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Review article

Training teachers: challenges in front of curriculum adaptation and inclusive education

**La superación de los docentes:
desafíos ante las adaptaciones al
currículo y la educación inclusiva**

**Aperfeiçoamento de professores:
desafios diante das adequações
ao currículo e à educação
inclusiva**

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ABSTRACT

The article is about the permanent training of teachers to guarantee an inclusive and standing education, with equity, according to the III Improvement of the National Education System and its relation with the university's responsibilities in front of the social needs. Due to that, the objective is to set up some bases of the training teachers' process to make curriculum adaptations to scholars with intellectual disabilities, who studies at General Education. The investigation development was led by the dialectic and materialistic general method. As a result, theoretical methods such as, historical and logical analysis, analysis and synthesis, induction and deduction, systematization and the system approach were used; also, empirical methods, such as documentary analysis, which allowed to state the bases on which the training teachers process is being done for them to do the curriculum adaptations. The article makes integration between theoretical and scientific bases to state the relationship among the training of teachers, the curriculum adaptations and the inclusive education adaptations to scholars with intellectual disabilities.

Keywords: curriculum adaptation; intellectual disabilities; including education; training teachers.

RESUMEN

En el presente artículo se abordó la formación permanente de los docentes en función de garantizar una educación inclusiva, equitativa y de calidad, cuestiones que son coherentes con el tercer perfeccionamiento del Sistema Nacional de Educación y su relación con el papel de la universidad ante las necesidades sociales. Es

por ello que el objetivo estuvo dirigido a plantear los fundamentos del proceso de superación de los docentes para la realización de adaptaciones al currículo de los escolares con discapacidad intelectual, que estudian en la Educación General. Para el desarrollo de la investigación se realizó un estudio basado en el método general de la dialéctica materialista. En consecuencia, se utilizaron métodos del nivel teórico como el análisis histórico-lógico, el análisis y la síntesis, la inducción y la deducción, la sistematización y el enfoque de sistema; como método empírico se usó el análisis documental, lo que permitió plantear los fundamentos que sustentan el proceso de superación de los docentes para la realización de adaptaciones al currículo. En el artículo se propone una integración de bases teóricas y científicas que permitieron plantear las pautas y relaciones funcionales entre la superación de los docentes, las adaptaciones curriculares y la educación inclusiva de los escolares con discapacidad intelectual.

Palabras clave: adaptaciones curriculares; discapacidad intelectual; educación inclusiva; superación de docentes.

RESUMO

Neste artigo, foi abordada a formação permanente de professores para garantir uma educação inclusiva, equânime e de qualidade, questões condizentes com a terceira melhoria do Sistema Nacional de Educação e sua relação com o papel da universidade diante das necessidades sociais. Por isso, o objetivo foi levantar as bases do processo de superação de professores para fazer adaptações no currículo de escolares com deficiência intelectual, que estudam na Educação Geral. Para o desenvolvimento da pesquisa, foi realizado um estudo baseado no método geral da dialéctica materialista. Para tanto, foram utilizados métodos de nível teórico como análise histórico-lógica, análise

e síntese, indução e dedução, sistematização e abordagem sistêmica; Como método empírico, utilizou-se a análise documental, que possibilitou estabelecer os fundamentos que sustentam o processo de superação docente para a realização de adaptações curriculares. O artigo propõe uma integração de bases teóricas e científicas que permitiram estabelecer as diretrizes e as relações funcionais entre o aperfeiçoamento de professores, adaptações curriculares e educação inclusiva de escolares com deficiência intelectual.

Palavras-chave: adaptações curriculares; Discapacidade intelectual; Educação inclusiva; aperfeiçoamento do professor.

INTRODUCTION

The scientific-technical revolution that humanity is experiencing today makes it clear that the development of society is increasingly due to the ability of men to create, innovate, produce and manage knowledge in correspondence with the problems and demands imposed by said developing.

Cuba does not escape this reality and, immersed in a new educational revolution, devotes considerable material and human resources to its development, aimed at perfecting the educational system and permanently improving its professionals.

Cuban Higher Education is inserted in these purposes and has the mission of directing and controlling postgraduate academic training, to guarantee, according to Díaz-Canel and Fernández (2020a), processes with more efficiency, productivity, usefulness; and that, at the same time, satisfies the growing demands emanating

from society for well-being, development and prosperity.

The strategic conception of professional improvement finds its theoretical and methodological aspects in postgraduate education and also in the theory of Advanced Education, considered as a process aimed at deepening, broadening and creating knowledge (Addine and García 2005 and Bernaza, Aparicio, De la Paz, Torres, Alfonso 2020) and also, according to Añorga (2014), as an improvement in professional performance.

The improvement of teachers is part of this universe of teachers, so they must be prepared to meet the new personal and social needs of their students, among whom are those with an intellectual disability or other special educational need, associated or not to a disability.

It is considered that the improvement of teachers is transcendental to meet the demands of inclusive and quality education, since they must be able to "revolutionize educational practice as a result of their systematic updating on the theoretical, methodological and attitudinal aspects necessary to the educational attention of schoolchildren (...)" (Perojo, Fernández, González, Valdés, Estévez, 2019, p. 93), taking into account the level of intellectual functioning of schoolchildren.

Inclusive education is, therefore, a conception that recognizes the right of all schoolchildren to a quality education (Borges and Orosco 2014), regardless of their special conditions of development, which constitutes a challenge to professionalism, to overcoming psychological, pedagogical and didactic of teaching groups.

From this perspective, inclusive education articulates with the aspirations of achieving

social justice, equality and equal opportunities, since it is considered as a:

Approach that responds positively to the diversity and individuality of people, understanding that these are not a problem, but an opportunity for their enrichment, since it fosters the active and equitable participation of individuals in family life, education and in the work (Estévez, Llivina, Bulgado, Rodney, Acosta, 2020, p. 2).

The foregoing presupposes that, under conditions of inclusion of schoolchildren with intellectual disabilities in General Education, the organizational conditions of the school must be transformed and, in turn, conceive a curriculum and curricular adaptations that adjust to their special educational needs.

For Posso, Barba, León, Ortiz, Manangón and Marcillo (2020), curricular adaptations are the contextualization of curricular content and active methodologies in view of the need to align the curricular adjustment so that learning is significant. The preparation of teachers to fulfill this task constitutes a condition that cannot be postponed and the success of an inclusive quality education for all depends on its fulfillment.

Despite the studies carried out by several authors and their scientific and practical contributions in Cuban education, it is considered that there is limited consensus on the foundations of the process of overcoming teachers to make adaptations to the curriculum of schoolchildren with intellectual disabilities which makes implicit reference to the discrepancies between the existing theories, approaches and conceptions in this regard.

That is why, the objective of this article is to propose the theoretical foundations that support the process of overcoming teachers to make adaptations to the curriculum of schoolchildren with intellectual disabilities, which allows a holistic view of the phenomenon and, consequently, the achievement of an inclusive quality education.

To fulfill the objective, a theoretical investigation is carried out through systematization, as the method that allows establishing the reasoning, the approaches and the relationships derived from the analysis of the theories and the philosophical currents that underlie as foundations of the basic constructs to be studied deal with in the article. In it, theoretical methods are used, from a dialectical-materialist conception, such as: analysis and synthesis, induction and deduction and the system approach, which will make it possible, from the point of view of structure and content, to systematize theoretical and methodological aspects related to the improvement of teachers, adaptations to the curriculum and the achievement of an inclusive and quality education.

DEVELOPING

The idea of establishing the foundations that support the process of overcoming teachers in making adaptations to the curriculum of schoolchildren with intellectual disabilities, necessarily leads to a semantic analysis of the category. In the bibliographic consultation carried out, it was possible to appreciate that there is a consensus in the criteria to refer to its essence and scope; Among these, it is highlighted that the theoretical foundation includes the background, the definition of terms, the theoretical bases, which in turn are formed by the thematic axes, the theories and the

legal bases. Issues that can be seen in the future.

The improvement of teachers. Main historical events and theoretical references

With the principle of dialectical-materialist historicism, a study was carried out on the main events that occurred before and after the triumph of the Revolution in Cuba, in favor of overcoming teachers in making adaptations to the curriculum of schoolchildren with intellectual disabilities.

The following systematization criteria were used for the analysis of the historical background: appearance of forms or programs of improvement, possibilities of entering the teaching profession, continuity process that make the improvement of teachers permanent and projection of professional improvement towards academic postgraduate studies.

Taking into consideration the studies carried out by Estévez, Rivera and Díaz (2011) on the process of overcoming Primary Education teachers in carrying out curricular adaptations and their historical background, it can be emphasized that before the triumph of the Cuban Revolution of 1959, the improvement of teachers was meager, isolated and spontaneous; while, with the revolutionary triumph, a decentralization and increase in the forms or programs of overcoming, fundamentally institutionalized, are revealed, which are recognized by the following characteristics:

- It is a systemic, permanent and continuous improvement that meets the needs of human resources and their relationship with political, economic, social and environmental problems.
- It is projected from the use of different forms of organization for

self-improvement, with an emphasis on academic postgraduate degrees with master's degrees and doctorates.

- A trend towards overcoming teachers is perceived, for the conception of a contextualized, flexible and participatory open curriculum (Triana and Fernández 2019) and that responds to an inclusive, equitable and quality education for all (UNESCO, 2016).
- The gradual trend of postgraduate studies in the distance modality, according to Bernaza *et al.* (2020), takes advantage of the potential of Information and Communication Technologies and also constitutes an alternative to the social isolation generated by COVID-19 or other natural, health and technological disasters.
- The presence of the research + innovation approach, based on the generation of knowledge and local development (Díaz-Canel and Fernández, 2020a).

These issues presuppose the need to propose scientific and methodological results that allow education professionals to overcome the challenge of making adaptations to the curriculum, taking into account the level of intellectual functioning of their students and the demands imposed by achievement inclusive, equitable and quality education.

One of the significant aspects when addressing the educational reality of any country with a critical approach and, therefore, the transforming action to raise its quality, is the analysis of the process of permanent improvement of teachers; The main mission of the school is placed in their hands: to prepare man for life.

The professional improvement of teachers is one of the fundamental links on which every society has to work to guarantee in future generations, not only knowledge, but also the development of feelings, attitudes and values.

According to Cruz, Ramos, Nardiz, Rivero (2018), professional improvement can be conceived as an "educational process, contextualized, intended to improve professional performance (...), to respond to the social order that today demands a service of quality in Cuba and the world, in the fulfillment of its care, teaching, research and managerial functions (...)" (p. 4).

It is a training process that makes professionals agents of change with a comprehensive and scientific general culture, from the use of specific actions that lead to research, innovation, knowledge generation and specialized professionalization (Bernaza *et al.*, 2020). It is a way of contributing to the development of the country, regardless of the prevailing political, economic, social and environmental conditions.

In this sense, Sánchez and Puentes (2019) state that the achievement of higher levels of specialization of teachers leads to the projection of an intentional improvement, from the particularization of the contents that are addressed, in correspondence with the demands of the teacher social context, the dynamics of the educational process and interdisciplinary relationships.

The assumption of the considerations addressed presupposes that in any process of professional improvement there is an "apparent contradiction between the general nature of its direction and the individual character, both of the participation and the effect of its results, mediated by the responsibility of the teacher with their efficient professional performance" (Díaz and Martínez, 2021, p. 91).

Taking the above definitions as references, it is considered that the process of professional improvement must take into account as inherent elements the updating of knowledge and professional skills, which are necessary for the performance of their responsibilities and job functions. In the same way, the problems derived from scientific-technological progress and the imperatives of political, economic, social and environmental development must be considered.

It is necessary to limit that the political, economic, social and environmental conditions are factors that directly influence the management of professional improvement that is developed from the authorized institutions. A reliable example of this is the situation generated by COVID-19 and its effects on the ways of developing educational processes, from the distance modality and through the use of computer networks: the largest of all, the Internet (Bernaza *et al.*, 2020), experiences and valid practices to be transferred under the influence of other natural, technological and health disasters, which may be happening in the future, as a consequence of climate change.

These are situations that also impose a change in the professional performance of teachers, faced with the challenge of "transforming face-to-face classes to virtual mode, but without changing the curriculum or the methodology" (UNESCO, 2020, p. 26) and in this way promote the rights of all schoolchildren to education and learning.

Derived from this analysis, a relationship between improvement and professional performance is established. Professional performance is considered as one of the results of improvement, which is expressed in the improvement of the modes of action and in the fulfillment of the work functions of teachers.

According to Caicedo, Álvarez, Hernández (2015), professional performance has to do with the management of the capacities of the contents of the subjects, the interest that the teacher has to teach and the methodology used to conceive the teaching-learning process inside and outside the classroom.

The elements addressed are important for this research; its purposes are consistent with overcoming and updating the knowledge of teachers, so as to improve their professional performance in making adaptations to the curriculum of schoolchildren with intellectual disabilities, in correspondence with the social demands imposed by inclusive education.

Adaptations to the curriculum of schoolchildren with intellectual disabilities

Every curriculum from its conception must contribute to the achievement of the integral development of the students to whom it is directed, so that they can have the expected development according to the demands and demands of the society in which they live; For this, the system of objectives and contents proposed must be accessible to all and with sufficient flexibility to adapt them, according to their level of intellectual functioning.

Flexibility in the curriculum implies that teachers, based on the general objectives set out in the curricular model, can adapt it to their group of students and even to each student in particular. That is why authors such as Guirado and González (2013), Guerra (2014), Estévez (2019) and others consider that the flexibility of the curriculum is contextualized, from the theoretical-practical point of view, according to the possibility that they have to adapt or modify their didactic components, to offer a response to the special educational needs of schoolchildren.

In essence, it is a way of focusing the curriculum and the modification of its components, as a process that responds to the individualization of teaching and the correction and compensation of the difficulties of schoolchildren who present some condition, special or not, of development. Therefore, it is considered as one of the supports that allow them to satisfy their educational needs.

Recognizing the meaning that the individuality of schoolchildren has for the gradual modification of the didactic components of the curriculum, Guirado and González (2013) state that the adaptations to the curriculum are: "The accommodation of the educational offer to the possibilities and needs of schoolchildren with special educational needs, (...). It is an instrument of adjustment to the development, evaluation, performance and teaching-learning procedures; a tool to adapt the interrelation of the didactic components of the process" (p. 18).

Praising the value of curricular adaptations as a valid resource in the education of schoolchildren with intellectual disabilities, Guerra (2014) refers that they are: " All the measures that are proposed to respond to diversity and to achieve greater individualization of the education, redound to the benefit of those students who have educational needs. One of these alternatives (...) is made up of curricular adaptations" (p. 101).

It coincides with the aforementioned criteria, since in terms of adaptations to the curriculum it is necessary to make modifications or adjustments to its didactic components to respond to the special educational needs of schoolchildren. It means taking into account its individual particularities and that of the contexts in which it is developed, as preconditions for

making decisions regarding the modification of the didactic components of the curriculum.

In this way, the process of carrying out curricular adaptations is considered as a support that adjusts to the needs and potential of schoolchildren. It is the materialization of an individualized approach with respect to said process, where the level of intellectual functioning of schoolchildren assumes special significance.

From this perspective, according to Estévez (2019), the individualized approach to curricular adaptations appears as the conception of a personalized curriculum, recognizing that the individual in the special educational needs of schoolchildren with intellectual disabilities is what refers to the possibilities, the interests and particularities of their learning.

Following the logic of the discourse and in order to achieve higher levels of understanding and justification of the subject under study, it is necessary to address below some of the particularities that characterize schoolchildren with intellectual disabilities.

Intellectual disability is a category used to refer to a group of people who have a developmental condition tempered by limitations in the functioning of social and intellectual skills. From this perspective, the vision and understanding of intellectual disability is multidimensional focused, since it describes human functioning and the presence of intellectual disability as the dynamic and reciprocal interaction between intellectual ability, adaptive behavior, health, participation, the contexts and the provision of individualized support, as mechanisms for its correction and compensation.

Related to the above criteria, Leyva (2017) refers that intellectual disability is:

A relatively stable developmental condition characterized by significant and varying degrees of limitations in intellectual activity in general, and in the acquisition of conceptual, practical, and social learning revealed in modes of social action in particular; this requires support of varying intensity throughout the lives of these individuals. It is also characterized by variability and differences in expression in functioning and its appearance is before the age of 18; the degree of depth is related to the intensity of the support that the person needs (Leyva and Barreda, 2017, p. 142).

Without underestimating the elements that are offered in both positions, around the biological, psychological and social characteristics of schoolchildren with intellectual disabilities, it is important to highlight the role played by supports within the educational care that should be offered to them.

The educational care that should be provided to schoolchildren with intellectual disabilities should be conceived taking into account their individual differences and also consider the principle that all students are trained under the same laws of bio -psycho-social development, which bases the assumption of a curriculum for all (Leyva, 2017), and the use of supports that stimulate their level of functioning.

According to Leyva (2017), the supports are:

Resources and strategies designed to promote the development of education, interests and personal well-being, and to increase individual functioning. An adequate application of supports can improve the functional capacities of children, adolescents and young people with special educational needs. The supports can be grouped as they are configured in practice according to whom and for what they are implemented (p. 4).

In this context, supports are defined as the influences (social sources of development), exerted by the "others" in the formation and integral development of the personality. They constitute, in turn, the resources through which teachers can meet the needs of schoolchildren and enhance their functional capacities (potentialities).

There are different types of supports that can be offered to students, depending on their needs. Their proportion depends on who and what they are implemented for. Those offered from educational practice are: personal, material, organizational and curricular (Leyva, 2017).

Curricular resources occur "when any type of adaptation or modification of the curriculum is required" (Leyva, 2017, p. 5); however, the proportion of cognitive, procedural, socio-affective, axiological, material and didactic resources must also be taken into account (Estévez *et al.*, 2020), which make it possible to enhance the level of functioning of schoolchildren with intellectual disabilities.

Therefore, schoolchildren with intellectual disabilities need a curriculum and curricular adaptations that allow the satisfaction of their needs, the correction and compensation of their limitations, the comprehensive development of the personality and their job training (Triana 2019).

In general, it is considered that the historical and theoretical elements systematized so far constitute an important part of the theoretical bases to be taken into account to support the phenomenon under study; however, it is essential to complement them by integrating the knowledge provided by various sciences.

Theoretical bases that support the process of overcoming teachers in making adaptations to the curriculum for schoolchildren with intellectual disabilities

Knowledge of the theory and scientific method of materialist dialectics are basic conditions for understanding and conducting the cognitive process from educational practice, since it guides the logical path of scientific knowledge in the search for objective truth that, according to Lenin, VI (1964) goes: "From living contemplation to abstract thought, and from this to practice (...)" (p. 165).

These ideas are shared, since the management of the process of overcoming teachers presupposes traveling along that path. Its journey allows us to identify which part of the improvement of teachers for the process of inclusive education of schoolchildren with intellectual disabilities must be the object of transformation (the preparation of teachers to carry out adaptations to the curriculum) and, in its abstraction, to identify the contradictions, needs and potentialities that are manifested in it, to be able to conceive scientific, methodological and practical results that

allow contributing to the professional and human improvement of education professionals.

From these analyses, it is considered that the fundamental laws of the dialectic materialist, among which are the law of transformation, the law of the negation of negation and the law of unity and struggle of opposites, constitute the Basic foundations for the strategic conception of the improvement of teachers for the realization of adaptations to the curriculum of schoolchildren with intellectual disabilities.

The law of the denial of denial is expressed in the successive nature of development and the interconnections between the current guidelines and established regulations and the new scientific and methodological proposals for the improvement of teachers, as a consequence of the continuous and accelerated process of scientific technician development in the social sciences in general and the pedagogical ones in particular.

Closely related to the above, the law of unity and struggle of opposites is expressed, given that the denial of the elements that make up the current regulations for the improvement of teachers, for the realization of adaptations to the curriculum of schoolchildren with intellectual disabilities, are nothing more than the starting points for the solution of the theoretical, methodological and practical contradictions present in said process.

In this sense, it is important to reveal the principles that from dialectical and historical materialism are assumed as rules that scientifically guide the phenomenon under study: objectivity, movement, development, universal concatenation, multilateral analysis, flexibility and historical-concrete character. All of them, closely interrelated, make it possible to penetrate the essence of the process of upgrading teachers to make adaptations to the curriculum of

schoolchildren with intellectual disabilities and, in turn, contribute to their transformation, in correspondence with the political, economic, social and environmental demands.

In relation to the above, it is considered that the social demands related to the inclusion of schoolchildren with intellectual disabilities in General Education institutions condition new proposals that, in order to improve teachers, must be developed based on updating their knowledge and skills and improving their professional and human performance; that is, it is nothing more than preparing man for life, to interact with the environment, transform it and, in turn, transform himself.

That is why the improvement of teachers has become a social phenomenon in the contemporary context and, given its general nature, transcends other spheres of human development, constituting an imperative derived from its condition as an educational agent assigned by society.

From this perspective, the management of the improvement of teachers allows their transformation, as productive forces, in correspondence with the development and the demands given in the political, economic, social and environmental order. From this derives the challenge that education professionals have, from the teaching-educational, the methodological, the improvement and the investigative ones.

What was said above, allows teachers to solve problems and social demands, which supposes overcoming as a permanent process based on establishing a relationship between school-society. Correspondingly, Padrón and Mijares (2017) consider that any professional improvement that is managed is effective if it is designed based on the demands of society and the context of professional performance of teachers.

Both educational institutions and teachers play a dynamic role within the system of educational influences, based on the preparation for independent adult life and the social inclusion of schoolchildren with intellectual disabilities, based on the analysis of social demands and diagnosis of the real possibilities and potentialities of the student to interact as a member of the social group.

From this perspective, any improvement process that is developed must consider the infinite links of interaction and interdependence that exist between educational institutions with the rest of the institutions, actors and sectors of society in general, in order to offer answers to the needs presented by teachers in the face of the challenge of "promoting lifelong learning opportunities for all" (UNESCO, 2016, p. 7).

Contributing to the education and comprehensive development of the personality of schoolchildren with intellectual disabilities, a group of people who are characterized by having different levels of functioning in all the acquired skills, is a very difficult task for teachers. They must be able to find the ways, methods and resources that allow them to develop their physical and psycho-pedagogical capacities to the maximum.

According to the socio-historical and cultural approach of LS Vigotsky and his followers, the above statement ponders the scientific and methodological platform of the educational system in Cuba, the humanistic, optimistic and mediating character of the teacher in the direction of the educational and teaching-learning process for school children with intellectual disabilities.

To manage the process of overcoming teachers, one must be consistent with the ideas of LS Vigotsky (1989), considering the social situation of development as the starting point for all the dynamic changes

that occur throughout life in the development of the psyche of man and the assumption of this development as a process that moves from the external, social and inter psychological plane to the internal, individual; all this based on the active and conscious participation of education professionals during the updating of their knowledge, the improvement of their skills and the improvement of their performance.

In relation to the above, great importance is attached to social factors, to the social situation of development, to the zone of proximal development, to levels of help, to the unity of the affective and the cognitive (Bernaza 2013), to the role of experience and activity and communication in order to promote the leading role, development and evolution of teachers in making adaptations to the curriculum for schoolchildren with intellectual disabilities. In this way, at the same time that they develop, learn and transform; they transmit knowledge, skills, attitudes and values that must be preserved as a historical-cultural legacy.

According to Addine (2005), Bernaza (2013), Añorga (1999-2014) and others, the improvement of teachers as a pedagogical process is based on Pedagogy as a science that integrates the knowledge of the other sciences that contribute to the knowledge of man, and addresses the complexity of its object of study: education.

Cuban pedagogical thought supports the role of educational practice and the necessary interaction of instruction, education and development to achieve the improvement of teachers in making adaptations to the curriculum of schoolchildren with intellectual disabilities.

As stated in postgraduate education and in the theory of Advanced Education, the improvement of teachers is a "process that is essentially aimed at the cognitive, (...), on

the bases, principles and regularities of Cuban educational theory, and assumes the true improvement and transformations that are required, (...) in the subjects (...)" (Añorga, 2014, p. 3).

From these perspectives, the principles, methods, procedures and forms of organization to be taken into account in instruction and education are offered, allowing the development of cognitive, procedural and attitudinal capacities in teachers in general and in those who attend to schoolchildren with intellectual disabilities in particular.

Next, the principles of Advanced Education are contextualized, as rules that regulate the management of teachers' improvement in making adaptations to the curriculum of schoolchildren with intellectual disabilities. These are:

- Principle of the relationship between social relevance, objectives, motivation and communication: the problem of overcoming teachers arises as their need to carry out adaptations to the curriculum of schoolchildren with intellectual disabilities; takes its expression as a didactic objective to achieve, allowing to specify what knowledge you want to complete or deepen, on what practical-professional skills you have to work on and encourage the production of new knowledge depending on the motivation that is believed in them through conjugation of their personal, labor (or professional) and social (or institutional) interests.
- Principle of the link between rationality, creativity and the quality of the result. This principle offers the adjustment in time for the management of the improvement of teachers, without this becoming an

attack on creativity. This allows, through academic or non-postgraduate forms, to reach a level of intellectual, original and useful production, so that teachers can formulate, implement and evaluate curricular adaptations, thus satisfying the educational needs of schoolchildren with intellectual disabilities. Therefore, quality is not only evaluated in terms of academic results but, fundamentally, in the results of intellectual production, innovation and development.

- Principle of the relationship between theory, practice and the formation of values. Any improvement process should allow, in addition to an update of knowledge and improvement of skills, a development of values and attitudes towards the phenomena of life, so that teachers have a more fair, equitable and comprehensive professional performance, before education and the learning of all its students, including those with an intellectual disability. With this they will obtain a higher level of motivation and satisfaction with the results.
- Principle of the link between the system approach and its branch, sectoral and territorial expressions. Despite being an organizational principle, it takes its expression in the management of improvement, due to the correspondence it has with the character of a system that Advanced Education has, which is derived from an infinite number of subsystems. With the proposal, action is being taken on the teacher improvement subsystem that is managed from the university, links with the rest of the subsystems of the National Education System are necessary, and also with Special Education (networking); since, from its basic objectives, it acts as a center that provides resources and support.

This principle makes it possible to identify, at the territorial level, the educational institutions that have students with intellectual disabilities included in their classrooms and, in turn, select the teachers who attend them to project a scientific, methodological and specialized improvement, according to the particularities of schoolchildren with intellectual disabilities and their respective level of functioning.

- Principle of conditionality between undergraduate, basic and specialized training. These principal conditions the relationship between initial and permanent training, expressed in the complementarities and continuous improvement of knowledge, skills and improvement of professional performance. It is a rule that requires a retrospective look to identify the needs of teachers as a result of the initial training and professional experience received; this, in correspondence with the challenge of education and learning of schoolchildren with intellectual disabilities and making adaptations to the curriculum as an inherent resource, issues that can be solved with the management of a professional improvement process.

Closely related to the principles are the different organizational forms to be used in the improvement of teachers, which are defined as the way in which the organizational structure of professional improvement is materialized, attending to didactic objectives and the specific needs that demand the profile of the activity (añorga, 1999). Among these are the academic postgraduate forms (diplomas, specialties, masters and doctorates) and the non-academic forms (self-improvement, conferences, seminars, workshops, exchange of experiences, consultancies, interviews, the postgraduate course, training

and others) . All, in general, are closely related, from the point of view of structure and content, with postgraduate didactics and its contextualization with the realization of curricular adaptations and the achievement of inclusive and quality education for schoolchildren with intellectual disabilities.

Making adaptations to the curriculum of schoolchildren with intellectual disabilities presupposes that the school's curricular conception adjusts to their characteristics and needs. It is a process of individualizing education, teaching and learning, taking into account the level or ability to function of these students. In this way, the role of the teacher is "enlarged and humanized when providing an education for all from a comprehensive, flexible, contextualized and participatory curriculum" (Leyva, 2017, p. VIII).

In this sense, Osorio (2017) presupposes that the curriculum offers schoolchildren the opportunity to learn, since it presents characteristics such as:

- A guide to planning school life.
- A guide to evaluating life at school.
- A set of situations, experiences, within the school structure and organization; in such a way that, even what happens in school administration, it is no longer just administration, but it is part of what is taught and students learn.

Valid are the approaches that are made in the third improvement of the National System of Education in Cuba, considering that the teacher must conceive a curriculum that adjusts to the level of intellectual functioning of the schoolchildren and, in turn, project methods, procedures and novel means that allow to ensure the fulfillment of the purpose and the objectives determined for the Primary Level (Leyva, 2017).

The management of the process of overcoming teachers for the realization of adaptations to the curriculum of schoolchildren with intellectual disabilities, it is not possible to develop it without taking into account postgraduate didactics. This article assumes that:

(...) in the didactics of Advanced Education it is observed that the teaching-learning processes are studied from two categories: activity and communication and the fundamental contradiction of these processes is the preparation for life, it addresses all the didactic categories: objective, content, method, means, organizational forms and evaluation, to solve the social task with a systemic and personological approach (...) (Añorga, 1999, p. 28).

The assumption of the previous approaches allows us to refer that the didactics of Advanced Education offers the process of professional improvement the necessary categories for the planning, execution and evaluation of improvement, in correspondence with the insufficiencies and existing needs in the preparation of teachers for the realization of adaptations to the curriculum and the social demands of the process of inclusion of schoolchildren with intellectual disabilities in General Education.

In addition, it is important to take into account in the improvement of teachers the realization of curricular adaptations for schoolchildren with intellectual disabilities, legal and legal foundations. In this sense, the statements made in some of the most up-to-date documents at the national and international level are assumed as legal and legal foundations.

At the national level, the approaches established in the Constitution of the Republic of Cuba (2019) and also in the Postgraduate Education Regulation in its resolution No. 140/2019 of the MES (2019) are assumed, as well as other new policies and their respective, legal norms derived from the constant exchanges of topics related to the Guidelines of the Economic and Social Policy of the Party and the Revolution for the period 2016-2021, the Conceptualization of the Cuban Economic and Social Model of Socialist Development, the bases of the National Plan of Economic and Social Development until 2030, as proposed by Díaz-Canel and Núñez (2020 b).

At the international level, among others, those reflected in the 2030 Agenda for development and environmental sustainability (specifically, objective 4) (2016), in the Declaration of Buenos Aires (2017) and in the Plan of Action are assumed. 2018-2028 (2018).

The considerations made above show the need to update and improve the knowledge of teachers, based on the modification of the didactic components of the curriculum to respond to the special educational needs of schoolchildren with intellectual disabilities and the achievement of a quality inclusive education. Also, they constitute the theoretical bases that allow understanding and sustaining said process, in correspondence with the current demands set forth in the Objectives for Sustainable Development (objective 4).

As a consequence of the analysis and generalization processes carried out, guidelines are proposed from now on to be followed by teachers in making adaptations to the curriculum of schoolchildren with intellectual disabilities.

The proposed guidelines rule that the improvement of teachers to make adaptations to the curriculum must be managed taking into account:

- The prevailing political, social, economic and environmental demands at the historical moment in which the overcoming is conceived.
- Networking, manifested between the different actors and sectors of society in general and between educational institutions in particular.
- The needs and potentialities obtained in the evaluation and diagnosis of the subjects to be overcome.
- The multimodal character (face-to-face, semi-face-to-face or remote), according to political, economic, social, environmental conditions and the availability and accessibility of technological, information and communication resources.
- Different actions and forms of organization for improvement, interrelated with each other and, in turn, with forms of methodological work of educational institutions.
- The character of complementarities and continuity of the knowledge, skills and modes of action acquired in initial and postgraduate training, as well as the experiences acquired by teachers in their professional practice.
- The stimulation of research, innovation and the creation of knowledge as resulting threads that determine local and social development.
- Systematic follow-up and evaluation of the progress of the improvement process, designed to, in this way, identify the progress and setbacks obtained in updating the knowledge, skills and improvement of

the professional performance of teachers. it was possible to identify functional relationships that enrich the process of overcoming. These relations are the following:

- Relationship between the organizational forms of improvement, in any of its modalities, and the content related to curricular adaptations.
- Relationship between making adaptations to the curriculum, from the improvement received by teachers and the achievement of quality in an inclusive education of schoolchildren with intellectual disabilities.

It is considered that these relationships promote the development of the process of overcoming teachers and, in turn, enrich the theoretical and practical positions related to curricular theory and inclusive, equitable and quality education in the achievement of learning throughout life for everyone, regardless of their development conditions.

CONCLUSIONS

The study carried out made it possible to identify the theoretical foundations necessary for the management of the process of overcoming teachers in making adaptations to the curriculum of schoolchildren with intellectual disabilities, which allow highlighting the innovative role of postgraduate education in the generation of solutions before the problems of inclusive education and the conception of the curriculum, taking into account the level of intellectual functioning of schoolchildren and the social responsibility of the Cuban university in this process. Issues that are consistent with the demands of the third Improvement of the National Education

System in Cuba and objectives set forth in the 2030 Agenda for Sustainable Development.

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Conflict of interests

The authors declare no conflict of interest.

Authors contribution

All authors managed the information, reviewed the writing of the manuscript and approved the version finally submitted.



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