



Evaluation and measurement management of motor development

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Abstract

The present research is the scientific-pedagogy summary of a study done at San Marcos National University; the study had as purpose describing the accomplishment of different activities for Measurement and Evaluation management of motor development on primary level students at regular-basic studies. The research was developed in a descriptive design where 64 teachers, randomly selected from various local management units of Metropolitan Lima city, were evaluated. A survey which contained 11 specific questions and 8 free questions was applied to the 64 teachers; the survey showed up the evaluation system usage and the knowledge of the tests that must be use. The result indicates that the improvements or corrections, in terms of motor development, don't find enough evidence to indicate that there is an orientation work by the state; however, there is an isolated effort on each teacher during the development of their pedagogical activities.

Keywords: evaluation management, motor development evaluation, motor development measurement, motor development, learning plans

Introduction

Development extends as the process that involves mellowing, growth, evolution of existence, potential mellow and organs growth through an organized process of evolutive nature since the simplest to the most adaptative and functional (Baena, Granero, & Ruiz, 2010) [2]. When it comes to mellow it refers to a process of determination, morphological and functional that allows the development of a dormant ability in the subject, that is, genetically determined as possible. (Lapresa, Arana, & Carazo, 2005) [8]. From an evolutive point of view, it is considered that physical development is since birth, as Deval (1998) proposed. Development between physical and psychological development. Since it depends not only on relevant nerves and muscle development, instead of on the mature aspects of nerves. The esculutin, muscular and sensorial system and the motor progression affect and influence other aspects of children's development cognitively integrated, like physical, emotional, social, and psychological aspects. Measurement is part of evaluation and has the task to recollect information using different tools like verification lists, classification scales, tests and other. The measurement had been described by OECD (2011, p. 14) like "general capacity, but is less adequate as previous yield measure to measure growth". In that context, Gufo (2001) specifies that measurement is a property of precisely dating variables that lead to data, numbers related to people, objects, and situations that must be measured. Monge and Meneses (2002) [1] operationalize the entire process because evaluation is part of education, measurement is an evaluation phase, and the instrument to use is the measurement tool. If measuring instruments are to be used, certain conditions must be strictly met, such as those given by Campo, Jiménez, Maestre, and Paredes (2011) S [3].

- People who use it can vary the terms for different students.
- The quality of the materials made available to students,

the quantity, and the timely manner in the way they are being presented will affect the results.

- Noise, distortion when listening to instructions, and interruptions should be eliminated.
- The time of day affects attention and concentration.
- To be a practical test, it must be easy to manage.
- Instructions must be clear, concise, and precise.
- Ease is related to time: when the number of parts that need to time separately is small or when time is not essential.
- The age of the chosen persons must be considered both in terms of content and the period in which they were considered.

Evaluation is a crucial element of formal education, in each of the different cycles, concerning the goals set. Campo, Jiménez, Maestre, and Paredes (2011) [3] summarize it as "the evaluative judgment that results from the previous definition of the goals." The author mentions two functions that result from the constructivist approach:

- It allows adapting the pedagogical aid through successive approximations to the characteristics and individual needs of the students,
- It allows determining the degree of achievement of the objectives of the curricular project.

For Bolaños (1986) these are the procedures and criteria to achieve the proposed goals. In addition, it must be constant, serving to make adjustments in the teaching process. Mateo (1999). Based on Obrador, Miras, and Solé, who define it as the activity by the criteria established to obtain relevant information about a phenomenon, a situation, an object or a person, a judgment about an object. You will be questioned and will make decisions about it.

Once the evaluation is defined, the importance it has in the field of research is understood. Its value is proportional to the benefits derived from the product since it is well used,

which will help to improve the process, as well as meet the needs of the product.

In Peru there isn't evidence of measurement and evaluation of motor development system in the Physical Education area that could be used to identify levels of development in students (Jurado & Rebolledo); This information is used for making decisions to create learning plans throughout the school year. The national curriculum (MINEDU, 2016) presents the approximation of the construction of corporations and their development, it organizes the area into three sections with their respective capacities that are presented below:

- **Develops autonomously through his motor skills.**
 - Understand your body.
 - It expresses itself bodily.
- **Assume a healthy life.**
 - Understands the relationships between physical activity, diet, posture, hygiene, and health.
 - Incorporates practices that improve your quality of life.
- **Interacts through their socio-motor skills.**
 - Relates using their socio-motor skills.
 - Create and apply game strategies and tactics.

A formative assessment that comes up with the idea of prioritize global learning through knowledge, skills, attitudes, and evidenced in performance; However, the application of tests that measure and report the motor development on primary-level students is not systematized; Likewise, it doesn't have a system that allows to see the results of these evaluations to the society or the government, and at the same time, includes the results of these evaluations in its decisions. There isn't evidence of an adequate articulation with the sports system, which is managed by IPD in our country, either; since the base profile that is required to nourish the quarries of the different sports is not known, so that teachers can identify those who they are framed in these profiles and can refer them so that they have the opportunity to follow an adequate physical development. As you can see, this reality needs to be changed by proposing an own system for measuring and evaluating the motor development of our primary school students.

Methods and Materials

The methodological design used in this research follows the norms established by the scientific investigation (Basic type), the research is descriptive with the objective of coming up with options and solution. With that clear, it will follow the methodological route bellow:

- Gathering documental information using researches reports, specialized magazines, books, online libraries, academic data, etc.
- Compilation of information through surveys and quizzes applied to active teachers from P.E in Metropolitan Lima.

The population is Conformed by P.E teachers in primary level from various educational management units of Metropolitan Lima in 2020. The diagnosis of the sample was stratified randomly, it allowed to establish the size of the sample strata based on the proportions in regard to the population.

A survey with specific and non-specific questions was applied, including the use of the adequate instruments for the methodological framework of the research, such as surveys and interviews.

Table 1: Population

Frequency		Percentage
Men	43	67,2
Women	21	32,8
Total	64	100,0

Table 2: Stratification

Districts	Frequency	Percentage
San Juan de Miraflores	10	15,6
Rímac	5	7,8
Centro de Lima	15	23,4
Comas	10	15,6
San Juan de Lurigancho	7	10,9
Ate	5	7,8
San Borja	12	18,8
Total	64	100,0

Conclusions and Results

The answer for the question: Do you know about the normative emitted by MINEDU, DREL or UGEL in regard to the P.E area? The question asks for additional information and it requires that the normative has to be executed from motor development and then, a report about motor development from the students.

Table 3: Question 01: Do you know about the normative emitted by MINEDU, DREL or UGEL in regard to the P.E area?

	Frequency	Percentage
Yes	23	38.33%
No	28	46.67%
I don't know	9	15.00%
Total	64	100,0

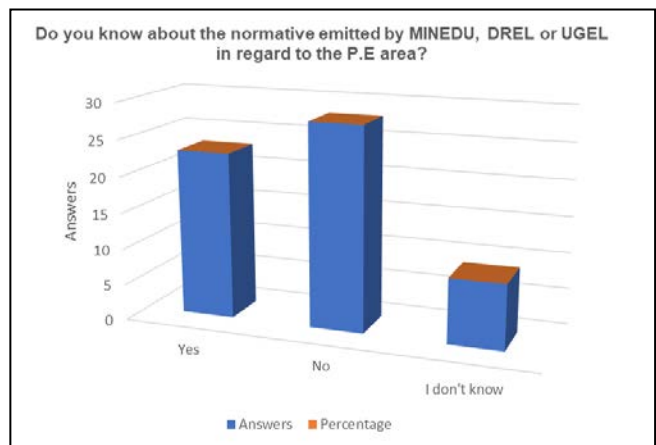


Fig 1: Questions 01: Do you know about the normative emitted by MINEDU, DREL or UGEL in regard to the P.E area?

In the previous table and graphic we can see that 38.33% of the teachers know about the normative in motor development, 46.67% deny the existence of the normative and 15% don't know about it. It means, the summatory of the ones denying the existence of the normative and the ones that doesn't know about it is 61.7%. We can say that there is an empty space about this topic.

Table 4: Question: Do you plan and program tests that identify motor development's level on your students?

Frequency	Percentage	
Yes	55	85,9
No	6	9,4
I don't know	3	4,7
Total	64	100,0

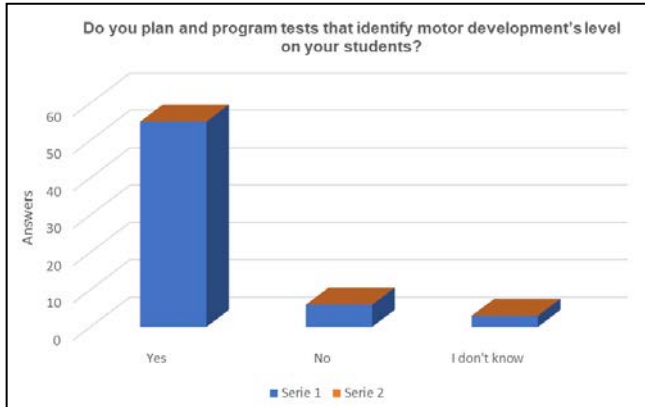


Fig 5: Question: Do you plan and program tests that identify motor development's level on your students?

The results of the analyzed tables show up values like the behavior that is displayed when it is about planning activities when they consider the test as a way of measure motor development. So, 85.9% consider it, 9.4% don't consider tests in their planification and 4.7% don't know about it.

Results of the Analysis Process

As we can mention Monge & Meneses, (2012), concludes that the physical education educator must collaborate with the integral development of the individual, so that their potential capacity could be used to the maximum, the optimal evaluation allows to demonstrate the evolution of social and cognitive affective attitudes and aptitudes.

It is important to have an idea about the functions of teachers in their roles as guides in critical periods of development in kids at elementary and primary level. The evaluation allows and bring us valuable information in the process of learning and teaching.

We can mention another investigator that supports the conclusions of this study:

Ravelo & Ferreras, (2019) ^[4] conclude that the evolution of motor coordination increases throughout the school period. However, we can appreciate differences related to age and gender for the different areas of coordination. In general, children obtain better motion yield in control of objects and within this, especially in actions carried out with the feet.

Conclusions

- The current situation about applying tests that show up results that could be kept on mind for implementing improvements in motor development. We can say that there isn't enough evidence that indicates there is progress on it, but we can mention there are effort from the teachers.
- It is necessary to make a diagnostic of the realty in the evaluation of motor development not only in Metropolitan Lima; instead at a national level. Also, we need to implement a model that can fit our reality, since

electronic systems or sophisticated gadgets could be difficult to get; on the other hand, there are tests that don't need high-tech equipment, just an adequate training system from the teachers.

- It is necessary to articulate the work of motor development evaluation with related areas such as science, math and social sciences. In addition, achieve alliance with institutions such as the Ministry of Education through the medical posts that are in each district and neighborhood of the population.
- The motor development evaluation should be considered a mandatory activity within the activities carried out within the area of physical education in students between 6 to 8 years old. This measurement must be set at the beginning and end of each semester and each year. Setting the line of yield based on the found results and the commitments that arise from them. Initially, it has to be reported to the coordinator of the area, who also has to deliver a report to the parents during the meetings scheduled for this purpose and to the principal of the school. Then it should be reported to the local government bodies UGEL and the Ministry of Health, represented by the medical posts.

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