Volume 19 | 2024

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Original article

System of actions to improve the evaluation rating scale in inclusive Physical Education

Sistema de acciones para perfeccionar la escala valorativa de la evaluación, en la Educación Física inclusiva

Sistema de ações para melhoria da escala de classificação, da avaliação, na Educação Física Inclusiva



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Received: 02/04/2024 Approved: 13/05/2024

ABSTRACT

The training processes, complex due to their very social nature, start from the contexts in which they develop and the psycho-pedagogical, sociological, cultural and physiological characteristics of those who intervene as personal components. The Ecuadorian educational field, aware of the above, has demonstrated in recent years the development of strategies aimed at meeting basic inclusion standards, recognized by international organizations and materialized in pedagogical and curricular actions at all educational levels. The proposed







research was aimed at perfecting the evaluation scale for the inclusion, in the Physical Education subject, of students with special educational needs associated with a disability, in Ecuador. Analysis-synthesis and modeling methods were used; in addition, documentary analysis and a survey of teachers in the area to delve into the phenomenological characteristics of the research object. Descriptive statistics facilitated the processing of information and the determination of regularities, which supported the proposal of the system of actions, for the improvement of the inclusive evaluation scale for Physical Education.

Keywords: evaluation, Physical Education, special educational needs, training process.

RESUMEN

Los procesos formativos, complejos por su propia naturaleza social, parten de los contextos en que se desarrollan y de las características psicopedagógicas, sociológicas, culturales y fisiológicas de los que intervienen como componentes personales. El ámbito educativo ecuatoriano, consciente de lo anterior, evidenció en los últimos años el desarrollo de estrategias encaminadas a cumplir estándares básicos de inclusión, reconocidos por organismos internacionales y materializados en acciones pedagógicas y curriculares en todos los niveles formativos. La investigación propuesta estuvo dirigida a perfeccionar la escala evaluativa para la inclusión, en la asignatura Educación física, de los estudiantes con necesidades educativas especiales asociados a una discapacidad, en Ecuador. Se utilizaron los métodos de análisis-síntesis y modelación; además, el análisis documental y una encuesta a docentes del área para profundizar en las características fenomenológicas del objeto de investigación. La estadística descriptiva facilitó el procesamiento de la información y la determinación de regularidades, lo que sustentó la propuesta del sistema de acciones, para el perfeccionamiento de la escala evaluativa inclusiva para la Educación Física.

Palabras clave: evaluación, Educación Física, necesidades educativas especiales, proceso formativo.







RESUMO

Os processos de formação, complexos pela sua natureza muito social, partem dos contextos em que se desenvolvem e das características psicopedagógicas, sociológicas, culturais e fisiológicas de quem intervém como componentes pessoais do processo. O contexto educacional equatoriano, consciente do exposto, tem evidenciado, nos últimos anos, o desenvolvimento de estratégias que visam atender aos padrões básicos de inclusão reconhecidos pelos organismos internacionais e materializados em ações pedagógicas e curriculares em todos os níveis educacionais. A pesquisa proposta teve como objetivo aperfeiçoar a escala de avaliação para a inclusão, na disciplina de Educação Física, de alunos com necessidades educacionais especiais associadas à deficiência, a partir de uma visão holística, no contexto equatoriano. Métodos de análise-síntese e modelagem foram utilizados para o estudo teórico prático do processo avaliativo em Educação Física. Além disso, a análise documental e um levantamento de professores da área, para a análise das características fenomenológicas do objeto de pesquisa, que subsidiaram a proposta do sistema de ações para o aprimoramento da escala de avaliação inclusiva para a Educação Física.

Palavras-chave: avaliação, necessidades educacionais especiais, educação física, processo formativo.

INTRODUCTION

Classical Greece provides for the first time in history an individual, social, moral and health vision of the practice of sport. The contemporary era, with Locke (1632-1704), Rousseau (1712-1778) and "(...) the great European gymnastic movements" (Domínguez Montes y Torrebadella-Flix, 2018, p. 137) recognizes the studies of Physical Education (PE) as a discipline with a scientific-humanistic character, and as a component essential in training development. The 70s and 80s assumed the vision of a PE as a transmitter of culture, with







an inclusive nature and the integration of special educational needs into the ordinary training process (Unir, 2022) based on quality and inclusion indicators.

In this sense, international and regional organizations and documents such as the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Charter of Physical Education, Physical Activity and Sport, and the Intergovernmental Committee for Physical Education and Sports (CIGEPS), recognize that quality PE:

(...) enhances intellectual, individual and emotional capital, which translates into an acceleration of the acquisition of socio-emotional skills that increase students' self-esteem and, in turn, build the psychosocial resilience necessary to respond creatively and effectively to future crises, whether they are related to health, employment and/or inclusion. (Unesco, 2021, p. 6)

For this reason, the ministries and organizations responsible for education and sports in the Ibero-American region implement new policies, in order to reduce the existing gaps between disability and physical activity; for which they carry out actions that shape new trends, in favor of an inclusive and quality PE determined by:

- Methodological strategies of a psychosocial, cognitive and communicative nature (Alfonso, Helder, 2021).
- Study of physical condition in children and young people with disabilities (Palacio et al., 2023).

The above shows the importance of an inclusive PE that allows the development of social skills, the increase in citizen motivation, the capacity to assume age-appropriate roles and the increase in active social participation; in a natural environment of permanent interaction between parents, teachers and socio-educational institutions.

In this way, inclusion entails relevant teacher training with mastery of methodological tools that facilitate adaptations in the training context and "(...) curricular flexibility focused on the characteristics of the student, diversity of learning experiences, dissemination of values,







control of the student's progress and attention to the diversity of physical-motor abilities, needs and potentialities (Palacio et al., 2023, p. 117).

The Ecuadorian Magna Carta of 2008 endorses institutional actions within the framework of special educational needs. In this sense, the work guide: Curricular adaptations for special and inclusive education and the Instructions for psycho-pedagogical evaluation (MINEDUC, 2021) constitute current tools that provide PE with scientific value, with a hygienic and recreational vision (Scharagrodsky y Andrade, 2021).

In synergy with the above, it is recognized that special educational needs (SEN) imply the specific demands that certain students face when accessing the curriculum and participating fully in learning activities. These demands may arise due to physical, sensory, cognitive, emotional, social disabilities, and environmental or social influences (Anchundia et al., 2024, p. 5246).

The progress in educational inclusion in Ecuador is undeniable; however, the erroneous management of special educational processes, motivated by inaccuracies in the actions and activities focused on disabilities, the lack of scientific didactic knowledge of those responsible and the material limitations prevent an adequate perspective, according to the needs of the learning subject and his/her necessary impact on the evaluation system.

The above demonstrates that difficulties and traditional visions persist that affect the full development of the aptitudes and capacities of students with SEN, in the PE subject, manifested in:

- Exclusion of students with functional diversity due to the lack of adaptations and inclusive evaluations, which limits their participation and development.
- Inequalities in evaluation, based on inappropriate evaluation criteria.
- Lack of adapted assessment approaches that are adequate to accurately measure the skills and competencies of students with functional diversity, in the field of PE.

Based on the above, the objective was set to perfect the evaluation scale for the inclusion, in the PE subject, of students with SEN associated with a disability, in Ecuador.







MATERIALS AND METHODS

The general methodology used allowed to visualize the complex and comprehensive nature of the evaluation process of the PE subject and the need for training based on the experiences, motivations and social interactions of the students. The methods used were:

Analysis-synthesis: it was used to understand the evaluation process of the PE subject, in the context of the SEN associated with disability, as well as its components, relationships and regularities. In turn, it allowed the adequate assessment of the empirical results obtained.

Modeling: it facilitated the necessary abstractions about the investigated object, based on the determination of the system of actions in order to improve the assessment scale in PE, in the context of the SEN associated with disability, for students of Basic General Education (EGB in Spanish) and the Unified General Baccalaureate (BGU in Spanish).

Document analysis: it included the program and official instructions related to the object of research. It was used to obtain authentic and reliable information for the research:

- Work guide: curricular adaptations for special and inclusive education. This
 document is presented as a tool to guide teachers in the effective care of students
 with SEN, so that they become agents of change and promoters of spaces free of
 discrimination, where individual differences are respected, not conceived as
 inequalities, but as opportunities to improve teaching practice.
- Instructions for psychopedagogical evaluation: aimed at ensuring the quality of educational care, in the population with SEN, whether or not associated with disability and/or in a vulnerable situation, for the development of their potential, skills and social integration. It establishes the technical and methodological steps to carry out the application of the evaluation.







The indicators and scale used for its assessment were:

- 1. Identification of assessment scales in reference to the evaluation of students with SEN associated with disability, in PE.
- 2. Identification of actions aimed at inclusion and motivational attention, from the evaluation, to students with SEN associated with disability, in PE.
- 3. Identification of types of disabilities and their physical and psychological manifestations.
- 4. Identification of actions that allow developing, through evaluation, the potential and experiences of students with SEN associated with disability, in PE.

Scale: __evident __moderately evident __not evident

For the evaluation of the indicators of the documentary analysis, the categories Good (if clearly evident), Fair (fairly evident) and Poor (not evident) were considered, in relation to the aspects to be reviewed.

Survey: it was applied to teachers in the PE area of educational institutions in Ecuador, who are pursuing a master's degree in Physical Culture Pedagogy, Major in Inclusive Physical Education. Its purpose was to analyze the manifestations and perceptions of the evaluation process in the EGB and the BGU, in relation to:

- Coherence between the contents and the evaluation scales.
- Satisfaction regarding the consideration of SEN associated with disability in the evaluation scales.
- Identified activities and their adaptation, through the evaluation scales, with the SEN, associated with the disability.







The survey was carried out on all teachers (30), who are pursuing a master's degree and teaching the subject in several Ecuadorian provinces. To process the information, descriptive statistical techniques were used that allowed interpreting, summarizing and presenting the information.

Indicators:

- 1. Adequate evaluation scale in the subject of PE.
- 2. The evaluation scales, in relation to the content of the classes, in students with SEN, associated with the disability.
- 3. Actions that develop motivation in students with SEN, associated with disability.
- 4. Actions that, from the content and the identification of disabilities, develop the potential of students.

Scale: _agree _slightly agree _disagree

To evaluate the survey indicators, the categories of Adequate, Moderately Adequate and Inadequate were used. Appropriate when the indicator is displayed between 60 and 100% (matches the response of agree); moderately adequate between 40 and 59% (corresponding to slightly agree) and inadequate between 0 and 39% (disagree) of the possible responses.

RESULTS AND DISCUSSION

The results obtained were taken into consideration, based on the different instruments and methods used and the bibliographic analysis carried out, shortcomings and methodological needs were evident in the evaluation process of students with SEN associated with disability. In this sense, the main results were:







Document analysis. The results and their manifestations, based on considering the indicators and their values, behaved as shown in Table 1:

Table 1. Results of the documentary analysis

INDICATOR	IT IS EVIDENT	RESULTS (+ -) EVIDENT	NO EVIDENCE	CATEGORY
1			I - II	Poor
2	I	II		Fair
3	I - II			Good
4			I – II	Poor

- (I) = Work guide: curricular adaptations for special and inclusive education.
- (II) = Instructions for psychopedagogical evaluation.

The documentary analysis carried out demonstrated:

- The official instructions regarding the evaluation system only establish generic general indications, without going into depth into issues related to the evaluation scales and the ways to fulfill the contents and skills, in students with SEN.
- Concepts and procedures for curricular adaptations, the nature of disabilities and formal documents for records of students with SEN were generally recognized and explained, but no proposals for activities and evaluation focused on the PE subject were identified.
- The procedure for the psycho-pedagogical evaluation process was identified, but its
 usefulness is limited by not considering methodological tools to implement in the
 different subjects, once the psycho-pedagogical report has been completed.

In this way, the indicated shortcomings limit the possibility of an adequate evaluation process and its corresponding evaluation scale, for students with SEN associated with disability, in the PE subject.







Survey: Table 2 summarizes the main results of the survey carried out on teachers of the PE subject, from educational institutions in Ecuador, who are pursuing a master's degree in Physical Culture Pedagogy, Major in Inclusive Physical Education.

Table 2. Teacher survey results

	RESULTS							
INDICATOR	Agree	%	Little agree	%	In disagreement	%		
1	0	0	13	43	17	57		
2	3	10	5	16.6	22	73		
3	5	16.6	12	40	13	42		
4	1	3	11	36.6	18	60		

The applied instrument showed that:

- 57% of teachers recognized that there are difficulties in interpreting official evaluation scales in the educational contexts where they teach.
- Derived from the above, 73% of those surveyed identified the official evaluation scales as inadequate to evaluate the progress of students with various SEN linked to disability.
- 42% indicated little flexibility in the evaluation scales for students with SEN, in the area of PE.
- 60% recognized the negative impact of official evaluation scales on the motivation of students with SEN, in the field of PE.

As a result of the diagnostic analysis, regularities were identified in the process of PE evaluation practices in the EGB and the BGU, for students with SEN:

- There is no clarity in the cognitive, affective and evaluative aspects to be considered
 in the official evaluation scales, which causes a biased and non-comprehensive
 analysis of the evaluation process for students with SEN.
- The process of evaluative practices in PE appears decontextualized and does not consider the sociocultural context of educational centers, which leads to the







denaturalization and non-consideration of particular aspects of students with SEN, such as: motivation, psychophysical pathology and potential for the learners.

• Lack of a system of actions in the evaluation process with a scientific, methodological and inclusive foundation and based on a comprehensive vision from the cognitive, affective and volitional, which favors an adequate evaluative scale of learning.

System of actions to improve the rating scale for evaluation

Various authors recognize the teaching-learning process of PE as the abstract representation of the categorical system that guides the student's performance to solve a task or sports situation in a satisfactory and systemic way (Llamas et al., 2023).

For their part, several authors recognize that special and inclusive PE is characterized by the development of pedagogical and didactic processes under a holistic and integrative perspective, in the conception of a unique curriculum that eliminates barriers and that promotes the integration of people with SEN, which transcends corporeality and allows the development of all the axiological components of children and young people in educational institutions (Romero et al., 2023, p. 133).

The various contextual influences with which the student interacts must then be considered in the student's performance, which makes the development of this process complex. It is influenced by various external and internal factors, which are present in the socioeducational context in which it operates.

The diversity of situations to which students with SEN associated with the disability are exposed can have positive and negative influences on the development of the PE evaluation process, which is why it is necessary to encourage their personal resources to mobilize their potential and overcome limitations in pursuit of cognitive and personal improvement.

In this sense, it is vitally important to install teaching practices focused on the characteristics, interests and learning needs of each of the students, with support from teachers with a degree of experience in diagnosing and planning classes with students with disabilities (Torres et al., 2023, p. 967).







Therefore, the achievement of the objectives of the educational process of boys and girls with SEN depends on the interrelationships between specialists, students, their classmates, as well as family members, this is largely related to the professional preparation of specialist teachers (Bennasar et al., 2023, p. 142).

In this way, the system of actions, in the context of the NEE, assumes the above and is recognized as a means of inclusion and respect for diversity, which turns the training process into a path with marked recreational, participatory content and with materials and innovative resources that are integrated into the areas of interest of the students (Barranca et al., 2023).

In correspondence with the analysis carried out, the system of actions to improve the assessment scale in the evaluation of PE, in students with SEN associated with the disability, is structured in the different curricular blocks of the subject and its activities; therefore, the system of actions is presented, linked to each curricular block and its contents:

Curricular block: recreational practices. National and regional cultural identity. Traditional Ecuadorian and Latin American games.

Contents:

- a) Visualization of games and stories, through technological tools.
- **b)** Development of physical activities, through representations and characterization of characters.
- c) Characterization and evaluation of characters (positive and negative).

Body movements related to feelings and moods.

Actions:

 Diagnostic evaluation and determination of learning potential, related to the curricular block.







- Initial characterization in which it is necessary to consider the disability, the individualized diagnosis of the student and the degree of curricular adaptation.
- Consider in the established activities a precise, measurable objective, adequate explanation and delimitation of the temporal and spatial space of the activity.

Curricular block: gymnastics practices. Harmonious and integral movement of the body.

Contents:

- a) Movements of body parts
- b) Circular and rotary movements of the extremities
- c) Translation body movement with obstacles
- d) Team racing
- e) Jumping and moving games

Actions:

- Adequate integration between the skills to be developed, the diagnostic evaluation,
 the students' own potential and the activities planned by the teachers, related to
 cognitive, motor and sensory muscle development and joint mobility, motor
 strength and levels of independence in each action.
- Definition of the activities that will be part of the planning and their evaluative actions, taking into account the individual characteristics of the student and the identified curricular adaptation.

Curricular block: expressive-communicative body practices. Expression and communication through the body.







Contents:

a) Dances, pantomimes, theatrical scenes, with body movements feelings, moods and communication between the participants are expressed.

Actions:

- Diagnostic evaluation linked to the curricular block, which allows measuring the student's periodic progress in the identified skills, as a result of the degree of curricular adaptation.
- Consider appropriate resources associated with student activities and needs.
- Adequate orientation of the evaluation and material conditions, real times for answers and actions, clarity and objectivity in the questions, use of support materials, among others.

Curricular block: sports practices. Technique and tactics of sports.

Contents:

a) Development of actions of different degrees of complexity linked to the technical-tactical strategies of different sports.

Actions:

- Adapt the evaluation system to the SEN associated with the disability, which entails
 considering activities with increasing degrees of complexity and degree of physical,
 psychological and socialization progress.
- Cognitive-contextual familiarization, based on the emotional relationships of the group, the sports techniques that are part of the curriculum and the skills to be evaluated.
- Identify technological tools (cell phones, tablets, smart boards), sports equipment
 and devices necessary for students with disabilities (wheelchairs, canes, crutches,
 walkers, among others).







Curricular blocks: construction of body identity and relationship between body practices and health.

Contents:

- a) Group activities for self-recognition of potentialities and integration (swimming, martial arts, functional training)
- b) Role plays
- c) Collective sports games
- d) physical and sports activities and their relationship with adequate hygiene
- e) Mental and physical health

Actions:

- Assume, from the contents identified in the subject, evaluative actions of a flexible nature, centered on the student and aimed at their full realization as a human being.
- Identify evaluative activities that encourage collaborative and group work.
- Promote, through evaluation, responsibility in bodily self-care.

The regularities in the instruments applied show the need for a system of actions to improve the evaluation scale, for the PE of students with SEN associated with disability, which promotes an inclusive evaluation process and development of potentialities.

In this way, the identification of the actions proposed by curricular blocks and integrated into the contents favors dialogue, information to the student about their deficiencies and the opportunity for the teacher to observe and adjust the evaluation progressively, taking into account the context and the capacities of the students (Castillo et al., 2024, p. 612).

The above implies, from the integration of the activity, communication and motivation categories, assuming the system of actions, to improve the evaluation scale in students with







SEN associated with disability, as a guide of the evaluation process; which makes it easier to understand students' learning and their interaction with their environment, as dynamic axes of individual and social development (López, Ramírez, 2024) in their various ways of apprehending reality to understand it.

The system of actions designed for the evaluation process favors, from the diagnostic characterization, motivation, creativity, independence and integration of all students in the group, the achievement of school-level performance criteria and behavioral change; which contributes to the development of its maximum potential and therefore, to a positive social contribution (Albornoz et al., 2024, p. 219).

The system of actions to improve the evaluation scale in the evaluation of the PE subject proposes a three-dimensional integration by relating culture, policies and inclusive practices, marked by respect for diversity, the particularization of teaching methods, appropriate institutional management and the promotion of inclusive and meaningful knowledge (Flores, 2024, p. 29).

What has been expressed resizes, from an objective perspective, the potential of students in their relationships between peers, with teachers and with school staff; because to the extent that the student knows more about the content and knows himself better, he has more possibilities of making his performance flexible and independent, projective and having an impact on his training.

CONCLUSIONS

The evolutionary and trend analysis carried out allowed to establish the importance and novelty of the object investigated and the shortcomings in the Ecuadorian context.

The system of actions was proposed from a vision that considers the student's training background, but also those SEN that may respond to special characteristics of the learner, which contributes to an inclusive and significant training process.







The foundation and integration from the curricular blocks and current scientific trends, energized by the contents and declared actions, develop in a logical and comprehensive way, the activities, achievements and evaluation of the contents recognized in the Ecuadorian curriculum for PE, in pursuit an inclusion that enhances inclusive educational relationships.

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Conflict of interest statement:

The author declares that there are no conflicts of interest.

Author's contribution:

The author is responsible for writing the work and analyzing the documents.



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