**Individualized Education Plan Applied to Physical Education: Validation of Inventory in Portuguese Version**

**Plano de Ensino Individualizado Aplicado à Educação Física: Validação de Inventário na Versão em Português**

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**RESUMO:** A partir de demandas específicas dos países de origem, o inventário denominado “Plano de Ensino Individualizado aplicado à Educação Física” (PEI-EF) foi elaborado em sistema de colaboração internacional por professores pesquisadores das Américas do Norte e do Sul. As versões em inglês, espanhol e português estão sendo validadas simultaneamente. Este ensaio tem como objetivo validar a versão em português do Plano de Ensino Individualizado especificamente concebido para o contexto da Educação Física Escolar (PEI-EF), visando direcionar o planejamento das ações nesse âmbito. Trata-se de um estudo exploratório envolvendo validação de conteúdo do PEI-EF. A carta-convite e os respectivos critérios de validação do instrumento foram encaminhados a 10 juízes brasileiros. No presente artigo será apresentada a versão validada em Português do PEI-EF, bem como os respectivos ajustes decorrentes das análises dos juízes.  

**PALAVRAS-CHAVE:** Educação Física, Plano de Ensino Individualizado, Inclusão, Deficiência.

**ABSTRACT:** From specific needs of the countries of origin, an inventory called “Individualized Education Plan applied to Physical Education” (IEP-PE) was developed through international collaboration by faculty researchers from North and South America. Versions in English, Spanish and Portuguese are being simultaneously validated. This essay aims to validate the Portuguese version of the Individualized Education Plan (IEP-PE) specifically designed for the area of physical education, in order to direct the planning of actions in this context. This is an exploratory study involving content validation of the IEP-PE. The invitation letter and the criteria for their validation of the instrument were sent to 10 Brazilian judges. Validated Portuguese version of IEP-PE, as well as the adjustments arising from the analysis of the judges, will be presented in this article.  

**KEY-WORDS:** Physical Education, Individualized Education Plan, Inclusion, Disabilities.

**INTRODUCTION**

Unlike what often happens in the United States, Brazilian schools do not have the systematization of information included in the Individualized Education Plan (IEP), related to meeting the special needs of students with disabilities.

In Brazil, studies report frequent complaints by physical education teachers about the lack of information and lack of knowledge regarding the characteristics and special needs of students with disabilities (Fiorini & Manzini, 2012; Rossi & Munster, 2013). Within the school, there are also no indications or references on how to tailor the planning of teaching and learning to the needs and possibilities of students with disabilities in the context of physical education.

In the United States, studies show less involvement of physical education teachers in the process of construction of the IEP and low effectiveness of the information available in this document for planning specific actions towards this curricular component (Kowalski, Lieberman, & Dagget, 2006; Kowalski et al., 2005). Block (2007) and Lieberman & Houston-Wilson (2009) advocate towards the participation of Physical Education teachers in the process of formulation and updating the IEP of their students with disabilities.

Therefore, this proposal is intended to formulate an inventory applied to the Physical Education field, which may assist teachers in understanding the diagnosis of students with disabilities. In addition, this inventory will be used to provide elements to direct the planning of actions in this context. The inventory called
“Individualized Education Plan applied to Physical Education” (IEP-PE) was developed through international collaboration by faculty researchers from North and South America. Versions in English, Spanish and Portuguese are being simultaneously validated.

This essay aims to validate the Portuguese version of the Individualized Education Plan specifically designed for the area of physical education (IEP-PE), in order to direct the planning of actions in this context.

This is an exploratory study involving content validation of the IEP-PE. The invitation letter and the criteria for the validation of the instrument were sent to 10 Brazilian judges. As inclusion criteria, judges should have: a major in Physical Education; a master's or doctoral degree in Adapted Physical Education or Special Education; and experience in inclusion of students with disabilities.

The Portuguese version of the IEP-PE will be presented in this article, as well as the adjustments arising from the analysis of the judges. It is recommended that this document be filled out by specialized professional in Adapted Physical Education, with the participation of the Physical Education teacher, other professionals on the child’s education team, parent, and as always as possible, the student with disabilities.

**INDIVIDUALIZED EDUCATION PLAN**

The Individualized Education Plan is an official document prepared by a group of professionals to establish a guide or plan of action for teachers and specialists who serve students with disabilities in their educational process (Kowalski et al., 2005).

In the United States, there are several laws and decrees establishing the obligation of this document, which accompanies the student during the school path and transition periods. According to the Individuals with Disabilities Education Act (IDEA, 2004), all children with disabilities eligible for special education services must have an IEP (Martin et al., 2006).

Because Section 504 of the Rehabilitation Act has a less stringent definition of a “qualified individual with a disability,” students not eligible through IDEA are still able to qualify for adapted physical education services and accommodations (Winnick, 2011).

In Brazil, although there is no legal determination providing the obligation of a similar document, it is possible to recognize the need and importance of an IEP to the educational process of students with disabilities, suggesting its implementation in school dynamics.

As a road map to special education services, the IEP is essential in planning appropriate instruction for students with disabilities and should guide the integration of general and special education curriculum (Diliberto & Brewer, 2012).

**CONSTITUENT ELEMENTS OF THE IEP-PE**

North America’s federal and state codes identify specific components that guide the development of an IEP including present level of performance, annual goals, short-term instructional objectives, placement, and evaluation procedures among others (Kowalski et al., 2005).

Professors and researchers from North and South America, established some parameters and constituents to the IEP-PE in common to the original document after reflecting on the needs from different educational experiences. However, the process of translation into English, Spanish and Portuguese languages, as well as the procedure of content validation by judges from different cultures may involve adjustments and terminological differences in content between each version. In addition, due to the alleged specificity of the instrument to the context of Physical Education, characteristic topics involving the peculiarities and particularities of this curricular component were included.

The first part of the instrument includes personal data and information related to the condition of the student. The following components are addressed: type, level and time of disability; description of information related to cognitive, social and motor aspects of the individual; communication and transportation needs and auxiliary resources to support the student; indication of previous experience, areas of interest and special care for the practice of physical education.

The second part of the instrument addresses the evaluation of the student, where resources and information obtained from formal and informal assessment instruments must be registered. Also addressed are levels of support needed to carry out tasks to assist in determining student’s level of performance.

A present level of performance (PLP) is a statement of the student’s current level of educational performance, including a clear description of the student’s areas of strengths and weaknesses. The description of weaknesses should indicate the student’s individual needs, helping to determine appropriate objectives and goals. It is important to describe the task and the kind of support necessary for the student to perform it based on proposed standards (Kowalski et al., 2005).

The third and final part of the instrument refers to the Program of Physical Education. Because students may be identified as having a unique need in one curricular area and not in another, present level of performance, goals and objectives, and placement decisions must be made separately and independently (Sherrill, 2004).

In a conventional IEP, specific information to the area of Physical Education does not have a particular field for registration. Usually the physical education teacher uses observations that refer to the description of the student’s motor development, or even find tips on how to generalize into other components of IEP. The proposed inventory is intended to overcome such difficulty with a particular topic, aiming to help the physical education teacher to understand student needs, set goals and propose curricular adjustments and methodological changes designed specifically for physical education classes.

Annual goals are long-range statements that specify areas in need of improvement as identified by the PLP. As with personal goal setting, annual goals help the teacher to prioritize the most important areas to work on, allowing the student’s program to be more readily achieved, based on National or State standards. Annual goal statements are applied to the individual student’s needs and abilities through short-term instructional objectives (Kowalski et al., 2005).

Whereas annual goals are broad in nature, short-term instructional objectives (STOs) are more specific and are used to achieve annual goals. Short-term instructional objectives are the measurable intermediate steps between the PLP (current ability level) and the annual goals (targeted areas to improve) that are established. In order to make annual goals achievable, they must be broken down
into specific, measurable objectives (Sherrill, 2004). Because STOs are observable and measurable, they can be an effective tool in determining whether progress is being made towards achieving an annual goal. Short-term instructional objectives not only provide the tangible link between the identified goal areas and the PLP, they also help provide focus for daily instruction and activity selection (Kowalski et al., 2005).

After determining the student’s level of performance and establishing goals and short-term objectives, there is a section where proposed modifications in the physical education program are identified. These involve the recommendation of preferred learning styles of the student, a description of teaching strategies, modifications in materials and equipment, amendments in the physical environment of the classroom, adaptations in the rules of the games and activities, as well as in the evaluation of students with disabilities.

Finally, based on the description of these elements, there is a section used to indicate and justify the need for possible auxiliary professional resources to assist in the inclusion of students with disabilities in the context of physical education. Among these professionals are included: Adapted Physical Education teacher who may act as consultant, co-teach, provide direct support to the student during classes or pre-teaching; Physical Education assistant teacher to act in situations of co-education; aides or paraeducators, as are called the professionals who assist students with disabilities in the United States; peer-tutors; or other professionals, such as sign language interpreter or orientation and mobility instructor, according to the need of the student.

<table>
<thead>
<tr>
<th>Collaborator</th>
<th>Area</th>
<th>IEP involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>General education teacher</td>
<td>Curriculum</td>
<td>At least one team member must be knowledgeable about general and special education curriculum. It is critical to have someone in attendance that is familiar with grade level curriculum standards are addressed in the IEP (Diliberto &amp; Brewer, 2012). Once the Physical Education teacher belongs to school staff, is considered a direct service provider (not related), and should give input about the physical education domain for their students with disabilities, contribute to the writing of goals and objectives, and serve as an active member of the IEP team (Kowalski et al., 2005; Lieberman &amp; Houston-Wilson, 2009).</td>
</tr>
<tr>
<td>Related service personnel</td>
<td>Interpretation of assessment data</td>
<td>These staff members often work with assessments that use standard scores; some teachers and parents typically do not. Standard scores alone do not help with understanding instructional implications. Reporting standard scores can be irrelevant if the scores are not accompanied by an explanation of how they relate to a student's strengths and areas of focus (Diliberto &amp; Brewer, 2012). Related service personnel are not just consultants, and should be involved during the whole process. It may include specialists such as: psychologists, speech language pathologists, physical therapists, occupational therapists, vision therapist, orientation and mobility specialist, etc.</td>
</tr>
<tr>
<td>Principal or representative/school administrator</td>
<td>Laws and regulations</td>
<td>The IEP team requires including someone who is knowledgeable and can commit resources from the school or district. Without knowledge of the law, the team members have unanswered questions as to how to proceed or what can be included in the student's plan. According to federal law, at least one team member must have the ability to interpret the instructional implications of any assessments (Diliberto &amp; Brewer, 2012).</td>
</tr>
<tr>
<td>Family</td>
<td>Student background</td>
<td>No one knows the student better than the family. Sharing family knowledge is crucial in developing the IEP; the family may be able to provide background and detail on the student's strengths and challenges, or discuss successful and unsuccessful strategies that have already been tried. It's also important to establish the family's level of knowledge about the process. Many families, especially early in a child's education, are not trained in special education and may need more information on the purpose and process (Diliberto &amp; Brewer, 2012). It is recommended that parents receive a copy of the IEP and be encouraged to collaborate with the construction process. The staff should make sure that parents understand the specific terms and the importance of the information contained therein.</td>
</tr>
<tr>
<td>Student with disability</td>
<td>Personal interest and previous experience</td>
<td>As the most interested in their own educational process, students must be included as blueprint designers, being part of the IEP team. Although the attendance of students with disabilities on the IEP process has increased, most of them participate passively, being present but seldom engaged in meaningful discussions or educational planning (Martin et al., 2006) Students involved on IEP process tend to know more about their disabilities, legal rights and appropriate accommodations, increasing their ability to advocate for themselves. The involvement on IEP process helps the students to assume more responsibility for themselves, be more aware of the limitations and the resources available for them, leading them to take the ownership on their own education.</td>
</tr>
</tbody>
</table>

Table 1: IEP-PE Team
Source: Adapted from Diliberto and Brewer (2012).

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IEP-PE TEAM

The IEP plan is an ongoing process that requires input from multiple people in order for it to be beneficial to the student, and general physical education teachers are integral members of the IEP process (Seaman, DePauw, Morton, & Omoto 2003).

According to Diliberto and Brewer (2012), in the United States, the IEP team must include the special education teacher, parent(s), general education teacher(s), related service personnel, local education agency (LEA) representative (principal or other administrator), and other professionals critical to the educational well-being of the student. Several studies also advocate the participation of the student with disabilities in the design of the IEP (Mason, McGahee-Kovac & Johnson, 2004; Sawilowsky & Mason, 2004; Van Dycke, Martin & Lovett, 2006; Martin et al., 2006.).

Students with disabilities, even the youngest students or the ones with limited cognitive and communication skills, must be encouraged and prepared to help in the construction of their IEP, helping to determine their needs, present levels of performance, goals and accommodation needs (Mason, McGahee-Kovac & Johnson, 2004; Sherrill, 2004). Research results from the past two decades suggest that youth who are involved in their IEP development or related educational goal setting and planning are more likely to: achieve their goals; improve their academic skills; develop important self advocacy and communication skills; graduate from high school; and gain better employment and quality of life as adults (Mason & Sawilowsky, 2004).

Due to the various points of view of different people involved, each team member has a determining role in the process of building the IEP-PE. The understanding of the involvement of each is indicated in Table 1.

While there is no IEP available in Brazilian schools, they are required in the United States. However, several authors have highlighted the lack of involvement of the Physical Education teacher on the process of IEP.

"Although in many districts physical educators are integral members of the IEP team, in other districts physical educators are only partially involved in the process or are not given the opportunity to be involved at all. (…) Although physical education teachers work with students with disabilities in their classes, they are often left out of what other professionals are doing with respect to developing the students’ IEPs, thus creating a ‘disconnect’ in the IEP process.” (Kowalski, Lieberman & Daggett, 2006, pp. 35)

Lieberman and Houston-Wilson (2009) note that regardless of whether or not a school district employs an adapted physical education specialist 1, the general physical educator 2 can play a key role in the development and implementation of a student’s IEP.

Because education in an inclusive environment continues to gain acceptance, the general physical educator is the one most likely to provide direct instruction to the student with the disability. It makes sense that the professional who should guide the student during physical education program and is the “expert” in this curricular area, is the same person directly responsible for carrying out the IEP program (Kowalski, Lieberman & Daggett, 2006).

Lieberman and Houston-Wilson (2009) encourage the involvement of the Physical Education teacher on IEP process because they are one of the few teachers in the school who follow the students every year and therefore can provide longitudinal feedback, whereas classroom teachers usually have students for only one year.

In addition, physical education often provides an opportunity for students to actively apply, in an authentic situation or setting, many of the cognitive, motor, and social skills that they have acquired (Kowalski, Lieberman & Daggett, 2006).

According to these authors, the full and active participation of all professionals involved in a student’s IEP fosters a healthy environment of collaboration and communication, whereas lack of the general physical educator’s participation jeopardizes that collaborative environment (Kowalski, Lieberman & Daggett, 2006).

METHOD

This research is characterized as an exploratory study involving content validation of the inventory called “Individualized Education Plan applied to EF” (IEP-PE). According to Corrente (2009), the validity indicates whether the instrument measures what it intends to measure in the context it is applied. Therefore, the process of content validation of IEP-PE aimed to establish the extent to which the document in question can be considered suitable for the purpose for which it was built. The suggestions of the judges were considered to improve the inventory.

Subjects chosen to participate in the validation process of the IEP-PE Portuguese version included 10 Brazilian judges. These judges needed to have a major in Physical Education. Two of the judges had a master’s degree while eight of the judges had a doctoral degree in Adapted Physical Education or Special Education. Judges also had experience in the inclusion of students with disabilities. Among the judges, seven are faculty professors, coming from four different states of Brazil.

Each judge was sent by electronic mail the following: an invitation letter requesting the collaboration of experts and explaining the scope of the study; the summary of the research containing the necessary details to understand the proposal; the first version of the IEP-PE inventory; and the evaluation form containing their validation criteria.

The first version of IEP-PE was composed of three parts. The first part of the IEP-PE has as its purpose the collection of information about the student, in order to understand their characteristics and special needs related to cognitive, social, physical and sensory-motor aspects. Aspects such as communication, expectations and interests of the student were also considered, as well as special care to be observed during Physical Education class. The second part of the IEP-PE refers to the record of the assessments undertaken to determine the current level of student performance, and to identify the types of support needed during physical education classes. The third part of the instrument is reserved for determination of goals, short-term objectives and description of curricular and

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1 Adapted Physical Education (APE) teacher, in addition to major in Physical Education must have concentration in APE, being hired by the school district to act: as a consultant; in a situation of collaborative teaching in partnership with the generalist PE teacher; providing assistance to students with disabilities trough pre-teaching or direct support during class activities.

2 The general physical education teacher is the professional who has major in Physical Education and is part of the permanent staff of the school, responsible for the class where the students with disabilities are included.
methodological adaptations suitable to the physical education program. The evaluation form was based on three criteria (Santos & Munster, 2012): 1. Clarity of Language: this aspect was used to determine whether, according judges, the terms used were appropriate and understandable to the audience it is intended; 2. Theoretical Pertinence: this item was used to determine if the theoretical construct of the instrument is consistent with the scientific literature; 3. Viability of Application: this aspect considered the adequacy of the structure to the purpose of the instrument as well as the feasibility of the application.

In each criteria, the judges had three response alternatives to consider the level of adequacy of each item as three nominations: adequate (2 points), barely adequate (1 point) and inadequate (0 points). Within each criterion, the sum of points obtained between total judges was converted into percentage, reaching the level of agreement between judges.

To verify the degree of agreement between judges (JA) the following equation was used; where LIA = level of individual approval and NJ = number of judges:

\[ JA\% = LIA \times 100 \times NJ \]

According to Alexandre and Coluci (2011), the content validity index (CVI) measures the proportion or percentage of judges who are in agreement on certain aspects of the instruments and items, allowing for analysis of each item individually, and the instrument as a whole. Thus, by obtaining the CVI, it is possible to identify whether the analysis instrument presents an acceptable validity. To obtain the CVI value the following equation was used, where CL = Clarity of Language; TP = Theoretical Pertinence; and VA = Viability of Application:

\[ CVI = \frac{\% CL + \% TP + \% VA}{N^0 \text{ of criterias } (= 3)} \]

The values adopted to check the level of reliability of the data obtained in this study were suggested by Bauer and Gaskell (2004), which consier:

<table>
<thead>
<tr>
<th>Answer</th>
<th>Level of Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>a &gt; 0.90</td>
<td>Very high</td>
</tr>
<tr>
<td>a &gt; 0.80</td>
<td>High</td>
</tr>
<tr>
<td>0.66 &lt; a &lt; 0.79</td>
<td>Acceptable</td>
</tr>
</tbody>
</table>

RESULTS AND DISCUSSION

The degree of agreement between judges (JA) corresponding to each of the 3 parts of the IEP-PE, according to each of the criteria for analysis (CL, TP, VA), can be identified in the central columns of Table 2. The right column indicates the content validity index (CVI) of each of the parts and the inventory as a whole.

<table>
<thead>
<tr>
<th>Part 1 - Information about student</th>
<th>Agreement between Judges</th>
<th>Content Validity Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clarity of Language</td>
<td>Theoretical Pertinence</td>
</tr>
<tr>
<td>Information about student</td>
<td>75%</td>
<td>85%</td>
</tr>
<tr>
<td>Part 2 - Assessment and Level of Performance</td>
<td>100%</td>
<td>95%</td>
</tr>
<tr>
<td>Part 3 - Physical Education Program</td>
<td>100%</td>
<td>95%</td>
</tr>
<tr>
<td>IEP-PE - Complete Inventory</td>
<td>91.6%</td>
<td>91.6%</td>
</tr>
</tbody>
</table>

Table 2: Degree of agreement between judges and Content Validity Index related to IEP-PE.

Part 1 of IEP-PE, referring to information about the student, obtained the degree of agreement between judges of 85%. Although the Index of Content Validity, according to the scale of Bauer and Gaskell (2004), is equivalent to a high level of reliability, this was the topic with the lowest level of approval among the judges. The topics 2 (Assessment and Performance Level) and 3 (Physical Education Program) of IEP-PE had higher approval among judges, representing 95% and 96%, respectively. As a consequence, the respective Content Validity Index indicated, according to the same scale, very high level of reliability.

PART 1 - INFORMATION ABOUT THE STUDENT

Based on the judges’ analysis, 80% indicated the maintenance of this topic with minimal changes, such as minor adjustments in shape and language; and 20% (Judges 3 and 7) recommended maintaining the topic with extensive modifications on the structure and language. The Clarity of Language (CL) criterion was the aspect with the lowest level of acceptance among judges, due to the presence of technical terms and difficult words to understand, related to the condition of disability.

Since the purpose of the IEP-PE is to add specific information about the special needs of the student it was decided to maintain the technical and specific terminology. This should help physical education teachers to gain more access to interdisciplinary discussions among their peers. However, in order to attenuate the linguistic impact, at the end of the instrument, a glossary containing the terms that could cause doubt was added to assist the physical education professional.

According to Bugaj (2000) every IEP should include enough detail to allow full understanding by someone unfamiliar with the student.

Many parents and even general educators may be unaware of assessment terminology and significance (Diliberto & Brewer, 2012). The inclusion of the glossary in IEP-PE aims to provide insight to the basic understanding of some concepts in order to facilitate information exchange and new acquisitions by all staff involved in the preparation of IEP-PE.
The theoretical pertinence (TP) presented a concordance degree of 85% and the viability of application (VA), 95%.

Through the suggestions of the judges, the following changes and modifications in Part 1 of IEP-PE were made:
- Adding a field to indicate the time of onset of disability;
- Addition of “double hemiparesia” and “double hemiplegia” in the topographical classification item;
- Under “type of preferred communication”, replacing “Picture Exchange Communication System” by “alternative communication”;
- Adding a field to indicate the type of hearing loss;
- Only one of the judges (Judge 10) suggested modifying the sequence of the items of the first part, so it was kept the original configuration.

PART 2 - ASSESSMENT AND STUDENT PERFORMANCE LEVEL

The IEP should be based on appropriate assessments as well as the student’s strengths and needs, considered by the team as a whole, and with the family participating fully (O’Conner & Wyasik, 2008).

As analysis of judges, 50% indicated the maintenance of this topic without modifications and 50% of the topic with minimal changes, such as minor adjustments in shape and language. The three evaluation criteria indicated a good level of acceptance among the judges, being awarded the following degrees of agreement: clarity of language = 100%; theoretical pertinence = 95%; and viability of application = 90%, corresponding to the Content Validity Index = 0.95 (very high).

Through the suggestions of the judges, the following changes and modifications in Part 2 of IEP-PE were made:
- Specification of specific assessment instruments in each of the areas;
- Under “types of support needed,” including the option “performs independently without assistance (PI)”;
- Only one of the judges (J10) suggested modifying the sequence of the items in this second part, so it was kept the original configuration.

PART 3 – PHYSICAL EDUCATION PROGRAM

The IEP should also play a major role in creating lesson plans to meet the student’s unique needs. However, many IEPs lack required details to successfully guide instructional planning (Capizzi, 2008).

As in personal goal setting, having specific written objectives helps teachers focus on addressing those objectives throughout the physical education curriculum by making slight modifications and adjustments to existing games and activities (Kowalski et al., 2005).

Kowalski et al. (2005) recommend that, as often as possible, the student with disability’s goals and objectives should be aligned with the class goals and objectives. Physical educators must constantly make adjustments and modifications on the general activities, in order to meet student personal’ goals and objectives. Also, the student’s goals and objectives should be intertwined and incorporated into a class existing unit.

According to the judges analysis, 30% (Judges 1, 6 and 8) indicated the maintenance of this topic without modification and 70% indicated maintenance of the topic with minimal changes, such as minor adjustments in shape and language. The three evaluation criteria indicated a good level of acceptance among the judges, being awarded the following degrees of agreement: Clarity of Language = 100%; Theoretical Pertinence = 95%; and Viability of application = 95%, corresponding to the Content Validity Index = 0.96 (very high). Among the three parts of the IEP-PE, this last was the one that reached the highest CVI.

Through the suggestions of the judges, the following changes and modifications in Part 3 of IEP-PE were made:
- Differentiation between the terms “objective” and “goal”, as specified in the own inventory;
- Breakdown of the topic concerning the evaluation of the EF program into two separate questions (questions 2 and 3);
- Inclusion of a field for specifying the teaching styles;
- Reversing the order of the alternatives “adapted” and “both” in the topic related to material resources;
- Exclusion of the topic related to “disability awareness” (Judges 2, 4, 6 and 10), which was directed more to the group than properly to the student, the main focus of the IEP-PE.

The judges were unanimous regarding the maintenance of the sequence of items on the third party, so it was kept the original configuration.

CONCLUSION

Based on evaluation of the 10 Brazilian judges, the Individualized Education Plan applied to Physical Education was analyzed under three criteria: Clarity of Language, Theoretical Pertinence (TP) and Viability of Application (VA).

Each part of the IEP-PE obtained varying degrees of agreement among the judges: Part 1 (Information about the Student) = 85%; Part 2 (Assessment and Performance Level) = 95%; Part 3 (Physical Education Program) = 96%. According to the scale of Bauer and Gaskell (2004), the content validity index of the complete inventory was 0.92, corresponding to a very high level of reliability.

The suggestions made by the judges were incorporated into the Portuguese version of the IEP-PE, attached in full. Word and PDF format files corresponding to the validated version of the inventory can be requested by email munster.mey@gmail.com. It is expected that the IEP-PE will consist of an auxiliary resource to the action plan of the physical education teacher, favoring the inclusion of students with disabilities in this context.

REFERENCES


Individualized education plan applied to physical education


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## PERSONAL DATA

<table>
<thead>
<tr>
<th>Student Name:</th>
<th></th>
</tr>
</thead>
</table>
| **Gender:** | ( ) Male  
( ) Female |
| **Date of Birth:** |  |
| **Age:** |  |
| **Level of education:** | grade |
| **PE Teacher:** |  |

## STUDENT INFORMATION

### Type and level of disability/special needs:
Point out one or more alternatives with an X.
- Deafness
- Blindness
- Deafblindness
- Intellectual Disability
- Motor Disability
- Autism Spectrum Disorder
- Attention Deficit and Hyperactivity Disorder
- Other condition: ______________________________________

### Time of manifestation:
( ) Congenital  
( ) Adventitious. How long? _________________________________________________________

### Cognitive aspects:
Description of student’s areas of adaptive behavior or adaptive skills – conceptual, social or practical.

### Intensity of supports:
Point out with an X.
( ) Intermittent: episodic and short term support  
( ) Limited: consistent but still time limited support  
( ) Extensive: ongoing and long-term support  
( ) Pervasive: constant and highly intense support

### Social aspects:
Description of student’s intra and interpersonal skills.

### Aspects of motor control:
Description of motor developmental landmarks/milestones.

### Devices required for locomotion:
Point out one or more alternatives.
- Cane (Hoover’s bat)
- Orthotics
- Prostheses
- Crutches
- Walker
- Manual wheelchair
- Electric wheelchair
- Other ____________________________________________

### Topographic classification:
Point out with an X.
- Monoplegia
- Diplegia
- Triplesgia
- Quadruplegia
- Hemiplegia
- Paraplegia
- Tetraplegia
- Double Hemiplegia

### Coloring non-functional segments.
Type and form of communication preferred: Point out with an X.
( ) Verbal
( ) Non Verbal
( ) American Sign Language
( ) Alternative Communication
( ) Other

Level of Hearing Loss: Point out with an X.
( ) Mild 27 - 40 dB
( ) Moderate 41 – 55 dB
( ) Moderate-severe 56 – 70 dB
( ) Severe 71-90 dB
( ) Profound – greater than 90 dB

Type of Hearing Loss: Point out with an X.
( ) Conductive
( ) Sensorineural
( ) Mixed

Auxiliary devices for communication:
( ) Hearing aids
( ) Cochlear implant
( ) Alternative Communication System
( ) Other

Level of Hearing Loss:
( ) Mild 27 - 40 dB
( ) Moderate 41 – 55 dB
( ) Moderate-severe 56 – 70 dB
( ) Severe 71-90 dB
( ) Profound – greater than 90 dB

Type of Hearing Loss
( ) Conductive
( ) Sensorineural
( ) Mixed

Auxiliary devices for vision:
( ) Glasses (Magnifying or Sun Protection)
( ) Telescopes
( ) Binoculars
( ) Optical Prostheses
( ) Other

Visual Loss:
In which eye has better Visual Acuity?
( ) Right Eye
( ) Left Eye

Visual Field preferred:
( ) Central
( ) Peripheral

Light Perception
( ) Yes
( ) No

Identifies color
( ) Yes
( ) No

Prefers bright surfaces
( ) Yes
( ) No

Prefers contrasting surfaces
( ) Yes
( ) No

Previous motor experiences and extra-curricular activities:
Describe the experiences indicated by the student.

Expectations and personal interests related to Physical Education:
Describe the preferences indicated by the student.

Special care related to Physical Education:
Report episodes of seizures, presence of hydrocephalus, shunt, allergies or contraindications.

Comments:
Enter remarks as appropriate.

STUDENT ASSESSMENTS

<table>
<thead>
<tr>
<th>Domains</th>
<th>Type of Assessment</th>
<th>Evaluation Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pre-evaluation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post-evaluation</td>
</tr>
<tr>
<td>Motor: Handness:</td>
<td>• Test Gross Motor Development</td>
<td>Date and description:</td>
</tr>
<tr>
<td>• Right-handed</td>
<td>• Physical Fitness Test</td>
<td>Date and description:</td>
</tr>
<tr>
<td>• Left-handed</td>
<td>• Task Analysis</td>
<td>Date and description:</td>
</tr>
<tr>
<td>• Ambidextrous</td>
<td>• Checklist</td>
<td>Date and description:</td>
</tr>
<tr>
<td>• Other</td>
<td>• Other</td>
<td>Date and description:</td>
</tr>
<tr>
<td>Cognitive:</td>
<td>• Vineland Adaptive Behavior Scales - VABS</td>
<td>Date and description:</td>
</tr>
<tr>
<td>• Adaptive Behavior Scales - ABS</td>
<td></td>
<td>Date and description:</td>
</tr>
<tr>
<td>• Adaptive Behavior Assessment System - ABAS</td>
<td></td>
<td>Date and description:</td>
</tr>
<tr>
<td>• Other</td>
<td>• Other</td>
<td>Date and description:</td>
</tr>
<tr>
<td>Social:</td>
<td>• Social Skill Checklist</td>
<td>Date and description:</td>
</tr>
<tr>
<td></td>
<td>• Behavior Scenarios</td>
<td>Date and description:</td>
</tr>
<tr>
<td></td>
<td>• Other</td>
<td>Date and description:</td>
</tr>
</tbody>
</table>

Description of student’s strengths and individual needs:
Describe the reports of the Physical Education teacher and other professionals.

TYPES OF SUPPORT REQUIRED

Indication of the areas of optimal or insufficient performance:
Describe situations in which the student needs assistance and tick the type of support indicated.

PI = Performs independently, without support
VA = Verbal assistance;
VD = Visual demonstration;
PPA = Partial physical assistance;
TPA = Total physical assistance;
NH = Not held.

STUDENT PRESENT LEVELS OF PERFORMANCE

1. Description of the level of student performance based on assessments.
2.
3.
### PHYSICAL EDUCATION PROGRAM

#### OBJECTIVES

Description of what is expected to achieve, based on national and state standards or other curriculum guidelines.

<table>
<thead>
<tr>
<th>Goals</th>
<th>Description of how much and when (how long) it is intended to achieve the proposed objective.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly</td>
<td>Description of goal(s) in short term.</td>
</tr>
<tr>
<td>Bimonthly</td>
<td>Description of goal(s) in medium term.</td>
</tr>
<tr>
<td>Annual</td>
<td>Description of goal(s) in long term.</td>
</tr>
</tbody>
</table>

1. Does the student with disabilities participate in the same content and activities than other students?  
   ( ) Always  ( ) Often  ( ) Sometimes  ( ) Rarely  ( ) Never  ( ) Not Applicable

2. Is the student with disabilities assessed by the same evaluation means?  
   ( ) Always  ( ) Often  ( ) Sometimes  ( ) Rarely  ( ) Never  ( ) Not Applicable

3. How often is it necessary to make adjustments on the assessments?  
   ( ) Always  ( ) Often  ( ) Sometimes  ( ) Rarely  ( ) Never  ( ) Not Applicable

4. How often is it necessary to make adjustments on the directions/ instructions?  
   ( ) Always  ( ) Often  ( ) Sometimes  ( ) Rarely  ( ) Never  ( ) Not Applicable

5. How often is it necessary to make adjustments on the equipment/ materials?  
   ( ) Always  ( ) Often  ( ) Sometimes  ( ) Rarely  ( ) Never  ( ) Not Applicable

6. How often is it necessary to make adjustments on the environment?  
   ( ) Always  ( ) Often  ( ) Sometimes  ( ) Rarely  ( ) Never  ( ) Not Applicable

7. How often is it necessary to make adjustments on the rules of the games and activities?  
   ( ) Always  ( ) Often  ( ) Sometimes  ( ) Rarely  ( ) Never  ( ) Not Applicable

#### MODIFICATIONS ON PHYSICAL EDUCATION PROGRAM

Point out one or more alternatives with an X and describe the modifications.

<table>
<thead>
<tr>
<th>Teaching styles:</th>
</tr>
</thead>
<tbody>
<tr>
<td>( ) Command</td>
</tr>
<tr>
<td>( ) Practice</td>
</tr>
<tr>
<td>( ) Reciprocal</td>
</tr>
<tr>
<td>( ) Self-check</td>
</tr>
<tr>
<td>( ) Inclusion</td>
</tr>
<tr>
<td>( ) Guided discovery</td>
</tr>
<tr>
<td>( ) Convergent discovery</td>
</tr>
<tr>
<td>( ) Divergent discovery</td>
</tr>
<tr>
<td>( ) Learner-designed individual program</td>
</tr>
<tr>
<td>( ) Learner initiated</td>
</tr>
<tr>
<td>( ) Self-teaching</td>
</tr>
</tbody>
</table>

Description of recommended teaching styles:

<table>
<thead>
<tr>
<th>Teaching Strategies:</th>
</tr>
</thead>
<tbody>
<tr>
<td>( ) Verbal directions</td>
</tr>
<tr>
<td>( ) Illustration or written directions</td>
</tr>
<tr>
<td>( ) Visual demonstration</td>
</tr>
<tr>
<td>( ) Physical Assistance</td>
</tr>
<tr>
<td>( ) Guidance</td>
</tr>
</tbody>
</table>

Description of different strategies modification:

<table>
<thead>
<tr>
<th>Material Resources:</th>
</tr>
</thead>
<tbody>
<tr>
<td>( ) Conventional</td>
</tr>
<tr>
<td>( ) Adapted</td>
</tr>
<tr>
<td>( ) Both</td>
</tr>
</tbody>
</table>

Description of the adjustments in the materials and equipment:

<table>
<thead>
<tr>
<th>Environment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>( ) No modifications</td>
</tr>
<tr>
<td>( ) Minor changes</td>
</tr>
<tr>
<td>( ) Extensive modifications</td>
</tr>
</tbody>
</table>

Description of modifications in environment:

<table>
<thead>
<tr>
<th>Rules:</th>
</tr>
</thead>
<tbody>
<tr>
<td>( ) Conventional</td>
</tr>
<tr>
<td>( ) Partially modified</td>
</tr>
<tr>
<td>( ) Widely modified</td>
</tr>
</tbody>
</table>

Description of the adjustments in the rules:
### Individualized Education Plan Applied to Physical Education

#### Assessment:
- [ ] Conventional or usual
- [ ] Partially modified
- [ ] Widely modified

Description of the adjustments in the assessment:

#### Comments:
Enter remarks as appropriate.

---

#### Professional Monitoring During PE Classes

Point out one or more alternatives and include justification.

- [ ] Assistant PE teacher
- [ ] Adapted PE teacher
- [ ] Paraeducator or aide
- [ ] Peer tutor
- [ ] None
- [ ] Other: ____________________________

Justify the need for professional assistance or specialized human resources:

---

<table>
<thead>
<tr>
<th>Informant's name:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact information:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessed by:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact information:</td>
<td></td>
</tr>
</tbody>
</table>
GLOSSARY

Adaptive behavior: can be defined as a set of conceptual, social and practical skills that are acquired by persons to meet the demands of everyday life (AAIDD, 2010).

Adaptive skills: constellation of skills that allows people to adapt effectively in daily activities, at home, at school, at work and in the community (Harrison, Oakland, 2008). Adaptive skills are divided into three groups or domains of adaptive behavior:
- Conceptual skills: related to aspects such as language, reading and writing, money concepts and ability to self-direction;
- Social skills: based on interpersonal skills, responsibility, self-esteem, gullibility, naivete, ability to follow rules, etiquette and troubleshooting;
- Practical skills: involve personal and instrumental activities of daily living, occupational skills, health and safety.

Alternative Communication: the area of assistive technology that is specifically aimed at broadening communication skills. The alternative communication intended for people with speech or writing dysfunction or gap between their communicative needs and their ability to speak and/or write.

Attention Deficit Hyperactivity Disorder: characterized by attention deficit hyperactivity and impulsivity, this disorder begins in childhood and can persist into adulthood, eventually causing psychosocial inadequacies (Munster, 2012).

Autistic Spectrum Disorder: a set of symptoms that affect social functioning, communication skills, implying a restricted pattern of behavior, usually accompanied by intellectual disability (Brasil, 2008).

Disability: characterized by impairments of long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may restrict the full and effective participation of the individual in school and society (Brasil, 2008).

Difference between **goal** and **objective**: the objective refers to the definition of what is desired, while the goal answers two questions: how much? and when? As an example: if the goal of an individual is to lose weight, the objective is established from how many pounds he wants to eliminate in so long.

Goal: definition of quantitative and measurable terms within a specified period.

Learning Disabilities: are caused by specific functional disorders such as dyslexia, dysorthographia, dysgraphia, dyscalculia among others (Brasil, 2008).

Levels of support: currently the classification of intellectual disability has been based on the levels of support to different areas of an individual's life, as frequency and intensity level required (AAIDD, 2010).
- Intermittent support may be needed occasionally by an individual over the life span, but not on a continuous daily basis.
- Limited support may occur over a limited time span such as during transition from one setting to another. This type of support has a limit on the time that it is needed to provide appropriate support for an individual.
- Extensive support in a life area is assistance that an individual needs on a daily basis that is not limited by time. This may involve support in the home and/or support in work. Intermittent, limited and extensive supports may not be needed in all life areas for an individual.
- Pervasive support refers to constant support across all environments and life areas and may include life-sustaining measures. A person requiring pervasive support will need assistance on a daily basis across all life areas.

Objective: description of what is intended to achieve.

Pervasive Developmental Disorders: result in qualitative abnormalities in reciprocal social interactions and communication, a repertoire of interests and restricted, stereotyped, repetitive activities. Included in this group students with autism, autistic spectrum disorder and childhood psychosis (Brasil, 2008).

Talented/gifted: students who demonstrate high potential in any of the following areas, singly or in combination: intellectual, academic, leadership, psychomotor, and arts. Also have high creativity, high involvement in learning and performing tasks in areas of interest (Brasil, 2008).

Teaching styles: in 1966, Muska Mosston proposed a continuum of teaching styles based on different possibilities for decision-making during the process of teaching and learning, proposing a spectrum of gradual transition in the level of autonomy of the student between the styles from A to K (Mosston & Ashworth, 2008):
- A. Command: its basic feature is the stimulus-response; teaching is centered on teacher and content. This style is based on the reproduction of the content. The teacher determines the content, location, order of tasks, start and end range, describes and demonstrates the exercise and provides feedback on the quality of the response, leaving the student to follow, perform, and obey.
- B. Practice: the basic characteristic of this style is the change of certain decisions of the teacher to the student during the execution. The teacher explains and demonstrates the task and the student performs with some degree of independence, keeping the teacher's role in making the feedback on implementation.
- C. Reciprocal: this style has as main characteristic the social interaction in partnership, leading to work in pairs. Students learn to perform the task and receive feedback from their peers, still based on criteria established by the teacher.
- D. Self-check: the characteristic of this style is the shift of responsibility from teacher feedback (in styles A and B) or another student (C style) to itself. The student learns to conduct self-assessment, using criteria of the implementation enabled by the task itself.
- E. Inclusion: in this style, multiple difficulty levels are designed for the same task, with the intention to include all students in the activity, according to the possibilities of each. The teacher explains the activity and offers some options for difficulty levels; the student determines the level of task execution.
- F. Guided discovery: the characteristic of this style is the particular teacher-student relationship, in which the sequence of questions the teacher carries or causes a sequence of student responses in a convergent process leading the student to discover the desired concept.
- G. Convergent discovery: the basic characteristic of this style is the proposition of a problem with only one possibility of answer. Students are encouraged to discover the solution to a problem through reasoning and logical thinking, reaching particular solution.
- H. Divergent discovery: the basic characteristic of this style is the pursuit of multiple and divergent responses contributing to expansion of motor
and cognitive repertoire. The objectives of this style are based on the understanding and perception of the structure of activity; develop creativity and the ability to check multiple solutions to a given problem.

I. Learner designed individual program: this style seeks greater independence of the student, through the individualization program, still based on the content decided by the teacher. In this style the teacher plans the general content area, leaving the student to choose the topic, demonstrating discipline and develop their creative abilities, as well as providing the opportunity to practice the skills learned in previous styles.

J. Learner-initiated: the student is responsible for leading the process of teaching and learning. Decisions are made by the student, whereas the teacher to listen, observe and warn those decisions when prompted.

K. Self-teaching: need the presence of the teacher. The student is solely responsible for making decisions at all stages of the process, eliminating the presence of the teacher.

Topographic Classification: according the region of the central nervous system (spinal cord and / or brain) affected by the injury, partial or total loss of motor function may involve distinct body segments. The suffix “paralysis” indicates no body movement function and the term “paresis” indicates the presence of partially functional movements (Munster, 2012). According affected segments, loss of motor function can be classified into:

- Monoplegia / monoparesia: involvement of a single body segment;
- Diplegia / diparesia: four body segments are affected, but the lower limbs are more affected than the upper;
- Triplegia / triparesia: involvement of three members, may be both lower and one upper limbs or both upper and one lower limbs;
- Quadriplegia / quadriparesia: involvement of four limbs (upper and lower), trunk, neck and face. It can lead to difficulties in communication and swallowing;
- Paraplegia / paraparesia: impairment of movements of lower limbs and trunk;
- Quadriplegia / Tetraparesia: impairment of the movements of the four limbs (upper and lower) and trunk;
- Hemiplegia / hemiparesia: involvement of body segments (both lower and upper limbs) on one side of the body;
- Double hemiplegia / double hemiparesia: four affected bodily members, but one body hemisphere affected more than the other.

REFERENCES


