

Curriculum Method Grounded on Didactic Engineering to Expertise Physical Education Program Proposal

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Abstract

The purpose of this article is to identify and understand the reasons of actors of the neosphere and those of the scientific literature for the implementation of the pole vault practice in physical education program. The case of a didactic transposition for teaching pole vaulting practice at school is presented and the relationships between teachers and learners of this discipline are identified. Epistemological analyses of the practice of pole vaulting as well as a transpositive study of its implementation were useful to carry on the practice framework of the discipline. This background allowed quantitative and qualitative analyses for professional learning of pole vaulting. These allowed identifying global and generic trends of adapted and integrated study sections. Reports of crossing and separation between the practice of pole vaulting and the learner's skills were highlighted. Difficulties related to contextual factors were identified. The synthetic didactical training analysis led to propose practical teaching programs for pole vaulting at school.

Keywords: Curriculum, Physical Education and Sports, Pole Vaulting, Knowledge Taught, Learn to Teach.

1. Introduction

Pole vaulting at school may be a growing practice in the context of innovation and the evolution of teaching various jump cycles in physical education. To be integrated in the programs of Physical Education and Sport (PES), this physical activity, sporting and artistic (PASA) could thus have to master the motor skills and to develop the potentials of the motor action want to positive its effect on PES. The didactic transposition of Physical Activities and Sports (PAS) is central in the teaching and learning of sports activities in schools. We need explaining and understanding the implementation of a didactic transposition of the pole vault practice with regard to the disciplinary dynamics and the approach of the didactic engineering. We can then ask how program designers, textbook, legislator, trainers, teachers design teaching and learning pole vault cycles. First, the conceptual framework and questions of our research will be considered. Next, we will specify how we proceeded to the analysis of the content of documents (programs, scientific literature), questionnaires and semi-structured interviews with teachers and PES inspectors. Finally, the results of the study's survey will follow, with a discussion leading to a cross between the reasons of the neosphere people and the data from the literature.

The concept of "didactic transposition" in its original notion is introduced by Verret (1975), and then diffused by Chevallard (1991). This concept classifies two stages: external didactic transposition ("from scholarly knowledge to knowledge to be taught") and internal didactic transposition ("from knowledge to be taught to knowledge taught"). With regard to PES, scholarly knowledge is not directly taught as a raw product. The contents of the PES correspond to motor, cognitive and relational transformations of learners engaged in PAS practices (LeAnne, 2017; Larsson, 2015; Amade-Escot & Brière-Guenoun, 2014; Léziart, 2003). Scholarly knowledge can sometimes be a support for the didactic transposition into EPS. In addition, PES programs could not only confirm the practice of pole vaulting, but also to evolve to the psychomotor control with a well-developed internal logic for a practical practice in the school environment (classes sport-study, middle School High School). The knowledge to teach pole vault (programs, manuals) was almost non-existent until today, at least in Tunisia. In this connection, the concept of "social reference practice" recommended by Martinand (2003) seemed more appropriate for the discipline EPS, because the subject of the reference is introduced in a more flared way compared to the all the components of the practices (values, knowledge, attitudes, problems, social roles, etc.). The analysis in terms of curriculum on the pole vault is relative to the crossings of reasons of actors of the neosphere with those of the scientific literature and by referring to the reference practice (pole vault as well as performance sport), allows us to consider a didactic transposition of the pole vault, which is interested in building curricula and developing programs to teach the pole vault in schools.

We hypothesized that implementation of pole vault sport in PE program completing with the curriculum would report motivational knowledge for the evolution of physical education, to enrich educative quality with variety of practices and to better extend a curriculum by producing new scholar program of pole vault activity applied in PE setting.

2. Methods

2.1. Search strategy

Since our goal is to identify and understand the reasons of actors in the neosphere and those of the scientific literature for the implementation of the pole vault practice in schools, we have opted for an interpretative qualitative research strategy focused on the analysis of the contents of different documents: 1) The reasons of people in the neosphere correspond to what trainers, decision-makers and teachers state in the semi-structured interviews ; 2) Analysis of the scientific literature corresponding to articles, reading journals, theses for 100 scientific works).

This will allow us to question the relationship between the reasons of people in the neosphere and the scientific literature about pole vaulting practices. These reasons will be distinguished to better understand the design of a possible teaching curriculum.

2.2. Participants

In addition to analyzing the documents, we used semi-structured interviews with ten personalities from the world of physical education and sport, namely a) two teacher-researchers; (b) two PE inspector; (c) two sports institution directors; d) two athletic trainers and e) two PE teachers.

These participants were not chosen at random. Their choice is based on the knowledge of the environment, in particular: the position held by the subject in PSE during each period and the professional experience with regard to teaching PES.

2.3. Data collection strategy

These are two types of data collected: 1) those from the scientific literature, existing PES programs; 2) those derived from data obtained through semi-structured interviews with participants. Each of the interviews lasted about thirty minutes. It should be noted that these interviews were treated from a maintenance grid, dealing with the process of designing program content in EPS and in particular pole vaulting, the values, as well as the knowledge underlying the program and programming process.

2.4. Data analysis strategy

Qualitative analysis of the contents of various data collected has been completed. It covers both the information from the scientific literature and the latest existing PSE programs, as well as the information gathered through the semi-critical interviews with participants. These have been transcribed in full. The analysis of their contents made it possible to supplement the data collected by exploiting the available documents (articles, books, manuals, theses), but also to analyze the distance between the data of the literature and the conceptions of the neosphere. These studied data made it possible to better trace the modes of conception of a possible teaching curriculum.

To analyze the scientific literature on pole vault activity, we took into account one hundred (100) references of scientific articles with impact factor and indexed as well as textbooks and books published between 1934 and 2014.

The constructions of the questionnaires and interviews, as well as the analysis of the different corpora, were conducted around the following three themes (Grawitz, 1993):

- What practices (social / scholar) do decision-makers, trainers and teachers refer to? (e.g the pole vault).
- Are these actors influenced by scientific publications?
- Does the varied innovation and development of physical qualities have an impact on the aims, objectives and competences, which define the disciplinary matrix as well as structure and base the teaching of PES?

In the interviews, we added a fourth category, relating to the teacher (conceptions, skills, motivations, etc.). All the indices that can influence the determination of the curricula have been arranged in this analysis grid, which has been the subject of a quantitative treatment (for example, percentage of teachers declaring to take into account pupils, descriptive statistics types of previous studies and classified implications) and qualitative (what characteristics does the curriculum proposal).

2.4.1. Statistical treatment

Statistical processing encodes and processes qualitative data using specific software A.L.C.E.S.T.E. (Fielding & Lee, 1998; Gibbs et al., 2002; Seale, 2002b). This software is used for the automated processing of text studied, in order to extract the common organizing principles of the speeches. Information (usually words rather than sentences) is computer-coded and processed quantitatively. The meaning of interviews or observations is highlighted by statistical analysis. The main functions that can be expected are the transcription of texts, the coding of categories, the graphical visualization of data and the multi-media processing.

2.4.2. Lexical treatment

The basis of computer processing is Lexical Analysis (Lebart & Salem, 1994; Gavard-Perret & Moscorola, 1998). This method analyzes the raw words but in their canonical form (for example, verb in the infinitive,

adjectives, noun singular etc.). The statistical results provide the frequency of occurrence of the words and the frequency of co-occurrence between words and associations with neighborhood words. They are arranged by category and by population group. One of the approaches is to grasp the meaning of the interviewees' discourse and place it in context according to inductive categories. Another is to rearrange the text into fixed dimensions according to a predefined model and to reconstruct the meaning from pre-defined categories. One last is to clarify the meaning of the words by successive analyzes and to produce extracts of text more and more fine.

3. Results

3.1. Results interpretation

After having assembled qualitative information and collected ideas, it is a question of drawing explanations and the answers given to the problematic of our investigation by treating the procedures of interpretation of the data. At the end of the results, the interpretation of the reasons for the integration of pole vault in school practice and the formatting of the results emerged.

3.1.1. Foundations

The interpretive method is a new approach to qualitative analysis (Denzin & Lincoln, 1994). It is based on a general explanation system that goes beyond the data and generalizes it. It is a step-by-step diagnosis of solutions based on a faithful description of the interviews or observations and determining the consequences from the point of view of strategic choices or theoretical concepts. Two approaches that emerge: factual interpretation or creative interpretation.

3.1.2. Factual Interpretation

Factual interpretation is the logical continuation of content analysis (Wolcott 1994). It determines in writing what one understands about data and what they mean. The study could recommend refuting the hypotheses or adapting them to different facets of reality (eg. reuse of results for specific cases or segmentation of respondents and targets). If the survey wishes to establish more general propositions and to extend the data of the study to the context of the PES (eg. generalization to another situation), the results determine the invariants of the situation explored with the help of knowledge otherwise acquired (eg. know-how to jump in different ways).

3.1.3. Subjective interpretation

The subjective interpretation is based on our intervention as researchers, becoming part of the results as well as the data themselves (Denzin & Lincoln, 2005; Paquay et al., 2006). Our subjectivity serves to improve the understanding of the facts and to say "the truth". Our method is the reverse of the factual interpretation. The creative interpretation (our) assumes that the survey provides incomplete material (eg. decision-makers can't put themselves instead of learners), that mediation is necessary to translate the conclusions and that the analyst must find the keys.

a) Initial context units (I.C.U.)

The I.C.U. are the natural divisions of the corpus (answers to an open question or chapter of a book, etc ...). They are the first signs of a structure that should be pointed out to ALCESTE.

b) Elementary context units (E.C.U.)

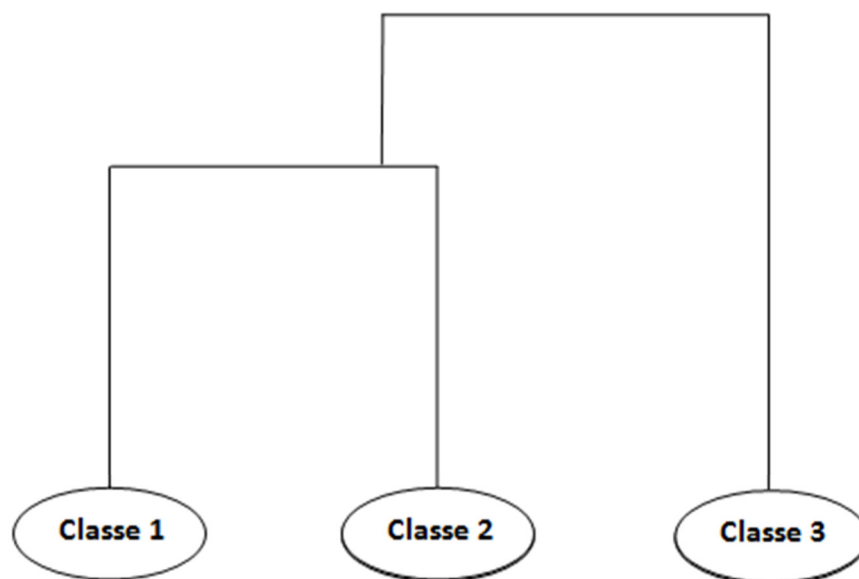
The E.C.U. responds to the idea of "sentence" as well as "statement" but calibrated according to the length (evaluated in number of words) and the punctuation (in the order of priority:.;! :) it is from the membership of the words of the corpus to these UCEs that ALCESTE will establish the matrices by which the classification work will be carried out. There are special documents where this cutting in E.C.U. is "natural": concatenation of short replicas, coded strings of letters and numbers.

3.2. Results of the speech corpus

The results of the interview show the distribution of the reasons of ten actors of the neosphere people in the form of an initial context unit (i.c.u.). The corpus consists of 1288 occurrences (distinct forms, reduced forms). It is split by the software in basic context units (e.c.u.). The results show a hierarchical descending classification structure (dendrogram) of discourses according to different classes from the HRC (Figures 1 and 2).

The analysis of the corpus brings out three characteristic speech classes of ten actors of the neosphere on the reflection of a new practice of pole vaulting in the school environment: class 1 (118 ecu), class 2 (81 uce) , class 3 (54 ecu). The figures (1 and 2) above represents the organization of the speech classes of the whole corpus, according to the dendrogram ensured by A.L.C.E.S.T.E.

Table 1 lists the hierarchical descendant, online, context units (u.c.) and, in columns, the reduced forms analyzed. Then, the tables (2, 4 and 6) gather a specific vocabulary producing reference to the reasons of the people of the neosphere. And the tables (3, 5 and 7) group the units of basic contexts specific to the reasons of the actors of the neosphere on the practice of pole vaulting in the educational environment.



Th1 (classe 1) Khi2=55.22	Th2 (classe 2) Khi2=35.58	Th3 (classe 3) Khi2=23.54
Evolution of PES Programs	Educational Qualities of Pole Vaulting	Curriculum for Pole Vault

Figure 1: Determination of three Themes (Th1, Th2, Th3) elaborated in 3 classes.

Comparison of classifications. After completing the classifications, it is a question of comparing the classes performed. The comparison is made by the operating mode of the C.U. However, a context unit collects an integer of E.C.U. Therefore, it is possible to compare the E.C.U classes between them :

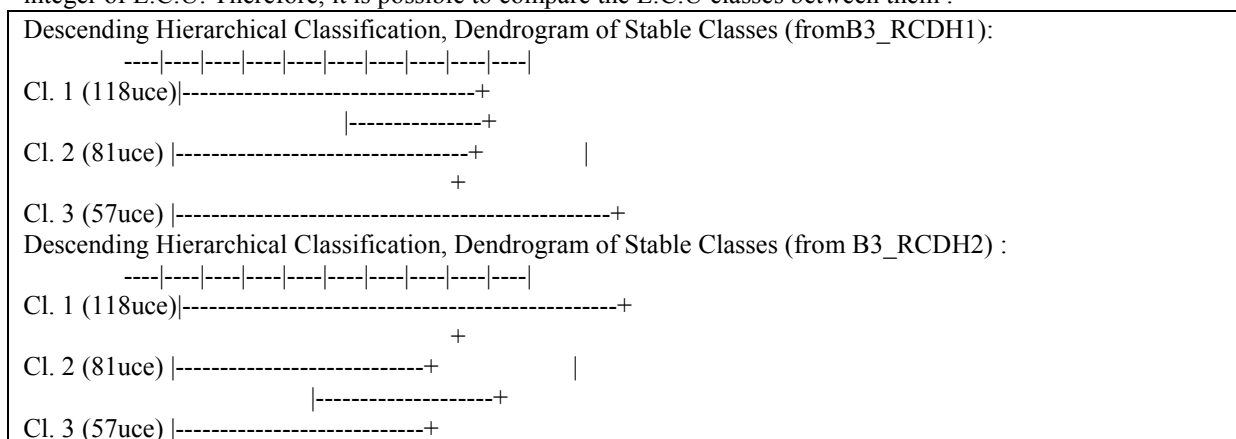


Figure 2: Descending hierarchical classification, dendrogram of stable classes (from B3_rcdh1 and B3_rcdh2). In this analysis, the two trees are different and have a separation. Although class1 remains stable, classes 2 and 3 remain distinct.

3.2.1. Descriptive analysis of corpus relating to the three themes

Table 1: Indications on the number and % of c.u. contributing to the levels of analysis

	Partial Analysis by Theme		
	Theme 1 (Th1)	Theme 2 (Th2)	Theme 3 (Th3)
Number and % of ECU of the global corpus involved in the partial analysis	118 46.64%	81 32.01%	54 21.34%
Number of classes identified by A.L.C.E.S.T.E for each analysis	3	3	3
Number and % of ECU contributing to class structuring for each analysis	57 of 118 48.30%	43 of 81 53.08%	28 of 54 51.85%

3.2.2. Evolution of EPS programs - Class 1

Table 2: Specific Vocabulary of Class 1 illustrating the evolution of PES programs

Evoluer (87.17), Curriculum (75,63), programmes (59,28), finalité (43,16), compétences (41,88), objectifs (37,23), activités (28,57), cycles (27,19), sport (21,69), gérer (17,52), terrain (15,24), EPS (14.58), enseignable (13.25).

Note. The specific vocabulary of class 1 is ordered according to the size of the association khi 2. The number of degrees of freedom is 1 - all Khi 2 greater than 11 correspond to a probability <0.001.

Table 2 contains a specific vocabulary referring to the evolution of PES programs. We note that the word "integration or the verb " to integrate " does not exist. On the other hand, integration indices appear: curriculum, evolved, as well as sub-divisions such as (purpose, skills and objectives). In addition, the objects of the distribution of the evolving curriculum are presented through (activities, cycles and sport). Among the words specific to the action, we find respectively: verb (to manage), noun (field) and adjective (teachable). We note that the segment listed in "Curricular Evolution" is the most common in Class 1. Analysis of u.c.e. show that most characteristic of this class gives us the opportunity to identify elements dealing with the objects of the implication of the evolution of the PES programs (see Table 2).

Table 3: The e.c.u representative of the class 1 identifying the evolution of the EPS programs

N°: E.C.U	Greatness of Khi2	Elementary Context Unit
ecu 1	52	The principle curricular is to support but to partially modify the practices of jumps. The 2006 programs are no longer new; it is possible to think on the text and programs of jumps.
ecu 2	38	The educational aims of the official text, the objectives and the skills to develop do not fight against the integration of new sports activities in PES, but I think that managing new practices could enrich physical qualities and psychological well-being.
ecu 3	27	The qualities of the expected competencies of the pole vault could change the teaching practices and those of the learner by admitting a better identification of the content to be achieved and respecting the levels of competence and gender.
ecu 4	18	We are in front of a new ambitious program of pole vault at sports schools, (center for promotion, training, athletics center) and adapt to the reality of the field is still possible.
ecu 5	16	I think that skill levels and learning skills need to be respected in teaching cycles (from basic 7 th year to baccalaureate). Develop and prioritize the knowledge to be taught for each cycle.

Note. Examples of e.c.u. among the most representative of class 1, ordered according to the size of the association khi-square. The number of degrees of freedom is 1 - all Khi 2 greater than 11 correspond to a probability <0.001.

It is the implication of the evolution of the EPS which appears most frequently among the e.c.u. This class is rather evoked by the teachers of our study population. Table 3 shows the organization of the context of the class 1 (118 ecu) named "the evolution of the programs of the EPS". The units of contexts most representative of this class concern on the one hand the possibility of partial reform jump programs but in a careful way. On the other hand, the pedagogical and didactical follow-up should represent a hierarchical logic of planning and programming of the pole vault of 7th year from basic education to baccalaureate. This class generally explains the implication of the evolution of the PES and in particular programs of jumps.

3.2.3. Educational Qualities of Pole Vaulting - Class 2

The development of a new PES program of pole vault requires the passage through several tracks respecting the logic of teaching and learning the objects of the program.

Table 4: Specific Vocabulary of Class 2 illustrating educational qualities of pole vaulting

Equilibrium (57.26), adapt (47.25), body (41.15), coordination (35.19), effort (33.23), force (31.12), orient (29.58), skid-ability (25.35), flexibility (23.75), stability (21.71), potential (19.25), develop (16.31), maintain (15.12), well-being (13.84), experience (12.14).

Note. The specific vocabulary of class 2 is ordered according to the size of the association khi 2. The number of degrees of freedom is 1 - all Khi2 greater than 11 correspond to a probability <0.001.

The specific vocabulary of Class 2 in the form of words consists of many names and verbs relating to the athletic performance of pole vaulting and its educational development. The following terms: develop, balance, adapt and maintain the interest of the motor action through the knowledge to jump. They are specific to motor practices in PES. On the other hand, the substantives represented as follows: coordination (khi2 = 35.19), strength (chi2 = 31.12), stability (21.71) and flexibility (khi2 = 23.75) illustrate essential physical qualities to be developed during the course of the PSE. In addition, the terms body (khi2 = 41.15), potential (khi2 = 19.25), skillfulness (khi2 = 25.35), experience and well-being evoke the qualities of need for good health and transversal

motor gain that could be useful for the individual. Thus, the high khi2 values legitimize the appointment of Workbook 2 "educational quality of pole vaulting practice".

Table 5: Representative u.c.e of class 2 identifying educational qualities of pole vaulting

N°: u.c.e	Greatness of Khi2	Elementary Context Unit
uce 1	41	It is very useful to equip our students with a great deal of motor experience, and above all to teach them to identify those which are fundamental to the athletic gestures of the pole vault in order to seek coordination, balance and power « adaptability ».
uce 2	37	In pole vaulting, the development of psycho-motricity, lateralization, spatial identification and the structuring of the body diagram are all fundamental stages in the physical maturation that we sometimes have to take up again in order to progress the coaching our young people by practicing this jumping activity.
uce 3	23	Many of the great physical abilities can be approached very early, and this in the interest of the future athlete (speed from 6 years, flexibility, stability and endurance from an early age) and also for the interest of physical well-being.
uce 4	15	Promote the desire to practice, develop the taste of effort, the pleasure of making a gesture of jump make a right and effective pole vault movement; it is also learning to concentrate, to support the constraints of group work, to accept criticism and advice.
uce 5	12	Amount of simple gestures such as segmental alignment ability, tensioning of muscle chains, stretching ability. The placement of the pelvis in retroversion, the ability to run in approach rhythm to the call zone, the ability to adapt the speed of race in relation to the holding of the pole.

Note. Examples of e.c.u among the most representative of class 2, ordered according to the size of the association khi-square. The number of degrees of freedom is 1 - all Khi 2 greater than 11 correspond to a probability <0.001.

In the class 2 corpus, there are five basic contextual units grouping the highest khi2 that vary between (41 and 12). These units focus on the interest of the place of the particular practice of EPS pole vaulting. We thus evoke the following sentence segments: "It is very useful to equip our students with a large amount of motor experiences, ... which are fundamental to the athletic gestures of the pole vault in order to seek coordination, equilibrium and adaptability In the pole vault, the development of psychomotricity, lateralization, spatial identification, the structuring of the body diagram are all fundamental stages of physical maturation; to be approached very early (speed, flexibility, stability and endurance) ... for the sake of physical well-being ". The analysis of the ECU highlights the physical qualities required in EPS: envi "to develop the taste of the effort, the pleasure of making a gesture of jump to the right and effective boom ... quality of gestures ..., the ability to segmental alignment, the relationship with the held of the pole ". On the other hand, the dendrogram of class 2 (Khi2 = 35.52) and class 3 (Khi2 = 23.54) show them statistically distinct.

3.2.4. Curriculum for Pole Vault - Class 3

The context of Class 3 (54 e.c.u) was titled "Curriculum for Pole Vaulting". This class is arranged, as Table 6 notes, from the pedagogical approach of the pole vault activity programming (method: khi2 = 57.58). The vocabulary specific to this class highlights the educational action relative to the pupil on the pole vault (to engage, jump, regulate, adjust, as well as the act of the teacher (to arrange, observe, correct and On the other hand, the educational context includes many words such as: teaching, pupil, sessions, obstacle, difficulty, know-how, performance, self-regulation, efficiency and safety. a curricular program for the practice of pole vaulting in PES.

Table 6: Specific Vocabulary of Class 3 for Curriculum of Pole Vault Practice

Methods (57.58), pupil (55.93), craftsmanship (53.82), performance (51.61), motor skills (49.87), landscaping (47.24), pole (46.47), engaging (45.24), jumping (43.25), regulating (42.12), adjust (40.59), phases (39.23), evaluate (38.91), observe (37.65), difficulties (35.78), correct (34.92), capable (34.77), self-regulation (32.53), obstacle (33.14), safety (31.67), efficiency (30.95), sessions (28.82), learning (27.54), teaching (26.28), pedagogy (24.58), gestures (21.79), formation (19.49), educating (18.23), games (16.33), varying (15.87), protect (14.74), tasks (13.11), levels (12.81), abilities (12.53), succeed (11.97), material (11.13).

Note. The specific vocabulary of class 3 is ordered according to the size of the association khi 2. The number of degrees of freedom is 1 - all Khi 2 greater than 11 correspond to a probability <0.001.

The e.c.u(s) most representative of Class 3 are shown in Table 7 below. These units of elementary contexts show the curriculum representative of the pole vault school practice.

Table 7: Representative u.c.e of Class 3 for Curriculum of Pole Vaulting

N° : u.c.e	Greatness of Khi2	Elementary Context Unit
uce1	35	Depending on the school project, the pedagogical project, class projects and student characteristics establish privileges in the choice of declarative and procedural knowledge, attitudes, abilities and activities of long jump without and with pole.
uce2	32	In the logic of assuring our students the construction, acquisition and development of new skills expected from their athletic practices, it is possible to program three-level pole vault cycles, from initiation, to improvement, achieving control of jumps and motor skills.
uce3	25	Different types of jumps favoring competitions and games, in order to know how to jump on sand, on grass and on carpets with poles of different qualities and heights sufficient for learning. Arrangement of varied environments ensuring the safety of students.
uce4	24	To know how to hold and to plant the perch, to know running with pole, to know how to jump with pole, to know transform its horizontal speed in a vertical one. Improving race-presented-impulse with pole and jump forward and upward, knowing how to control his gestures, his feet supports in space and time.
uce5	19	The new pole vault program is to be progressively implemented to collect observations and suggestions for improvement. Apply teaching methods and didactic tools. Organize tasks to teach and respect individual differences.

Note. Examples of u.c.e among the most representative of class 3, ordered according to the size of the association khi-square. The number of degrees of freedom is 1 - all Khi 2 greater than 11 correspond to a probability <0.001.

This class defines the context for the implementation of the particular pole vaulting practice in the educational environment next to students attending sport classes (at secondary schools). The analysis of the discourse, links the practice of the pole vault to the conditions of the establishment and its pedagogical project by cyclical programming introducing the initiation, the development and the mastery of the jumps with pole for three levels (uce1 and uce2 while, (uce3 and uce4) note a treatment of "different ways of jumping, knowing how to jump on the sand, on the grass and on carpets with pole; ... To know how to hold and plant the pole, to know running with pole, to know how to jump with pole, to know transform its horizontal speed in a vertical one. Improving race-presented-impulse ..., jumping forward and upward, knowing how to control his gestures, his feet supports". On the other hand, concerns about the realization of the educational activity represented at the uce5, which analyzes the progressivity in the implementation of the new program. Work on "observations and suggestions for improvement". The context of unity demands to "apply pedagogical methods and didactic tools". Likewise, it is a question of "Organizing the tasks to be taught and respecting the individual differences".

4. Discussion

We present successively the results related to the content of the literature on the activity of the pole vault, the reasons of actors of the neosphere on teaching this PAS at the school environment to develop a formal curriculum. The purpose of this contribution is to question the community of the neosphere, as part of the re-founding of the PES and contribute to the raisons of integration of the practice of pole vaulting inside school environment by another view in PES setting.

4.1. Educational interests on PES programs

We present findings on the taught physical education postulating today that sport is educational in itself and that EPS would inspire its educational legitimacy particularly practices mainly sports to change the attitudes of learners. EPS would draw its coherence from a teaching based on a range of choices, or even an encyclopedism that would be synthesized to the addition of sporting practices or PAS. However, the discipline of PES would be organized mainly through cross-curricular competencies, methodological or broad educational aims. However, a PES program can be organized around a wide variety of skill levels in a majority of PAS. In addition, being proficient in PES means being effective without interested in the type and level of control of knowledge mobilized. School progressivity is modeled on a progressivity designed by and for sports community, as a result, the high-level sport model, given its specific characteristics, remains today the hard reference for building a PES in our educational institutions.

If the need for early specialized training in young athletes is currently under debate (Myer et al., 2015), today physical and sport activities are educational in themselves. Teaching them easily and having them practice as such is enough to gain access to a field of culture, to develop one's resources or to manage one's physical life. Confusions perpetuate between physical education and sport at school from which we must escape this derogatory conception. But, to identify factors affecting the diverse implementation periods during the initial

years of a programme tripling the amount of physical education at the primary school level (Nielson et al., 2018).

Physical education and sport develops motor behaviors, improves safety and efficiency of behavior as well as ease of driving. It encourages physical, psychological and social development as it was identified as a potential solution to increasing behavioral engagement, and in turn stimulating and enhancing learning (Harvey et al., 2017). To achieve these goals, several physical and sports activities should be taught inside school. Athletics finds its place among activities declared by the Ministry of Sport to the athletics federation and also to schools. Athletics is included in curricula as part of the compulsory education of PES. Among athletic activities, pole vaulting occupies a special place in the sports sector in the national territory and generates a practice and popularity audience that could invite an educational interest for students and also teachers.

4.2. Improvement of motor repertoire among students

Explored results of E.C.U show that "It is very helpful to equip our students with a great deal of motor experience and especially to teach them to identify those that are fundamental to the athletic gestures of the pole vault in search of balance and adaptability». Furthermore, "Each new practice is analyzed, appreciated by gestures in the motor memory (motor loops), supported by adaptations to the most adjacent motor loop and accomplished. Moreover, the objectives of pole vaulting as an athletic activity are the development of the coordination capacity, adaptability and motor performance (not necessarily codified sports) through the broadening of the motor repertoire (know varied jumping) .in line with these outcomes, Forest et al., (2018) focus on official curricula for gymnastics as a sport of risk and fitness training. To do so, practice multifarious and varied exercises involving more skill than physical performance. Adapt these exercises to the physical and psychomotor requirements of the student. So, focus on addressing prerequisites rather than codified technical actions. First, to classify prerequisites, it is claimed by our specialists in PES that the learning of the coordination capacity is relative, at first, to the school. In a second time, the athletics school is the second medium to develop these prerequisites. What is abandoned most often? In pole vaulting, the development of psychomotricity, lateralization, spatial identification and the structuring of the body diagram are all fundamental stages in the physical maturation that we sometimes have to take up again in order to progress coaching our young people by practicing this jumping activity. The learning of coordination capacity is directly dependent on this work. Noting then, kinesthetic perception, for its role in producing a precise and individualized motor image, the construction and adaptation of movement, as well as in the constitution of the motor repertoire, is probably one of the most important factors of coaching, as such should be developed at the earliest. Regarding the physical prerequisites in pole vault, the interviews conceive that many of the great physical abilities can be approached very early, and this in the interest of the future athlete (speed from 6 years, flexibility, stability and endurance from early age) and also for the sake of physical well-being. While, to achieve the social and psychological pre-requisites is in order to seek levels of motor drivability through the ways of jumping with and without pole. By promoting the desire to practice, develop the taste of effort, the pleasure of making a fair and effective gesture; it is also learning to concentrate, to support the constraints of group work, to accept criticism and advice. Finally, the specific prerequisites for pole vaulting are directly related to the optimization of the competitive gesture, but are found indirectly in a large number of simple actions such as the segmental alignment capacity, the tensioning of muscle chains, the ability to stretch. Also, we can search for the placement of the pelvis in retroversion, the ability to run in rhythmic approach to the impulse zone, the ability to adapt his leg cycle to the running speed in relation to the held pole. Then, it is important to search dynamic balance using different poles of varying lengths in secure environments.

The goal of our approach is not to create a track and field, but to adapt to the evolution of our society, to justify our status of food and enrichment of the basic sport (for example; jumps) by developing the educational aspect of our sport, through the integration of new sports activity and the practice of students.

4.3. Pole vault as school practice: values and aims

The pole vault at school makes us aware of its educational interest. Hence, it needs to explain its educational principle. First, education is defined by Descapentries (2008) and Andrieu (2013) as the set of actions required to develop knowledge and physical and intellectual values and as a means of transmitting a culture necessary for the development of personality and the social integration of the individual. Education through the implementation of pole vaulting in schools or other institutions raises the question of disseminated culture and its utility in a transparent way. Although, the school holds a knowledge transmission function or reference practice, sometimes other reference practices are arranged such as pole vaulting. This practice has certain legitimacy with actors close to the neosphere (institutional, politicians, decision makers, teachers ...). This legitimacy could also be reinforced in the eyes of students. In addition, education and culture are inseparable when the first passes through the acquisition of knowledge and general know-how (knowledge, skills, beliefs ...), prior to the student and constructive to the second.

In line with analysis neosphere reflection of pole vaulting in PE some sports are risky, but the student can protect himself (Delignieres, 1993). In addition, the feeling of pleasure and satisfaction could be produced with learning new things and technical gestures for the interest of acquiring skills in other areas for satisfaction of his body and his physical abilities. Therefore, pole vaulting can better develop students' physical qualities.

4.4. The pole vault between PES compliance and sports enculturation

The actors of the neosphere interviewed predict that pole vaulting as a performance sport can be considered a culture of ideality and does not belong to mass culture. Here, the notion of culture exists in relation to a number of criteria that struggle to impose their classically discarded codes; otherwise they fall into the pit of the cultural divide. Faced with the transdisciplinarity of sport culture in school culture and accessible access to their cultural continuity and the accelerated diffusion of know-how and knowledge, the cultural divide that exists becomes less and less present. And as athletics represents a distinctive culture related to the ancient Greek model and a reference in classical humanities. The athletic culture of pole vaulting here blends with the cult of the performing body capable of going ever faster, higher and further. According to Warnier (2008) culture has no boundaries between societies. In pole vault, the culture is similar to that of the origin practice, athletics. She embodies what practitioners share by running, jumping and throwing. Those are the technical know-how, knowledge of the practice and of oneself, methods, methods of training, confrontation, pleasure, etc. However, it is a question of knowing more clearly what benefits of development brings this activity to the practitioners and under what conditions, when the pole vault enters the school? In this sense, we are talking about the integration of an external cultural model (performance sport) into the school environment, as well as its adaptation and appropriation. Anthropologically, we are talking about enculturation. This review concludes that physical education has a solid foundation in schools curriculum and that it enjoys well-built support in society culture (Yli-Piipari, 2014).

But, what cultural transfer process can we use as support for the implementation of this enculturation of the pole vault? In this perspective, the host sphere opts for an import maneuver: the school imports the sport pole vault. We are therefore faced with a duel of coming and going. On the one hand the ministry of sport relies on the school to disseminate the pole vault activity as an athletic practice and on the other hand the school EPS integrates it. Thus, in order to carry out the cultural transfer and to ensure the integration of the pole vault into the school PAS, we start from the reality of athletics as a catalyst for the occupation of a sports culture in the cycles of EPS. While in order to definitively solve this problem of integration of a new athletic practice, of cultural transfer (from sportsman to school) and of learning of new skills and knowledge, we have to solicit the people of the neosphere that ensures its functioning. It is through their actions that boundaries are changing permeable between the sporting world and that of school PES and the gear mechanisms evolve "greased". Our questions are not closed and they ask for more details on the tools and the athletic supports as well as the aims and models of theoretical references.

Understanding this occurrence of transfer of body culture, physical, values and beliefs, could be cause of skills development, acquisition of new knowledge and exchange of certain know-how. Noting that is essential to operate for the integration of the pole vault at the PES with good articulation between all the agents of the neosphere and what they use as levers. In their analyzes Zakhartchouk (1999) and Fortune (2012) confirm the importance of the role of the educator, as mediator of knowledge and cultural passer, based on official texts, didactic tools, teaching methods and bibliographic documentation. Because it is through these that passes know-how and athletic culture in pole vault education. However, to what extent does the pole vault, which does not appear in the EPS curricula, exchange both the dissemination of a sports culture and a school culture? How does the particular practice of pole vaulting at the interface of these two poles, which at the beginning, move away? As a result, the integration of a performance sport into the educational environment leads to the transformation of its methods and goals. This sport also evolves under the pressure of internal factors of the school, which push the educator to transform the social practices of reference APS into school practices of EP. It is in this way that a cultural object evolves into an object of teaching. Our reflection is well confirmed by Pierre Arnaud, who interprets that external factors are responsible for the development of PSA and also the pressure of internal school factors, which establish the rules of the game of educational intervention. Thus, the determinants involved in the transformation of the federal pole vault into the school leap are strongly linked to the school culture and its interests.

In this sense, our actors see that we are faced with a "sportivisation" of PE. By the way, communicating the foundations of the pole vault, as a sporting culture, at school. So, how to bring these two contradictory worlds closer together? Here, we are faced with a paradox that pushes our actors to maintain both reports of finality and opposition vis-à-vis the practice of pole vaulting in EP. Through this orientation we return to explain the concept of school culture. This culture is defined by Bantignie (2008) as a corpus of knowledge interpreted in the form of programs that society asks the school to transmit. This culture is built autonomously of references and norms that emanate only from it. Indeed, when an element of culture (pole vault sport) becomes an object of instruction. It

is primarily because it has sufficient socio-cultural relevance, allowing it to be known and included in the curriculum.

In this development, two processes are highlighted. First, people in the neosphere select the parts of the culture they wish to disseminate (body culture, motor skills, physical skills, coordination, safety, balance, adaptability, etc.). It is the bodily ideal deemed desirable and preservable for generations. What is taught is the ideal of the authorized culture. Then, the school transforms knowledge by transmitting elements of culture which are not necessarily homogeneous. What is teachable is all about restricted community experience. However, incorporating into the school a restriction of know-how and knowledge, the object of culture can lose its thickness to become an object of instruction, which leads to a simplification and a trivialization of distributed knowledge. Hence, the reduction in the number of PAS or the decontextualization of the sporting cultural object, its school counterpart being only a very rough copy. In other words, Sarremejane (2001) argues that federal volleyball has nothing to do with school volleyball. To meet the aims of the school, pole vault schooling must move away from the purely sporting model. This distance between school practices and their social meanings remains a hard observation (Arnaud, 1995). Hence the need for a didactic transposition with the elaboration of transitional knowledge to ensure the passage of scholarly knowledge to the knowledge taught. According to Chevillard (1991) and Atalar & Ergun (2018) the knowledge taught must be enough pocket of the scientist and far enough to the knowledge of educators through specialists in the field (manuals, teaching, evaluation), by adaptive transformations so that the content is apt to be taught. The depersonalization of the know-how of the practice of the pole vault is achieved by sharing them within the institution, which allows their publicity. It is for these reasons that pole vaulting will have the legitimacy to be teachable. At this level of analysis we face a paradox of school culture. It is to be understood that the offer of sports culture through athletic practices, that the school vehicle, cannot be disconnected to social demands. At the same time, this offer is not fully transmitted, at the risk of losing its educational aspect.

Conclusion

Innovation in physical education (PE) can be found in the development of physical education quality, creative processes of knowledge in sport activities and curriculum reform in order to achieve a particular educative finalities and experience. Within the developed curriculum, pole vaulting activities provides the opportunity to various practices and develop new knowledge, skills and attitudes achieved in physical education. When applying the implementation of new sports within the curriculum, the skills and rules should be adapted to school levels, at the same time as preserving security, to advance the learning experience of learners. When delivering physical education classes, teachers will put into practice all requirements for individual activities. The implement of a new program of pole vault activity should be balanced and designed to develop students' knowledge, skills and attitudes. This activity must be directed, controlled and assessed in different levels classes. Pole vaulting is a physical activity to be conducted in a safe learning environment in accordance with desirable implementation for providing physical activity program in PE with curriculum fidelity. Hence, the practice of the pole vault is ready to be teachable in PE lessons.

This study was intended to fill the lack of studies on the educational approach to the integration of the particular pole vault practice into educational settings, physical self-perception at least in physical education and sports, and describing the development of the neosphere raisons crossed by literature review for the implementation of pole vault at school. The results found corroborate research developed in the scientific literature by showing that this sporting practice could be teachable as a school subject. Actors of think note their high interest in integrating pole vaulting into the educational environment. The results of the preliminary study show the theoretical relevance of the magnitudes corresponding to the utility of the integration of a new athletic discipline in the field of physical education.

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