

La atención educativa a educandos con limitaciones físico motoras. Retos y desafíos para el profesorado

Educational attention to students with physical- motor limitations. Challenges for teachers

Alena Ramírez Mena**Virgelia Cala Leyva****Onel del Toro Campos**

Universidad de Guantánamo, Cuba

ORCID: <https://orcid.org/0000-0001-6116-4306><https://orcid.org/0000-0002-5625-3790><https://orcid.org/0000-0001-9807-9447>**Correo electrónico(s):**

alenaramirezmena@gmail.com

virgeliac@cug.co.cu

oneldeltorocampos@gmail.com

Recibido: 11 de abril de 2025

Revisado: 09 de mayo de 2025

Aceptado: 06 de junio de 2025

RESUMEN: La presente investigación pretende favorecer la preparación de los profesores de la carrera Licenciatura en Educación Primaria acerca del tratamiento a la atención educativa al limitado físico motor en condiciones de inclusión, a partir de la atención a la diversidad como postura pedagógica y fundamentos de prácticas cada vez más inclusivas, se aplicaron métodos, como: la observación, encuestas y entrevistas, los que arrojaron insuficiencias en conocimiento teórico- metodológico de los profesores, las acciones se sometieron a criterio de expertos y se llevaron a la práctica, los resultados obtenidos demostraron pertinencia, ya que se evidenciaron transformaciones.

Palabras clave: Preparación del Profesor; Atención educativa; Limitaciones Físico Motoras; Inclusión Educativa

ABSTRACT: The present research aims to enhance the preparation of teachers in the Bachelor's Degree in Primary Education regarding the educational support for students with physical-motor limitations in inclusive settings. This is based on addressing diversity as a pedagogical stance and the foundations of increasingly inclusive practices. Methods such as observation, surveys, and interviews were applied, which revealed deficiencies in the theoretical and methodological knowledge of the teachers. The actions were subjected to expert evaluation and implemented in practice. The results obtained demonstrated relevance, as transformations were evident.

Keywords: Teacher preparation; Educational attention; Physical- motor limitations; Educational inclusion

Introduction

The profound transformations in the political, economic and social spheres and the various modifications in the educational systems have set in motion the issue of inclusive education and its implications for education in Cuba, based on the fundamental principle of educating in and for diversity with increasingly inclusive practices.

Educational practice has shown that the attention to students with special educational needs in general and those with physical-motor limitations in particular under the new conditions of educational inclusion, takes on different nuances from the insertion of these students to regular schools.

Actions aimed at providing a solution to this problem are not enough, since the particularities present in these students, not only compromise the conditions in which this particular educational process takes place, but also a change in the way the agents involved in the pedagogical process for the attention to diversity act.

Therefore, the preparation of the teacher constitutes an essential premise in the work directions from the Bachelor's Degree in Primary Education where the future student teachers are trained who will attend these students as part of the universe of attention to diversity and increasingly inclusive practices during their professional performance.

Teacher preparation has been the subject of research at the international and national level by authors such as Imbernón (1994), Marcelo (1995), Ferrer (1996), Escudero (1998), Álvarez de Zayas (1999), Salcedo and Mcpherson (2003), González (2007), Arteaga (2009), García Batista (2010), Morales (2011), García Pérez (2013), Rodríguez and Ferrer (2018), Rodríguez Díaz (2019) among others. When analyzing their criteria it is noticeable that international authors use different categories to refer to teacher preparation such as training, professional training, but in essence they refer to the activity that teachers carry out as part of their preparation for the improvement of education.

On the contrary, the Cuban authors consulted refer to these categories as a process that prepares the individual to perform in society. It was also found that they use the term preparation to refer to the activities carried out by teachers to improve the teaching-educational process.

This is a necessary element to take into account when approaching the preparation of the teacher of the Bachelor's Degree in Primary Education in the treatment of the educational attention to the physically and motor handicapped in conditions of inclusion.

Educational inclusion as a current reality in terms of educational practices deserves the attention of researchers and teachers themselves with a view to its improvement in order to achieve the educational aspirations of the third improvement of the Cuban educational system.

In recent years, several foreign authors such as: llán (1992), Lipsky and Garther (1997), Dyson (1999), García (2000), Vayrynen (2001), Moberg (2002), Ja Puro (2004), Ainscow and Dyson

(2006), Kuorelahti et al. (2008), Koistinen (2010), Echeita (2010-2014) and Terre (2011), among others, and Cuban specialists such as: Bell (2002), Manes (2005), López (2005), Santamaría (2007), Gayle and Cobas (2010), Guerra (2011), Orosco (2011), Salvador (2010-2013), Borges (2014), among others, address the significance of educational inclusion and refer that it represents a perspective that should serve to transform educational systems and other learning environments in order to respond to the diversity of students.

The research mentioned above is of great value when considered as a theoretical-methodological support for the present work. However, in spite of the efforts made, they offer limited theoretical-methodological assumptions that allow preparing teachers of the Bachelor's Degree in Primary Education in the treatment of the educational attention to the limited physical-motor in conditions of inclusion, to develop in future teachers a high sense of individual and social responsibility and to achieve that they acquire during their training the professional skills that allow providing quality educational attention from the existing diversity in the current elementary school.

It is for this reason that the need arises to offer through this research theoretical-methodological actions that allow the preparation of the teacher of the Bachelor's Degree in Primary Education in the treatment of the educational attention to the limited physical-motor in conditions of inclusion.

Development

The educational attention and full integration into society of students with physical-motor limitations has varied significantly from one era to another, according to culture, the development of sciences and the prevailing economic-social regime. In our country, four modalities of attention have been established to guarantee the above mentioned:

- Hospital classrooms
- The itinerant teachers
- The “Solidarity with Panama” school
- The regular school

The latter being concrete objectives in the third improvement of Primary Education from the implementation of Education in and for diversity as a pedagogical posture and foundation of increasingly inclusive practices in general education, in which this activity is directed with an open view to the search and projection of methods, procedures and innovative means from better educational practices that allow them to ensure the achievement of the proposed objectives.

There are multiple theoretical approaches to the term educational care, which correspond to the intentions of each author in relation to the sector of the population taken as a reference.

López *et al.* (2000) define educational care as:

...set of essential elements that characterize the educational process and that make possible the integral formation of boys and girls, according to the values, aspirations and demands posed for each age that is concretized in certain developmental achievements that children can attain.

For González (2010), educational attention is conceived as a work of developmental stimulation, in which preventive actions occupy a hierarchical place in the whole system of educational influences. (p. 10)

In general, the authors agree in defining educational care as a process of interactive, preventive and developmental stimulating character.

The criterion of Leyva (2018) is shared when he expresses that:

Educational attention to learners with SEN, regardless of the possibility of disability, focuses on attending to individual differences under the principle that all children are formed according to the same laws of development, as bio-psycho-social beings which underpins the assumption of a curriculum for all. (p. 4)

From this perspective, the role of the teacher of the Bachelor's Degree in Primary Education is enhanced when they must ensure that from the teaching-learning process, future teachers learn methods, procedures and new means that allow them to provide quality care to students with physical-motor limitations in their professional performance.

When speaking of the physical-motor limited, it is necessary to know that its conceptualization is a complex matter, which, due to its connotation, involves specialists from the most varied scientific and technical disciplines, including physicians, psychologists, pedagogues, sociologists, architects, among others, so that according to Puentes (2005), from a psycho-pedagogical perspective, it is defined as follows:

Any person who presents in a transitory or permanent way an alteration in their motor performance due to the deficient functioning of the osteomyoarticular and nervous system that limits to a variable degree the performance of some of the activities of their age group, and may or may not present sensory or intellectual aggravations. (p. 4)

From the above mentioned, the teacher should know that the students with this pathology show postural affectations of displacement, coordination, manipulation, sometimes accompanied by deficiencies of oral language, perceptive, among others, that the causes that originate it are varied among which are congenital anomalies, infectious, traumatic disturbances, affections and injuries of the N.C.S. that originate alterations of the nervous system. N.C. that originate alterations in the motor apparatus and that in turn can present a group of psychological particularities derived to a great extent from the family and social management of the disability, assuming the criterion of Navarro (1999) when stating that the most frequent are:

- Limitations in physical independence.
- Poor social experiences.
- Intellectual immaturity.
- Affective deficiencies.
- Language alterations.
- Frequent frustrations.
- Difficulties in sexual relations.
- Poor self-esteem and self-worth.

For these reasons, it is necessary for teachers of the Bachelor's Degree in Primary Education to have an adequate theoretical and methodological preparation to be able to provide an adequate treatment to the educational attention of the physically and motor handicapped, based on the social responsibility of educating in and for diversity with increasingly inclusive practices, and to ensure that future teachers acquire an integral preparation that allows them to teach these students with quality.

The attention to diversity imposes to the school and its personnel the remodeling in the preparation and scientific-methodological and investigative improvement, which makes possible an efficient and optimal educational attention, directed to the formation with quality of its students, which is manifested in the adoption of new procedures, mechanisms, work alternatives; it expresses the essential idea of educating differently to different students, adjusting the demands to the singularity of each one and whose purpose is that everyone can reach the purposes of school education.

Consequently, methodological work becomes an essential way to achieve such purposes if we take into account the criterion enunciated by Martín (2015) when saying that it allows:

To meet the concrete theoretical-methodological demands, with the purpose of raising the professional development of the in-service teachers and, therefore, the quality of the teaching-educational process, focused on the institution itself and its subjects, with tangible results in the improvement of the teaching activity. (p. 7)

For the factual-causal verification, according to the intentionality of the research, a diagnosis was made from the application of methods of the theoretical and empirical level, such as: historical-logical, analysis and synthesis, documentary study, observation, surveys and interviews which, when processing the results, allowed making assessments and arriving at conclusions.

This was made concrete in the study carried out in the Bachelor's Degree in Primary Education at the University of Guantánamo. The population is composed of 30 professors working in the career and among them 9 heads of discipline, 4 main professors of years (PPA) and 1 head of career.

With the objective of carrying out the diagnosis and evaluating the behavior of the preparation of the teachers of the Bachelor's Degree in Primary Education in the treatment of the educational attention to the physically handicapped in conditions of inclusion, an analysis of the documents that regulate the training of this professional was carried out and the application of the different instruments allowed identifying difficulties and potentialities, as well as the possible causes that slow down and the factors that can accelerate the achievement of the objective and consequently, present a scientific way that contributes to the preparation of the aforementioned teacher.

In general, in the normative documents analyzed, especially the programs of disciplines and subjects address contents related to the attention to diversity, educational inclusion and educational attention to the LFM, however, from the methodological work, the projection of methodological activities for the treatment of the educational attention to the LFM in conditions of inclusion is insufficient, which limits the teacher of the career to appropriate theoretical-methodological elements necessary to provide teaching actions during the teaching-learning process.

These results show the need to offer from the scientific-methodological work workshops that promote exchange about Education in and for diversity with increasingly inclusive practices and at the same time prepare them to improve the treatment of the educational attention to the PPM in conditions of inclusion from the teaching-learning process.

The scientific-methodological workshops proposed in this research are aimed at preparing teachers of the Bachelor's Degree in Primary Education in the treatment of the educational attention to the physically motor handicapped in conditions of inclusion from the debate of education to diversity

with increasingly inclusive practices and characteristics of the student with physical-motor limitations. They will be developed in the career collective as the organizational level in charge of improving the quality of the educational teaching process.

They should be conducted by special education teachers as a resource and support center for primary education, municipal methodologists, special school teachers, speech therapists, technicians from the Diagnostic and Guidance Center, among others.

The design will be made together with the specialists in the different topics to be addressed, determining the date, place, objectives, participants, techniques and methodologies to be used according to the particular situation to be worked on. A final evaluation of the workshop should be made at the end of each workshop.

Facilitators, observers and rapporteurs can also participate in the different steps mentioned above.

Fundamental aspects for the realization of the workshops:

- The conduction will be by personnel highly prepared in the subject matter.
- The number of participants should be between 20-25 people or less.
- Work, if possible, always in a circle, without a chair, to favor better communication.
- Participation should be the responsibility of the participants in all aspects of the workshop.
- Whenever possible, work in subgroups to recreate the topics discussed, for later inclusion and analysis in the plenary sessions.

One of the successes of the workshops should be to encourage and enable everyone to express their opinion in one way or another, to give equal value to all opinions and points of view, so that the participating specialists should know the role they will play during the debate. All of the above should result in a favorable reception by the participants.

For the evaluation of the workshops, attendance and participation, work in subgroups and discussions will be taken into account.

The proposed workshops are listed below:

Workshop # 1 Educating in and for diversity. Challenges and perspective in today's education

Objective: To deepen in the characteristics and current needs of Educating in and for the diversity of children, adolescents and young people from its implementation as a pedagogical posture in Cuban education.

Form of organization: Scientific-methodological workshop.

Methods: explanation, conversation

Media: Cards, videos, Social History and printed texts.

Methodological guidelines:

It is suggested to start the meeting with the presentation of the participants of the group in which the presentation technique can be used. "I am like this". Each member will talk about themselves and end by saying why it is like this. The facilitator and the speakers who will work in case it is required will be introduced; a brief characterization of each one will be made.

The facilitator will explain the objectives and bibliography that will be used in the meeting with the objective of deepening and studying the topic, he will continue explaining the need for the workshop based on the incorporation of the focus of Education in and for diversity as the core of the professional model of the career. The members of the group will say what their expectations are, which will be evaluated in the last meeting. The final work is oriented.

Workshop # 2 Educational Inclusion. A challenge for teachers.

Objective: To deepen in the theoretical and legal elements that support educational inclusion.

Form of organization: Scientific-methodological workshop.

Methods: explanation, conversation

Means: Cards, videos, Social History and printed texts.

Methodological guidelines:

It is suggested to start the meeting with the presentation of a video showing children, adolescents and young people in conditions of educational inclusion, which will be the starting point for the introduction of the topic. The facilitator will explain the objectives and bibliography that will be used in the meeting with the objective of deepening and studying the topic, and will continue explaining the need for the workshop based on the incorporation of the topic as an educational policy. The members of the group will say what their expectations are the evaluation will be based on the participation in the workshop.

Workshop # 3: Psychopedagogical characteristics of students with physical-motor limitations.

Pathologies that can generate this disability.

Objective: To characterize learners with physical-motor limitations and the main pathologies that can generate this disability.

Form of organization: Specialized workshop.

Methods: explanation, conversation

Means: Cards, videos, Social History and printed texts.

Methodological guidelines:

It is suggested to start the meeting with the presentation of the participants of the group in which different techniques can be used. The facilitator will introduce themselves and will explain the objective of the workshop, which can be done through different questions such as:

What do you know about physical motor disabilities?

Do they predominate a lot in the territory where you live?

The facilitator will explain the objectives and bibliography that will be used in the meeting in order to deepen the topic. The members of the group will state their expectations, which will be evaluated at the end of the meeting. During the workshop, the main pathologies that can generate physical-motor limitations will be specified.

- Cerebral palsy
- Spina bifida
- Progressive muscular dystrophy of the Duchenne de Boulagne type.
- Wohlfart-Kugelberg-Welander syndrome.
- Congenital dislocation of hips.
- Arthrogryposis multiplex congenita.
- Osteogenesis Imperfecta.
- Osteomyelitis
- Chronic arthritis in infancy
- Agenesis or incomplete development

Evaluation will be by participation in the workshop.

Workshop # 4. Sensitization to the view of schoolchildren with physical and motor limitations.

Objective: To generate a climate of trust and cooperation between managers and teachers that will allow the sensitization for the educational attention to these students.

Form of organization: Specialized workshop.

Methods: Explanation, conversation

Means: Cards, videos, Social History and printed texts.

Methodological guidelines:

It is suggested for the development of the workshop to approach the following Themes:

- Potentialities and educational needs.
- The zone of proximal development.

- Educational guidance as a process and as a professional function of the teacher.

The facilitator will announce the objectives and bibliography that will be used in the meeting with the objective of deepening and studying the thematic, will explain the necessity of the workshop to give treatment from the teaching-learning process. The members of the group will say what their expectations are. The evaluation will be based on the participation in the workshop.

Workshop # 5. Educational attention in the teaching-learning process.

Objective: To reflect on the importance of educational attention in the teaching-learning process in Primary Education.

Form of organization: Specialized workshop.

Methods: Explanation, conversation

Media: Cards, videos, Social History and printed texts.

Methodological guidelines:

It is suggested for the development of the workshop to address the following Themes:

- Educational attention in the teaching-learning process from an inclusive point of view.
- The orientation and didactic conception of the developmental teaching-learning process.
- Principles for educational attention in the teaching-learning process.

The facilitator will announce the objectives and bibliography that will be used in the meeting with the objective of deepening and studying the topic, explaining the need of the workshop to give treatment from the teaching-learning process. The members of the group will say what their expectations are. The evaluation will be based on the participation in the workshop.

Workshop # 6. Methods and techniques for the development of educational attention to students with physical-motor limitations.

Objective. To reflect on the methods and techniques of educational attention that can be used in the development of the teaching-learning process to favor the learning of students with physical-motor limitations.

Form of organization: Specialized workshop.

Methods: explanation, conversation

Media: Cards, videos, Social History and printed texts.

Methodological guidelines:

It is suggested for the development of the workshop to address the following Themes:

- Types of methods and techniques of educational attention.

- Requirements for the selection of the methods and techniques of attention to be used.
- Requirements for the use of the methods according to the objectives and contents.

The facilitator will make known the objectives and bibliography to be used in the meeting with the objective of deepening and studying the topic, explaining the need of the workshop to give treatment from the teaching-learning process. The members of the group will say what their expectations are. The evaluation will be based on the participation in the workshop.

Each one of the workshops treated aim at the preparation and sensitization of the teachers to improve the quality in the treatment to the educational attention of the limited physical motor in conditions of inclusion, however many can be the topics to be treated to contribute to the preparation of the same ones, but it is necessary to take into account feelings, needs, motivations and interest of the teachers.

In order to assess the feasibility of the contributions of the research, the method of experts' criteria was applied, based on the methodology developed by Valledor (2005), taking into account three fundamental phases: statement of the objective, selection of the experts and execution of the methodology and qualitative analysis of the results of the evaluation of the aspects of the guide.

The tabulation of the main regularities arising from the criteria, opinions, suggestions, ideas and recommendations made by the experts, made it possible to determine as the main result a unanimous consensus on the validity and relevance of the actions proposed as an instrumental tool for its practical implementation.

In general terms, the experts agreed on the following criteria:

- The proposed actions, given their instructive character, become tools for the preparation of the teacher of the Bachelor's Degree in Primary Education in the treatment of the educational attention to the physically motor limited in conditions of inclusion.
- The proposed actions can be adapted to other educations, taking into account their particularities.

The evaluations made by the 20 selected experts, evidenced the need and possibility of using the workshops as a source of preparation for teachers and directors of the Bachelor's Degree in Primary Education in the treatment of the educational attention to the physically and motor handicapped in conditions of inclusion and with this, to raise the quality of the educational teaching process.

For the practical implementation of the actions, a case study was carried out, which includes action-research procedures; this method became a tool to check the pertinence of the actions. An intrinsic,

descriptive and critical case study was developed in order to obtain information that broadens the knowledge and sensitivity of the teachers of the Bachelor's Degree in Primary Education in the treatment of the educational attention to the physically and motor handicapped in conditions of inclusion.

The case study was structured as follows: preactive phase: preparation of the actors, active phase: execution and postactive phase: evaluation and interpretation of the results.

The preparation phase was structured in order to create the indispensable conditions for the application of the actions and to sensitize the teachers of the Bachelor's Degree in Primary Education in the treatment of the educational attention to the physically and motor handicapped in conditions of inclusion from the implementation in the professional's model of the Education in and for diversity approach with increasingly inclusive practices, as well as to establish a level of commitment for the implementation from the teaching-learning process.

In the execution phase, actions were implemented through workshops with the participation of teachers, specialists and directors.

The phase of evaluation and interpretation of the results made it possible to assess the impact of the actions implemented. The impact is expressed in the achievements from the effect produced by the actions for the fulfillment of the proposed objective. This is evidenced in that the results obtained in the preparation process of the teachers of the Bachelor's Degree in Primary Education led to the sensitization and awareness of the teachers in treatment to the educational attention to the physically and motor handicapped in conditions of inclusion whose concreteness is manifested in:

- Teachers achieved greater cognitive mastery in terms of Education in and for diversity with increasingly inclusive practices.
- Teachers' mastery of the techniques and methods that allow them to develop the treatment of the educational care of the physically and motor handicapped in the teaching-learning process has increased.
- Greater development of professional skills in students achieving their integration during the development of pre-professional practice in community and social impact tasks as part of the educational attention to the limited physical-motor handicapped who are studying in conditions of inclusion.

Conclusions

Considering the above, it can be concluded that the proposed actions raised awareness among elementary school teachers and favored the affective, cognitive and procedural treatment to provide better educational attention to students with physical-motor disabilities who are studying under conditions of inclusion, benefiting the quality of the teaching-learning process. The theoretical and practical relevance was demonstrated in the consensus of the experts who expressed their favorable criteria about the actions and results obtained.

Bibliographic references

- González, A. O. (2010). *Sistema de acciones a partir de un modelo para la prevención de alteraciones emocionales y de la conducta en escolares con retardo en el desarrollo psíquica*. (Tesis en opción al grado científico de Doctor en Ciencias Pedagógicas). La Habana.
- Leyva, M. (2018). *Precisiones dirigidas a la atención de educandos con necesidades educativas especiales asociadas, o no, a discapacidad Primera Infancia*. Pueblo y Educación.
- López, J., Miranda, O. L., Cobas, M., Valera, O., Chávez, J. (2000). *Fundamentos de la Educación*. Pueblo y Educación.
- Navarro, S. M. (1999). *Modalidades de atención educativa a los escolares con limitaciones físico-motoras en Cuba*. Conferencia latinoamericana de Educación Especial.
- Martín, D. R. (2015). *La formación docente universitaria en Cuba: Sus fundamentos desde una perspectiva desarrolladora del aprendizaje y la enseñanza*.
- Puentes, T. (2005). *Educación de los alumnos con limitaciones físico-motoras*. Pueblo y Educación.