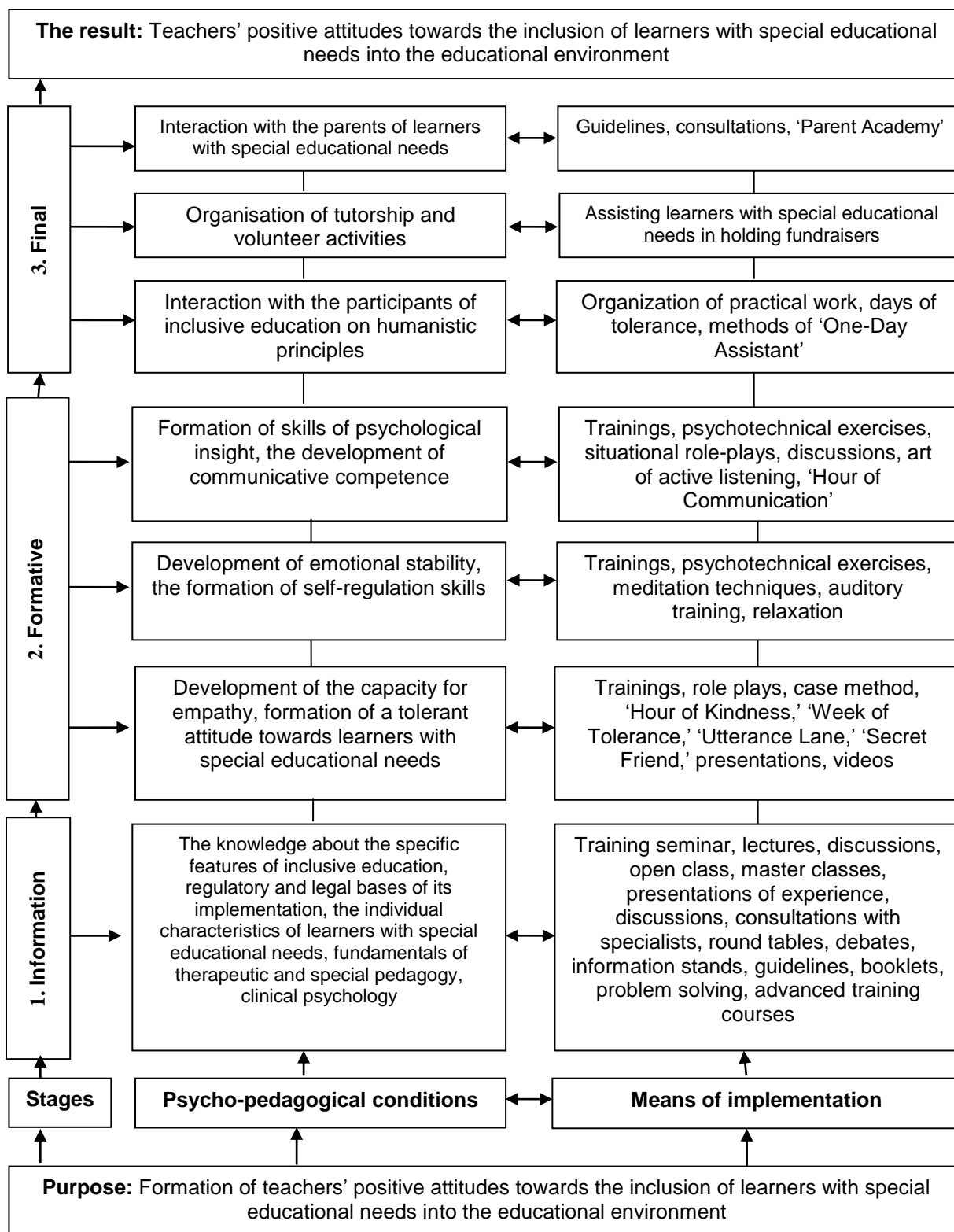


Figure 1 A training model for developing positive attitudes in teachers towards the inclusion of learners with special educational needs into the educational environment

Discussion

The study of teachers' attitudes to inclusive education is based on theoretical studies (Fazio, 1986), in which relationships are viewed as a phenomenon that has an evaluation component in

its structure. Many studies (Mastropieri & Scruggs, 1995) noted that teachers' positive attitudes to the concept of inclusive education depends on the degree of their professional readiness to implement it. Consequently, teachers' attitude to the inclusion

of learners with special educational needs into the educational environment can depend on many factors constituting their professional readiness such as pedagogical experience, knowledge about the learners' specific features and the number of learners in the classroom (e.g. Downing, Eichinger & Williams, 1997).

The results of this study are consistent with the studies conducted by Avramidis and Norwich (2002), in which the predominantly positive attitude of teachers to the inclusion of learners with special educational needs in the educational environment is stated. Moreover, these same authors highlighted the factors influencing teachers' attitudes towards the inclusion of "special" learners into the educational environment. Among these are the factors related to teachers themselves (such as gender, age, teaching experience); learners (such as learner's degrees of difference and the nature of disorders); and the environment (such as availability of staff and financial support). The studies have shown that teachers have a more positive attitude towards the inclusion of learners with physical disorders than with emotional and behavioural disorders (Avramidis et al., 2000). Teachers' positive attitudes towards inclusion also depend on the knowledge about the characteristics of learners with special educational needs (Brownell & Pajares, 1999).

The literature reviewed shows that the dominant factor in teachers' attitudes towards the inclusion of learners with special educational needs into the educational environment is the teaching experience in general and specifically teaching experience in inclusive classes (Avramidis & Norwich, 2002; Cook, 2001; Geldenhuys & Wevers, 2013; Hall & Theron, 2016). Teachers having many years of teaching experience are less supportive of inclusion than their less experienced colleagues (Gilmore et al., 2003; Leyser & Tappendorf, 2001; Taylor, Smiley & Ramasamy, 2003). Similarly, a number of studies have found that teachers who received training in special education, had a more positive attitude towards inclusion than their counterparts who did not have such training (Avramidis & Kalyva, 2007; Koutrouba, Vamvakari & Theodoropoulos, 2008; Parasuram, 2006).

The results of our study confirm that teachers' attitudes to inclusion of learners with special needs in the educational environment depend on the experience of teachers, their level of knowledge and practical skills in the field of inclusive education, the types of differences of the learner.

Although the problem of teachers' attitudes towards the inclusion of learners with special educational needs into the educational environment has been extensively studied, the comparative characteristics of the studied phenomenon among

specialists of secondary education institutions and higher education institutions, as well as the ways and conditions of the formation of teachers' positive attitude to the idea of co-education of learners with special educational needs and their peers, have not been fully explored.

The experience towards the inclusion of learners with special educational needs presented in this paper makes it possible to design and develop the educational process, taking into consideration its potential for successful application in other countries.

The contents of this article can be useful for teachers in the sphere of inclusive education and for organisations concerned with training of specialist teachers.

Conclusion

The research results show that teachers' attitudes to the implementation of inclusive education for learners with special educational needs is currently somewhat ambiguous, and depends on several factors, such as the degree of the learner's difference, the level of teachers' professional and personal readiness, and the availability of adequate material and technical conditions. The results from the questionnaire survey allow us to speak about the respondents' partial acceptance of the idea of inclusive education for learners with special educational needs, and the lack of knowledge and practical skills of working with some of the groups who share specific disorders.

It is proposed to develop teachers' positive attitudes to the idea of inclusion through the implementation of the author's model consisting of informative, formative and final stages, which presuppose the use of a wide range of methods and tools.

In the course of the research, new questions and problems have become the key for further studies. It is necessary to continue research on the implementation of training model enabling teachers to form a positive attitude towards the inclusion of "special" learners into the educational environment. An important point is the development of recommendations on the improvement of educational programmes for future teachers, providing for the development of positive teachers' attitudes that define their willingness to work with learners with special educational needs in inclusive environments.

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Note

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References

- Alekhhina SV, Alekseeva MN & Agafonova EL 2011. Preparedness of teachers as the factor of success of the inclusive process in education. *Psychological Science and Education*, 1:83–92.
- Avramidis E, Bayliss P & Burden R 2000. Student teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school. *Teaching and Teacher Education*, 16(3):277–293. [https://doi.org/10.1016/S0742-051X\(99\)00062-1](https://doi.org/10.1016/S0742-051X(99)00062-1)
- Avramidis E & Kalyva E 2007. The influence of teaching experience and professional development on Greek teachers' attitudes towards inclusion. *European Journal of Special Needs Education*, 22(4):367–389. <https://doi.org/10.1080/08856250701649989>
- Avramidis E & Norwich B 2002. Teachers' attitudes towards integration/inclusion: A review of the literature. *European Journal of Special Needs Education*, 17(2):129–147. <https://doi.org/10.1080/08856250210129056>
- Beattie JR, Anderson RJ & Antonak RF 1997. Modifying attitudes of prospective educators toward students with disabilities and their integration into regular classrooms. *The Journal of Psychology*, 131(3):245–259. <https://doi.org/10.1080/00223989709603512>
- Brownell MT & Pajares F 1999. Teacher efficacy and perceived success in mainstreaming students with learning and behavior problems. *Teacher Education and Special Education*, 22(3):154–164. <https://doi.org/10.1177/088840649902200303>
- Can E 2016. Open and distance education accreditation standards scale: Validity and reliability studies. *International Journal of Environmental and Science Education*, 11(14):6344–6356. Available at <https://files.eric.ed.gov/fulltext/EJ1116070.pdf>. Accessed 29 April 2018.
- Cook BG 2001. A comparison of teachers' attitudes toward their included students with mild and severe disabilities. *The Journal of Special Education*, 34(4):203–213. <https://doi.org/10.1177/002246690103400403>
- Downing JE, Eichinger J & Williams LJ 1997. Inclusive education for students with severe disabilities: Comparative views of principals and educators at different levels of implementation. *Remedial and Special Education*, 18(3):133–142. <https://doi.org/10.1177/074193259701800302>
- Emong P & Eron L 2016. Disability inclusion in higher education in Uganda: Status and strategies. *African Journal of Disability*, 5(1):1–11. <https://doi.org/10.4102/ajod.v5i1.193>
- Etieyibo E & Omiegbe O 2016. Religion, culture, and discrimination against persons with disabilities in Nigeria. *African Journal of Disability*, 5(1):1–6. <https://doi.org/10.4102/ajod.v5i1.192>
- Fahrutdinova GZ, Konovalov IE & Boltikov YV 2017. Pedagogical model of formation of readiness of people with health disabilities to integration into the educational environment of a higher education institution [Special issue]. *Eurasian Journal of Analytical Chemistry*, 12(5b):607–618. <https://doi.org/10.12973/ejac.2017.00195a>
- Fazio RH 1986. How do attitudes guide behavior? In RM Sorrentino & ET Higgins (eds). *Handbook of motivation and cognition: Foundations of social behavior*. New York, NY: Guilford Press.
- Gabdrakhmanova RG & Guseva TS 2016. Conditions of social-pedagogical maintenance of bilingual children in educational institutions. *International Journal of Environmental and Science Education*, 11(14):6373–6380. Available at <https://files.eric.ed.gov/fulltext/EJ1115701.pdf>. Accessed 26 April 2018.
- Geldenhuis JL & Wevers NEJ 2013. Ecological aspects influencing the implementation of inclusive education in mainstream primary schools in the Eastern Cape, South Africa. *South African Journal of Education*, 33(3):Art. #688, 18 pages. <https://doi.org/10.15700/201503070804>
- Gilmore L, Campbell J & Cuskelly M 2003. Developmental expectations, personality stereotypes, and attitudes towards inclusive education: Community and teacher views of Down syndrome. *International Journal of Disability, Development and Education*, 50(1):65–76. <https://doi.org/10.1080/1034912032000053340>
- Hall AM & Theron L 2016. How school ecologies facilitate resilience among adolescents with intellectual disability: Guidelines for teachers. *South African Journal of Education*, 36(2):Art. # 1154, 13 pages. <https://doi.org/10.15700/saje.v36n2a1154>
- Heyne LA 2003. Solving organizational barriers to inclusion using education, creativity, and teamwork. *Impact*, 16(2):16–17.
- Hitryuk VV 2013. Teachers' readiness to work with "special" children: The model of inclusive education values. *Bulletin of I. Kant Baltic Federal University*, 11:72–79.
- Ibragimov ID, Dusenkov SV, Khairullina ER, Tikhonova NV & Yevgrafova OG 2016. Recommendations on the textbooks creation as information and teaching tools of education management. *International Electronic Journal of Mathematics Education*, 11(3):433–446. Available at https://www.researchgate.net/profile/Elmira_Khairullina/publication/305732077_Recommendations_on_the_textbooks_creation_as_information_and_teaching_tools_of_education_management/links/58b3b2aa45851503be9e153a/Recommendations-on-the-textbooks-creation-as-information-and-teaching-tools-of-education-management.pdf. Accessed 19 April 2018.
- Kamalova LA & Raykova E 2016. The quality and criteria of evaluation of educational work at the Universities of Russia at the contemporary stage. *Mathematics Education*, 11(1):71–79.
- Ke Z, Borakova NU & Valiullina GV 2017. Peculiarities of psychological competence formation of university teachers in inclusive educational environment. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(8):4701–4713. <https://doi.org/10.12973/eurasia.2017.00947a>
- Koutrouba K, Vamvakari M & Theodoropoulos H 2008. SEN students' inclusion in Greece: Factors influencing Greek teachers' stance. *European Journal of Special Needs Education*, 23(4):413–421. <https://doi.org/10.1080/08856250802387422>
- Kurniawati F, Minnaert A, Mangunsong F & Ahmed W 2012. Empirical study on primary school teachers'

- attitudes towards inclusive education in Jakarta, Indonesia. *Procedia - Social and Behavioral Sciences*, 69:1430–1436.
<https://doi.org/10.1016/j.sbspro.2012.12.082>
- Leyser Y & Tappendorf K 2001. Are attitudes and practices regarding mainstreaming changing? A case of teachers in two rural school districts. *Education*, 121(4):751–761.
- Liventsova NA 2011. Review of current foreign research in inclusive education. *Psychological Science and Education*, 3:114–121.
- Lomofsky L & Lazarus S 2001. South Africa: First steps in the development of an inclusive education system. *Cambridge Journal of Education*, 31(3):303–317.
<https://doi.org/10.1080/03057640120086585>
- Magomedova SA & Damadaeva AS 2015. Psychological readiness of primary school teachers to the introduction of the inclusive education in the Republic of Dagestan. *Biosciences Biotechnology Research Asia*, 12(3):2587–2594.
<https://doi.org/10.13005/bbra/1938>
- Mastropieri MA & Scruggs TE 1995. Teaching science to students with disabilities in general education settings: Practical and proven strategies. *Teaching Exceptional Children*, 27(4):10–13.
<https://doi.org/10.1177/004005999502700403>
- Movkebayeva ZA, Oralkanova IA, Mazhinov BM, Beisenova AB & Belenko OG 2016. Model of formation for readiness to work within inclusive education in teachers. *International Journal of Environmental and Science Education*, 11(11):4680–4689. Available at <https://files.eric.ed.gov/fulltext/EJ1114944.pdf>. Accessed 14 April 2018.
- Ndlovu S & Walton E 2016. Preparation of students with disabilities to graduate into professions in the South African context of higher learning: Obstacles and opportunities. *African Journal of Disability*, 5(1):Art. #150, 8 pages.
<https://doi.org/10.4102/ajod.v5i1.150>
- Ngcobo J & Muthukrishna N 2011. The geographies of inclusion of students with disabilities in an ordinary school. *South African Journal of Education*, 31(3):357–368.
<https://doi.org/10.15700/saje.v31n3a541>
- Ozaji ED 1991. *Psychology of attitudes towards the disabled: The Nigerian perspective*. Jos, Nigeria: Department of Special Education, University of Jos.
- Parasuram K 2006. Variables that affect teachers' attitudes towards disability and inclusive education in Mumbai, India. *Disability and Society*, 21(3):231–242.
- Pivik J, McComas J & Laflame M 2002. Barriers and facilitators to inclusive education. *Exceptional Children*, 69(1):97–107.
<https://doi.org/10.1177/001440290206900107>
- Subban P & Sharma U 2005. Understanding educator attitudes toward the implementation of inclusive education. *Disability Studies Quarterly*, 25(2).
<https://doi.org/10.18061/dsq.v25i2.545>
- Taylor RL, Smiley LR & Ramasamy R 2003. Effects of educational background and experience on teacher views of inclusion. *Educational Research Quarterly*, 26(3):3–16.
- Yachina NP & Khuziakhmetov AN 2017. Project of health-caring educational school environment for children with diabetes mellitus. *Eurasian Journal of Analytical Chemistry*, 12(5b):559–567.