

# PLAYFUL PRACTICES WITH CHILDREN WITH INTELLECTUAL DISABILITIES

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## Abstract

This article aims to promote and support the physical education teacher's community in the use of playful practices with pupils with mild intellectual disabilities (MID), as a didactic medium, and a substantial educational resource of quality physical education. Firstly, it will be reviewed definitions and emergent themes on the subject shaping the theoretical framework on which this study has been built. Later, it will be presented didactic advice and guidelines for the application of playful practices, extracted from the most effective observable practices in the author's teaching experiences in specialized education institutions with pupils with MID and supported by the scientific literature. This article reinforces the notion that playful practices provide variety to meaningful learning, have great potential as a facilitator in pedagogical processes, and provide an appropriate educational response to pupils with intellectual disabilities. It also shows that teachers should reflect positive and reflective disposition to modifications and adaptations of the different elements involved in the playful practices according to educational objectives and the personal needs and interests of the children with MID. Considerations such as the instructions have to be modified to meet students' needs, play according to children's biological age and systematic registration and monitoring in the teaching-learning process are essential. It is recommended that teachers share their experiences in pedagogical practice to learn from our differences and strengthen our coincidences, to contribute to the still insufficient bibliography in the pedagogical practices in special education.

**Keywords:** play; intellectual disabilities; teaching experiences; special education needs.

## 1. INTRODUCTION

This article was born as a result of my initial questions, insecurities, and motivations, and from the university students and colleagues during the time I was a professor in a physical education and sport faculty in my home country (Ecuador). In each theoretical and practical teaching encounter related to the adapted physical education, a great motivation to work with populations with disabilities was highlighted from everyone involved. However, I have been able to experience by myself, observe, and some have commented to me that over time this enthusiasm considerably diminishes when realizing that the development of inclusive practices is very challenging for personal and environmental factors.

Personal factor such as the lack of practical teacher training (Shields & Synnot, 2016) and attitudes towards working with people with disabilities (Bartoňová, Kudláček, & Bressan, 2007; Meegan & MacPhail, 2006; Shields & Synnot, 2016) that can also be translated to teachers behaviors affecting the progression of positive outcomes (Fournidou, Kudlacek, & Evagellinou, 2011) are perceived as significant barriers to inclusion from the stakeholders. In addition, insufficient literature about the different elements involved in the physical education classes applicable to diverse populations and range ages is a crucial perceived environmental factor. All the above embraces the notion of the complex and multifactorial nature of the inclusive practices (Fournidou et al., 2011). Studies suggest that changes in negative attitudes are related to teaching experiences and training in special education (Kurniawatia, Minnaert, Mangunsong, & Ahmeda, 2012). Evidence also shows that effective support (in training and didactics) from specialists to the physical teachers may be beneficial (Fournidou et al., 2011).

Playful practices as organized activities with logical and flexible structures are an essential didactic medium in physical education at all ages, and especially in young pupils. This is reflected in the Ecuadorian School Physical Education curriculum, in which the first, of six blocks, is called "Playful practices: the games and playing" (Ecuador Ministry of Education, 2016). This block is framed in the right of every child to engage in play and recreational activities appropriate to their age (United Nations Children's Fund [UNICEF], 1989) and taking into account the great potential of play as a facilitator in the teaching and learning processes in the area of physical education.

Therefore, with the desire to collaborate with the literature on this subject, bringing up different aspects with which physical education teachers face each day in class: this article aims to promote and support the physical education teacher's community into the use of playful practices with pupils with MID, as a didactic medium and a substantial educational resource of quality physical education. Initially, it will be addresses key definitions and emergent themes on the subject shaping the theoretical framework on which this study has been built. Second, it will be presented didactic advice and guidelines based on the most effective observable practices in the teaching experience of the author in specialized education institutions with children MID and supported by scientific literature in the area.

### **1.1. Atypical development: an overview of intellectual disabilities**

Each child has a unique set of characteristics and abilities that develop at their own pace. However, most children show a more or less similar pattern of development. For example, the development of sensory and motor areas of the cerebral cortex allows preschoolers to have significant progress in gross motor skills such as running and jumping. Although children's skill levels differ depending on their genetics and their opportunities to learn and practice, motor skills development typically occurs in a predictable pattern (Papalia & Duskin, 2012). Nevertheless, children that do not follow that typical developmental trajectory are described to have an "atypical development," which translates into inconsistencies in the achievement of milestones related to cognition, motor-coordination, language, social interaction, and adaptive development (Davies, Banyard, Norman, & Winder, 2010).

In the case of children with intellectual disabilities (ID), the typical developmental process may be affected by prenatal, perinatal, or postnatal causes that include genetic factors (e.g., Down syndrome, Fragile X syndrome) or environmental factors (e.g., exposure to toxic substances, nutritional deficiencies, brain radiation) (Boat & Wu, 2015), or by an interaction between the two (Davies et al., 2010). Yet, many cases are of unknown causes (Boat & Wu, 2015). This is a very heterogeneity group as a consequence of the wide range of etiologies for ID, with an estimated prevalence of the general population between 1% and 3% (Tan et al., 2016).

During the developmental period, children with ID begin to show difficulties in general mental abilities that affect their intellectual functioning (e.g., academic learning, problem-solving, abstract thinking) and deficits in adaptive functioning in daily life activities, including conceptual (e.g., reading, writing, language), social (e.g., empathy, ability to make/retain friendships) and practical domains (e.g., personal care, recreation) (American Psychiatric Association [APA], 2013). There are different severities of the diagnosis of ID, depending on the extension of the compromised functioning described as mild, moderate, severe, and profound. They are characterized based on the daily life skills (Diagnostic and statistical manual of mental disorders -5 [DSM-5] Criteria) and the typically standardized measure of the IQ (DSM-IV Criteria), where those with MID are able to live independently with minimum support levels and have an approximately IQ range of 50–69, up to those who have a profound ID and require complete daily support and care (24 hours per day) with an IQ <20 (Boat & Wu, 2015).

#### **1.1.1. An approach to the population on which this study was build**

Although the information presented in this article can be considered and adequate for different populations with ID and range ages, it is important to mention that it is based on the teaching experience of the author obtained while working with children with MID between 10 and 14 years.

As described in the previous section, the population with ID tends to be heterogeneous with large individual differences. Therefore, it is not surprising to think that children with different severities will react differently to the same educational practices. Likewise, as in populations with typical development, chronological age is an important demographic aspect to consider in children's development; therefore, teachers' pedagogical approaches and actions must be framed in the characteristics of development processes in physical, cognitive, and psychosocial domains of each stage of growth.

Persons with MID represent 85% of the cases diagnosed as having an ID (APA, 2017). Children with MID might be 2 to 4 years behind in cognitive development compared with typically developing children, "which could include math, language, short attention spans, memory difficulties, and delays in speech development" (Watson, 2020). In the schools, children with MID are capable of learning with appropriate modifications and adaptations from the teachers in the teaching-learning process. In daily life, by learning how to perform practical life skills, they can carry out ordinary activities with minimal levels of supports (Boat & Wu, 2015).

An important aspect to consider as physical education teachers is that children with ID show motor delays in reaching motor milestones compared to children typically developed (Hogan, Rogers, & Msall, 2000; Pellegrino, 2007). They do not have any clear impairment (neurological or physical) preventing them from acquiring at the same rate the typical motor patterns (Payne & Isaacs, 2012), but these delays have been evidenced in several studies (e.g., Frey & Chow, 2006; Gkotzia, Venetsanou, & Kambas, 2017; Hartman, Houwen, Scherder, & Visscher, 2010;

Rintala & Loovis, 2013; Westendorp, Houwen, Hartman, & Visscher, 2011; Wuang, Wang, Huang, & Su, 2008). Besides, the literature also suggests that some children with MID may catch up to children with typical development through normal maturation and therapy (Payne, & Isaacs, 2012). Therefore, appropriate implementation of physical education programs adapted to their specificities are essential for motor skills improvement (Mero, 2020).

Finally, there is great profile variability within this population due to the diverse etiologies that might show different developmental trajectories (Giaouri, Alevriadou, & Tsakiridou, 2010), which must be taken into consideration and should be studied and analyzed by each teacher. For instance, children with non-specific ID, children with other co-existing developmental disorders (e.g., autism spectrum disorder), with diagnosed congenital syndromes (e.g., Down syndrome) or with physical/sensory limitations (e.g., visual impairment). However, this article is mainly focused on experiences with children with non-specific MID and Down syndrome.

### **1.2. Playful practices: a substantial educational resource**

Playful practices in this article refer to intervening in the physical education context through the means of play. The relevance of play has been studied from various perspectives for decades. The historian Johan Huizinga (1972), for example, designates our species as *homo ludens*, the man who plays. Huizinga mentions in his work how playing is an essential human function, highlighting the playful nature of the birth and development of our culture. Therefore, it is evident to think that play, being an inherent practice of man, is a didactic means and a substantial educational resource of the physical education classes of all ages, and especially in young pupils. However, although play can be a great facilitator in the teaching and learning processes, it should be emphasized that the essence of play does not lie in its didactic intention but rather that it constitutes an end in itself, we play because of the pleasure of playing without the necessity of extrinsic purposes (Bruner, 1986; Caillois, 1986; Cilla & Omeñaca, 2007). And in this context, it is also essential to learn how to appreciate its pedagogical value (Gruppe, 1976), such as in communication and social skills, and personal growth (Cilla & Omeñaca, 2007).

Huizinga (1949) defined play as “a voluntary activity or occupation executed within certain fixed limits of time and place, according to rules freely accepted but absolutely binding, having its aim in itself and accompanied by a feeling of tension, joy and the consciousness that it is “different” from “ordinary life” (p. 28). Play is a source of joy and pleasure (Cilla & Omeñaca, 2007). Studies show that “having fun” is an important factor for children with disabilities to participate, even if their performance in it is not very good, the simple fact of enjoyment is a strong motivator (Carter et al., 2014; Heah, Case, McGuire, & Law, 2007). Another facilitator for participation is the involvement of peers (Heah et al., 2007; Shields & Synnot, 2016). In this sense, being a socializer is one of the main characteristics of playing due to favors cooperation, coexistence, and teamwork (López, 2000).

Teachers must conceive play as an agent of global development (cognitive, social, affective, and motor area) and personal self-realization (Juan & Montes, 2001). The implementation of playful pedagogical practices “enables teachers to create contexts which enable them to follow children into play, co-constructing the action, possibly a narrative and resources” (Goouch, 2008, p. 95). Play, as an organized activity, with logical structure and rules, its also at the same time flexible, modifiable, and can be built among all the participants, provide a suitable educational response to the students with ID. This is an important point to consider since when working with children with disabilities, support, adaptations, and modifications in the educational environment by providing variety to meaningful learning and promoting the development of their potential and abilities is a prevailing need and it is also is children right (Constitution of the Republic of Ecuador, 2008; Ecuador Childhood and Adolescence Code, 2003; UNICEF, 1989).

## **2. PLAYFUL PRACTICES WITH CHILDREN WITH INTELLECTUAL DISABILITIES: GENERAL ADVICE AND GUIDELINES**

In the following sections, didactic advice and guidelines will be provided in the teaching-learning process around three fundamental elements: the student, the teacher, and the playing.

### **2.1. Knowing our students is key to success.**

As physical education teachers, due to our professional profile, we have a strong knowledge base in the stages of human development, which allows us to adapt the curriculum content to the chronological age of children. Also, to work with this population, we must study the ID: What does have an ID mean? What are the reasons children have this atypical development? What are the classifications and their essential characteristics? (This article gave a brief introduction in section 1.1.). You might think that it is something obvious and that it is not worth mentioning, but from my experience, you would be surprised to know the number of teachers who work with these children and have a minimal knowledge level about this matter.

Besides, we must consider the students' specific characteristics, recognizing their prior knowledge, learning needs, and understanding their differences and personality. I am going to refer to the last one as something interesting happens with the playful practices. The innate action of playing reveals aspects of the personality like very few other activities in physical education classes. In the literature is recognized the contribution of play in the personality. For example, Claparède (1910) affirms that play allows the manifest of the "ego" and unfolds the personality to the maximum. Chateau (1958) states the game as a school of personality, the child with development begins to experience the joy of triumph with compliance of the rules and the overcoming of difficulties. Martínez Criado (1998) stresses its importance in the process of adapting one's personality to the group.

In any case, it is unreal to think that we can find a game that adapts to all the diversity that exists in a class. However, by using our knowledge about the students in an active, critical, and reflective way, we can achieve small adaptations that can be translated into major changes in our class. No manual perfectly describes how a student will react to a playful practice or how she will acquire learning from it; however, some methods can help us decipher it, such as a teacher's journal (see the following section). By considering these details, we can plan games according to the pedagogical objectives, and according to the children's personal needs and interests. Therefore, it is important to prepare a variety of games so that children can enjoy their favorites and include new games to awaken and expand interests (Sher, 2009).

## **2.2. A teacher's diary: detecting best practices and evaluating teaching processes**

Systematic registration and monitoring help us to observe and analyze important factors that intervened in the teaching-learning process. It can be in any format in which the teacher feels comfortable with. In my case, a teacher's diary is one of the educational practices that allowed me to critically interpret the experiences I lived in classes and organize and reconstruct my own and children's ideas. This practice superficially started a week before starting my first job at a special school. I realized that I had no idea how the children were like, how they behaved, what they liked, what kind of class I should prepare (I wanted to dedicate the first class to games to introduce ourselves and break the ice). I was very anxious, and although I had studied a lot about disability previously, I felt absolutely lost on the subject in real and practical life. Therefore, I decided to go to school two days before my actual first workday, I spoke with the principal and got permission to talk with the teachers so that they could introduce me to the children and talk a little about each one, and with each of them. (We have the advantage that special education schools generally do not have a large population, which is why this type of approach is feasible). I started to write down interesting data and recommendations for teacher-student interaction and learning-teaching process that I considered appropriate or that the teachers recommended. With this, I realized that, although it is true, knowledge about your students' characteristics and the best educational practices comes with time and experience in educational interaction, there are ways to do it in a more organized and systematic approach.

That specific first moment gave me an inside of what games might be appropriate for the children. Also, it helped me a lot with my proceedings and behaviors during class, which also needs to be analyzed and prepared in advance to deal with possible complex situations in the best possible way and avoid unnecessary confrontations or negative actions. For example, a teacher told me that when student A does not want to work, she motivates him with the characters from "*El Chavo del Ocho*" (Mexican television sitcom). She also mentioned that for student B, it is difficult to participate in activities outside the classroom, and in those cases, sometimes she hugs or holds the teacher's hand for long periods, covers her face, and sometimes cries. If I had not had this first approach with the teacher, I would hardly have known the importance of "*El Chavo del Ocho*" for student A and possibly thought that he simply did not want to participate which is different from the fact that he did not have the appropriate motivation to do it. And for sure it would have taken me much longer to figure out why student B was crying, maybe I would have believed that she had no sympathy with my class or me, and I would not have given her the space she needed so that she gradually integrates once her initial adaptation period to group activities has been overcome, as she did that first class.

It should be noted that we must be careful with the perceptions of other teachers regarding children, as they are subjective and can guide us to create preset ideas of children that are not necessarily true. We must do it as objectively as possible and consider what really may be necessary and what can help our class. This collaboration between teachers (exchange of experiences and research) that must be carried out periodically to promote and improve the learning process, it is not new, the literature corroborates the enriching educational value of this practice (e.g., Basque, 2013; Mesa, 2011; Navarro & Hernández, 2017).

A teacher's diary is a resource for the expression and reflection of individual and group work, aimed at detecting best practices and evaluating teaching processes. It is particularly useful for self-evaluation and planning future sessions based on previous experiences. In the diary, general themes can be addressed, such as the lack of motivation of the group to carry out a symbolic or imitation game. And also, more specific topics such as certain

observed individual behaviors, thoughts, feelings, and ideas shared by the children that caught your attention during class. For example, in observed behavior patterns, I realized that student C often did not want to participate in classes unless my instruction was expressed in a negative form. For instance, when I gave the instruction: "let's hold hands to form a circle," he simply said no. However, when I said afterward with a neutral voice tone: "okay, then don't take our hands," he thought for a few seconds, and then he came to the group to take our hands. Regarding children's thoughts, for example, it is important at the end of the game to get together and ask them about their perception of the game (e.g., was difficult to escape? was easy to remember what you had to do?), which is valuable information that should be recorded for future practices.

In summary, teachers must have the capacity to reflect, rethink, and restructure their own teaching (Zeichner, 1986) according to the educational needs of children. The supports, adaptations, and modifications to the playful practices are essential when working with children with disabilities. Therefore, writing a diary can be an enriching experience in the professional training of physical education teachers since it is a resource that allows expressing different types and levels of pedagogical reflection (Jarpa, Haas, & Collao, 2017). We, teachers, have to rethink ourselves constantly.

### **2.3. Didactic considerations based on the characteristics of children with MID and playful practices**

The selection, modification, and/or elaboration of the games is a process that should not be taken lightly. Initially, all general considerations for the systematic use of games in the educational context should be made: 1) according to their function at the specific moment of the physical education session (warm-up, main part or cool-down), 2) according to the type of game appropriate for the objectives established in our program (e.g., symbolic, sensory, traditional) and 3) according to organizational (e.g., physical space, available materials, time) and technical (e.g., control of the intensity, volume, frequency) aspects.

Due to all of the above, and especially due to the heterogeneity of this population, it is complex to label a game as "suitable" or "appropriate." Therefore, this section's objective is not to provide a battery of games but rather to mention didactic considerations to guide the physical education teacher towards more effective practices, in accordance with the characteristics of children with MID and using the game as teaching-learning activity.

#### **2.3.1. Play according to children's biological age**

In order to successfully work in the educational context with this population, I had to dive deep into the scientific literature to understand their differences with the typically developed children in terms of biological and chronological age. Here are some results that helped me define more or less how to proceed:

Children with MID might be 2 to 4 years behind in cognitive development in comparison with typically developing children (Watson, 2020). They are also characterized by a delay in reaching motor milestones and by a deficit of sensorimotor function; therefore, this affects neuro-musculoskeletal and motor systems (Hogan, Rogers, & Msall, 2000; Pellegrino, 2007). Research also shows that while it is true that they may reach motor milestones later, it is usually not more delayed than the cognitive development or the speech (Kurtz, 2007). Payne and Isaacs (2012) defined motor delay as "following a normal course of motor development but at a level that is below expectations for the child's age" (p. 449). The delay in motor development increases with the chronological age in persons with ID (Zhang & Chen, 2004). For instance, a preschool child with ID, who is 1-year delayed compared to typical developmental children, might be in elementary school 2-3 years behind them and 4-5 years delayed in middle school (Payne & Isaacs, 2012). This is consistent with studies showing delays from 2 to 10 years behind their typical developed peers on motor performance measures in persons with MID (e.g., DiRocco, Clark, & Phillips, 1987; Rarick, 1980; Rintala & Loovis, 2013; Zhang & Chen, 2004).

Related literature attributes the cognitive development of children with ID as responsible for these motor delays (Kurtz, 2007; Pellegrino, 2007), supported by theories such as Cognitive Processing Theory, which suggests that children may present motor delays because of problems with receiving and processing necessary information for "planning, forming strategies, attention, and memory to carry out normal motor functioning" (Payne & Isaacs, 2012, p. 451). For example, for a child to perform an appropriate motor response, she must initially identify and process the information in their environment and then select an appropriate movement program (Schmidt & Wrisberg, 2008). Children with ID may have problems processing the environmental information rapidly or properly, and therefore may show a slow and/or wrong movement decision program for the task.

This could explain why some studies (e.g., Vuijk, Hartman, Scherder, & Visscher, 2010; Westendorp et al., 2011) showed that the motor delay is more pronounced in people that have higher severity of ID since the cognitive deficit is more pronounced as well. It could also explain how the motor delays are inclining to increase in older

children and young with ID because motor performance has a greater cognitive requirement as more speed, movement control, or use of strategies (Wall, 2004). This conception is aligned with studies which support the contribution of the cognitive level to motor skills in children with different kind of atypical development, such as with attention deficit hyperactivity disorder (Klimkeit, Sheppard, Lee & Bradshaw, 2004) or with autistic spectrum disorder (Green et al., 2009). However, more research would be needed to justify this statement in children with ID (Gkotzia, Venetsanou, & Kambas, 2017).

Considering the antecedents mentioned above and with the experience obtained corroborating them, in my daily actions as a teacher, I generally select, modify, or create games with cognitive and physical demands for children between 3-5 years younger (than 10-14 years old children with MID). Let's not forget that these children are capable of learning with appropriate modifications and adaptations from the teachers in the physical education classes. Therefore, teachers must take the games apart and modify them until they are adapted to the characteristics of the children in their group, gradually add levels of complexity, and above all, be patient. These children will be slower, but little by little will be easier for them. The literature also suggests that some children with MID may catch up to children with typical development through normal maturation and therapy (Payne, & Isaacs, 2012), and from my experience, progress is observable (and very gratifying) in the medium and long term.

### **2.3.2. Recommended ratios in playful practices sessions**

Differences in student-teacher ratio and the number of students per course also contribute to the degree of success in a class with playful practices.

Regarding the number of students, it must be considered that due to this population's characteristics, the class must be small enough to guarantee student learning, participation, and safety, but large enough to ensure the execution of varied individual, group, and team games. The range of games options with a group of 6 children possibly is going to be more limited than in a group of 12. This is something that does not happen with many other physical education contents, such as gymnastic practices. For example, when teaching the forward roll having a small number of students facilitates the learning of the technique since the class can be more individualized. Also, the recommended number of students depends on the number of teachers in the class. From my experience, the most effective practices were carried out with a group between 10 - 15 children with MID and with two teachers (a lead-teacher and an assistant-teacher).

In addition to the obvious functions that an assistant-teacher has in the support to the lead-teacher in charge of a classroom, its importance lies in the fact that we realized that many times children do not respond to games even if they understand what to do. We discovered that if there is an "infiltrated" player (assistant-teacher) initiating and motivating the development of the game as one more child, the students imitate this behavior and start to play spontaneously. After they have become familiar with the game and have passed the first stage of shyness and insecurity that a new activity could cause them, it is no longer necessary to have the infiltrator in most games.

Children usually do not lose sight of the lead-instructor "out of the game" and feel supported by the other "within it." The lead-teacher performs functions such as: explaining the game, putting the examples in the introductory part, clarifying questions, moderating and monitoring the correct execution of the game. Performing both functions simultaneously, for instance, moderating the normal development of the game while also being part of it, is not easy for a single person in these circumstances. Of course, this depends on the characteristics of the game (many times everyone can play together: teachers and students), and also the roles of teachers are flexible and interchangeable (if both possess more or less the same abilities and skills). Other functions of the assistant-teacher once the children are playing on their own are to integrate those who are not participating any longer in the game for different reasons and resolve specific situations as possible disagreements between students. Children cannot be left without a leader during games; they must be observed and guided all time. Here is the importance of the second teacher for support and solving other situations.

### **2.3.3. Instructions have to be modified to meet students' needs**

Understanding and following instructions can be problematic for children with MID. It is not uncommon that after we explain a game that we thought was compressible for them, the children end up doing only parts of what they were supposed to do or just doing nothing. This situation should not be misinterpreted as they did not pay enough attention or lack motivation to participate in the activity, most likely they have not understood the game instructions. This misinterpretation is an excellent example of how our deficiency of knowledge on ID and the scarce adaptation to our practices as teachers can be an obstacle to the meaningful participation of children with ID in physical education.

The disability is a complex phenomenon that reflects the dynamic interaction between health conditions and contextual factors (personal and environmental) (World Health Organization [WHO], 2007). Among the environmental factors that restrict their participation are weak staff competencies that can affect the quality and accessibility of services (WHO, 2011), in this particular case, teachers' competencies affect the educational services.

To ensure understanding, teachers must simplify verbal language (simple and short) and accompanied it by visual demonstrations (Payne, Yan & Block, 2010). One of the greatest difficulties that my students from the physical education career had when working with this population was the mere fact of simplifying the vocabulary to facilitate the understanding of the instructions of the games. Simple modifications such as using "bend" instead of "flex" or using "sideways" instead of "laterally," words that are much more familiar to children (in the Spanish language, in the Ecuadorian context), was a challenge since this simplification was not internalized. The learning of more technical words is acquired over time and is a process that must also be incorporated into class planning. To keep the instructions simple and short, teachers often have to spend time exploring the game, breaking it down, analyzing its parts to incorporate them sequentially. For example, if we play "traffic lights," in which the children must change the motor task with each color, we could start with the instructions of one color first, then with two and finally with all three.

It is important to listen to the children, ask them, and verify that they understood; they often do not express their doubts or request repetition of the instruction. It is also vital during and after explaining the game to ask and verify if they know the meaning of certain elements that may be included. For example, if the game includes magic or a flutist, we must be sure that they know what we are talking about, we should not take any knowledge for granted unless we have already used it in a previous class. In other words, effective communication according to their knowledge. If possible, use elements that support instruction, for instance, wearing a magician's hat (to demonstrate magic), or a flute (so they know or remember what a flutist does), which will be an extra motivating factor for them.

These are the moments in which teachers can be very creative. Another technique that often works is designed the tasks in the game in the form of a song, in which the lyrics are synchronized with the action, in this case, the children listen to the instructions and visualize the task repeatedly (Sher, 2009). Additionally, we can create entertaining stories or tales around a game, which will increase interest, understanding, and encourage the use of imagination.

Remember that the success of the game is determined if the children know what to do, therefore, take your time in giving the instructions, repeat them as often as necessary before and during the game. Constantly ask if they need clarification. At the end of the game, it is advisable to take a moment and ask them certain general and specific aspects of the game to reinforce it, such as: what magic did the magician use? Why did the mice escape from the flutist? We also take advantage of this moment to ask about their perception of the complexity of the game: was it difficult to escape from the flutist? This is very important to consider in future sessions. Do not be surprised or discouraged if you do not get many answers initially, or none at all. The children will be participating little by little.

Finally, it is worth mentioning that although populations with ID are very heterogeneous in terms of communicative abilities, it has been shown that some individuals with MID have communicative functions that may be considered into the typical range. In contrast, populations with a more severe ID tend to have significantly less developed communication skills (Schalick, Westbrook, & Young, 2012). This is important because abilities such as receptive communication, which allows individuals to understand what is being communicated to them (Schalick et al., 2012), are essential to be able to understand the game's instructions.

#### **2.3.4. Perfect opportunity to promote social values**

The teacher is the one who guides and helps students during all the stages in the realization of the games. Besides, it has the mission to promote social values, and playful practices provide fabulous opportunities to do it.

##### **2.3.4.1. Leadership**

Many playful practices allow a constant change of roles, in which the child can become the direct leader of the activity in different contexts. Taking on this new role carries responsibilities that overwhelm children in most cases.

For instance, I remember the first time we played the typical game "Simon Says," in which the teacher takes the role of "Simon" and gives instructions to the children to be followed, once the children are familiar with the game a child can take the role of "Simon." After the children participated and showed that they understood the game, I asked who wants to be Simon, without getting any answer. Therefore, I proceeded directly to ask the three children who played better, and they shyly agreed. The results were that the first did not carry out any instructions and limited himself to just be in front of the group; with the second the same thing happened initially, but this time I stood next

to her and gave her examples of instructions in a low voice, which the girl also repeated in an even more low voice (making it impossible for the other children to hear and perform the action). When it was the third girl turn, who came to the front very motivated, I supposed this time it would work, however, after a few seconds without being able to say anything, she almost started crying. At that moment, I also came to help her with examples of instructions with "*El Chavo del Ocho*" topic (the Mexican television sitcom), the boy C who was motivated by the sitcom was in that group, so it was not difficult to have that idea in my mind. The instructions were: "Simon says to cry like the Chilindrina," and "Simon says to get angry like the Jirafales professor." With this theme, the girl changed her mood and proceeded to give the group the instructions I gave her, and two more instructions made by herself regarding the same topic. This game that I wrongly considered simple had a not very rewarding result, which led me to rethink how to get children to acquire and develop the necessary skills to be in front of a group leading within their possibilities, to analyze the situation from different perspectives, to provide more planning time focused on this objective, and especially taking into account this leading-factor with each game later so that the same situation is not repeated.

An important teaching consideration is to start giving them leadership roles progressively. Initially provide opportunities in which they have limited decision-making and action roles. For example, in the "traffic light" game, the child has to use the color cards if he acquires the leader role, in that case, he only has to choose between the three colors and raise the card. Unlike the "Simon Says" game, he does not have to select an instruction on his own from the multiple possibilities, none of which is physically in front of him. The fact he does not have to remember to say or do something specific (like repeating in each sentence: "Simon says..."), nor he has to issue verbal instructions (motor/visual instructions only: raise the hand with the traffic color) decreases its complexity. Keep in mind that children's difficulties in general mental abilities are reflected in diminished cognitive capacities (APA, 2013), such as decision-making (Krahn, Hammond, & Turner, 2006) and memory (APA, 2013; Hulme & Mackenzie, 2014). It should be emphasized that verbal instruction to support the visual is important for the rest of the group; therefore, in this case, the teacher must act as a verbal replicator of the child's leading action.

The individuality of each child must always be considered. Each child is a world with a unique set of natural abilities; therefore, not all will develop leadership skills in the same way. Teachers must encourage their participation by providing appropriate support for their specific characteristics. For example, some children will always need the teacher at their side as support; others little by little will no longer need it and will be able to perform certain leading functions on their own. Some children will never want to lead the activity, but they will be able to participate as leader's assistants (for example helping with the demonstration of the activity: jumping when Simon says to jump), the simple act of being in front of the group with this function is already progressing for this group; and others will never want to perform this role in any degree, which is fine, but teachers always have to leave the opportunity there so they can take it if they ever want to.

Developing and strengthening leadership (and the entire set of skills that come with it) should not be taken lightly, as teachers are educating for life itself. We have to consider that these children will have fewer opportunities to develop leadership skills through traditional means (e.g., participation in school activities or mentoring experiences) (Pederson, 1997). Additionally, it is not unrealistic to consider that during their lives many of them will be exposed to experiences of disability oppression and resistance (Caldwell, 2010; Charlton, 2000), therefore creating a rich environment to explore their abilities and skills of leadership and empowerment could give them more confidence and self-determination to face situations of diverse nature in the future.

#### **2.3.4.2. Teamwork**

Teamwork, or also called collaborative work in the educational context, is a necessary methodological resource that promotes the acquisition of habits and social values (Campillo, 2016). This methodology is based on small groups in which everyone must work together to improve their own and others learning (Velázquez, 2010), with the particularity that the goal can only be achieved if it is achieved by all the team participants (López, Velázquez, & Monjas, 2004).

Teamwork is one of the most demanding and challenging activities for children and youth with ID, as it requires a considerable set of intellectual and adaptive functioning skills that are deficient in this population compared to the typically developing population. Johnson, Johnson, and Holubec (1999), for instance, point out that for cooperation to function and succeed, we must consider five elements in our classes: 1) positive interdependence (positive interdependence theory suggests that collaboration in the team is enhanced when students perceive that the contribution of each member is essential for the group to succeed (Johnson & Johnson, 2009)); 2) individual and group responsibility; 3) stimulating interaction (promoting the success of others); 4) interpersonal and team skills



(e.g., knowing how to make decisions, managing conflicts, creating a trust climate, communicating); and 5) group self-evaluation (analysis of group work and how to increase group effectiveness). All this requires intellectual functions such as learning and reasoning, adaptive functions with particular emphasis in social areas such as "empathy, social judgment, communication skills, the ability follow the rules" (APA, 2017) and in practical areas such as independence, teamwork responsibilities, and organizing tasks, all deficient in this population (APA, 2017). However, games provide a very good platform for cooperative learning if we take the proper considerations.

It is especially important if you are starting to work in cooperative games with this population, that games should initially require a limited number of roles, materials, and rules. For example, let's take the game "the burnt ones," in which there are two teams, one that burns and the other that escapes, and then the roles are exchanged. The objective is to "burn" the opposing team members with a ball (plastic) in the shortest possible time. This game has two basic rules for the burning group: 1) if a child has the ball, she cannot move her legs, but must pass the ball to another partner of her team and 2) someone can burn a member of the other team if she gets the ball to touch him. The escaping team also has two basic rules: 1) if someone is touched by the ball is burned and 2) the burned child has to leave the court. In general, we could say that the whole team has the same role to burn or escape. They all interact with the same material (the ball), and the entire team is subject to the same rules. The fact that they have only one ball and that the burning team has to depend on teammates to get closer to the members of the other (because they cannot move their legs with the ball), forces them to work cooperatively to achieve the objective, which denotes an interdependence in teaching resources (Johnson, Johnson & Holubec, 1999).

Gradually increasing complexity is necessary for cooperative work. In the previous example, we can first play the "burnt ones" walking, and when we see that the majority have understood and played their role, we proceed to do it jogging. With the repetition of the games in several sessions, the improvement in its execution is noticeable. In our example, the inhibition ability (the fact that the ball produces an effect that inhibits the legs is complex for some children) and the effectiveness of the movement (where to locate to burn more children, how to escape of those who are burning) is progressively improving. From my experience, children with MID between 12 and 14 years old with cooperative work experiences can satisfactorily performance the "burnt ones" game. However, each game's complexity level is subjective and will always depend on the characteristics of the group and their experience.

If there are children who do not want to participate or are on the playground without fulfilling their role, it is important not to exclude them from the activity. We must find alternatives so that they participate and motivate them even if their performance is not as good as their peers. Always keep in mind that what requires little effort for one child may require much more for another. For this, it is also recommended to carry out varieties of cooperative games to provide participation opportunities in different contexts and levels of complexity. Likewise, to strengthen the unity of the entire group, cooperative games that require the whole class to work for a single objective are very convenient.

It should be noted that the autonomous work of groups at these ages, without the guidance of a permanent teacher, is not recommended unless it is an advanced group with plenty of experience in cooperative work. Basically, because it often happens that the groups do not work on their own, they need constant support and motivation with the how, when, and why to proceed throughout the game. This would only generate a feeling of bewilderment or boredom during the activity. The teaching action must be progressively decreasing during the cooperative games in dependency on the complexity of the game and the group characteristics.

Finally, this is an excellent opportunity to approach the children and discuss important topics such as fair play, winning and losing, and control of unwanted behaviors against their peers. For this, the rules of the game must be clear and must be constantly remembered by the teachers; likewise, they must know the consequences of not complying with those rules. After the execution of each cooperative game, the talks are essential so that we all carry out a self-evaluation of the results and analyze how we can improve. Congratulate those who did very well and motivate those who did not, to do better the next time. Talk how winning and losing is part of life, and we have to learn to lead with that. How living in our society requires us to be tolerant of others and to know how to recognize their virtues. That many times we must work as a team to achieve our goals. All through a friendly and simplified communication, with clear examples that they can recognize and compare. Not for nothing, Johnson, Johnson, and Holubec (1999) conclude that cooperative learning is not easy, it requires effort and discipline, but it is worth it.

### 2.3.5. Other general didactic considerations

- It is always better to start with the most elemental versions of the games to gradually increase the complexity. If a game does not work initially, re-analyze, and decompose it, there is almost always a way to

adapt and/or modify it to make it suitable for your group's characteristics. It is common for the successful execution of a game to take between 2 to 4 repetitions in different sessions depending on its complexity.

- Especially in the early stages, it is advisable to limit the number of games that determine “winners” and “losers,” and gradually increase the level of competitiveness. Knowing how to win and lose is also a skill that must be acquired. Promoting a friendly environment even if a child loses is very important. A good alternative is that, for example, if the child must leave the field because he has lost, the assistant-teacher calls him friendly with applause and keeps him company while watching and cheering on the other classmates still playing.
- The organization of the class should help the child to stay focused and attentive. Use visual cues, cards, drawings, sports materials, costumes, music or videos, everything you consider necessary and have available so that they understand the instructions of the game better and maintain their attention and motivation.
- Games can have many modifications and adaptations. However, it is important to stay consistent with the rules until the children have mastered them.
- Sometimes, it is convenient to separate from the group the children who did not understand the instructions during the game. Then, we can dedicate more alone time to explain the game more carefully while observing their classmates playing as an example.
- Music and movement generate an exciting interaction because its components (time, duration, rhythm, and compass) can be directly related to some parameters of the human motor movement, establishing parallelism between musical and movement languages (Riveiro & Schinca, 1992). This relationship can generate very stimulating teaching processes when playing games and music are together. Therefore, analyze what games could be made with music; many focus on the development of creativity and free movement.
- In chase games in which the goal is to “catch” a single person, it is recommended that the teacher plays the role of "being caught" initially. That's because children often do not control their emotions and strength, which is why accidents can happen. After children are familiarized with the game, learned the rules, and performed expected behaviors, teachers can proceed to choose a child for this role, preferably with a motor and cognitive development that stands out among his peers.
- Listen to their ideas; if someone wants to lead an activity, motivate him to do so. Create a friendly environment so that they can show their personality without being judged and, at the same time, teach them to respect others.
- If the children want to repeat a game because they liked it a lot, it is convenient to leave extra time in class to do it. They will know they were listened to, and it could be a reward to do another in which they might be less interested.
- Once most children have mastered a game, encourage them to play it with their peers during the recess and outside of school. Children with disabilities are less active than typically developing children. Studies suggest that they are inclined to participate more in games in solitary or with adults than with friends (Carter et al., 2014). Therefore, increasing playful practices during physical education classes can promote and encourage its use in their free time with their peers.

### **2.3.6. Believe in children's learning ability. Teachers' attitudes matter!**

The successful structured progression of children's inclusion and positive outcomes can be affected by the teacher's attitudes (Fournidou et al., 2011). Teachers have to critically and reflectively examine their own attitudes and behaviors to detect if any has become a barrier to the participation of children. Every effort should be to understand the root of the problem and develop strategies to reduce it subsequently. For instance, evidence shows that effective support (in training and didactics) from specialists may be beneficial (Fournidou et al., 2011). Some personal factors perceived from the students from the physical education career, and that I experienced myself, that could contribute to the development of these negative attitudes are insecurity about the own capacities of being able to be in charge of a group with people with disabilities, lack of knowledge of the disabilities (types, severities, characteristics), how to communicate and teach appropriately and frustration of not reaching the proposed educational objectives.

### 3. DISCUSSION AND CONCLUSIONS

This article was a presentation of didactic considerations and guidelines for the use of playful activities, extracted from the most effective observable practices in the teaching experiences of the author and supported by the scientific literature.

Play is an agent of global development (cognitive, social, affective, and motor area) and personal self-realization (Juan & Montes, 2001). Playful practices provide variety to meaningful learning, have great potential as a facilitator in pedagogical processes, and also, as organized activities with logical structure and rules that can be flexible, modifiable, and constructed, can provide an appropriate educational response to pupils with ID. No manual perfectly describes how students will react to a playful practice or how they will acquire learning from it. However, the didactic considerations presented in this article might help teachers to use playful practices more effectively, according to educational objectives, but also according to the personal needs and interests of the children with MID. Sometimes even small modifications can be translated into significant changes in class.

In summary, the primary consideration is that teachers must have the capacity to critically reflect, rethink, and restructure their own teaching (Zeichner, 1986) according to the educational needs of children. Therefore, having a positive and reflective disposition to modifications and adaptations of the different elements involved in the playful practices is essential. For inclusion to become a reality, teachers must change the culture within their physical education classes, towards an education that responds to diversity, re-examining the circumstances and experiences to which children are exposed to in schools.

This study extends the small body of bibliography in the pedagogical practices in the physical education area with populations with MID. It is recommended that teachers share their experiences in pedagogical practices to learn from our differences and strengthen our coincidences; this collaboration between teachers is a very enriching educational practice.

### 4. BRIEF BIOGRAPHY OF THE AUTHOR

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