

TRAINING IN SCHOOL THROUGH MOTOR EDUCATION: AN EXPERIMENTAL PEDAGOGICAL PROTOCOL

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Abstract

The role of motor education in primary school is increasingly important. To obtain effective training for young students it is important to design new experimental pedagogical protocols. This research work aims to build an innovative motor education protocol in the school that can help children towards better educational growth. In this regard, the hypothesized didactic proposal was tested on a sample class, and observations on both ex-ante and ex-post groups were analyzed and compared in order to frame the quality of the project in pedagogical, motor and social terms.

Key words: experimental pedagogy; motor education; innovative didactics; school.

Introduction

Analysis of the basic conditions for a pedagogical design

A primary school (5th grade) class was made up of 20 children, 10 of whom were male and 8 were female. Among them, there was an autistic child who, during motor education classes, was assisted by a supporting teacher to carry out daily activities. The activity to be carried out consisted in performing a series of sports activities, with a double purpose: on the one hand that to enable inclusion, and on the other that of attaining integration. This project consisted of 10 lessons of 2 hours each, and took place in the gymnasium of the school. In order to start motor education activity in the best possible way, it seemed more appropriate to have a first warm-up moment (in this case, the ball was not employed immediately but in a second stage), in order to allow the heart rate increasing and mobilizing the joints, so as to be better prepared and ready for the subsequent physical exercise.

The warm-up would take about 40 minutes, and the remaining time, i.e. 1 hour and 20 minutes, would be employed to play the activity. During the last 20 minutes, the students would play a 5 minutes match, so as to allow each team participating in the game twice. The aim of the game was the collaboration and development of sensory-motor dimensions, such as ocular-manual coordination. In this way the children were stimulated to play, to respect the rules and the other, and to learn the basic rules of cooperation. Motor activity is very important for the correct development of the individual, because, through the discovery and exploration of the body and the environment, movement and game, performed both individually and in group, there can be the opportunity to acquire many skills in different development areas, getting to know better oneself and others, one's own skills, potentialities and limits, and the social and emotional rules that underpin interpersonal relationships.

For a person with autism, motor activity can also represent an important opportunity for developing his/her functional skills in the areas which are most affected by this disorder, especially those related to communication, social interaction, interests and behavior.

We necessarily took into account the following aspects:

- Creating an inclusive environment through activities aimed at learning about, respecting and valuing individual diversities;
- Carefully observing and evaluating the sensory-perceptive characteristics, the previously acquired and new skills, and the main difficulties of the student with autism spectrum disorders (also in the motor field), in order to create and implement valid educational motor activity paths in inclusive contexts.
- Providing the student with visual examples and clear behavioral patterns also through the use of images, photographs or videos, by structuring the space, time and activities proposed in a clear and flexible way.
- Using classmates as a resource through didactic mediation, tutoring and cooperative learning strategies.

The possibility of spending part of the time in the classroom proves facilitated if individualized and curricular objectives can be adapted. For the autistic child, however, the fact of simply being in class can be an important relational goal, even if spending much of the time in individual and repetitive activities. Structuring the ability to remain in unpredictable environments, and maintaining appropriate behavior to the situation, is an educational goal of great importance. One of the main keys to success in the process of school integration lies in stimulating relationships of friendship and support between classmates. On this aspect, in addition to the convinced testimony of the teachers engaged daily, there are also several

supporting research works. Relationships of friendship and support are extremely individual, fluid and dynamic, varying according to age and based mostly on a free choice resulting from very personal preferences. However, this does not mean that they cannot be facilitated and supported by actions taken by teachers and parents, and by a favorable climate within the classroom. The behavioral and cognitive characteristics of autistic children complicate the establishment of significantly important interactive relationships, especially in pre-school and primary school. However, a series of measures can be identified to facilitate forms of help and support from classmates:

- Encouraging the development of relationships of support;
- Planning tutoring situations (i.e. Where the students themselves provide support and help)
- Working on the creation of a non-competitive climate, in order to activate cooperative learning experiences.

Innovative Motor Didactic Activity: Experimental Design

Period: Second quarter of the school year (the last 2 hours of Friday class)

Duration: 10 lessons of 2 hours each

Place: School Gym

Space: Field

Activities and Objectives

The project was structured in 10 lessons of two hours each, and the lessons were divided as follows:

- Lesson 1: The concept of "team"
- Lessons 2-3: Football
- Lessons 4-5-6: American football
- Lessons 7-8-9: Baseball

LESSON N.1:

- Objectives: reaching collaboration, sense of group
- Activities: The teacher came to the gym with the class and explained the project to the students. Then the lesson started with a warm-up phase (20 minutes)
- Exercises proposed: On-place warm-up to activate the different parts of the body. For example: lower limbs, upper limbs, torso, neck, shoulder, pelvis and ankles. Walking, running, walking backwards, running backwards, running sideways along the perimeter of the gym changing the direction to the clap of the teacher's hands.
- Materials: circles, colored marker cones, balloons, flags of 8 different colors

CENTRAL PHASE: The teacher explained to the students that, in the next lessons, they would have carried out different types of sports, each with a common feature: they were all team games. After that, the teacher divided the students equally into two teams and they began to play the following games:

- 1) **HUMAN TIC-TAC-TOE:** on the floor of the gym, the grill of the tic-tac-toe was created with circles



Each team was given colored marker cones according to the color of the team. At the start, a member of each team started the race and put the marker cone in one of the circles; the game continued with a relay, until one of the two teams was assigned a score (managing to place three cones in a horizontal/vertical/oblique way). In this specific case, the autistic child was supported by one of his classmates, fulfilling the criteria of tutoring, so that there was fair reciprocity between the two: the child with difficulty found in his partner a source of support and knowledge about the exercise to be carried out, a sort of moral support. The other child, while helping his partner, empathized with the difficulties of the other and tried to enter his world, to understand what the other would feel and helped him carry out the activity. In this way, the autistic child was able to carry out the activity, albeit with difficulties, but recognized a source of support and help (thus not a threat) in others; so he had a reason to trust others and ask for help.

- 2) **DODGEBALL**

The halfway line was marked in the basketball court.

Each team occupied one of the two areas of the field and the players, waiting for the instructor's Start, were placed at the bottom of their field. The five balls were placed on the halfway line. At the Start, the players had to run towards the center, trying to grab the balls and hit the opponents. The rules were the same as for dodgeball.

Precisely because of the presence of an autistic child, knowing his problems related to acoustic hypersensitivity and his motor difficulties, it was important that this activity was carried out in the least noisy way possible, trying to ensure that the child would not feel uncomfortable because of the noise and that he would not be annoyed by them. He was then accompanied to the halfway line by his supporting teacher, where he tried to catch the ball and throw it to his opponents. His mates did the same, so as to be an example to make him feel just like them by carrying out the same activities.

LESSON N.2

- Objectives: socializing (living positively with others), overcoming the fear of the contact with the ground and with the opponents. Learning the basics of football.

Basic rules of football:

- never play by using your hands
 - try to get the ball without pushing or holding an opponent
 - never kick your opponents
- Materials: ball

- Activities: once arrived at the gym, the teacher introduced the first sport they had to deal with: FOOTBALL.

Warm-up phase (20min): we could perform the same warm-up as in the previous lesson.

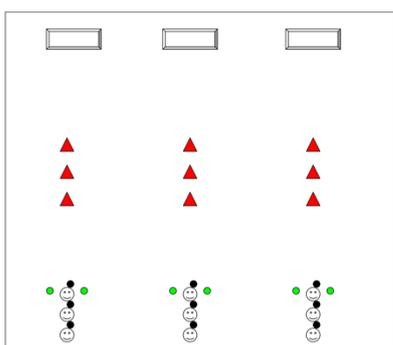
- Central phase:

LEADING AND SHOOTING

1) 3 teams were made up, and in front of each team there were 3 identical paths, developed by using the following tools:

- 3 skittles to slalom through
- 1 small door

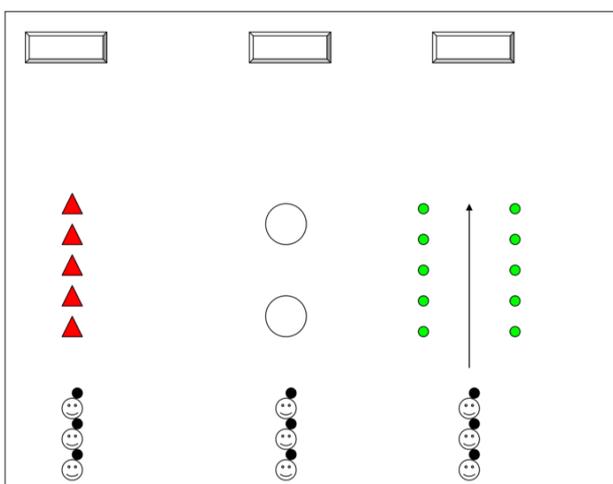
The children had to guide the ball towards the cones and overcome them with a slalom. Once overcome the last skittle, they had to shoot towards the small door placed 6-8 meters right in front of them. After that, they had to retrieve the ball and line up again. The team that scored the greatest number of goals got the win.



1) 3 teams were made up and in front of each team there were 3 different paths, developed by using the following tools:

- 5 skittles through which to slalom
- 2 circles to circumvent
- 10 marker cones

In the first path, the children had to guide the ball by making a slalom. In the second path, they had to guide the ball around the circles. In the third path they had to guide a loose ball. At the end of each path they had to make a shot in the front door, placed 8-10 meters away from them. It needed to alternate the paths after performing their own one at least 3 times.

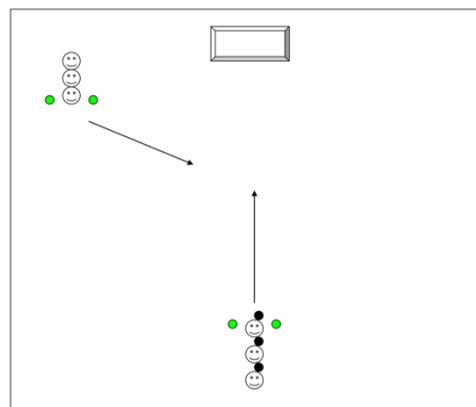


2) "Path and colored small doors"

The two teams started at the same time, and undertook an identical path that included: making a full circle around a cone, running between the circles, jumping over a low obstacle and crawling under a high obstacle. At the end of the course, the player had to kick the ball into two small doors made up of different colored marker cones; the correct door was indicated by the instructor who raised a color corresponding to one of the two doors. The winner was the one who kicked first in the goal indicated; then, at the end of the course, the subsequent players could start kicking too. Also in this case, the autistic child necessarily needed the help of his teacher and mates, thanks to whom he had the opportunity to observe how the activity had to be carried out, and how to complete it. The child was shown the path to undertake, by following simultaneously another child who was performing the same exercise, and was indicated the way to kick the ball into the goal. This activity, in general, allows developing socialization and a certain ocular-manual coordination; all this because, on the one hand, mates are friends and not enemies, helpers and not obstacles, and on the other hand, because physical exercise itself is strictly aimed at developing this skill.

3) 1-vs-1

The children were divided into two groups: one had to use the ball (attacker) and the other didn't have to (defender). At the instructor's Start, the child with the ball started running towards the goal to take the shot, but first he had to overcome the defender. If he succeeded in catching the ball, he had to try to shoot at the goal. Once the exercise was performed, the roles got reversed.



LESSON N.3

- Warm-up phase

- **TUNNEL GAME**

This game could be proposed for it is very easy to play and explain, does not need any material other than balls, and is funny and functional at the same time.

Two groups were set up: in one group all the members were standing up, in a scattered order across the field, and had their legs spread; the members of the other group had to run through the field by controlling the ball with their feet and passing it between the legs of their first group

mates, as many times as possible in a minute. It could be performed both as a personal challenge (the one who managed to make the most tunnels got the win) or as a team challenge (the team that scored the most tunnels got the win), or simply as a funny game.

4 TEAMS AND 2 GOALKEEPERS

- The 4 teams (numbered players) were arranged in the corners of the playing field.
- The instructor called a number and the corresponding players of each group ran fast to get the ball and score goals.
- Before reaching the ball, the 2 contenders of each half of the field had to get around the respective cone.
- The attacker was always the player in possession of the ball.
- The action ended with the goal, a save by the goalkeeper or a ball thrown over the lines. We spent the rest of the time playing a match, by involving everyone.

Both in the game and in the activity, we could see a well-developed fundamental dimension: that of the group. The autistic child felt that he was an active part of the class group, that he could trust and count on them, and that he had developed an important sense of belonging to that group. In this way, he gained self-confidence and learned to trust others.

LESSON N. 4

- Objectives: feeling part of a team
- Activity: Once at the gym, the teacher explained the students that there is also another type of football, developed mainly in America, and that is called American Football. A completely different game from the Italian football, being much more similar to rugby.

Why did we choose flag-football? In addition to being a sports-game, it is a means that provides an opportunity for children to get together, have a common goal, acquire team spirit, and help the less able ones or those who are unable to join. It is also a great opportunity for everyone to improve and consolidate one's own motor skills, and enrich the wealth of experience that every child should have.



Then we explained them how to play the game: unlike real American football here there is no contact, but each player has a belt with two tied flags.

During a Flag-Football match, two teams of five players each faced each other, through running and passes, to gain ground in a series of games (down), in an attempt to reach the end zone defended by their opponents and score points. Each team, when attacking by starting from the 5 yds line (placed in

front of its goal area), had to score two successive goals, and reach the halfway field in 4 down max in order to take advantage of further 4 attempts and score a goal (touchdown). Each down got closed when one of the flags placed along the sides of the ball carrier got ripped; then the game resumed from the point where it was interrupted. The whole surface of the field covered during the down was then considered "conquered", and the new action started from there.

- Warm-up phase (20min)

1) 10 PASSES:

- Materials: 1 ball for 10 boys, 4 cones or marker cones

Team A (5 units) had to perform ten sequential passes, without dropping the ball and making it being intercepted by team B. The latter, in turn, by playing a man-to-man defense, had to try to deflect or intercept the opponent's passes, in order to stop the count. **Rules:** The player in possession of the ball did not have to run, had to be left free from marking and get rid of the ball within 3 seconds from the moment he had caught it.

Physical contact was not allowed. Every time the ball dropped the game got stopped.

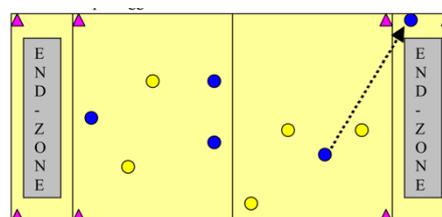
With this game, in addition to making contact with the ball, passes and ball receiving were introduced. In particular, for the autistic child, the sensory-motor dimensions related to coordination and reflexes could be developed. The child learned to throw the ball exactly towards the child in front of him, and not towards someone placed at his left or his right; he was encouraged by his teammates and felt satisfied when performing the exercise correctly; his teammates, in order to gratify him, gave him a round of applause.

2) PARTY BALL

- Materials: 1 ball, basketball court, 8 cones or marker cones

It was similar to the first game, but in this game it needed to carry or receive the ball into the end-zone, in order to score points. It was a 5-vs-5 game.

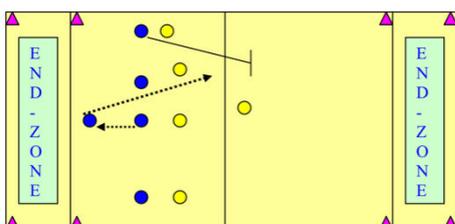
The instructor indicated how many passes the attacking team had to perform before reaching the end-zones. The player in ball possession could take a maximum of three steps. The ball could also be received directly into the end-zone. Each time the ball dropped, the action got stopped and the ball possession changed. It was always specified that, in Football, it is not necessary to put the ball into the end-zone, but it is sufficient to enter it with the ball in one's own hand, or receive a pass when being into it. Score: - each touchdown was worth 6 points.



LESSON N. 5

The lesson began with the introduction of the first roles of the players in the playing field. At the end of the first lesson the end-zone with the "Party ball" was introduced; the same game continued for a few minutes and a new concept, a new rule and a role were introduced. A simple rule was introduced immediately: all players in the attacking team had to be in line with the man who held the ball at the start of the action, and could only run forward after the first pass had taken place. In a second moment it was introduced the role of the center and the snap, the role of the Quarterback, and the "ready... go!" exclamation for allowing the attacking action to start. The game then developed in a similar way to the "Party ball". Little by little, the students began to glimpse what the objectives set were and, through the various steps of the didactic progression, they were able to assimilate all the concepts. The repetition of activities allows assimilating concepts and sequences, especially for autistic children which are particularly linked to routine and specific actions.

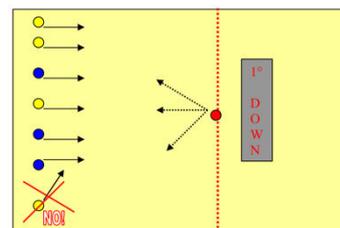
- 1) QB Ball
 - Materials: 1 ball, basketball court, 8 cones or marker cones
 - Objective: including scrimmage line, snap, center and QB. The game was identical to the previous ones.
 - Rules: The instructor indicated how many passes the attacking team had to perform before reaching the end-zones. The player in ball possession could take a maximum of three steps. The ball could also be received directly into the end-zone. Each time the ball dropped, the action got stopped and the ball possession changed.
 - Score: Each touchdown was worth 6 points.



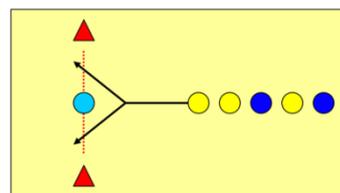
LESSON N. 6

This lesson was almost entirely dedicated to the use of flags and to complete the learning of the rules. The concepts of scrimmage line, field conquest through various successive attack actions (down), end-zone, and the roles of Center, Quarterback and Receivers were introduced. Short descriptions and demonstrations explained the snap, the launch technique and the passes reception too. Finally, some rules were introduced, like the fact that the QB was forbidden to go over the LOS and the 7-second time available to throw the ball. The last preparatory phase to the actual game concerned the concept of "tackling" and "running" to conquer the field. At the end of this lesson, the children were practically ready to play a real match!

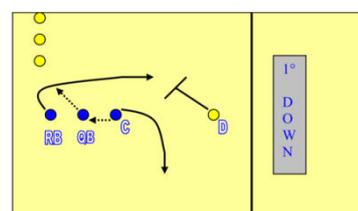
- 1) Jailbreak
 - Materials: bells and flags
 - Objective: teaching how to rip out flags in the open field.
 - Organization and Rules: Runners were lined up on the end zone and had to try to reach and cross the halfway line. The defender positioned himself on the halfway line. At the signal he started running and tried to rip the flags out of the runners' hands. It was forbidden to cover the flags with one's own hands and block the opponents. Every runner to whom the flag had been ripped became a defender.



- 2) Machine gun
 - Materials: belts and flags, 2 cones or marker cones
 - Objective: teaching how to rip flags in a confined area.
 - Organization and rules: a defender was positioned between two cones placed at a distance of about 3 meters from each other. The attacking players were placed in a row, in front of the defender, at 3-5 meters from him. At the signal, the attackers ran and tried to pass between the two cones, while the defender tried to rip the most flags out of the attackers' hands. The attackers could not have fakes or cover the flags.



- 3) End-zone Run
 - Materials: belts and flags, balls
 - Objective: indicating the possibility of carrying out running actions, through the Running back.
 - Organization and rules: A defender was positioned on the halfway line. Three attackers acted as the Centre, the QB and the RB. At the instructor's "go", the center snapped and ran forward to get the ball, while the QB gave a hand-off to the RB. The latter took the ball and ran towards the half of the field to try to cross it before the defender could rip the flag out of his hand.



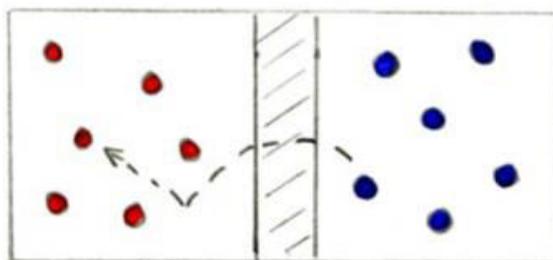
Because of the difficulty of these games, albeit minimal, it was necessary that the autistic child was assisted and guided in the different actions to be carried out. Very often we were faced with the child's inability to carry out certain activities, but it was important to encourage him and make sure that his mates would invite him to come forward and try to succeed in the goal. The emotional strength and solidarity provided by his mates could be very helpful in certain circumstances.

LESSON N. 7

- Warm-up phase
- Match: In this lesson we played a match, so that they could put into practice everything they had learned in previous lessons. The class group had fun by playing all together; even the autistic child was happy to be involved in this game, felt an active part of the group and the group itself included him in their games and initiatives.

LESSON N. 8

- Objective: reaching coordination through the game of baseball
- Objective of the activity: Throwing and gripping (getting familiar with the baseball glove), first shooting exercises, running to the bases (choosing the direction to get around the bases).
- Warm-up phase:



2) The game of the lines: 2 groups played against each other. It needed to adapt the size of the playground to the number of children. The aim was to throw the ball into the opponent's field, in an area where there was no one. The children tried to stop the ball or catch it with a glove.

3) Target Shooting: The activity consisted in shooting the ball from different distances towards the target attached to the wall. Depending on the distance and size of the target, different points could be scored.

4) Batting like in baseball: The bat had to be positioned just above the shoulder. When the ball was thrown by the batter, the child had to hit the ball. Once done it, the child had to start running to the nearest base. We let all children attempt to bat 5 times each, and then we increased the level of difficulty.

5) Between the lines: 2 groups tried to score as many points as possible. The further the ball would get, the more points could be scored. The number of points was determined by the area where the ball was caught or stopped.

1) Running to the bases: Running 2-3 times around the bases. Each child, when on the base, exclaimed the name of that base (first, second, third base and base house). The children ran around the bases one after the other, maintaining a distance of about 2-3 meters from each other.

2) Getting familiar with the basketball glove: It involved: putting the ball up in the air and taking it back; lifting a knee and throwing the ball to a mate; throwing the ball to each other while in lateral position.

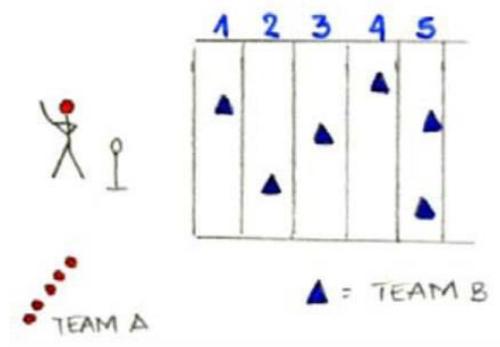
3) Jumping around the baseball glove: jumping with feet together from one side to another, with feet together backward and forward, laterally with the outer foot resting on the ground first, back and forth by first resting on the ground one foot and then the other.

4) The baseball glove: Sitting down and putting the glove between the feet. Leaning hands behind the back, bending and stretching the legs. Lying down on the back, putting the glove between the feet and putting legs up and down.

CENTRAL PART:

1) Running to the bases: "From the home plate to the first base": Children ran from the home plate to the first base, touched it with their feet and ran forward. After the first base, they had to high-five the child and line up behind the home plate. The first child carried out the exercise and, once he touched the first base, the next one started. After the exercise, they had to go back in line.

After each player threw the ball 3 times, they changed position.



LESSON N. 9

- Objective: knowing how to catch and throw the ball back

- Warm-up phase:

- The Locomotive: children were divided into equal groups in the 4 bases. The first child in each group walked around all the bases.

When he got to the starting point, the second child joined him. The child kept running in this way until the whole train turned around all the bases. At that point the first runner stopped on his own base and the others kept running; after a turn the second runner stopped, and so did the third and the others.

- Standing on one leg and turning one's own arms. At the beginning with small circles, then with larger and larger ones.
- Standing on one leg and bending down (by bending a leg). When bending down, they had to try to turn their arms.
- Standing on one leg and closing one's own eyes. In this activity, they had to try to stand on their tiptoes without falling down.
- Throwing the ball in pairs: while jumping in the air, with a bounce on the ground.....

CENTRAL PHASE:

1. Who would score the most points? The children, in pairs, placed themselves in front of each other (at 2-3 meters) and tried to roll the ball between the legs of their partner. Points were assigned to the one who managed to make it roll 3 times between the legs of his partner.
2. Human pinball: we divided the children into groups of 5, organized them into a circle with their legs spread and their feet touching those of their mates. The goal was to pass the ball under the opponent's legs, who could defend himself with his hands. If the ball passed under a child's legs, that child could no longer defend his area with two hands, but could use only one hand. If the ball passed under the legs of the same child twice, the child was out of the game.
3. Throwing at the bucket: The children were divided into 4 teams, and whoever managed to throw the ball into the bucket, scored 2 points.

Each child had 2 attempts available. In this new activity we not only aimed at integration and inclusion, but also at coordination and balance; these two dimensions are difficult to reach in childhood, especially in the case of autistic children with clear motor and gestural difficulties. This child sees his/her peers as a reference point, and the latter will set a good example and promote the right actions to carry out. The autistic child will certainly need their help at the beginning, but, in the end, he/she will be able to be coordinated and balanced as much as possible.

LESSON N. 10

- Warm-up phase
- Match: The teacher set up 2 teams, one on the field and the other at the batting line. The batter (runner) ran until the defensive team stopped the ball and passed it to a certain player. He had to remain stationary on the base until the next child stepped up to bat. Once all the offensive team's children did it, the teams reversed their roles. The children changed their position on the field after batting 2 times.

Design of Evaluation Criteria for an Experimental Pedagogical Proposal for Motor Education

Any didactic proposal, especially if oriented to the development and training of a class group belonging to primary school, must be appropriately matched by the relative design of the evaluation criteria that integrate what hypothesized. The evaluation phase is of fundamental importance in order to lay the foundations for a didactic and pedagogical analysis of the educational progress of all students, and is therefore a basic component in the development of any proposal for schools.

COMPETENCE	LEARNING LEVELS	OUTCOMES
Movement	1. He/she effectively coordinates various motor skills in different situations, by controlling his/her body in space-time relationships, and recognizes physiological changes with confidence. 2. He/she coordinates various motor skills and controls his/her own body in space-time relationships, and recognizes physiological changes. 3. He/she coordinates basic motor skills in some situations, by globally controlling his/her body in space-time relationships, and when guided, recognizes its physiological changes.	10 = fully acquired skills 9/8 = skills acquired in several motor situations 7 = fairly confident motor skills 6 = motor skills not fully acquired 5 = skills not acquired
Body languages as a communicative - expressive mode	1. He/she controls multiple expressive modes and communicates effectively through non-verbal language 2. He/she uses different expressive modes and communicates through non-verbal language 3. When guided, he/she uses certain expressive modes to communicate simple situations and moods	10 = excellent skills, he/she recognizes and uses various communicative - expressive languages in a personal way 9/8 = very good skills, he/she uses different languages 7 = Discrete skills, he/she use encoded languages 6 = Partial skills, he/she uses languages only if guided 5 = Inadequate skills, he/she is unable to use expressive languages
Sports-Game	1. He/she actively contributes to the success of the game with personal support, respects the rules, roles and teammates, and accepts the results	10 = solid and in-depth knowledge, very correct, responsible and collaborative behavior 9/8 = solid knowledge, correct and

	(successes and defeats). 2. He/she contributes to the success of the game with some personal support, respects rules, roles and teammates, and accepts the results of the game with balance. 3. When guided, he/she collaborates to the success of the game, globally respects rules, roles and teammates and accepts the results	responsible behavior 7 = Discreet knowledge, he/she respects the main rules by collaborating in a non-constant way 6 = partial knowledge, not always correct behavior 5 = absence of knowledge and misbehavior
Health and Well-Being	1. He/she independently adopts the main behaviors related to safety and health, and seeks the well-being resulting from motor activity 2. He/she adopts correct behaviors related to safety and health, and appreciates the well-being linked to motor activity. 3. When guided, he/she follows the main behaviors related to safety and health, and lives motor activity with a feeling of well-being.	10 = solid and in-depth knowledge; he/she autonomously applies behaviors that safeguard personal health and safety 9/8 = safe knowledge; he/she applies behaviors that safeguard personal safety 7 = discreet knowledge; if guided, he/she applies essential behaviors for the safeguard of personal health 6 = partial knowledge; he/she not always shows correct behaviors 5 = absence of knowledge and misbehavior/ sometimes uncontrolled behavior

Commitment (interest, motivation, continuity, roles/tasks taken on and willingness to organize)	Fair Play (respect for the rules, autonomy, self-control and responsibility)
10 = constructive, motivated, constant, determined and proactive 9 = efficient, regular, constant and proactive 8 = regular and active, constant and relevant 7 = regular, almost always constant and relevant, essential 6 = dispersive, sectorial, discontinuous and low ability to take on roles/tasks 5 = dispersive, demotivated, discontinuous, and passive	10 = fair, autonomous, collaborative and responsible. Positive Leader 9 = fair, positive, collaborative and available 8 = generally fair and available, positive. 7 = not always fair, adequate and not always cooperative 6 = poorly fair and controlled, selective and unavailable 5 = unfair, uncontrolled, conflictual. Negative leader

Analysis of Observations on the Group of Students

Ex-Ante

Education through game, movement, sports and group activity offers children with autism a concrete opportunity to acquire, at an early age, the basics of primary and secondary intersubjectivity, the primary dimensions of space and time, the basic social rules and the most suitable behaviors in different contexts. Therefore, we believe that, through motor activity, it is possible to gain skills that can be spent in everyday life. These skills are related to the knowledge and care of one's own body, and the management of anxiety and stress by acquiring, for example, effective ways of emotional self-regulation, or more generally, personal autonomy skills and healthy lifestyles. Among the aspects that make school motor activity particularly useful and relevant for people with autism spectrum disorders, there is the fact that it usually employs precise routines, such as carrying out the activity always on the same days and hours during the week, or dressing and undressing in a recognizable and well-defined space, like a dressing room. The teacher of motor activity does not usually use only verbal language, but also provides the student with visual explanations, which become models available to him during the activity to be carried out.

For these reasons it is important to establish well-defined days to carry out motor activity, arrange the spaces following a correct and daily methodology, so that the child cannot feel any form of discomfort and uneasiness.

In this way, the child will feel encouraged to actively participate in the educational activity proposed by the teacher, and will be able to self-include himself/herself; his/her classmates, while watching him/her play exactly like everyone else, will be more willing to integrate him/her into their class group and consider him/her unequivocally just like them.

At the beginning of the proposed activity, we found it very difficult. First of all, the children were not able to participate actively in the group work to be carried out, because they were clearly not used to it, they did not know how to move and consequently how to behave in this new circumstance. Children, especially at this early age, must be encouraged and oriented towards the new activities to be carried out and everything related to them: game rules, behavioral rules, spaces, objectives and times.

Once children are addressed to these guidelines, they begin to prepare themselves psychologically for the activity to be carried out. They start asking questions, expressing any doubts about the work to be carried out, but they are particularly interested and curious.

In particular, the autistic child needs specific guidelines so that he/she can move without any doubts or questions. The teacher guides the activity and follows the child step by step, so that he/she can gradually feel safe, and can finally carry out the activity in complete autonomy, bearing in mind the instructions of his/her teacher.

Ex-Post

From the final evaluation of the state of learning in the school environment, it was observed that the student with autism gained and consolidated many skills in different areas of development, which, at the beginning of the year, were just emerging. For example, the student acquired the ability to ask for help in times of greater stress or discomfort, almost completely abandoning problematic behaviors with a precise communicative function, such as screaming or throwing objects. He also learned to better tolerate any unforeseen events or changes in the program, to choose, plan and carry out educational and recreational activities autonomously, to start and hold a short conversation with his classmates and to express, for the first time verbally, some of his emotional states, even in relation to what he was carrying out. In conclusion, it can be said that integrated motor activity, if carried out in such a way as to respect the educational needs of the child with autism spectrum disorders and those of each member of the group, can offer everyone the concrete tools for social interaction, emotional management, knowledge and enhancement of individual diversity, and thus become a valuable growth opportunity for all. In order to achieve valid motor experiences in inclusive contexts, it is essential to overcome the conception of motor activity carried out by people with autism as a purely rehabilitative practice, grasping the human and social value it has in the growth process of any individual. Conceiving physical activity in educational and inclusive terms also means recognizing the importance of the body and emotions in relation to learning, the construction of personal identity, the relationship with other individuals and the exploration of one's own potentialities.

Discussion about the design: benefits and criticalities to be improved

In the atypical and irregular development due to autism, we can quite early observe a series of difficulties for the child in activating himself/herself both emotionally and physically when dealing with a stimulus or reacting to it, distinguishing the relevant novelty from what is known and usual to him/her. It is precisely for this reason that it was so difficult to carry out such a project: it was necessary to provide the right conditions for the child to feel at ease, also allowing him opening himself up with harmony to the other and not opposing to the teacher's indications. People with autism may experience specific difficulties in general dynamic coordination, ocular-manual coordination or spatial-temporal organization, and may show gestures, motor mannerisms or repetitive and stereotypical behaviors such as flickering hands, rocking or torso and head swinging, tiptoeing, various kinds of rituals or routines. In fact, we found many obstacles to the performance of the activities, from the simplest to the most complex ones.

Many times the first obstacle was found precisely by those children who, because of such physical difficulties, were not able to keep it in their hands and would always drop it on the ground. Autistic spectrum disorders can also lead to hypersensitivity or hyposensitivity of acoustic, olfactory or tactile type, confirmed by studies carried out during the last twenty years. This was evident when, for example, all the children made the ball dribble and our child covered his ears and showed the first signs of a clear discomfort; it was obvious that he did not want to be there at that time, because the noise of all those dribbles upset his sound sphere. For children with autistic spectrum, motor activity can also be an excellent tool to approach the "external" world, to grasp all those aspects that were previously latent with respect to their consciousness. It was precisely to encourage inclusion and integration that it was just as fundamental as necessary to make the remaining students understand the difficulties that their partner was inevitably facing. In this way the children were able to relate better to his behaviors, empathize with his difficulties and support him in carrying out the activity. At the beginning of the course it was difficult to combine the needs of the group with those of the individual; however, through the right means and tools, the group came into harmony with the individual, and vice versa, a balanced harmony was established. This allowed appropriately carrying out the activities and achieving the objectives set.

Conclusion

The purpose of this contribution was to consider the autistic child in his school experience, trying to identify paths to facilitate his integration process. I emphasized the way the situation in which a class welcomes a student with autism is actually very complicated, considering the cognitive and behavioral peculiarities he/she presents. Starting from this assumption, I tried to identify some methodological paths by taking into account two main aspects:

1. On the one hand, the existence of various approaches to the treatment of autism, tested at the international level, which proved their effectiveness, albeit not in the school context; On the other hand, the need to combine the technical indications with a focus on the main methodologies to facilitate integration, already proposed on several fronts. In particular, this refers to the possibility of adapting class and individualized objectives to make them suitable, at least in some parts: to the organization of activities in cooperative groups; to the adequate use of the peers resource; to the study of the deficit in the classroom; to the opportunity to refer to new information technologies. The attempt, in summary, was to bring a contribution to the development of a special didactic approach for the integration of autistic children. Despite the shortness of this work, I hope that the educators can find some stimuli which will facilitate their daily progress.

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