

DOI: <https://doi.org/10.34069/AI/2021.44.08.20>

How to Cite:

Boychuk, Y., Kazachiner, O., & Khliebnikova, T. (2021). Managing teacher's inclusive culture development. *Amazonia Investiga*, 10(44), 207-219. <https://doi.org/10.34069/AI/2021.44.08.20>

Managing teacher's inclusive culture development

Управління розвитком інклюзивної культури вчителів

Received: June 2, 2021

Accepted: July 31, 2021

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Abstract

The article is devoted to the phenomena of teacher's inclusive culture, its development and managing this process. In philosophical, psychological and pedagogical literature the teacher's inclusive culture is considered as a part of general educational culture and is characterized by broad understanding of philosophical and methodological foundations of inclusion, teacher's deep acceptance and desire to implement inclusive values, creative approach to professional activities and professional self-improvement at a personal level. The purpose of the study was theoretically substantiate a tool that will diagnose the level of teacher's inclusive culture, help to identify problems of teacher's inclusive culture development and to work out technology to manage this process. The development of inclusive culture includes the following aspects: 1) school culture; 2) relationships with families; 3) staff training and support; 4) gaining access to specialized support services; 5) students' support and involvement. The algorithm of activity on technology of managing teacher's inclusive culture development is presented. Results. Since, in practice of managing a general secondary education institution, there is no tool for measuring and assessing the level of teacher's inclusive culture development, we have made an attempt to work it out. The international

Анотація

Стаття присвячена явищам інклюзивної культури вчителя, її розвитку та управлінню цим процесом. У філософській, психологічній та педагогічній літературі інклюзивна культура вчителя розглядається як частина загальноосвітньої культури і характеризується широким розумінням філософських та методологічних основ інклюзії, глибоким сприйняттям та прагненням учителя до впровадження інклюзивних цінностей, творчим підходом до професійної діяльності, професійного самовдосконалення на особистому рівні. Метою дослідження було теоретично обґрунтувати інструмент, який дозволить діагностувати рівень інклюзивної культури вчителя, допомогти виявити проблеми розвитку інклюзивної культури вчителя та опрацювати технологію управління цим процесом. Розвиток інклюзивної культури включає такі аспекти: 1) шкільна культура; 2) відносини з сім'ями; 3) навчання та підтримка персоналу; 4) отримання доступу до спеціалізованих служб підтримки; 5) підтримка та залучення учнів. Представлено алгоритм діяльності за технологією управління розвитком інклюзивної культури вчителя. Результати. Оскільки на практиці управління закладом загальної середньої освіти не існує інструменту для вимірювання та оцінки рівня розвитку інклюзивної культури вчителя, ми

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significance and importance of our article is that criteria for assessing the level of teacher's inclusive culture development were clarified and defined. Based on qualimetric approach a factor-criterion model for diagnosing the level of teacher's inclusive culture and help the head of educational institution to identify problems and work out technology of managing teacher's inclusive culture development was presented.

Keywords: inclusive culture, teacher, qualimetry, development, assessment, level, factor-criterion model.

Introduction

The modern system of developed democratic community's education is designed to meet the individual educational needs of the individual, including: the need for full and diverse personal development and development – taking into account individual skills, interests, motives and abilities (personal success); the need for an individual's organic entry into the social environment and fruitful participation in society life (social success); the need for a person's universal work and practical skills' development, readiness to choose a profession (professional success) by students. However, there are groups of children whose educational needs are not only individual, but also have special features.

Of course, the position of the teacher plays a key role in inclusive education. The psychological climate in the children's team, the ability to work with each child and build relationships in a team depends on his competence and level of inclusive thinking development. A lot in accepting «special» children by «typical» ones will depend on the teachers' position. It is very important if the teacher perceives and objectively assesses the development potential of any student. When introducing inclusive education in an educational institution, it is worth considering whether teachers, students and their parents are ready to accept a special child in the classroom.

Therefore, along with solving management problems, special attention should be paid to the problem of teachers' inclusive culture developing in the educational institution. Educators who work with children with disabilities must have a high level of regulation of their activities, control themselves in stressful situations, respond quickly and confidently to changing circumstances and make decisions.

зробили спробу це розробити. Міжнародне значення та важливість нашої статті полягає в тому, що були уточнені та визначені критерії оцінки рівня розвитку інклюзивної культури вчителя. На основі кваліметричного підходу була представлена факторно-критеріальна модель діагностики рівня інклюзивної культури вчителя та допомоги керівнику навчального закладу у виявленні проблем та напрацюванні технології управління розвитком інклюзивної культури вчителя.

Ключові слова: інклюзивна культура, вчитель, кваліметрія, розвиток, оцінка, рівень, факторно-критеріальна модель.

This kind of school culture creates shared, inclusive values that are shared and accepted by all new staff, students, staff and parents / carers. In an inclusive culture, these principles and values influence both decisions about all school policies and the day-to-day practice of every class. At the same time, the development of the school becomes a constant and continuous process, especially in inclusive conditions, which became a world tendency nowadays.

To solve the problem of inclusive culture requires the introduction of a technological chain: the acquisition of knowledge about inclusive culture – the formation of values – the acquisition of experience of joint activities – a positive attitude to the existing reality.

The development of an educational institution's inclusive culture depends on the school principal, teaching staff and staff in general.

In our opinion, managing the teacher's inclusive culture development should be carried out on the basis of diagnostic and technological approach. Diagnosis allows to identify problems and complications and to work out the technology to overcome them. At the same time, the analysis of scientific research shows that, unfortunately, there is no tool for assessing and measuring the level of teacher's inclusive culture development. In our opinion, one of these diagnostic tools can be a factor-criterion model for assessing the level of teacher's inclusive culture development. This fact emphasizes the international significance and importance of our research.

This study aims to work out a tool (factor-criterion model for assessing the level of teacher's inclusive culture development), which

will diagnose the level of teacher's inclusive culture development, will help the educational institution principal to identify problems and work out technology of managing teachers' inclusive teacher culture development.

In accordance with the goal we have identified the following objectives of the study:

- 1) Based on the relation with the scientific literature in the field of the paper to analyze the phenomenon of inclusive culture and teacher's inclusive culture;
- 2) To identify the algorithm of managing teacher's inclusive culture development;
- 3) To work out the factor-criterion model for assessing managing teacher's inclusive culture development.

Methodology

The following theoretical methods were used in the study:

- 1) retrospective analysis of the literature on the teacher's inclusive culture development;
- 2) methods of systematization, analysis, synthesis, generalization at the stage of identifying problems of teacher's inclusive culture development – to justify the need to implement teacher's inclusive culture development in education, clarify its essence, content, identify its components necessary for the development and managing these phenomena, detection grounds that could help in the stated process, explanation, classification;
- 3) methods of ranking, scaling – to construct a factor-criterion model for assessing managing teacher's inclusive culture development.

Theoretical background

Managing teacher's inclusive culture development in educational practice

Today, the problem of developing teacher's inclusive culture is very relevant and, due to its importance and complexity, requires deep scientific study. The psychological climate in the children's team, the ability to work with each child and to build relationships in a team correctly depends on the teacher's competence and the level of inclusive thinking development. It is very important if we are talking about inclusive education so that the teacher could psychologically accept and objectively assess the development potential of any student.

The investigation of the attitudes of teachers upon the integration process of students with special educational needs by Măță (Măță, 2020) helps identify the best means of influencing, with the purpose to form relations based on mutual evaluation and to promote equity of participation chances.

A theoretical analysis of philosophical, psychological and pedagogical literature allowed us to highlight several authors' approaches to the definition of the teacher's inclusive culture phenomenon.

Polyansky et al. (Polyansky, 2018) consider the inclusive culture within the education system as a special philosophy, when the values of inclusion are accepted and shared by all participants in the educational space.

According to Baglama et al. (Baglama, 2019), teacher training programs should focus more on teaching individuals with special needs in order to promote knowledge, skills and attitudes of teachers. Elective courses may include courses to enable increased awareness on individuals with special needs. Within the scope of teaching practice course, preservice teachers may be asked to participate in observing and implementing practices of inclusive education.

Khitryuk (Khitryuk, 2011).considers inclusive readiness as the first stage in the formation of teacher's inclusive culture and defines the latter as a complex personal feature that contributes to the formation and design of values and technologies of inclusive education, consolidates and combines the knowledge system of skills, social, personal and professional competencies which let the teacher to work effectively in inclusive conditions, to determine the optimal conditions for every learner's development.

The scientist identifies a set of pedagogical conditions that contribute to forming teachers' inclusive culture: 1) the organization of educational process, during which the inclusive culture of the teacher is formed, based on a competency-based approach; 2) the construction of a didactic model for teacher's inclusive culture forming; 3) the creation and implementation of a program for forming teachers' inclusive culture.

The essence of «teacher's inclusive culture» definition Janusova (Janusova, 2018) explains through the characterization of a number of structurally-meaningful components: axiological (value system, guided by which the teacher seeks to implement inclusive education), personality-

communicative (the level of inclusive education teacher's personality development, it is manifested in his conscious acceptance ideas of inclusive education, in formation of his professionally significant qualities (love of children, tolerance, empathy), communicative and organizational abilities), cognitive (the presence of deep, comprehensive knowledge and skills that form the basis of the teacher's professional activity and ensure the successful implementation of inclusive education practices).

We determine the structure of the teacher's inclusive culture through the interconnectedness and interdependence of its following components: personality-communicative, axiological and cognitive ones.

We characterize the personal-communicative component of the teacher's inclusive culture by a certain level of personality development of inclusive education teacher, manifested in his conscious acceptance of the idea of inclusive education, in the formation of professionally significant qualities (tolerance, empathy).

The axiological component, in our opinion, is a key component of the teacher's inclusive culture and reflects the value system, guided by which the teacher seeks to implement inclusive education.

The cognitive component is a system of knowledge and skills of inclusive education teacher, which form the basis of his professional activity, as well as certain properties of cognitive activity that affect its effectiveness.

Boghian (Boghian, 2019) presents an educational intervention program focused on empowering teachers to deal with classroom diversity and results obtained following its implementation at undergraduate students preparing for a teaching career. The findings show that the educational intervention program enhanced the trainees' knowledge, skills and attitudes in terms of their ability to approach classroom diversity and risks of conflicts based on discrimination and differences in the class of students successfully.

What requirements can be presented to the teacher of inclusive education? The list may be long enough, but the main criteria will be (Poleshchuk, 2016): 1. Willingness to interact with other specialists in the framework of psychological, medical and pedagogical consultation. Ability to read documentation of specialists (psychologists, defectologists, speech

therapists, etc.). The ability to make up a program of the child's individual development together with other specialists. 2. Possession of special techniques that allow for corrective development work. Ability to track the dynamics of the child's development. 3. The ability to protect those who are not accepted in the children's team. 4. The ability (together with a psychologist and other specialists) to carry out the psychological and pedagogical support of educational programs. 5. Possession of simple psychodiagnostics methods of personality and age characteristics of students, implementation, together with a psychologist, of monitoring the child's personality characteristics. The ability (together with a psychologist and other specialists) to draw up a psychological and pedagogical description (portrait) of a student's personality.

Kozma et al. (Kozma, 2002) point out other characteristics out to develop successful «inclusive practices»: involve learners in collaborative activities, project-based learning, and real-life problem solving; cultivate technological skills that allow children find, plan, and analyze information, communicate and express their thoughts in a great number of media forms; ensure learners with individualized instruction, modified to see the needs of students with different preparation, or conceptual difficulties; turn propositions and challenges for equity with students of different genders or social or ethnic groups and/or evaluate specification or information for learners who would not have access differently because of different reasons; «remove the barriers» of the classroom, for example, by broadening the school day, transforming and modifying the organization of the class, or involving other people (such as parents, scientists, or business professionals) in the educational process.

Thus, in our article we consider the teacher's inclusive culture as part of a general educational culture and characterize a broad understanding of the philosophical and methodological foundations of inclusion, a deep acceptance and desire of a teacher at a personal level to implement inclusive values, a creative approach to professional activity and professional self-improvement.

We agree with the position that the teachers have many challenges when teaching children with special educational needs in their classrooms. It is assumed that school teachers are the decisive agents in this process of inclusion. Their attitudes toward the inclusion of children with disabilities in regular classrooms are especially important for

the inclusionary efforts' success. Teacher self-efficacy has also a significant role when addressing various learners. In the study, Frumos (Frumos, 2018) considers the relationship between teacher's self-efficacy and his attitudes toward the inclusive education.

Besides, during the process of inclusive culture development some serious problems can appear. They can be the following (Poleshchuk, 2016):

- Children with disabilities, especially students at school, get used to attention, therefore, they can begin to abuse their special status and allow lower requirements for themselves.
- Many parents may find themselves with a high level of claims – demanding the best teachers, speech therapists, corrective teachers, and other specialists for their «special» child.
- Children with disabilities and their parents are very vulnerable; many do not want to talk about their problems and difficulties. Most parents themselves suffer from severe mental and somatic disorders. It will be difficult to build good trusting relationships with many of them, both for representatives of the school staff and school teachers, class teachers, and specialists.

To sum up, we can say that developing an inclusive culture includes the following aspects:

1) *School culture*, which means: forming the approach to inclusion through a special view in schools that honours diversity in all school life sides; involving and supporting children with special needs into the school life; educating learners in the classrooms about disability and the rights of disabled children in an informed and sensitive teaching style; making school environment that supports the safeness, inclusion and well-being of children with SEN both in the classroom and out-of-class; supporting positive peer relationships and make learners familiar with being inclusive.

2) *Relationships with families*, which includes: getting and analyzing the information about strengths, weaknesses, abilities and wishes of children with SEN and help them in making solutions about their learning in particular and their education in general; working in collaboration with disabled children and their families to create positive educational environment and to make their learning goals accessible; cooperating with learners and their family members using Individual Learning Plans

to adapt and to modify their educational trajectory.

3) *Staff training and support*: training all staff members about their responsibilities and duties mentioned in the Inclusion Standards for Education to provide equal rights to education for children with SEN; allocation a highly qualified Leading teacher (or coordinator, tutor) to the complete inclusion of children with disabilities and the teachers' ongoing professional training; taking into consideration fact-based strategies in the process of educating learners with SEN; providing strength- and evidence-based techniques, instruments, recourses, methods and principles used in pedagogy and special pedagogy to make the curriculum individualized and differentiated for teaching children with SEN; providing peer support and collaboration among the staff to further teacher competence to educate students with disabilities; cooperation with other schools to develop professional knowledge, abilities and skills based on inclusion; taking into consideration and manage risks connected with mental health in the workplace, and create a take-charge work environment that supports positive wellbeing in staff and learners.

4) *Access specialized support services (Student support services)*, which means: involving support services who can ensure different kinds of health specialists like psychologists and speech therapists to support student teaching and learning; involving the visiting teacher service through guiding students who would make specialist support useful in the classroom.

5) *Student support and engagement*, which includes: providing a learner responsibility policy that actively works to support children through learning basic abilities and skills to potentate appropriate behaviour, and through addressing structures promoting to the behaviour around the child; appreciating child well-being and self-regulation (Busher, 2005).

Algorithm of managing teacher's inclusive culture development in institutions of secondary general education

Implementation of management teacher's inclusive culture development at the school level requires «transparency». We believe that the classic structure of the management model for the teachers' inclusive culture development should consist of:

- situation analysis («What do we have?»);
- determining the image of the desired result («What do we want?»);

- determining the tactics of achieving the goal («What needs to be done?»);
- step-by-step tracking of the process of teacher's inclusive culture development, obtaining feedback information, its analysis («What do we do?»);
- correction of activity.

Management activities for managing teacher's inclusive culture development can be represented by us according to the following algorithm (cycle):

- *in-depth study of the theory and technology of inclusive education by the school administration.* After all, the school administration directs the activities of the whole team, takes responsibility for the process and result of the introduction of new technology, covering all parts of the school. From the detailed development of the theory and technology of the new system depends on the management decision, and control over its implementation, and providing conditions for the implementation of this system, etc.;
- *in-depth analysis of the system of teaching and education, the system of methodical work and other systems of teaching that exist in the school (diagnosis).* The system of education and upbringing that existed before the introduction of the new system (development of inclusive culture) is the «foundation» on which the new system (technology) should be based. This «foundation» may be more or less suitable for the new system (technology). Thanks to the analysis, it is possible to select the positive that was inherent in the previous system, to transfer it to the new system, as well as to eliminate the negative;
- *making a management decision to implement the teacher's inclusive culture development.*

This means making a balanced, reasonable, final decision on the introduction of new technology by the school administration: after all, the administration is responsible for both the implementation of the decision and for the consequences of implementing a certain system (technology);

- *creation of an algorithm for the teachers' inclusive culture development in a particular school;*
- *acquaintance of school teachers with the purpose, essence, tasks of inclusive education.* To fulfil this point, it is necessary

to set out the main ideas and provisions of the theory of inclusive education, to highlight the prospects of this system of education, i.e. it is necessary to create advertising for it;

- *making a collective decision on the introduction of inclusive education.* It is a decision to implement a new system at a meeting of the Pedagogical Council (School Board, which includes teachers, parents and students);
- *planning of school work on introduction of new system (technology), planning of work on each separate subsystem of school: planning of methodical, educational work, etc.* As well as drawing up a separate implementation plan, which covers the activities of the entire school staff and individual employees at each stage of implementation (from preparatory to generalizing);
- *actions of the school administration to implement the teachers' inclusive culture development are reflected in orders, instructions, etc.;*
- *acquaintance of teachers with scientific and methodical literature and materials of the pedagogical press on this issue;*
- *organization of methodical work of the school, which provides:*
 - a) creation of a creative group on the problem of studying and introduction of inclusive education;
 - b) organization of a psychological and pedagogical seminar, at the meetings of which theoretical, methodological and technological issues of this system of education will be considered: the use of psychodiagnostics in the system of school differentiation; taking into account the results of psychodiagnostics for the further development of mental abilities of students, in particular with special educational needs, psychocorrection and psychorehabilitation; observation of the dynamics of development, socialization of students, whose education is carried out in accordance with the conceptual provisions and values of inclusive education;
 - c) mastering the conceptual apparatus of inclusive education theory;
 - d) organization of activities of dynamic groups that will work on adaptation of problem-based programs, subject courses, elective classes to the new technology, will prepare conferences, pedagogical councils, round tables, etc.;
 - e) organization of current methodical

- meetings, workshops, etc.;
- f) organization of mentoring work with young teachers;
 - g) organization of thematic retraining of personnel at special courses at the institutions of postgraduate education;
 - h) participation of the administration and individual teachers in the workshops;
 - i) exchange of experience between the teams of a particular school and schools that use system of inclusive education;
- *implementation of organizational work;*
 - *organization of the psychological service of the school.*

Results and discussion

The correlation between quality and the complex and simple properties that define it can be represented in the form of a hierarchical structure, at the lowest level of which are simple properties. Parameters, factors, criteria were determined for qualimetric assessment of the level of teachers' inclusive culture development. Components of teachers' inclusive culture (personal-communicative; axiological; cognitive ones) were identified as parameters.

Each parameter was characterized by certain factors as components of the selected parameter. The factor is revealed through criteria (indicators).

This made it possible to combine these parameters, factors, criteria into a qualimetric model. For example, we consider in detail which factors describe the first parameter and what criteria describe each factor (table 4).

For example, the personal-communicative parameter includes the following factors: focus on the child's personality, didactic-psychological support of the educational process of children with disabilities, organization of communications in the system «teacher-student», «student-student» of children with special educational needs.

Criteria for the level of personality-oriented approach implementation to children with SEN (factor – focus on the child's personality) were determined as: didactic design of students taking into account the child's personality, providing handouts and instructional materials depending on the needs of students with disabilities, implementation of pedagogically appropriate learning tools, taking into account the lesson's

purpose and objectives, the content of the topic, the students' individual characteristics.

Criteria for the implementation of the 2nd factor (didactic and psychological support of the educational process of children with SEN) were determined as: knowledge of psychological barriers and their consideration in the process of organizing education of children with disabilities, creating conditions for students with disabilities' socialization and integration into the life of society, motivation to learn, stimulating the development of students with disabilities, encouraging student initiative, creating conditions for emotional openness, trust, creating conditions for reflection on the process and result of educational activities, its productivity.

Criteria of the 3rd factor (organization of communications in the system «teacher-student», «student-student» of children with disabilities) are manifested when the teacher creates an environment for cooperation, responds quickly to emerging barriers and overcoming them through cooperation and equal partnership, develops a system of educational activities with students, uses reactions, students' questions when teaching the content of the material, etc. The calculation of the coefficients of the relevant factors' significance was performed expertly by the mathematical ranking method.

In the qualimetric model, each component has a weight within 1, i.e. in its shares, the average expert assessment of the level of their implementation was also established and calculated in the shares of 1.

Comprehensive quantitative assessment of qualities was presented as a function of relative indicators, weighting factors and levels of implementation.

Practical use of the model involves the calculation of quantitative indicators of certain parameters, factors, criteria. Individual properties, both complex and simple, can be measured by property-specific units. As a result of measurements values of absolute indicators of properties P_i , and $= 1, 2, \dots, n$ are defined. In our model, scores from each criterion were used as absolute indicators. Absolute indicators are determined using methods of metrology, methods of experimental psychology, methods for determining efficiency, etc. In our model, we determined the indicators by the method of expert assessments. In addition to the absolute value of P_i , each simple or complex property can be characterized by the relative value of K_i ,

which is determined by comparing the absolute value with the reference (P_i^{et}), its value is chosen not arbitrarily, but taking into account the needs of society. In the presented model, the criteria were obtained by bringing all scores to the standard. Along with the absolute value (P_i) and the relative value (K_i), each property (factor or criterion) is characterized by a certain weight among other properties – the weighting factor of the property M_i . In the qualimetric model of assessing the level of inclusive teacher culture, each component (factor and criteria) has a weight within the unit, ie in its shares, which was determined using the ranking method. Ranking was performed by the method of scoring, assessing the importance of each factor. Then we calculated the arithmetic mean of the scores.

The evaluation was carried out by an expert group of 9 people, which consisted of school principals and employees of the Department of Education, who have already obtained and are obtaining a master's degree in school management.

Here is an example of calculating the weight of the parameters (see Table 1) and criteria (see Tables 1-3) of the qualimetric model.

Experts were asked to rate the parameters (from the most significant (3 points) to the least significant (1 point)) that affect the overall assessment of teacher's inclusive culture.

As can be seen from Table 1, according to the first parameter, 3 points were given by 3 experts, 2 points – by 5 experts, 1 point – by 1 expert.

Table 1.
Calculation of the qualimetric model's parameters.

№	Parameters	Number of experts who gave points			$\sum P$	M
		3	2	1		
1.	Personality-communicative	3	5	1	20	0,37
2.	Axiological	2	4	3	17	0,315
3.	Cognitive	4	0	5	17	0,315
\sum					54	1,00

We calculate the amount for each parameter:

$$\sum P_1 = 3 \times 3 + 2 \times 5 + 1 \times 1 = 20;$$

$$\sum P_2 = 3 \times 2 + 2 \times 4 + 3 \times 1 = 17;$$

$$\sum P_3 = 3 \times 4 + 2 \times 0 + 5 \times 1 = 17;$$

We calculate the amount of all parameters:

$$\sum_i = 20 + 17 + 17 = 54.$$

We determine the weight of each of the

parameters:

$$M_1 = 20/54 = 0,37;$$

$$M_2 = 17/54 = 0,315;$$

$$M_3 = 17/54 = 0,315;$$

$$M_{\Sigma} = M_1 + M_2 + M_3 = 0,37 + 0,315 + 0,315 = 1,00$$

$$M_{\Sigma} = 1,00.$$

We calculate the weight of factors for each parameter separately.

Table 2.
Parameter 1. Personality-communicative component.

№	Factors	Points			$\sum P$	m
		3	2	1		
1.	Focus on the child's personality	5	1	3	20	0,37
2.	Didactic and psychological support of the educational process of children with SEN	3	3	3	18	0,33
3.	Organization of communications in the system «teacher-student», «student-student» of children with SEN	1	5	3	16	0,30
\sum					54	1,00

We calculate the amount for each factor:

$$\sum F_2 = 3 \times 3 + 2 \times 3 + 1 \times 3 = 18;$$

$$\sum F_3 = 3 \times 1 + 2 \times 5 + 1 \times 3 = 16;$$

$$\sum F_1 = 3 \times 5 + 2 \times 1 + 1 \times 3 = 20$$

We calculate the amount of all factors: $\Sigma = 54$.

We determine the weight of each of the factor:

$$m_1 = 20/54 = 0,37;$$

$$m_2 = 18/54 = 0,33;$$

$$m_3 = 16/54 = 0,30;$$

$$m_{\Sigma} = 1.$$

For the second and third parameters, the weight of the factors is calculated in the same way.

The calculation of the coefficient of weight of the criteria is given on the example of the factor «Didactic and psychological support of the educational process of children with SEN».

Table 3.

Factor 2. Didactic and psychological support of the educational process of children with SEN.

№	Criteria	Points					ΣP	v
		5	4	3	2	1		
1.	Study of psychological barriers and their consideration in the process of organizing the education of children with disabilities	2	2	3	1	1	30	0,22
2.	Creating conditions for socialization and integration of students with disabilities into the normal life of society	1	3	2	2	1	28	0,21
3.	Motivation for learning, stimulating the development of students with disabilities	1	1	1	3	3	21	0,15
4.	Encouraging students' initiative, creating conditions for emotional openness, trust	1	2	2	2	2	25	0,18
5.	Creating conditions for reflection on the process and result of educational activities, its productivity	4	1	1	1	2	31	0,23
Σ							135	1

Using table 3, we calculate the amount of points for each criterion:

$$\Sigma C_1 = 5 \times 2 + 4 \times 2 + 3 \times 3 + 2 \times 1 + 1 \times 1 = 30;$$

$$\Sigma C_2 = 5 \times 1 + 4 \times 3 + 3 \times 2 + 2 \times 2 + 1 \times 1 = 28;$$

$$\Sigma C_3 = 5 \times 1 + 4 \times 1 + 3 \times 1 + 2 \times 3 + 1 \times 3 = 21;$$

$$\Sigma C_4 = 5 \times 1 + 4 \times 2 + 3 \times 2 + 2 \times 2 + 1 \times 2 = 25;$$

$$\Sigma C_5 = 5 \times 4 + 4 \times 1 + 3 \times 1 + 2 \times 1 + 1 \times 2 = 31.$$

We calculate the amount of all criteria: $\Sigma = 135$.

We determine the weight of each of the criterion:

$$v_{C_1} = 30/135 = 0,22;$$

$$v_{C_2} = 28/135 = 0,21;$$

$$v_{C_3} = 21/135 = 0,16;$$

$$v_{C_4} = 25/135 = 0,18;$$

$$v_{C_5} = 31/135 = 0,23;$$

$$v_{\Sigma} = 1.$$

Factor-criterion modeling makes it possible to successfully solve both partial and strategic problems of measuring the level of quality compared to the ideal standard. Using this method, we obtained tools for measuring the level of quality. The evaluation will be carried out by experts independently of each other with the help of evaluation sheets using the scoring system in accordance with the following indicators: 1 – the activity is manifested constantly, to the highest degree; 0.75 – activity is manifested constantly; 0.5 – periodic activity; 0.25 – activity is almost not manifested; 0 – activity is not manifested.

Thus, factor-criterion model of assessing the level of teacher's inclusive culture development is presented in table 4.

Table 4.
Factor-criterion model of assessing the level of teacher's inclusive culture development.

Parameters (P)	weight of parameters (M)	Factors (F)	weight of factors (m)	Criteria (K)	weight of criteria (v)	Coefficient of conformity	
1. Personality-communicative $P_1 = M_1(F_1 + F_2 + F_3)$	$M_1 = 0,37$	1. Focus on the child's personality $F_1 = m_1(v_1k_1 + v_2k_2 + v_3k_3)$	$m_1 = 0,37$	1. Didactic design of students' education (optimality of determining the lesson's aim; specification of learning objectives; specification of educational content; planning of methods, tools, forms of education) taking into account the personality of a child with disabilities	$v_1 = 0,33$	k_1	
				2. Providing handouts and instructional materials depending on the needs of students with disabilities.	$v_2 = 0,31$	k_2	
				3. Implementation of a pedagogically appropriate set of teaching aids, taking into account the purpose and objectives of the lesson, the content of the topic, the individual characteristics of students with disabilities	$v_3 = 0,36$	k_3	
				4. Study of psychological barriers and their consideration in the process of organizing the education of children with disabilities	$v_4 = 0,22$	k_4	
		2. Didactic and psychological support of the educational process of children with SEN $F_2 = m_2(v_4k_4 + v_5k_5 + v_6k_6 + v_7k_7 + v_8k_8)$	$m_2 = 0,33$	5. Creating conditions for socialization and integration of students with disabilities in the normal life of society	5. Creating conditions for socialization and integration of students with disabilities in the normal life of society	$v_5 = 0,21$	k_5
					6. Motivation to study, stimulating the students with disabilities' development	$v_6 = 0,16$	k_6
					7. Encouraging students' initiative, creating conditions for emotional openness, trust	$v_7 = 0,18$	k_7
					8. Creating conditions for reflection on the process and result of educational activities, its productivity	$v_8 = 0,23$	k_8

		3. Organization of communication systems in the system «teacher-student», «student-student» of children with SEN $F_3=m_3(v_9k_9+v_{10}k_{10}+v_{11}k_{11})$	$m_3=0,30$	9. Creates an environment for cooperation, responds quickly to emerging barriers and overcomes them through cooperation and equal partnership. 10. Works out a system of educational activities between teacher and students 11. Uses reactions, questions from students when teaching the content of the material 12. Defines goals, means, activities and translates them into an ethical plan. 13. Defines spiritual values as the inner potential of the individual in combination with social, cultural, personal values. 14. Forms the emergence of value relations between the subject and the need for it 15. Forms a positive value of the subject for a particular subject in terms of meeting needs. 16. Creates conditions for the establishment of a person with disabilities in society, the immediate social environment 17. Humanistic orientation of activity in the conditions of inclusion 18. Appreciates inclusive values, creates clear hopes and imitates desired behavior 19. Knowledge of the laws of development of the general philosophical plan. 20. Knowledge of methods of transmission of scientific information (language of science, structure of scientific knowledge, form of their fixation). 21. Knowledge of general research methods (experimental and psychological). 22. Knowledge of pedagogical theories of development and	$v_9=0,34$ $v_{10}=0,35$ $v_{11}=0,31$ $v_{12}=0,5$ $v_{13}=0,5$ $v_{14}=0,49$ $v_{15}=0,51$ $v_{16}=0,34$ $v_{17}=0,36$ $v_{18}=0,30$ $v_{19}=0,33$ $v_{20}=0,33$ $v_{21}=0,34$ $v_{22}=0,5$	k_9 k_{10} k_{11} k_{12} k_{13} k_{14} k_{15} k_{16} k_{17} k_{18} k_{19} k_{20} k_{21} k_{22}
2. Axiological $P_2=M_2(F_4+F_5+F_6)$	$M_2=0,315$	4. Value orientations $F_4=m_4(v_{12}k_{12}+v_{13}k_{13})$	$m_4=0,32$			
		5. Value relations $F_5=m_5(v_{14}k_{14}+v_{15}k_{15})$	$m_5=0,34$			
		6. Value-oriented activity $F_6=m_6(v_{16}k_{16}+v_{17}k_{17}+v_{18}k_{18})$	$m_6=0,34$			
3. Cognitive $P_3=M_3(F_7+F_8+F_9)$	$M_3=0,315$	7. Methodological knowledge $F_7=m_7(v_{19}k_{19}+v_{20}k_{20}+v_{21}k_{21})$	$m_7=0,33$			
		8. Pedagogical knowledge $F_8=m_8(v_{22}k_{22}+v_{23}k_{23})$	$m_8=0,33$			

	23k ₂₃)		socialization of the person with limited possibilities		
			23. Knowledge of patterns and principles of construction and functioning of the educational process in the conditions of inclusion	V ₂₃ =0,5	k ₂₃
			24. Knowledge of scientific theories of psychology (theory of personality, theory of motivation, theory of activity).	V ₂₄ =0,33	k ₂₄
	9. Psychological knowledge	m ₉	25. Knowledge of age features of the individual,	V ₂₅ =0,33	k ₂₅
	F ₉ =m ₉ (v ₂₄ k ₂₄ +v ₂₅ k ₂₅ +v ₂₆ k ₂₆)	=0,34	26. Knowledge of psychological characteristics of a person with disabilities	V ₂₆ =0,34	k ₂₆

0-0,35 – invalid level;
0,35-0,6 – low level;
0,6-0,75 – average level;
0,75-0,9 – sufficient level;
0,9-1 – high level.

Within the research, the authors implemented the qualimetric approach and find out a factor-criterion model based on the works of Grigorash (Gryhorash, 2018), Yel'nikova (Yel'nikova, 1999), Khliebnikova (Khliebnikova, 2019) and others. The method of factor-criterion modelling, adapted to our study, combines quantitative methods for assessing product quality, based on the basic principles of qualimetry (Dmitrenko, 1999). It was very effective for the given study.

The authors agree with position of Mokhnach et al. (Mokhnach, 2020) that inclusive culture does not appear spontaneously, but is the result of efforts to introduce certain values into the life of an educational institution. The creation of inclusive culture should contribute to the creation of a safe, tolerant community that shares the ideas of cooperation, equality, ownership, stimulating the development of all its participants; a community in which the value of everybody is the foundation of shared achievement.

The authors find a different correlation of the «inclusive culture» and «inclusive readiness» concepts by Emel'janova et al. (Emel'janova & Sinjavskaja, 2015). The authors consider inclusive culture as «the personal quality of a teacher integrating his own position in relation to inclusive education».

The study during the analysis of the scientific literature explained the essence and content of the definitions «inclusive culture», «teacher's inclusive culture», «teacher's inclusive culture development». These phenomena have not been properly studied, so these underdeveloped aspects of the theory of education have been compensated. It was determined that the teacher's inclusive culture is a part of the general education culture, which is characterized by a broad understanding of the philosophical and methodological foundations of inclusion, deep acceptance and desire of teachers on a personal level to implement inclusive values, creative approach to professional activity.

Managing teachers' inclusive culture development should be seen as a process of creating conditions for the formation of competencies for interaction with children with special educational needs and with children of typical development, relevant to the teacher as a participant in the pedagogical process.

Conclusions

Managing teachers' inclusive culture development in a modern school is a purposeful preparatory work, which is the result of in-depth study and analysis of this technology by the administration and the teaching staff, constant monitoring of the teaching staff in general.

The international significance and importance of our research for management and educational practice is that we have worked out a tool for measuring and assessing the level of teachers'

inclusive culture development in general secondary education. We offer a factor-criterion model to assess the level of level of teachers' inclusive culture development based on a combination of parameters, factors and criteria. Components of teacher's inclusive culture were identified as parameters: personal-communicative; axiological; cognitive ones. In the qualimetric model of assessing the level of level of teachers' inclusive culture development, each component (factor and criteria) has a weight within 1, i.e. in its shares, which was determined using the ranking method.

The results of the study do not cover all aspects of the problem. Areas of further research are the issue of resource approach in managing the teachers' inclusive culture development.

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