

Motor and Sports Activities in Primary School Teachers' Training: Meaning of Autobiography

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ABSTRACT

The objective of the research was to study the frequencies of some variables related to the autobiography of the students randomly drawn as samples. In the field of primary school teachers' training, in fact, a motor laboratory path can be a formation methodology that allows students to activate a perceptive and learning process correlated to a new vision of the body as subject of communication and of self-awareness in didactics. We have used a questionnaire investigating the motor experiences of the students as well as his/her perception of some characteristics necessary to the educational behaviour in motor and sports field (balance, coordination, etc.). A descriptive statistic showed the results, representing the frequencies related to the school cycles during which the motor and sport activity had an important role, and the ones of the characteristics necessary to the educational behaviour in the primary school.

Key words: Motor and Sport activities, teacher, autobiography

INTRODUCTION

In 1990 the Italian Parliament issued the Law n. 341 which stated the introduction of a degree in Primary Formation Sciences in Italian University. The degree represented, and still represents, the formation path needed by teachers in the primary and nursery school and has also the value of a teacher's diploma course.

Art. 6 of the D.P.R. (Decree of President of Italian Republic) n° 471/1996, whose object is the didactic configuration of the degree, states: "Didactics includes subjects, laboratory and teacher's training".

"Motor and sports activities", as educational instruments, are also present in the laboratory of Campania Universities (University of Salerno and "Suor Orsola Benincasa" of Naples).

The laboratory: "*Motor and Sports activities, body communication and learning processes*" has represented a cultural field to be investigated by the research group in 2007-08 Academic Year (27).

This laboratory has conducted the Working Group to ideate the project engaging the research's design on an interdisciplinary scientific paradigm, namely:

1. Meaningful learning (2)

Ausubel's assimilation theory of meaningful learning and the didactic use of conceptual maps (21), if translated in constructivism theories of the

didactics of motor activities, represent an original key to the didactic implications of neural mechanisms.

In this didactic and psycho-pedagogical research perspective, learning can be rote as well as meaningful, because it is linked to several elements that define a sort of regularity and re-usage, stating that every new experience must be founded on the results and on the re-elaboration of the previous one.

2. Phenomenology of perception (20)

The topicality and interdisciplinary potential of *Phenomenology of perception* by Merleau-Ponty is given by some consideration of the philosopher on the relationship between body and the experience of perception. The body is a vehicle of being in the world, and having a body is, for a living creature, to be involved in a definite environment, to identify oneself with certain projects and be continually committed to them. To understand is to experience harmony between what we aim at and what is given, between the intention and the performance - and the body is our anchorage in the world (20).

3. Action Research

Action research is presented as a method for generating knowledge that corrects the deficiencies of positivist science. Action research is shown to base its scientific legitimacy in philosophical traditions that are different from those that legitimate positivist science.

Action research, in fact, is used in real situations, rather than in contrived, experimental studies, since its primary focus is on solving real problems. It can, sometimes, be used by social scientists for preliminary or pilot research, especially when the situation is too ambiguous to frame a precise research question, as our case. It is chosen when circumstances require flexibility, the involvement of the people in the research, or change must take place quickly or holistically (as primary school teacher's training) (18,19,30).

1. Emotional intelligence (14)

Very important are the study on the interdependence between rote learning and meaningful learning and the study on the function of body in didactics to facilitate the access to knowledge (8,25).

In both cases clearly emerges a possibility of relationship between emotional dependence and motor experience, investigated also by other authors (14) and empiric dimension as well as neural mechanisms in the didactics field (5).

The function of proxemics, such as communication approach, in the didactic (11,22), the emotional value of gesture and expression can find in this way a new neurobiological reading key that helps the construction of a correct and aware didactics of the movement, especially during childhood.

2. The formation value of the motor laboratory (26)

The laboratory is a sort of three-stage path: Analysis; Planning; Simulation. *Analysis* is the scientific research and the evaluation of experiences leading to a critical judgment. *Planning* allows methodological practice experimentation. *Simulation* means the reproduction of situations and their impact on real problems. It is carried out by experimenting different roles and techniques, such as role-playing or circle-time.

3. Mirror neurons and imitation processes (7,24)

Recent discoveries on mirror neurons functions have demonstrated an ability of some neural structures to not only fire in the moment in which there is the action, but also when we see others to perform the same action. The results of these researches have a strong influence on:

- The mechanisms of learning in the motor field;
- The relationship between movement and learning;
- “Phenomenological” and “constructivism” functions of the didactics;

- Furthermore they require a redefinition and critical reflection of teaching theories.

All these scientific paradigms (1,3,4,6,9,10, 12,13,16,17,23,28,29) represent a conceptual network on which you can build interesting designs of research and surveys, to confirm the interdisciplinary and training value of motor and sports sciences.

The problem, in fact, on which we have investigated, is based on one question: is important to study what happen about motor autobiography of primary school teacher during their university training?

The aim of the research was to study the frequencies of some variables related to the motor autobiography of the students randomly drawn as samples. Research group, in fact, wanted to understand what happens during the formation processes at their levels of perception related to the necessary characteristics to lead a motor activity class in the school.

METHOD

The method used to investigate about motor autobiography of primary school teacher during their university training has respected a scientific rigor and has used a elevated sample, so to obtain more reliable results and scientific significance.

During a motor laboratory, a descriptive statistic survey was carried out. A sample of 350 students was drawn from a population of 700 students (attending Salerno and Naples University). Data was obtained using a questionnaire investigating the motor experiences of the student as well as his/her perception of some characteristics necessary to the educational behaviour in motor and sports field.

The format of questionnaire previewed a multiple choice question such as:

- A. Motor activities had a training role...
1. ...in no one school
 2. ...in nursery school
 3. ...in primary school
 4. ...in low secondary school
 5. ...in high secondary school
- B. Which one of following characteristics do you perceive as the most useful to lead motor and sports activities?
- NO. Not evaluated
- A. Spatial Organization
 - B. Temporal Organization
 - C. Orientation
 - D. Dexterity
 - E. Coordination
 - F. Balance

The above mentioned characteristics were ranked and considered as ordinal variables and the trend of the investigated phenomenon was shown using diagrams. These diagrams were formulated to represent the frequencies related to the *school cycles*, during which the motor and sport activity had an important role and also the ones related to the necessary characteristics for educational behaviour in the primary school.

It is important to underline that during a lesson, the meaning of the following characteristics was shown to the students.

Another question of the questionnaire was:

C. The perception level of Spatial Organization is:

0. Not evaluated
1. Not suitable
2. Suitable
3. Higher developed

The same question was made for the five remaining characteristics (Temporal Organization, Orientation, Dexterity, Coordination and Balance).

Motor experiences that students have had during the laboratory are the result of three meetings.

The first meeting, in fact, was a scientific theoretical explanation about the characteristics necessary to conduct teaching for thematic content of both motor activities and knowledge (spatial organization, temporal organization, etc.). This phase presented, on a cultural level, the starting point as a standard, so that each student could start from clear concepts without the risk of making subjective interpretations.

So we can be sure that the reading of the phenomenon begins from common and scientifically shared elements, but, thanks to the personal perception of reality, it filters into the student's life.

It was a conscious motor autobiography that denotes the contextualization of knowledge in the subject's individual history.

The second meeting was characterized by a practical learning experience; it was conducted by an investigator who, by promoting sports activities and games, has allowed the students to have, through their body and movements, experiences designed to activate the conscious processes to gain motor skills.

In fact the will-be teacher, in addition to require theoretical knowledge about the study of motor and recreational sports in educational field, needs to immerse oneself in the role and functions of children at school, so to understand what is perceived during a motor practical lesson.

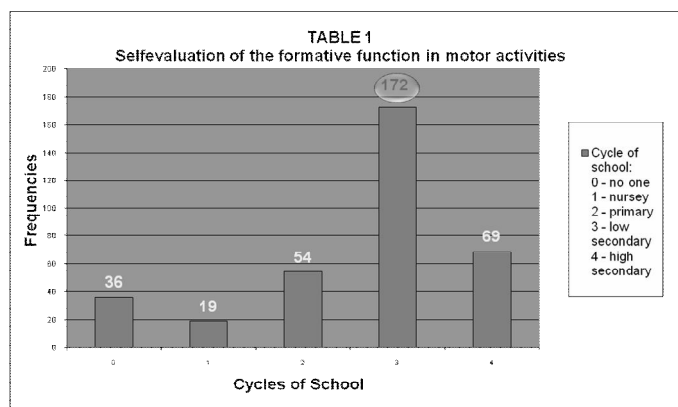
To simulate children during a university training laboratory, allows the student to assign values and meanings to the concept of limit and potential body that the child manifests daily. It also means having the possibility to sew theoretical knowledge and practical skills from which they derived; thus to better understand how much concepts and actions have a long distance from subject to subject, as a result of the reading that each of us gives to his own reality.

The third meeting, finally, was based on long comparisons relatives to the many topics covered during the previous training experiences. A verbalization that allowed students to express both the difficulties and benefits that they lived, the moments of awareness and confusion that they met. One occasion during which it was possible to reflect on their own motor experience and to start meta-cognition processes useful to professional development.

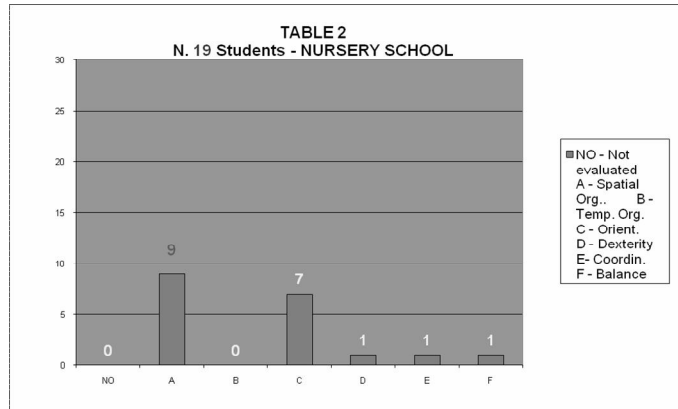
RESULTS

A descriptive statistic showed the results. You can see the tables to find:

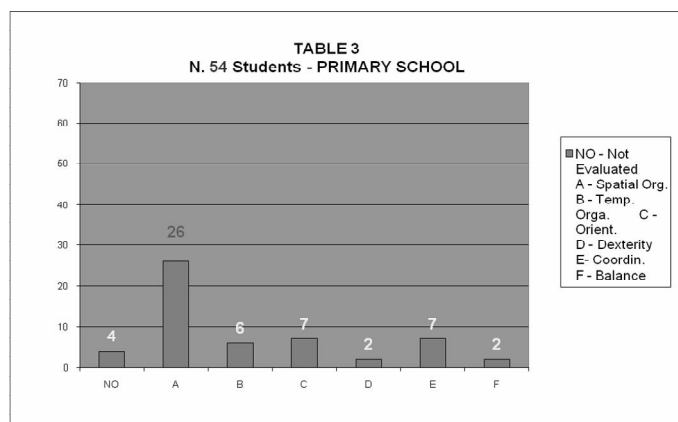
- Self-evaluation' students of the formative function in motor activities - TABLE 1



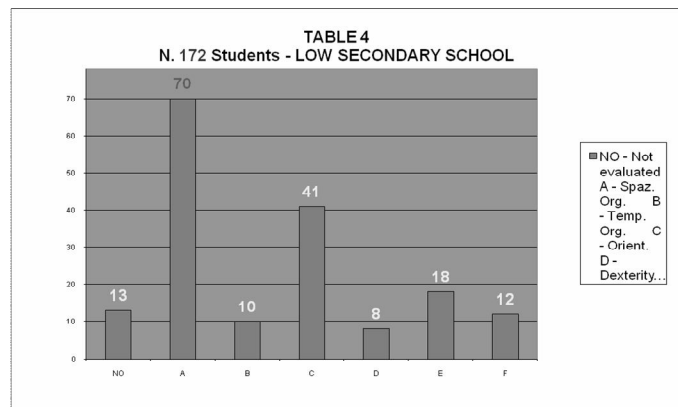
- Characteristics' perception of the students (19/350) that have chosen Nursery School - TABLE 2



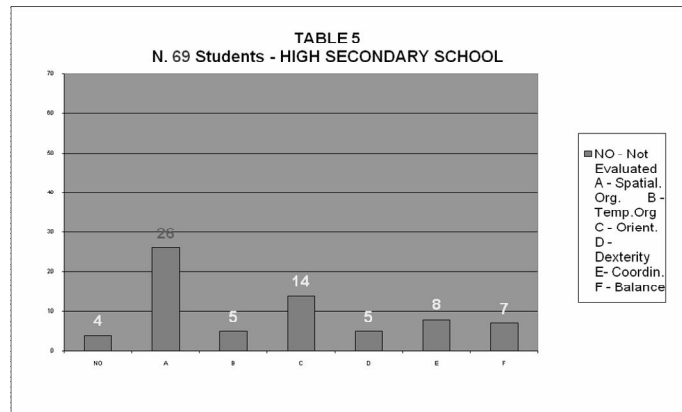
- Characteristics' perception of the students (54/350) that have chosen Primary School - TABLE 3



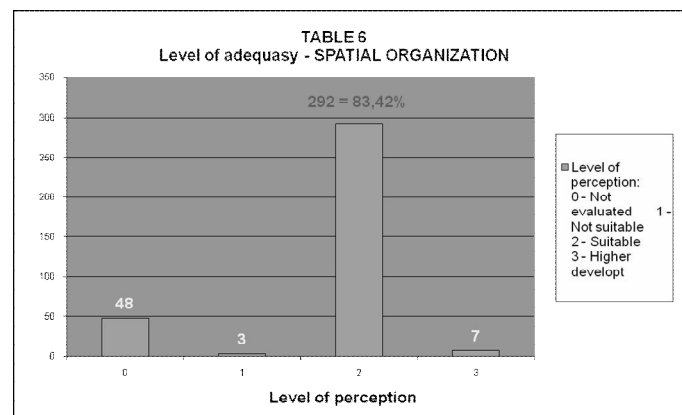
- Characteristics' perception of the students (172/350) that have chosen Low Secondary School - TABLE 4



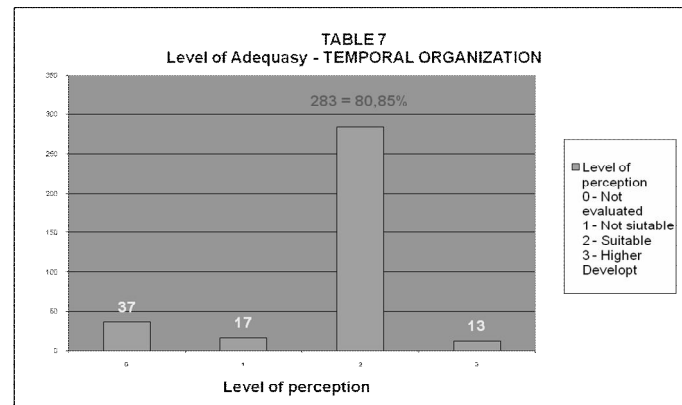
- Characteristics' perception of the students (69/350) that have chosen High Secondary School - TABLE 5



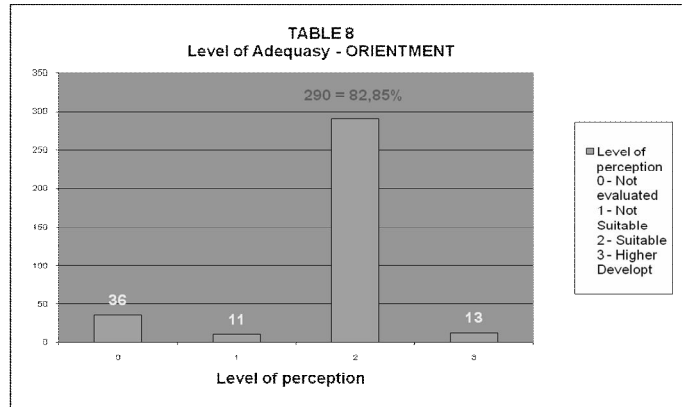
- Level of adequacy of the students for the Spatial Organization - TABLE 6



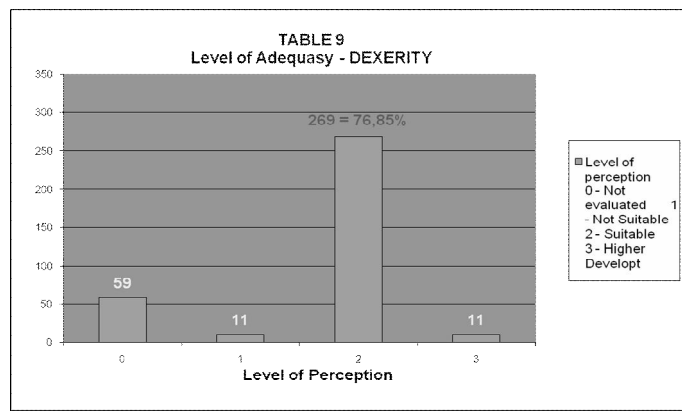
- Level of adequacy of the students for the Temporal Organization - TABLE 7



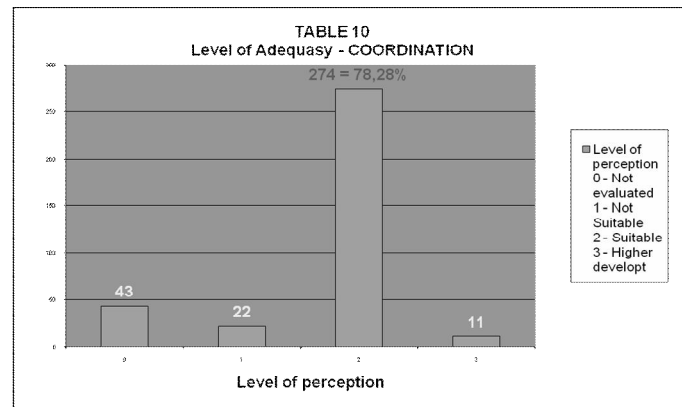
- Level of adequacy of the students for the Orientation - TABLE 8



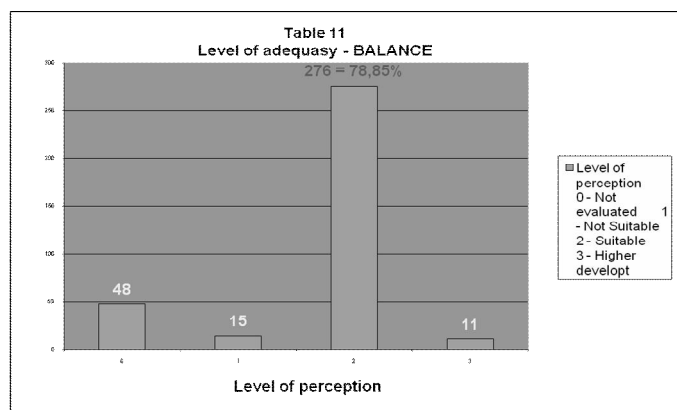
- Level of adequacy of the students for the Dexterity - TABLE 9



- Level of adequacy of the students for the Coordination - TABLE 10



- Level of adequacy of the students for the Balance - TABLE 11



DISCUSSION AND CONCLUSION

Which of these data are considered significant?

- The *low secondary school* was the school cycle that had the major formative function in motor and sports activities for the students (172 out of 350).
- Among the six characteristics of the questionnaire, *spatial organization* was the one that students considered the most useful to lead motor and sports activities, apart from the school cycles that had the major formative function for them: from 37,68% for high secondary school to 48,14% for primary school.
- With regard to the level of adequacy to the needs required to lead motor and sports activities in primary school, a high percentage of students have considered *suitable* the level of personal perception. This is true for all the characteristics of the questionnaire varying from a minimum of 76,85% for dexterity and a maximum of 83,42% for spatial organization.

What type of suggestions can come out?

- Low secondary school was, in chronological order, during the period in which the students attended the school, the *first school* cycle where physical education was institutionalized. Considering, however, that in high secondary school physical education is considered in the curriculum, we should demand to ourselves why the low secondary schools make, for the students, the higher training value. It is likely that, having lived for the first time motor educational programmed experiences, this had an emotional relapse, and, for this reason, of more involvement, which justifies a higher answer percentage.
- It is interesting the high frequency percentage of the students' answers about the characteristics more useful to lead motor and sports activities

(spatial organization). This data, in fact, is in all levels of school and therefore it cannot depend from the curriculum and/or from an age level. There are many possibilities that the spatial organization represent the first concrete instrument of knowledge.

Another reflection could be based on psychological projection where the spatial organization for the students represents the *child's primary motor needs*.

- In decreasing order, the last two frequency percentages related to the perceived choice of the characteristics are temporal organization and dexterity (the last). That shows, in a quite significant sample, that is advisable to intervene in shaping *abstract cognitions* and/or in less used, and therefore unaware abilities.

The temporal organization, in fact, is grafted on the concept of time that, as we all know, is a convention. It's very likely that a so abstract characteristic is not perceived as an important and useful thing to conduct motor and sport activities in an education field.

To realize a research during a motor laboratory in a university path for the will-be primary school teacher's formation, represents an opportunity to understand, in a better way, how students live motor and sport-play experiences in relation with their own experience of life.

The measurement of the phenomenon's trend, in fact, represented an useful instrument for the perception and knowledge of the *students' motor autobiography*.

Before planning a motor laboratory for the university training of will-be teachers, it is important to reflect on the necessity to *know the motor experiences of the participants* as well as the meanings that they perceptively give to the characteristics necessary for their future job.

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