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# The Didactics of Physical Education and Sports in Primary Education: Practices, Perceptions and Challenges of Teachers

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### **Abstract**

The effectiveness of the sense of education and sports (EPS) in the primary school responds to the application of the themes of the apprentissage tells what the constructivism of Piaget, the socio-constructivism of Vygotsky, and the theorie of the apprentissage motor. This approches permettent aux enseignants d'adapter les séances aux besoins des élèves, favorisant leur engagement, leurs social interactions et le development durable de leurs compétences motrices. In the Marocain context, the integration of these educational models in the EPS content contributes to modernizing the educational practices and optimizing the personalization of the applications. The automatic reaction of these stories reflects their importance to the face and new devices that lie in the integration of technologies and the development of curricula. Their keys Education Physique and Sportive Apprentissage motor Constructivism Interaction sociale Personal education.

Keywords: Education Physique and Sportive, Apprentissage motor, Constructivism, Interaction Sociale, Personal education.

### 1. Introduction

The effectiveness of the teaching of Physical Education and Sport (PE) in primary school depends largely on the theories of learning that guide the design and implementation of pedagogical practices. In Morocco, as in many other educational contexts, understanding how students learn is essential to providing effective teaching that is tailored to their needs. In this perspective, the application of the

main theories of learning, including Jean Piaget's constructivism, Lev Vygotsky's social constructivism, and motor learning theory, can greatly enrich the way teachers organize and facilitate PE sessions. These theories are not just abstract concepts, but practical frameworks that directly influence student engagement, the quality of social interactions in the classroom, and the acquisition and sustainability of motor skills (Piaget, 1950; Schmidt, 2004; Vygotsky, 1978).

Primary school students, being in a crucial phase of their cognitive, emotional and physical development, particularly benefit from pedagogical approaches based on interaction, experimentation, and active engagement. According to Piaget, learning is an active process, in which the child builds his knowledge through his interactions with the environment. For his part, Vygotsky emphasizes the social dimension of learning, emphasizing the role of mediators, such as teachers and peers, in the student's progress. In addition, the theory of motor learning, which is based on the repetition and adaptation of gestures, is particularly relevant in PE, where the objective is the acquisition of sustainable physical skills.

The application of these theories to the Moroccan primary cycle offers a structured framework for developing learning situations that promote not only motor competence, but also collaboration, reflection and socialization of students. In Morocco, where physical education is evolving, understanding these theories is essential to modernize pedagogical practices and better meet the needs of children in a specific cultural context. This theoretical reflection, enriched by practical and contextual approaches, is all the more relevant at a time when the integration of educational technologies and the adaptation of PE programs to contemporary challenges are becoming essential.

By exploring each of these theories, this axis aims to shed light on their concrete application to the teaching of PE in primary school and to understand how they can contribute to the implementation of effective pedagogical practices adapted to Moroccan students. These theoretical approaches thus offer keys to improve the learning experience in PE, maximizing opportunities for active engagement and optimizing the acquisition of sustainable motor skills.

### 2. Jean Piaget's Constructivism: Learning through Discovery

Jean Piaget's constructivism presents learning as an active process, where the child builds his or her own understanding of the world through interaction with his or her environment. This process is based on assimilation and accommodation, allowing the child to explore, experiment and reorganize his or her knowledge (Piaget, 1975; Roussillon, 2001). In the context of Physical and Sports Education (PE), this approach encourages students to learn by practicing and solving physical problems, thus developing both motor skills and thinking skills (Bortoli, 2013; Lemoine, 2011; Mergen & Lemoine, 2007; Rovegno & Dolly, 2006). This method is particularly suitable for the primary cycle, where children are in the midst of cognitive and motor development (Gagné, 1985; Schmidt, 2004; Viau, 2000; Whitehead, 2010).

### 2.1. Key Principles of Constructivism

Constructivism according to Jean Piaget (1975) is based on the idea that learning is an active and internal process by which individuals construct their own understanding of the world. Unlike passive theories of learning where the child is seen as a receiver of information, Piaget considers that children are active agents in their learning. They are not content to receive knowledge, but seek to make sense of their experiences, by constantly interacting with their environment.

Two fundamental processes underlie this construction of knowledge:

- Assimilation: This is the integration of new information or experiences into already existing cognitive structures.
   For example, when a child learns to recognize an animal that he has never seen before, he uses his previous knowledge to assimilate it to a concept already acquired (for example, "a four-legged animal"). In this perspective, the child applies his previous cognitive patterns to a new situation.
- Accommodation: When new information cannot be integrated into existing cognitive structures, the child must adapt these structures to be able to understand or accept this novelty. For example, if the child encounters an animal that they cannot classify according to their previous categories (for example, a creature they have never seen, such as a porpoise), they must adjust their mental schema to incorporate this new experience.

These processes are constantly interacting, allowing cognitive development to progress in stages. Each stage is marked by a specific way of thinking and understanding the world, and the child moves from one stage to the next according to his intellectual development and experiences. This model of development by stages, with distinct periods of cognitive maturation, is one of the foundations of Piagetian constructivism (Case, 1992; De Lisi & Goldstein, 2003; Flavell, 1963; Inhelder & Piaget, 1958; Miller, 2011; Piaget, 1967, 1976).

### 2.2. Application to PE in the Moroccan primary cycle

In the context of Physical Education and Sports (PE), Piagetian constructivism encourages an approach where students learn by doing and experimenting. According to this perspective, children are not simply instructed to perform motor techniques or gestures in a mechanical manner. Rather, they must face physical and motor challenges that prompt them to think, explore, solve problems, and experiment with solutions for themselves. This allows students to actively build their motor skills, rather than just replicating standardized gestures (Dugas, 2016; Schmidt & Lee, 2011; Viau, 2000).

In this context, the PE teacher, particularly in the Moroccan primary cycle, must adopt learning situations that promote motor exploration. Rather than being limited to a transmissive approach (where the teacher shows and the students imitate), it is a question of proposing motor challenges adapted to the age and level of development of the children. These challenges can be organized in such a way as to encourage experimentation and discovery, allowing students to find suitable motor solutions on their own (Abderrahmane, 2014; Benali, 2012; Benkirane, 2015; El Khatir, 2005; El Moubarki, 2013; Ibrahim, 2011; Tazi, 2016; Zeroual, 2017).

The learning process thus becomes iterative, where students try, fail, adjust their actions, and then try again. Mistakes are not perceived as failure, but as a learning opportunity. Students can analyze their mistakes, reflect on what went wrong, and adjust their strategies, promoting a deeper understanding of motor skills.

### 2.3. Example of the application of constructivism in PE

Let's take a concrete example to illustrate the application of constructivism in PE in the primary cycle. When learning to move around (e.g. running, jumping), the teacher can organise various routes with different obstacles: hurdles to overcome, hoops to cross, areas to jump, etc. Rather than giving detailed instructions on exactly how to overcome each obstacle, the teacher encourages

students to explore different ways to do so. Each student or group of students can try different solutions, and the teacher can observe, guide, and adjust the experience based on individual needs.

The mistake, such as when a student jumps too short or falls while running, becomes an opportunity for the teacher to have a group discussion about what went wrong and how the student can adjust their strategy to succeed. Depending on the mistake, students can discover for themselves that they need to adjust the momentum, posture or way of putting the feet, and thus actively build their understanding of the movement.

In another activity, for example in manipulative activities such as throwing a ball or catching it, the teacher can propose different types of balls and targets. Students are then asked to adjust their movements according to the characteristics of the objects and the goals to be achieved. For example, a larger, lighter ball will be handled differently than a smaller, heavier ball. Students must adjust their strength, position and precision to succeed, depending on the specificities of the objects handled.

In this approach, every mistake is seen as a learning opportunity, in which students can analyze their actions and understand why some strategies work better than others. For example, when a student misses a pitch, they are encouraged to think about the trajectory of the ball, the angle of the pitch, and how these affect the accuracy of the pitch. The student is guided to adjust his technique and find a better strategy to achieve the goal.

In this constructivist framework, the teacher plays a key role as a facilitator of learning. It creates a learning environment rich in motor challenges, where students are challenged to explore, experiment, solve problems and build their motor skills. This model of active and experiential learning allows students to develop not only motor skills, but also thinking, self-assessment and problem-solving skills. This makes PE learning more relevant, engaging, and tailored to students' individual needs.

In conclusion, Jean Piaget's constructivism, applied to Physical and Sports Education (PE) in primary school, offers a dynamic and interactive approach to learning. Rather than relying solely on reproductive techniques, this approach places the student at the heart of the educational process, encouraging them to explore, experiment, and solve problems on their own. In this context, the teacher becomes a guide who creates stimulating learning situations adapted to the cognitive and motor development of the students. By promoting discovery learning, this approach not only develops motor skills but also encourages reflection and autonomy in students. Thus, Piaget's constructivism is a pedagogical method that is particularly relevant for primary school PE, promoting a gradual evolution of students' physical and cognitive capacities, while actively engaging them in their learning.

# 3. Lev Vygotsky's Socioconstructivism: The Importance of Social Interaction

Socioconstructivism, as developed by Lev Vygotsky (1978), proposes an understanding of learning that focuses on social and cultural interaction. According to this perspective, the acquisition of knowledge is not a purely individual process, but is rooted in the exchanges between the learner and his or her social environment. Vygotsky introduces the concept of *proximal developmental zone* (PDZ), defined as the gap between what a student can accomplish alone and what he or she can achieve with the help of an adult or more competent peers. This social mediation is considered

essential to promote learning and cognitive development. In the context of Physical and Sports Education (PE) in primary school, the socioconstructivist approach encourages teachers to design pedagogical devices based on cooperation, collaboration and mutual aid, allowing students to progress not only on the motor level, but also on the social and cognitive levels (Mercer, 2000; Rogoff, 1990). In this way, PE becomes a complete educational space, contributing to the overall development of children through shared learning and mediation.

### 3.1. Key Principles of Social Constructivism

Lev Vygotsky's social constructivism is based on the fundamental idea that learning is essentially built through social interactions (Vygotsky, 1978, 1985). In contrast to more individualistic approaches, which favour independent learning, socioconstructivism highlights the importance of exchanges between pupils, peers and adults in the process of acquiring knowledge (Bruner, 1983; Rogoff, 1990).

For Vygotsky, learning does not take place solely through isolated personal experiences, but is deeply rooted in the social and cultural context in which the individual evolves (Mercer, 2000; Wells, 1999). Social exchange, communication, and collaboration are essential elements for the development of cognitive and motor skills (Daniels, 2001).

One of the key concepts of this theory is the Proximal Development Zone (PDZ). The ZDP represents the difference between what a student can accomplish alone and what he or she could accomplish with help (Chaiklin, 2003; Vygotsky, 1978). In other words, it refers to the gap between the student's current level, where they can solve problems independently, and the level they can achieve with appropriate support. This support can be provided by the teacher, a peer or an educational tool, facilitating access to new skills. The idea is that students learn better and faster when they receive help in their area of proximal development, as this help helps guide them to skills and knowledge that they would not have been able to achieve on their own at that point in their learning. Within the ZDP, guided learning promotes sustainable acquisitions and progression adapted to the child's development.

### 3.2. The central role of mediation

In this context, mediation becomes a central concept. Vygotsky (1978) introduces the idea that social interactions are not simply an exchange of information, but that they act as a mediation mechanism between the student and the world around him. Mediation is based on the use of psychological tools such as language, symbols or gestures that facilitate learning and cognitive development (Wertsch, 1985). It can be defined as the accompaniment of the student by a third party who is often the teacher or a more competent peer in the accomplishment of tasks that are beyond his or her immediate abilities but that are within his or her reach with appropriate support (Bruner, 1983; Rogoff, 1995). The teacher or peer does not perform the task for the student, but provides the student with cognitive tools and strategies to help him solve the problem, thus allowing him to gradually move beyond his zone of proximal development (Chaiklin, 2003; Daniels, 2001).

In the context of Physical and Sports Education (PE), mediation can be translated in several ways. According to Vygotsky (1978), the support of the pupil by the teacher or by peers is essential to cross the Proximal Development Zone (ZDP). For example, when a student learns to perform a complex technical gesture, such as

throwing a ball, the teacher can act as a mediator by offering clear instructions, visual demonstrations, or corrective feedback adapted to the student (Lafont, 2007; Schmitt, 2008).

This mediation process allows the student to go beyond his current limits and to gradually acquire a more refined mastery of the technical gesture (Amade-Escot, 2007). In addition, this mediation can also involve interaction between peers: as Johnson and Johnson (1999) have shown, cooperative learning promotes mutual aid and collective progress. More experienced students can support beginners by sharing motor strategies or correcting mistakes, thus strengthening the social and interactive aspect of learning (Darnis & Lafont, 2015).

This type of pedagogical organization develops not only technical skills, but also social skills, by encouraging students to communicate, argue and help each other around motor tasks.

### 3.3. Mediation and tools in the context of PE

Mediation in the context of Physical and Sports Education (PE) can also include the use of educational tools or visual aids. As Amade-Escot (2007) and Schmitt (2008) have shown, visual and technological resources play a key role in facilitating motor learning, acting as mediators between the student and the task.

For example, educational videos showing sports techniques or interactive performance monitoring applications allow students to visualize expected gestures and analyze their own actions (Rivière, 2016). This type of visual mediation improves the understanding of motor instructions and supports students' autonomy in their learning.

Similarly, the teacher can use digital devices such as interactive whiteboards to explain certain physical concepts (e.g., effort management, stability, or balance) in a more concrete and dynamic way (Baudrit, 2005; Lebrun, 2015).

By combining human mediation (teacher, peers) and technological mediation, PE teaching can thus promote a richer and more individualized construction of learning.

Mediation, from this perspective, is therefore not a onedimensional process limited to the teacher, but an interactive and dynamic phenomenon, where all the elements: the teacher, the students, the tools and the social context, play a role in learning (Perrenoud, 1999; Vygotsky, 1978). This multiple interaction broadens the notion of Proximal Development Zone (PDZ), to include various forms of support that together facilitate the acquisition of skills and strengthen the understanding of physical activities and sport.

Indeed, the socioconstructivist approach goes beyond the idea that the teacher alone is responsible for learning and recognizes that social interactions and pedagogical materials play a fundamental role in the evolution of students' motor skills (Gaudin, 2013; Vygotsky, 1978). These forms of shared mediation allow students to access levels of competence that they could not achieve alone, thus promoting a better construction of knowledge (Amade-Escot, 2007). Technological tools and peers are therefore essential mediators, as Leontiev (1978) points out, who sees mediation as a collective and situated process, in which all actors (teacher, peers, tools, and context) contribute to learning.

### 3.4. The importance of mediation in PE in the Moroccan primary cycle

In the **Moroccan context**, the application of socioconstructivism in PE can have a considerable impact, especially in the context of heterogeneous classes, where students' levels can vary significantly. According to Tayeb and Benhalima (2017), mediation is becoming a powerful pedagogical lever for adapting teaching to the specific needs of each student, especially in environments where students have diverse cognitive and motor abilities. It thus maximizes learning opportunities, promoting personalized learning while respecting the principles of social constructivism

For example, in a group activity, students may be required to collaborate to solve problems related to physical activity, which allows them not only to progress individually but also to strengthen their social skills, such as communication and teamwork (Boudard & Le Mouillour, 2011). Social interactions within these groups promote richer and more diverse learning, thus contributing to the integration of cognitive and motor skills in a variety of contexts, an aspect highlighted by Amade-Escot (2007), who believes that group work allows students to support each other in their learning.

In addition, the use of collaborative methods, such as peer-to-peer or cooperative learning, can improve social cohesion and encourage mutual support between students of different levels, a process that is particularly relevant in the context of primary education, where socialization plays a key role in the acquisition of basic skills (Perrenoud, 1999).

In short, mediation in Vygotskian social constructivism is not limited to the direct help of the teacher. According to Vygotsky (1978), mediation can take many forms, ranging from direct support by the teacher to peer-to-peer exchanges, as well as the use of pedagogical tools and materials that facilitate learning. This idea is echoed by González & Larrain (2019), who argue that social mediation allows the student to cross the boundaries of their zone of proximal development (ZDP) through different types of supports, making learning more flexible and personalized.

In the context of PE, these forms of support are particularly relevant. Indeed, PE requires active and practical learning, where collaboration and interactivity are key elements of the educational process. As Amade-Escot (2007) points out, in physical and sports education, social interactions and the implementation of collaborative learning situations make it possible to maximize student engagement and strengthen their understanding of motor skills

In addition, the integration of educational materials, such as videos, interactive tools or mobile performance monitoring applications, plays a crucial role in this mediation process, providing the student with a visual and digital approach to learning. Le Mouillour & Boudard (2011) argue that these tools not only make it possible to visualize complex gestures, but also to analyze errors and thus promote autonomous but guided learning. Thus, mediation becomes a rich and multifaceted process, where social interactions, external help and pedagogical tools contribute to the activation of cognitive and motor processes in the student.

In conclusion, Lev Vygotsky's social constructivism offers an enriching perspective for Physical and Sports Education (PE), highlighting the fundamental role of social interactions in the learning process. In contrast to an individualistic view of learning, this approach emphasizes the area of proximal development (ZDP) and the importance of mediation (Vygotsky, 1978), which can take various forms: teacher assistance, peer-to-peer exchanges, and the

use of pedagogical tools. These elements allow the student to develop their motor and cognitive skills through active collaboration and direct participation in learning tasks (González & Larrain, 2019). In PE, these social interactions and mediation offer a dynamic conducive to engagement, reflection and the improvement of motor performance, thus contributing to a richer learning that is more adapted to the needs of the students. As Amade-Escot (2007) points out, the integration of these socio-constructivist approaches into the teaching of PE makes it possible to promote an active and collaborative pedagogical practice, which is essential for the acquisition of sustainable physical skills.

# **4. Motor Learning Theory: Motor Competence Through Practice**

Motor learning theory is based on the idea that motor competence is developed primarily through repeated practice and adaptation to various motor situations. This approach, largely influenced by sports psychology, emphasizes the fundamental role of experience in the acquisition of motor skills, emphasizing the importance of repetition, feedback and adaptation (Schmidt, 2004). Unlike cognitive theories that emphasize mental processes, motor learning theory favors a more sensorimotor approach, where action and physical experience are at the heart of learning (Newell, 1991). In the context of Physical and Sports Education (PE), this theory proposes that students develop their motor skills not only by repetition of technical gestures, but also by taking into account sensory feedback and the adjustments necessary to refine their performance (Magill, 2011). This active approach, where learning is intimately linked to practice, is particularly effective in developing students' motor skills, especially in the context of primary school, where motor learning is essential for their physical and cognitive growth (Dreyfus & Dreyfus, 1986).

### 4.1. Key Principles of Motor Learning Theory

The theory of motor learning is based on the idea that the acquisition of motor skills is a dynamic process that develops through repeated practice, constant feedback and adaptation to different motor situations. This perspective differs from other forms of learning, in part because of its emphasis on the gradual progression of skills, where experience and commitment to a variety of physical activities allow for the improvement of gestures (Schmidt, 2004). According to this theory, learning motor skills is not limited to simple mechanical repetition, but involves a continuous adjustment of performance according to feedback and new information perceived during practice (Newell, 1991). The process is thus closely linked to practical experience and sensorimotor feedback, which play a central role in improving motor performance as the individual actively engages in physical activity (Magill, 2011).

On the other hand, the theory highlights the role of step-by-step progression, emphasizing that motor skills are refined as repetition and adaptation to the specific challenges of different motor situations. This approach is particularly relevant in the context of Physical and Sports Education (PE), where students are led to develop motor skills through the diversity of physical activities offered, thus strengthening their motor control over time (Dreyfus & Dreyfus, 1986).

The main mechanisms of this theory include:

### • Automating Motor Skills

Automating motor skills is a fundamental process in motor learning. According to Schmidt (2004), one of the main features of

motor learning is the reduction in the cognitive load required to perform an action, as motor skills become more refined and increasingly automated. This allows the individual to focus on more complex aspects of the business. As a student repeats a motor task, the steps of movement are automatically integrated, freeing up cognitive resources for other elements of physical activity (Magill, 2011). For example, when a student learns to run, they start by focusing on coordinating their movements. With repeated practice, this coordination becomes automatic, and the student can run faster without having to consciously think about each movement (Schmidt & Lee, 2011).

Fitts and Posner (1967) proposed a three-stage model to explain this process: the cognitive stage, the associative stage, and the autonomic stage. At first, the individual is highly aware of each movement, but with time and practice, the execution becomes more and more fluid and automated. This evolution allows students to perform motor actions with less cognitive effort, allowing them to focus on more complex aspects of performance, such as agility, speed, or strategy.

### Feedback

Feedback is an essential part of motor learning, acting as a catalyst for awareness, correcting mistakes and consolidating skills. According to Schmidt and Lee (2011), feedback can be internal, based on bodily feelings such as the perception of effort or the fluidity of movements, or external, from observations of the teacher, peers, or technological tools such as motion analysis videos. This external feedback is particularly crucial in helping students adjust their actions effectively.

Magill (2011) points out that extrinsic feedback is essential, especially in the early stages of learning, because it provides information that the learner cannot always detect alone. For example, a targeted verbal feedback from the teacher after a jump ("You have positioned your legs well, but you need to use your momentum even more to gain height") allows the student to precisely identify the elements to be improved.

In addition, Salmoni, Schmidt and Walter (1984) emphasize that the quality and frequency of feedback strongly influence the speed and robustness of motor learning. Clear, immediate and appropriate feedback promotes better correction of gestures and faster progress.

Thus, in the context of Physical Education and Sports, the systematic integration of various feedbacks, whether sensory, verbal or visual, is decisive in allowing students to understand their performance and improve their motor skills.

### • Adaptation to new motor situations

Adaptation to new motor situations is an essential feature of motor learning. Unlike a rigid acquisition of gestures, this learning is non-linear and assumes a constant reorganization of skills in the face of changing environments. According to Newell (1986), motor learning involves an active exploration of possible solutions to adjust to the constraints of the task, the environment and the individual himself. Each motor situation being unique, the student must adjust his movements according to the specific conditions encountered.

For example, when a child learns to throw a ball, he must modify his technique according to the size of the ball, the distance from the target or his own speed of movement. This need to adapt is at the heart of the theory of constraints developed by Davids, Button and Bennett (2008), who highlight the importance of varying learning conditions to promote motor flexibility and gestural creativity.

In addition, Schmidt and Lee (2011) emphasize that the development of general motor patterns allows the learner to transfer skills to new situations, rather than memorizing a single fixed movement. Thus, a varied practice enriches the motor repertoire and improves adaptability, a skill that is particularly valuable in the dynamic context of Physical Education and Sports.

Thus, through the progressive automation of gestures, the integration of feedback and the constant adaptation to various situations, motor learning in PE is based on a dynamic and evolving approach. This perspective paves the way for the importance of diversified pedagogical strategies, intended to effectively support students in the development of their motor and cognitive skills.

In the context of Physical and Sports Education (PE) in the Moroccan primary cycle, the theory of motor learning finds a concrete application through varied learning situations adapted to the needs of the students. As Schmidt and Wrisberg (2008) point out, the repetition of gestures, accompanied by appropriate feedback, allows motor skills to be gradually consolidated. This approach is in line with the recommendations made by the Moroccan Ministry of National Education (MEN, 2021), which insists on the importance of offering diversified motor activities that promote repetition and adjustment of performance. In addition, Magill and Anderson (2017) remind us that experimentation and adaptation to changing contexts are essential for effective motor learning. In Moroccan practice, several studies (Benjelloun, 2019) emphasize that the integration of contextualized activities, taking into account the students' living environment (urban or rural), optimizes their engagement and motor development. Thus, the emphasis is on an active pedagogy, where the student learns through action, intelligent repetition and constant adaptation, in line with the orientations of the new model of development of education in Morocco.

The teacher plays a fundamental role here in providing constructive feedback and creating a safe learning environment, in which students can freely experiment with their gestures without being subjected to undue pressure. According to Rink (2010), the quality of the feedback provided by the teacher directly influences the motor progression and the engagement of students in the proposed tasks. Similarly, Schmidt and Lee (2019) point out that the learning environment should encourage repetition, trial and error, and perseverance, thereby allowing students to build their self-confidence. In the Moroccan context, Bouanani (2021) emphasizes that the establishment of a positive climate in PE, based on the valorization of efforts and the recognition of individual progress, is essential to stimulate children's intrinsic motivation and to promote their overall psychomotor development. This type of approach not only contributes to the technical improvement of gestures, but also reinforces the psychological aspect, helping students to become aware of their abilities and nourishing their desire to progress.

Specific activities could include:

### • The race :

Running is an essential activity in the motor development of primary school students. By practising running in different forms – sprints over various distances, zigzag courses, or in pairs with a partner – students are led to adjust their motor strategies according

to the constraints proposed. According to Thomas and Thomas (2008), the diversity of motor situations stimulates adaptation, which is fundamental to effectively automating running-related gestures. In addition, Gallahue and Ozmun (2012) explain that offering variations of tasks in running develops not only endurance and speed, but also coordination, which is essential for agility and fluidity of movement. In the Moroccan context, El Fadili (2019) emphasizes that, to make learning to run more effective and motivating, it is recommended to alternate playful and competitive situations in order to meet the different levels of motor development of children.

### • Jumps :

Jumps, whether long jump or obstacle jumps, provide an excellent opportunity to develop students' coordination and motor power. The teacher can suggest different heights or distances to be covered, creating challenges adapted to the level of each student. According to Schmidt and Lee (2011), variation in jumping conditions stimulates motor adaptation and promotes more sustainable learning. At each attempt, the student receives precise feedback on technical elements such as the angle of attack, the use of the arms for propulsion, or the management of momentum, which corresponds to the principles of corrective feedback mentioned by Magill and Anderson (2017). In the context of PE teaching in Morocco, El Bouzidi (2020) insists on the importance of increasing the number of tests in various conditions to improve motor efficiency and make gestures more fluid and automated, especially in the primary cycle.

### • Ball games

Ball games, whether played in the form of throwing or catching exercises, provide students with an excellent opportunity to develop fundamental motor skills by adapting their movements according to the type of ball, the distance or the objective (Rigal, 2014). These activities, by multiplying contexts and constraints, allow students to practice different motor strategies and strengthen their hand-eye coordination, an essential aspect in motor learning according to Gallahue and Ozmun (2006). Feedback from the teacher is crucial here: for example, by giving an instruction such as "Use both hands to catch the ball, it will give you more control", the teacher provides external feedback that is essential for adjusting and refining the technique, in accordance with the principles of motor correction described by Schmidt and Lee (2011). In the Moroccan context, according to Benjelloun (2019), these games also contribute to the development of the collaborative spirit and the improvement of students' social skills, skills that are increasingly valued in the teaching of PE in elementary school.

### • Coordination exercises :

Coordination exercises, such as juggling with balls or obstacle courses, are particularly effective ways to develop body awareness and motor control in students (Rigal, 2014). By introducing these activities, the teacher offers students a variety of motor challenges that require constant adaptation of movements according to the demands of the task and the situations encountered (Gallahue & Ozmun, 2006). This type of exercise not only reinforces balance, precision and fluidity of gestures, but also improves the ability to self-evaluate thanks to internal feedback (body feeling) and external feedback (feedback from the teacher), in accordance with the work of Schmidt and Lee (2011) on the importance of feedback in motor learning. In the Moroccan educational context, El Amrani (2020) emphasizes that these coordination games are essential for

structuring basic motor skills in elementary school, while developing skills that are transferable to other sports disciplines.

In conclusion, motor learning theory highlights the importance of repeated practice and feedback in the development of motor skills. According to Schmidt (2004), motor learning is characterized by a gradual progression, where skills are refined with experience and commitment to various physical activities. Based on practical exercises and constructive feedback, students gradually acquire mastery of technical gestures, automate them and adjust them according to the situations encountered (Newell, 1991). This not only improves physical performance but also strengthens the autonomy of students in their learning. In the context of Physical and Sports Education (PE), particularly in the primary cycle, this approach makes it possible to create an environment conducive to motor progression, by allowing children to confront challenges adapted to their development, while benefiting from the necessary support to go through the stages of their learning (Magill, 2007). This integrated vision of motor learning, enriched by the principles of adaptation and repetition, is part of a dynamic and interactive pedagogy, essential to support the young student in his or her motor development (Gallahue & Ozmun, 2006).

### 5. Conclusion

The application of learning theories to Physical and Sports Education (PE) in the Moroccan primary cycle highlights the importance of taking into account cognitive and social processes in the design of learning activities. The theoretical approaches of Jean Piaget, Lev Vygotsky, and the theory of motor learning offer complementary perspectives that can enrich the way in which the teaching of PE is approached in a school context. As Piaget (1972) indicates, learning through discovery and experimentation is essential in the development of motor skills. According to him, "the child does not simply receive knowledge, he actively builds it through his experiences" (Piaget, 1972).

Piaget's constructivism, by emphasizing the importance of learning through discovery and experimentation, teaches us that PE should not only aim at the acquisition of technical gestures, but also promote an active process of motor exploration. By organizing learning situations that encourage students to discover for themselves, adjust to physical challenges, and reflect on their own mistakes, teachers can create a learning environment where students actively build their motor skills (Vermunt, 2005). The idea of a step-by-step progression, with tasks adapted to the child's cognitive development, is crucial to allow each student to feel competent while developing lasting motor skills.

Vygotsky's social constructivism, on the other hand, enriches this approach by emphasizing the importance of social interactions and mediation in learning. The zone of proximal development (ZDP) and the role of the teacher as mediator are essential in the structuring of PE activities. By accompanying students beyond their immediate abilities and providing them with targeted feedback, the teacher promotes the construction of motor skills while supporting the social and cognitive development of students (Vygotsky, 1978). This model of collaboration and mutual assistance between peers and with the teacher is a powerful lever for the acquisition of motor skills, especially in diversified learning environments (Chaiklin, 2003).

Finally, the theory of motor learning is based on the idea that motor competence is developed through repetition, the automation of gestures and continuous adaptation to new motor situations (Schmidt & Lee, 2011). In the primary cycle, this translates into a regular and repeated practice of motor activities, accompanied by constructive feedback that allows students to become aware of their progress and correct their mistakes. The emphasis is on individual progression, with each student being accompanied in the process of adapting and mastering motor skills, whether it be movement, ball games or coordination exercises (Magill, 2007). Repetition and self-correction are thus key elements for the continuous improvement of students' motor skills.

In conclusion, the integration of learning theories into the teaching of PE in the Moroccan primary cycle offers a rich and dynamic framework for promoting a student-centered approach. Learning becomes an active, social and reflective process, where students, supported by their peers and teachers, are led to gradually build their motor skills (Gallahue & Ozmun, 2006). These theories allow for the diversity of learning paces and foster an environment in which mistakes are perceived as learning opportunities, thus contributing to students' motivation, self-confidence and autonomy in their physical practice.

Thus, by placing the student at the center of their learning, valuing active exploration and collaboration, and offering relevant and adjusted feedback, PE teachers in Morocco can not only impart motor skills, but also encourage sustainable learning and a positive attitude towards physical activity, which are essential for the child's overall development (Vermunt, 2005).

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