Model Of Formation Of Future Teachers' Readiness To Work In Inclusive Education

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Abstract: The task of the authors of the article is to develop a theoretical, methodological, resource support for the process of forming the readiness of future teachers to work in an inclusive education; in improving and testing tools for monitoring the readiness of teachers to work in mixed classes; in the study and analysis of the state of the investigated problem; processing data obtained during the experimental work; preparation of publications based on the results of the study. The authors of the article paid special attention to the disclosure of such provisions: 1. The willingness of future teachers to work in an inclusive education environment is a stable personality trait that is an essential prerequisite for teaching children with disabilities and characterized by a focus on implementing the principles of inclusion in professional activities. 2. The structure of inclusive readiness includes key substantive components: inclusive ethics (a set of moral and ethical values and norms of an inclusive community, based on a set of personal qualities of a teacher important for working with "special" children); inclusive theory (knowledge needed to organize inclusive education for children); inclusive practice (pedagogical skills relevant to the implementation of an inclusive educational process). 3. The main criteria for the readiness of future teachers of inclusive education include: value-motivational (the adoption of the values of inclusion and the orientation of the teacher to implement the principles of "inclusion" in his pedagogical activity); personal (a set of personal qualities important for working in an inclusive environment); cognitive (the presence of clear, systemic knowledge about the basics of inclusive education); activity (practical skills based on theoretical knowledge that contribute to solving the problems of inclusive education). The reliability of the research results is provided by the validity of the methodology, its relevance to the problem posed, the use of a set of standard research methods, statistical verification of the significance of the results, and the possibility of repeating the study.

Index Terms: Disability, Inclusive Education, Inclusive Practice, Inclusive Theory, Inclusive Ethics, Model, Teachers' Readiness, Willingness to work.

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1   INTRODUCTION

Education of children with disabilities in educational institutions without placing them in special boarding schools or correctional classes is a new and promising approach to the educational process in pedagogy [1], [2], [3], [4]. In the field of social policy, there has been a transition to a disability model where a health problem is not considered a problem for a person and society. The barriers to the activity and life of a disabled person are created by the environment itself. Public opinion gradually comes to the realization that psychophysical disorders do not deny the personality in a person: his ability to feel, experience, and acquire social experience [5], [6], [7], [8]. To describe the learning process for children with disabilities in general education (mass) schools, it is customary to use the term "inclusive education" (Eng. Inclusion - inclusion; French Inclusif - including; Latin include - include), implying access to education for all, equal treatment of students by teachers, elimination of discrimination of "special" children. The introduction of the idea of inclusion into the modern educational system gave an impetus to rethink the criteria for teacher training [9], [10].

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It so traditionally happened that the teacher is not just a repeater of educational information. A teacher is a carrier of national cultural values. Inclusive education, being introduced into educational practice, puts forward demands for new knowledge, competencies, leaves an imprint not only on the methods of the pedagogical activity but also on the entire professional and pedagogical culture [11]. It is teachers who play a special role in the implementation of the inclusion mechanism. The effectiveness of the inclusive educational process depends on their own pedagogical position, personal orientation on the humanistic values of training and education. However, methods for the formation of emotional stability, tolerance, reflection, empathy and, in general, the psychological readiness of secondary school teachers to implement the principles of inclusive education remain poorly understood. All these qualities that make up the personal competence of the teacher must be laid back at the stage of professional training. This raises the question of making adjustments to the content of the training program for teachers. Students should be introduced to pedagogy as early as possible, to methods of using its achievements [12], [13], [14], [15]. The teacher receives a fundamental education at the university, but throughout his career, he must engage in self-education in order to meet the requirements and requirements of modern society.

2   METHODOLOGY

2.1 Analysis of modern approaches to the interpretation of the concept of "willingness to work in an inclusive education

At the beginning of the study, it is necessary to examine in more detail the existing approaches to determining the definitions of "willingness to work in inclusive education" and "inclusive preparedness".

Dictionaries interpret "readiness" as:
1) The state in which everything is done, everything is ready for something.

2) The condition or property of the finished, preparedness.
3) Desire, goodwill, hunting, determination.

A number of researchers explain the concept of "readiness" as a special mental state, the installation of a person to perform certain activities. This is a complex multilevel education, including cognitive, volitional, motivational, moral characteristics. An analysis of the scientific and pedagogical literature stated that in progressive pedagogy, the phenomenon of readiness for professional activity is studied at several levels:
1) Personal, analyzing readiness as a manifestation of individual-personal qualities, determined by the nature of the upcoming activity
2) Functional, interpreting it as temporary readiness and industriousness, forthcoming activation of mental functions, the ability to initiate the necessary physical and mental potential for the implementation of activities
3) Personally-active, characterizing readiness as an integral manifestation of all components of the personality, allowing the ability to carry out their duties effectively.

It seems to us that professional readiness is the main condition for the effective work of a specialist, in particular, a teacher of inclusive education. Willingness is not an innate quality, but the predicted result of special training: formation, orientation, interest, vocational training and self-education. It is also the goal of preparation, a priority condition for the realization of the capabilities of each individual. Summarizing all of the above, we can conclude that the terms "willingness to work in inclusive education" and "inclusive readiness" are synonymous even with some differences in interpretation. In our opinion, among the elements of inclusive preparedness, it is especially necessary to single out inclusive ethics as the moral component of students' professional preparation for work in the conditions of "included" education. In this case, by ethics, we mean the system of moral and moral values of an inclusive community, as well as norms of behaviour and ways of regulating relations. Inclusive ethics is a complex, the terms of which are:
1) Axiological component (system of inclusive values of the teacher).
2) Worldview component (this is the personal orientation of the future and already held teachers to implement inclusive ideas in their pedagogical activity).
3) The personal component (a set of personal qualities important for working in an inclusive environment).
4) Behavioral component (specific etiquette specific to social interactions within an inclusive community).

We interpret the inclusive ethics as the most important and primary condition for the formation of the readiness of future teachers to work in the conditions of "included" education. This is the foundation upon which inclusive theory and inclusive practice are laid (Fig. 1).
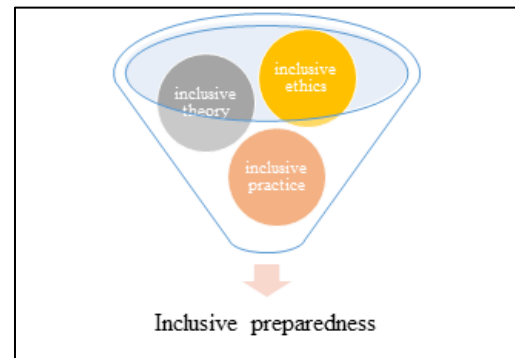

Fig. 1. *Components of the readiness of future teachers to work in inclusive education.*

To characterize the second and third components of inclusive readiness: not only the totality of psycho-pedagogical and special knowledge is invested in the content of theoretical readiness, but also theoretical activity, which in turn is manifested in the generalized ability to think pedagogically, which requires the teacher to have analytical, prognostic, projective, and reflective skills. These skills are closely interconnected, because, successively replacing each other, in the aggregate they represent the generalized process of the mental activity of the teacher. First, a pedagogical fact or phenomenon is singled out, the main task or problems are comprehended, a hypothesis is put forward, the results are predicted, the types of pedagogical activity to achieve them are modelled. Reflexive skills imply monitoring and evaluating each stage of a teacher's mental activity, mistakenly linking them to the final stage of solving a theoretical problem. The content of practical readiness is expressed in external (subject) skills, i.e. in actions that can be observed. This includes the organizing activity of a teacher, which is based on mobilization, informational, developing, communicative and orientational skills. The organizational skills of a teacher-mentor are closely related to communicative ones, on which the establishment of pedagogically appropriate relationships with pupils, colleagues, and family members of students depends. The structure of the communicative skills of a teacher can be represented as interconnected groups of perceptual skills, verbal communication skills and pedagogical techniques. Thus, the zone of intersection and overlapping of three components: inclusive ethics, inclusive theory and inclusive practice - and characterizes the concept of "inclusive readiness". In more detail, the component structure of the inclusive readiness of the teacher is presented in Fig. 2.
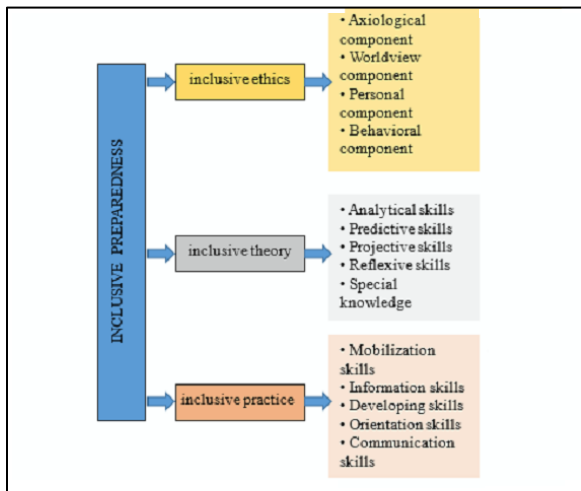
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Fig. 2. *The multicomponent structure of inclusive teacher readiness*

2.2 Model of the process of forming inclusive readiness of students of pedagogical universities

The teacher, who is able to effectively carry out teaching activities in the context of inclusion, should become a model, which should be the whole process of training future teachers at the university. The set of requirements for the personality of the teacher of inclusive education integrally and systematically allows us to present a modelling method. Thus, one of the tasks of the dissertation research can be called the development of a personality model of the teacher of inclusive education, reflecting a list of professionally significant qualities of the teacher necessary for his successful work in this direction. To solve this problem, a model of the process of preparing future specialists for pedagogical activity in a heterogeneous educational environment should be designed. A model is understood as "a really existing material system that replaces or reproduces another system - the original and is located with the latter in an explicitly expressed relation of similarity (similarity), thanks to which an experimental study of the model allows us to obtain information about the original and thus verify our assumptions related to the original, by comparing these assumptions with the information received".The competency model of an inclusive primary school teacher is presented in Fig. 3. Our proposed model of an elementary education teacher, in addition to theoretical and practical readiness, has such a component as inclusive readiness, which allows him to effectively solve educational problems in an inclusive class. Additional competencies can be formed using the educational resources of program disciplines.
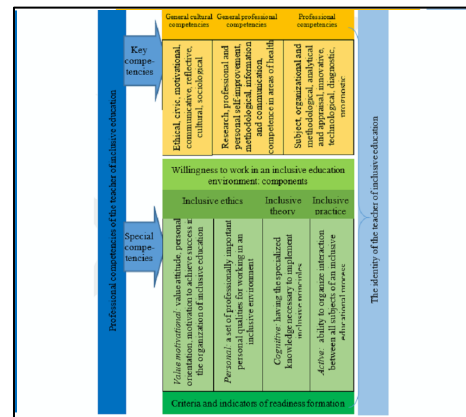

Fig. 3. *Competency model of the teacher's personality inclusive education*

In addition, such a competency model of the teacher sets the graduate direction of postgraduate education if he seeks to achieve a high level of inclusive readiness. It can be figuratively called the "supporting structure" of the entire educational process, as General cultural competencies General professional competencies Professional competencies Ethical, civic, motivational, communicative, reflective, culturological, socio-personal Research, professional personal self-improvement, methodological, information and communicative communicative organizational, methodological, analytical and appraisal, innovative, t technological, diagnostic, prognostic Willingness to work in an inclusive education: components Inclusive ethics Inclusive theory Inclusive practice Value-motivational value attitude, personal orientation, motivation to achieve success in organizing inclusive education Cognitive: the availability of special knowledge necessary for the implementation of inclusive principles to organize the interaction between all subjects of the inclusive educational process Criteria and indicators of readiness formation Special competences Analysis of modern psychological and pedagogical research allowed us to develop a model of the process of preparing future teachers for work in the conditions of "inclusive" education based on those components of inclusive readiness that were described by us earlier (Fig. 4).
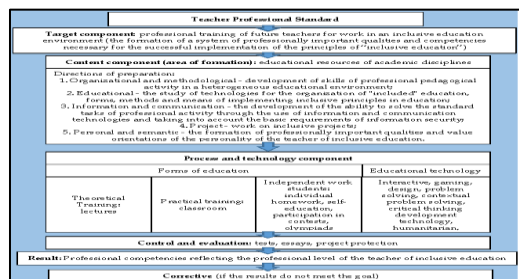

Fig. 4. *The model of the process of formation of the readiness of future teachers to work in an inclusive education*

3 RESULT AND DISCUSSION
This section is devoted to the analysis of the results of experimental work on the formation of inclusive readiness of

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future teachers. To carry out the control phase of the experiment, the same methods for diagnosing readiness in the conditions of inclusive education were used at the ascertaining stage. The number of respondents: 75 people, of which 45 are students in the experimental group and 30 people in control. Consider the results of re-diagnosis of the level of inclusive preparedness of respondents in the control group. It should be noted that 5 people increased their level of preparedness for working with "special" children from threshold to average. Improvement of indicators occurred according to value-motivational and personal criteria. During the conversation, it turned out that the students, for the purpose of self-education, after ascertaining the stage of our experiment, watched videos of an inclusive orientation and studied the literature on this issue. This allowed them to get higher scores according to the methodology of the value attitude to inclusion and diagnostics of the ability to empathy. Thus, the results of the final section in the control group are as follows: 8 people (27%) have a threshold level, 15 people (50%) - basic, 7 people (23%) demonstrated an increased level of willingness to work in conditions of inclusive education (Table 1).

TABLE 1
Comparative Results of the Study of Inclusive Readiness of Future Teachers in the Control Group

Levels	Experiment stage			
	ascertaining		control	
	quantity	%	quantity	%
threshold	7	23%	8	27%
base	16	53%	15	50%
elevated	7	23%	7	23%
Total	30	100%	30	100%

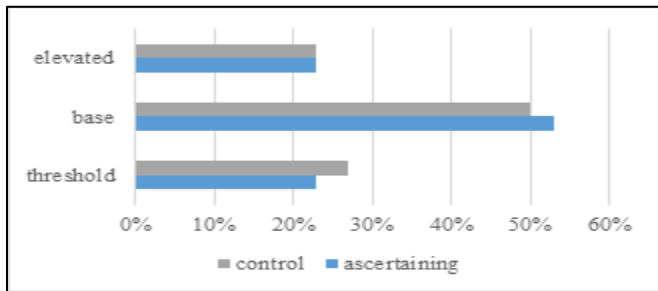For clarity, we present the results in the form of a diagram (Fig. 5):

Fig. 5. *Diagnostic results of the level of inclusive preparedness in the control group*

The results of the final testing of the respondents of the experimental group will dwell in more detail. Immediately, we note that the indicators of the level of inclusive readiness of students who studied according to the model of training for the "included" education proposed in the first chapter have significantly increased. The greatest positive dynamics is observed according to value-motivational and activity criteria. So when studying the attitude of future teachers to the values of inclusive education according to the method of V.V. Khitryuk, all students noted that "each child has unique characteristics, interests, abilities and educational needs", "children with developmental disabilities should have access to education in regular schools" and "inclusive schools are the most effective means of combating discriminatory views and

provide real education for most children." The group's opinion is that ordinary educational institutions should create the conditions for satisfying the educational needs of each child. Thus, the level of professional and pedagogical motivation of future teachers to work with "special" children has significantly increased, and the values of the "included" education have been internalized in the students' minds (Table 2). They know the philosophy and principles of inclusion, demonstrate a valuable attitude towards people with disabilities, and are ready in their future professional activities to carry out joint training of healthy and "special" children.

TABLE 2
Comparative Results of the Study of Inclusive Readiness of Future Teachers According to the Value-Motivational Criterion in the Experimental Group

Levels	Experiment stage			
	ascertaining		control	
	quantity	%	quantity	%
threshold	14	31%	8	18%
base	23	51%	25	56%
elevated	8	18%	12	27%
Total	45	100%	45	100%

For clarity, we present the results in the form of a diagram (Fig. 6):
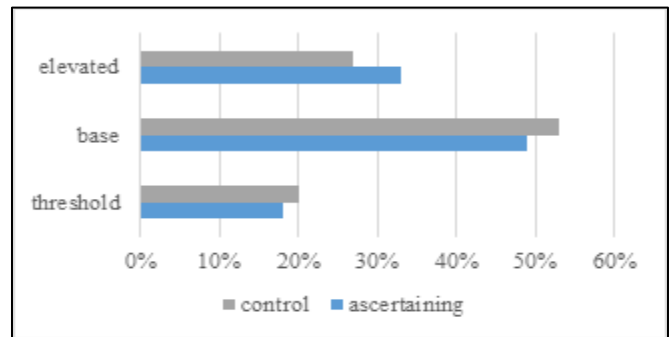

Fig. 6. *Comparative results of the study of inclusive readiness of future teachers according to the value-motivational criterion in the experimental group*

The results of the study of inclusive readiness of future teachers according to the value-motivational criterion in the experimental group. A high level of empathy and psychological competence was demonstrated by 15 people (33%) versus 8 at the ascertaining stage of the experiment (Table 3):

TABLE 3
Comparative Results of the Study of Inclusive Readiness of Future Teachers by the Personal Criterion in the Experimental Group

Levels	Experiment stage			
	ascertaining		control	
	quantity	%	quantity	%
threshold	8	18%	9	20%
base	22	49%	24	53%
elevated	15	33%	12	27%
Total	45	100%	45	100%

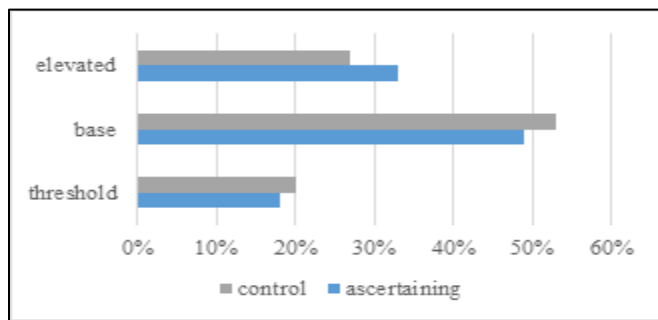For clarity, we present the results in the form of a diagram (Fig. 7):

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Fig. 7.   *The results of the study of the inclusive readiness of future teachers by the personal criterion in the experimental group*

The analysis of the results of the activity showed that each future teacher has his own attitude to inclusive education, but everyone understands the need to build this process.

4   CONCLUSION

At the formative stage of the experiment, a model of the process of forming inclusive readiness of future teachers was introduced and tested, which is based on the use of humanitarian technologies. In the structure of the model, target, substantive, process-technological, and control and evaluation components are distinguished. The developed content of a set of methods and techniques of the process of forming students' readiness to work with "special" children within the educational process at the university made it possible to carry out training in the following areas: organizational, methodological, educational, information and communication, design, personal and semantic. Independent work during the workshop was carried out using cloud technology. The cloud service hosted guidelines for preparing for practical exercises, electronic textbooks, presentations, and video materials. Empirically, it was proved that the use of cloud technologies in education helps to increase the information culture of students, cognitive activity and, as a consequence, the quality of education in general. At the control stage of the study, when re-diagnosing, it was proved that future teachers have some progress in terms of developing inclusive readiness, which is manifested in: a change in value-motivational orientations with respect to the idea of inclusive education; in the ability to solve professional problems in organizing joint training of children with developmental disabilities and ordinary students; students have ordered knowledge about the principles of inclusion, legislation and the legal foundations of building an inclusive society as a whole, and the system of "inclusive" education in particular, as well as an up-to-date understanding of social phenomena and processes in the country. Thus, the results of the experimental work have proved the effectiveness of the proposed model of the process of forming the readiness of future teachers to work in inclusive education.

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