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Original Article

TEACHING TEAM SPORTS IN ELEMENTARY SCHOOL: A STUDY OF UNDERGRADUATE PHYSICAL EDUCATION STUDENTS

O ENSINO DOS JOGOS ESPORTIVOS COLETIVOS NO ENSINO FUNDAMENTAL: UM ESTUDO COM UNIVERSITÁRIOS EM EDUCAÇÃO FÍSICA

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RESUMO

O objetivo do estudo foi analisar o processo de ensino dos jogos esportivos coletivos de universitários do curso de Licenciatura em Educação Física nas séries finais do Ensino Fundamental. Adotou-se procedimentos de pesquisa qualitativa, a partir de estudos de casos múltiplos com quatro universitários de uma universidade pública no Sul do Brasil. Os dados foram obtidos por meio da combinação de planos de ensino e aula, observações e procedimentos de estimulação de memória. A técnica de Análise de Conteúdo foi utilizada para a análise dos dados. As evidências indicaram a adoção de fundamentação teórica crítica e propósitos procedimentais/motores nos planejamentos dos universitários. A partir das ações de ensino dos universitários, verificou-se a ênfase na seleção de conteúdos técnicos/motores; por meio de tarefas globais e analíticas; estratégias de instrução de explicação, demonstração, intervenções de gestão; *feedbacks* prescritivos e avaliativos; estratégias de gestão grupais e individuais, com ênfase na restrição dos materiais aos alunos e relação social centrada nos próprios universitários. Privilegiou-se também a avaliação nas dimensões procedimental/motora, conceitual/cognitiva e atitudinal/afetivo-social, através de provas, trabalhos e conceitos de participação. Conclui-se que o processo de ensino da maioria dos universitários em Educação Física investigados corresponde às características verificadas nos modelos diretivos.
Palavras-chave: Educação Física. Esporte. Ensino. Estudantes.

ABSTRACT

The aim of this study was to analyze the approach of undergraduate physical education students to teaching team sports in elementary school. Qualitative research methods were adopted using multiple case studies involving four undergraduate students from a public university in southern Brazil. The data were obtained using a combination of students' lesson plan analysis, systematic observations, and memory stimulation procedures. Content analysis was used for data analysis. The results showed the adoption of a critical theoretical framework and procedural/motor goals in the students' lesson plans. Analysis of the teaching actions of the participants revealed emphasis on technical/motor content through global and analytical tasks; instruction strategies of explanation, demonstration and management interventions; prescriptive and evaluative feedback; individual and group management strategies often restricting the access of students to materials, and a social relationship focused on themselves. Learning assessment favored the procedural/motor, conceptual/cognitive, and attitudinal/affective-social dimensions using tests, assignments and learner participation in the activities. We conclude that the approach of the undergraduate physical education students investigated to team sports teaching is similar to the concepts of directive teaching models.
Keywords: Physical Education. Sport. Teaching. Students.

Introduction

Concern regarding the quality of teaching team sports, particularly in the school environment, is occupying a significant place in the field of sports sciences. One important contribution of this type of investigation culminated in the development of teaching structures to support teacher intervention, called models of teaching[1]. A model of teaching is understood as a set of decisions, plans and actions for teachers regarding planning, implementation and assessment that reflect an approach to systematizing teaching in order to obtain positive learning outcomes[1]. This implies the mobilization of some pedagogical procedures, including the adoption of a theoretical framework for lesson planning; the definition of teaching goals; the selection and curricular organization of content; the use of teaching strategies; the

understanding of student learning processes, and the development of methods to monitor these results[1].

On the basis of this target, different proposals have emerged as alternative approaches to the principles advocated by the directive and behavioral models that have permeated the scientific thinking of the field until the 1980s[2]. The first teaching approach emphasizes the centrality of the teacher in directing the teaching-learning process by using pedagogical procedures that focus on the transmission of knowledge and the control of learning situations commonly used for the development of motor skills. Among the most recent proposals, we emphasize the valuation of cognitive aspects, including the decision-making when faced with game situations and the mediation process of students as protagonists of their learning[2,3]. In fact, the influence of cognitivist currents seems to have contributed not only to a paradigm change in the teaching-learning process but especially to the recognition of the complexity of the teacher intervention, highlighting its intellectually active role in mobilizing a set of knowledge and experiences that can lead to successful teaching[4].

Considering initial training as a space where the knowledge and skills essential for the teacher's future pedagogical activity are acquired[5], knowledge construction for teaching has been investigated under the paradigm of teachers' thought[6] based on the description of thought processes, understandings, beliefs and experiences during teacher education taking into account their personal perspective and the distinctive characteristics of cognitive structures[7]. Studies on the diagnosis of the understandings, beliefs and pedagogical decisions of physical education students for different levels of teaching using mainly qualitative data analysis methods indicate that the characteristics of teaching seem to converge on directive perspectives, adopting goals and contents related to physical fitness or motor skills[8-10], analytical and/or global tasks accompanied by verbal and visual instructions and evaluative and prescriptive feedback[11-13], classroom management procedures[9,10], and assessment activities based on practical tests whose objective is to evaluate motor learning outcomes[14,15].

Further studies from this perspective should focus on an in-depth description of the knowledge of university students about teaching and learning, especially at the beginning and after completion of their initial training programs[9,15]. It is expected that evidence from such studies will provide data that contribute to the pedagogical training of future teachers, especially the (re)construction of knowledge for teaching during initial training courses. In addition, future studies should analyze different types of pedagogical procedures in order to understand the complexity and totality of students' knowledge in teaching[9,13].

In view of the emerging conceptual perspectives for the study of teaching, the guidelines for pedagogical intervention and its implications in the initial training of physical education teachers considering their future involvement in teaching school sports, this study aimed to analyze the approach of undergraduate physical education students to teaching team sports in the final years of elementary school. The study specifically proposes to analyze the theoretical framework, teaching goals, contents, strategies, and assessments adopted by these students.

Methods

Participants

A qualitative, descriptive and interpretive study[16] was conducted using procedures of multiple case studies[17]. Participants who met the following criteria were selected intentionally: a) regularly enrolled in the last year of the physical education course; b) teacher trainee in the final years of elementary school; c) having as the internship class topic the teaching of team sports; d) showing motivation and willingness to participate voluntarily in

the study. Thus, four graduating physical education students of a public university in southern Brazil were investigated (Table 1).

Table 1. Characteristics of the participants

Participant	Sex	Age	Sports experience	Professional experience
P1	M	22	Futsal, handball, volleyball	-
P2	M	36	Football, basketball, volleyball	-
P3	M	23	Combat sports and football	-
P4	M	22	Futsal and football	Coach

Legend: M = male
Source: The authors

Procedures

The data were collected using a combination of lesson plan analysis, systematic observations, and memory stimulation procedures. For the analysis of lesson plans, the theoretical framework, goals and assessment prioritized by the participants were identified. The documents were elaborated previously as a task of the discipline without interference from the researchers. Five classes of each participant (20 classes) were observed and three classes each (12 classes) were used as a source of information about contents and strategies. For recording of the lesson observations, a Sony Handycam DCR-SR47 was positioned in the diagonal of the classroom at a distance that permitted full visualization of the teaching context. The verbal interventions were recorded using a Sony ICD-PX312 voice recorder and a lavalier microphone attached to the participant's clothing.

An analytical matrix (Table 2) was developed to help with memory stimulation. The matrix consisted of five categories[1]: theoretical framework, goals, contents, strategies, and assessment. An expert method was used to ensure the validity of the content[18], in which three professionals with a doctorate in physical education and broad experience in the topic analyzed the relevance and coherence of the categories, subcategories, and indicators of the matrix. In memory stimulation, more detailed information about the thought processes involved in the decision-making by the participants was obtained[6]. In this respect, episodes regarding the three classes taught were reproduced and the lesson plans were presented to the participants, asking them to freely describe the behaviors observed or procedures adopted in teaching team sports. As the participants discoursed about their actions, an attempt was made to guide and deepen their descriptions through questions in order to understand the personal justifications for their actions. The procedure occurred at the university in a room without external interference. A Sony ICD-PX312 voice recorder was used, in addition to three institutional computers for exhibition of the images using the Windows Media Player for video and audio playing and sound boxes coupled to the monitors. The mean duration of memory stimulation was 1h30min.

Table 2. Analytical matrix of the study

Categories	Subcategories	Indicators
Theoretical framework	Conceptual proposals	Directive; Non-directive.
Goals	Dimension/ Domains	Conceptual/Cognitive; Attitudinal/Affective Social; Procedural/Motor.
Contents	Types of content	Theoretical; Technical; Tactical; Physical; Psychological; Values.
	Organization of content	Sequences; Progressions; Without Sequences or Progressions.
Strategies	Instruction	**Initial Instruction:** Explanation; Demonstration; Questioning. **Feedback:** Evaluative; Descriptive; Prescriptive; Interrogative; Management.
	Tasks	**Types:** Analytical; Synthetic; Global. **Conditions:** Simple Skills without Opposition; Combination of Skills without Opposition; Recreational Game; Conditioned Game; Small-sided Game; Formal Game.
	Management	**Students:** Individual, Group and Class. **Equipment:** Restricted Manipulation, Open Manipulation.
	Social relations	Focused on the Teacher; Balanced; Focused on the Student.
Assessment	Learning	**Learning Processes:** Conceptual/Cognitive; Attitudinal/Affective Social; Procedural/Motor. **Assessment Methods:** Tests; Assignments; Learner Participation; Behavior; Presence.

Source: The authors

The project was approved by the Ethics Committee on Research Involving Humans (2.083.301). All participants signed the free informed consent form. The participants were identified in the text by letters and numbers (P1, P2, P3 and P4) to ensure their anonymity.

Data analysis

Strategies were analyzed considering the proposal of Ticó-Camí[19] for task types, namely analytical strategies that correspond to the repeated execution of individual game skills; synthetic strategies that correspond to reduced situations of numerical inferiority/superiority/equality of players, maintaining some structural aspects of the formal game, and global strategies that correspond to the formal game or a game with few modifications in its structure. The task conditions were analyzed as proposed by Rink[20] using the protocol of Saad[21]: simple skills without opposition; combined skills without opposition; a recreational game designed for the purpose of recreation; conditioned game, which consists of attack and defense situations present in the formal game by continuous repetition of these circumstances; small-sided game in which the complexity is reduced and situation contexts are potentiated through the modification of spaces or number of players; formal game with game elements and structures, which simulates situations of a conventional game. The verbal interventions were classified as proposed by Sarmento[22]: evaluative feedback, i.e., judgment on the execution of the task; descriptive feedback which describes how the task was executed; prescriptive feedback which suggests how the task should be executed, and interrogative

feedback which consists of questions about the executed task. Interventions for the management of time resources, students, space, and materials were also considered.

A primarily deductive content analysis approach[23] with *a priori* categories[1] was adopted. This approach consisted of the selection and organization of the data obtained; coding of the content into categories; determination of the frequency of meaning units, and description of the results. The following procedures were used in order to data validation[24]: a) monitoring at the study place (8 meetings) for familiarization with the study place, equipment testing and carrying out the observations; b) triangulation of data sources to obtain more details about each case investigated; c) intrainvestigator measurement to verify interpretation of the data; d) interinvestigator measurement by analysis of the data by another investigator. For the last two procedures, no discrepancies were identified in the comparison between interpretations.

Results

The results were grouped using concept maps constructed with the CmapTools[25]. The upper part contains the categories of the study according to the analytical matrix[1]. The indicators and frequencies emerging from the lesson plans and observations appear in the center of the map and the justifications for planning decisions (Figure 1), intervention (Figure 2), and learning assessment (Figure 3) are shown in the lower part.

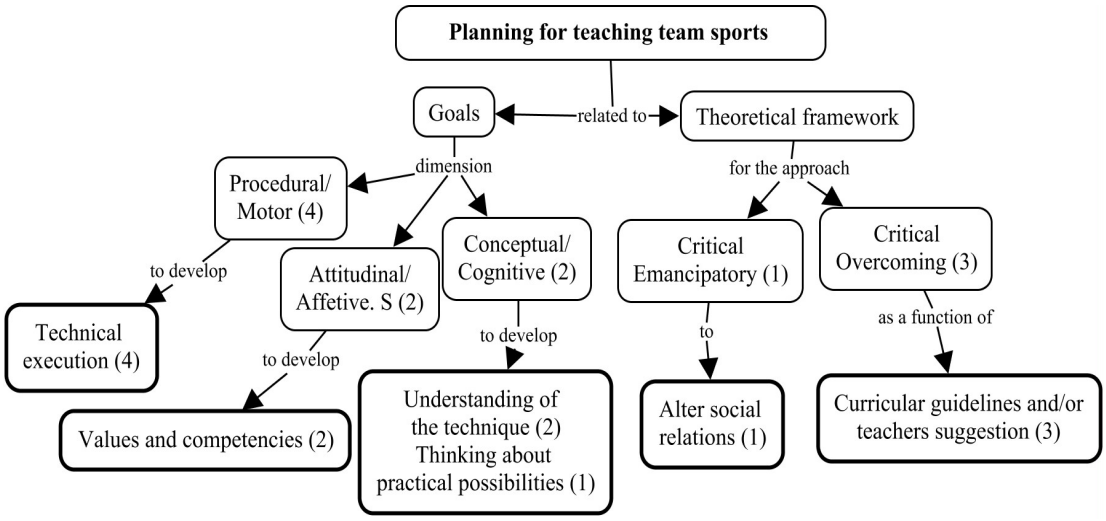

Figure 1. Concept map showing the planning of physical education students
Source: The authors

Theoretical Framework

The participants adopted the critical-overcoming (P1, P2, P3) and critical-emancipatory (P4) approaches in their lesson plans. The adoption of the critical-overcoming approach was guided by the curricular guidelines, suggestions of the teachers of the internship discipline, and pedagogical disciplines of the course. According to P1: "My experience has always come from the PIBID teachers and the internship... they always based themselves on the Authors' Collective. And our study was more directed at this". For P4, the pedagogical intervention following the critical-emancipatory approach should alter social relations, conferring greater protagonism to students:

> Because I wanted to do it differently from my experiences as a student, when the teachers did not take into consideration what the student thought. [...] As pedagogy suggests, we must take into account the students' past learning. So that helped a lot with the classes (P4).

Teaching Goals

The lesson plans permitted to identify that the students valued goals related to the procedural/motor (P1, P2, P3, P4), attitudinal/affective-social (P1, P2), and conceptual/cognitive (P2, P4) dimensions. Regarding procedural/motor goals, all participants mentioned that the motor execution or sports technique should be developed during the lesson, as highlighted by P2: "We all need to work on these motor aspects a bit, it's important for them to have that awareness as well, not to do it as they want".

Regarding attitudinal/affective-social goals, the participants mentioned that attitudes, values and competencies must be developed to be transferred to other contexts of the student's personal life, as emphasized by P1: "There are many goals, interaction between students, to have a better social life, respect each other. It's important for them to know that they will always participate in a little soccer game for the rest of their life... it's something they will take with them for life". With respect to conceptual/cognitive goals, the participants believe that the students must develop the understanding of the purpose of the technical gesture, as reported by P2: "I am not kicking this ball just for kicking. I am kicking with a purpose, so that they see sense in it". Particularly for P4 it is necessary to encourage students to think about possibilities for sports other than the traditional format: "To make them understand that football is not just to play ball and that there are other approaches and not just traditional football ... it is fundamental that the students themselves are able to adapt games and rules".

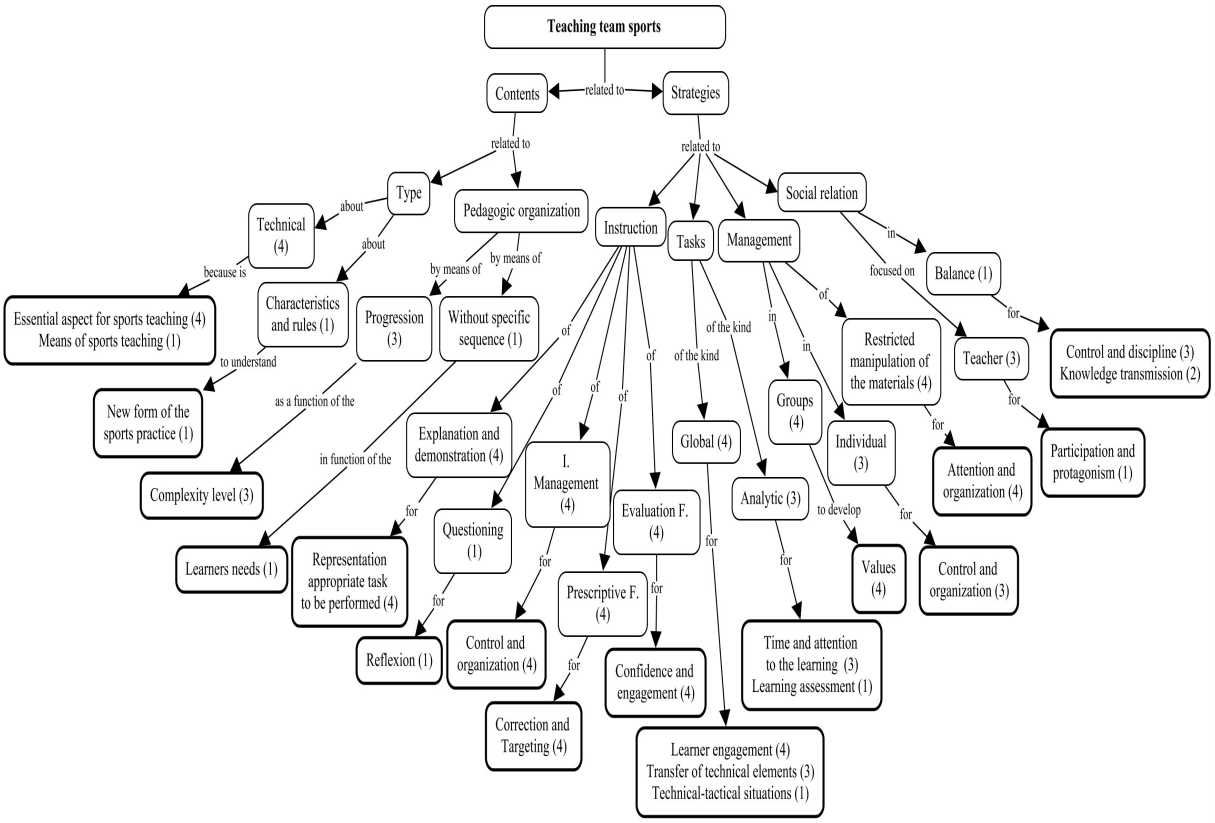

Figure 2. Concept map showing the intervention of physical education students
Source: The authors

Contents

In the classes, the participants prioritized the teaching of the technique (P1, P2, P3, P4), as well as of rules and characteristics of the conventional sport and its variations (P4). All of them stated that the emphasis on technical content is related to the fact that it is essential to be able to learn other contents, as indicated by P3: "You need to know this part of the technical content of the fundamentals. It is the basis of the sport. If you do not have the basis, you will not be able to move forward". For P2, the technical content should also be understood as a means of teaching which, related to other contents, permits a better understanding of the sport:

> It cannot be the end, it has to be the means. It has to be together with the other learned contents. I believe there is a better understanding when related to a game, so that they can understand this idea, that the main function of this type of sport is get the point (P2).

For P4, the contents regarding the rules and characteristics of the sport and its variations provide knowledge about different types of practice of the modality other than the traditional format: "We brought other types of football... American football, and showed them that there is also football played with the hands. To demonstrate that it is not only traditional football that prevails, that there is not only this".

Regarding content organization, the participants indicated the need to establish content progression (P1, P2, P3), or even the lack of a specific sequence of contents for teaching (P4). The participants reported that progression should be determined as a function of the complexity of the contents for sports learning, as explained by P1: "I organized it in this sequence, from the most basic to the most difficult. The pass is the most basic for me and the marking is more complex, so I left it for later". Although not recognizing a pre-established sequence, P4 believes that it should be organized according to student needs. "There was no closed sequence, this week I will teach the pass, next class I will teach maneuvering the ball. We were working according to their needs".

Strategies

Regarding instruction, the participants used explanation/demonstration (P1, P2, P3, P4) and questioning (P4) to present the tasks to their students. All participants reported that the strategies of explanation and demonstration facilitate the elaboration of an adequate representation of the task, as stated by P3: "I try to explain it first verbally, to see who is able to understand. And then visually, I try to reproduce the activity so that they copy it. I try to do it as many ways as possible so that none of them will say that they did not understand". For P4, questioning was implemented to stimulate the students to reflect on the potentialities and difficulties perceived in the activities: "To make the students think about the last lesson... think about the activities and the difficulties they had. As they were making this effort of thinking, their learning became more effective".

During the tasks, the participants emitted verbal management interventions (P1, P2, P3, P4), prescriptive feedback (P1, P2, P3, P4), and positive evaluative feedback (P1, P2, P3, P4). They indicated that verbal management interventions permitted the control and organization of the students, as pointed out by P1: "For them to know that I do not want them to do what is going to disturb the class... More for organization". According to the participants, prescriptive feedback facilitates the correction and targeting of the students towards the criteria of task execution, as emphasized by P2: "They always play the way they want. So, I give this feedback: take the ball with both hands and make the pass, do not forget it. Always remembering what has to be done, the way the pass is done". Positive evaluative feedback, in turn, stimulates confidence and engagement of the students in the activities, as

indicated by P2: “As they are learning, if you have this encouragement: Good! You did it right! The student will feel more confident. I think it eventually encourages them to attend class”.

All participants (P1, P2, P3, P4) used global tasks in their classes through recreational, formal and conditioned games. They also chose analytical tasks (P1, P2, P3), with emphasis on the execution of isolated tasks without opposition. All participants believe that the use of recreational games promotes student engagement in the classes, as pointed out by P3: “You work in a more playful, more open way and introduce the content slowly. I think that they even get a taste for the sport, it’s the best way to approach this content”. Specifically P1, P2 and P3 highlighted that the formal game at the end of the class allows the transfer of previously learned technical elements in real game conditions, as emphasized by P1: “To have the experience of that, to maneuver the ball, what we studied during class. I left at the end about five minutes for them to play”. For P2, conditioned games permit the experience of technical-tactical situations similar to the formal game: “For them to experience the way to attack and strategies to achieve the goal. And also to defend their area... The game is unpredictable and they make the decision that they think is better at that moment”.

According to the participants, the adoption of analytical tasks allows students to have the attention and time to learn the technique, as highlighted by P1: “They look a lot at the ball, focus a lot on what they are doing... slower familiarization with the movement, at their own pace”. P2 pointed out that this type of task facilitates assessment of learning the movement: “So that I can analyze at that moment if they had learned what I had explained to them before. I understand that this way I can measure what they have learned”.

With respect to management, the observations showed that the participants prioritized organization of the students into groups (P1, P2, P3, P4) and individually (P1, P2, P3). All participants indicated that organization into groups provides the opportunity to develop team values, as stated by P1: “Since it is a team sport, it is important to have this interaction between them... that they know to organize themselves”. According to the participants, individual organization facilitates the control and organization of the students, as observed by P2: “This type of training gives me more control of the class, I can visualize them well in a more separate way. I can thus control them better because I separate those who are more agitated than others”. In addition, all participants (P1, P2, P3, P4) were concerned about maintaining the material under control. According to the participants, this type of management ensures the attention and organization of the students, as stated by P1: “When I held the ball, I could get them to look at me, it seems I had more attention... I take the whole material together to explain the activity and then I release it, because if I release the material everything gets messed up”.

Regarding social relations, the participants were found to assume the centrality of teaching (P1, P2, P3). In addition, a more balanced approach to relate to the students was noted (P4). According to the participants, assuming centrality of the process helps maintain the control and discipline of the students, as pointed out by P2: “The teacher will be the reference. I must have this responsibility to be harsh when necessary... to have a command voice, otherwise I am their friend. The teacher must have this firm stance, he cannot leave the students taking control”. Particularly for P1 and P3 this conduct favors the transmission of knowledge, as indicated by P1: “Because it is the teacher who conducts the class... The teacher arrives with the content planned and the students have to be willing to learn it”. On the other hand, P4 believes that sharing some responsibilities permits the participation and protagonism of students: “Through past experiences that the students had, they could help in the lesson planning... so that they feel part of the class, do activities that they like and bring this to class”.

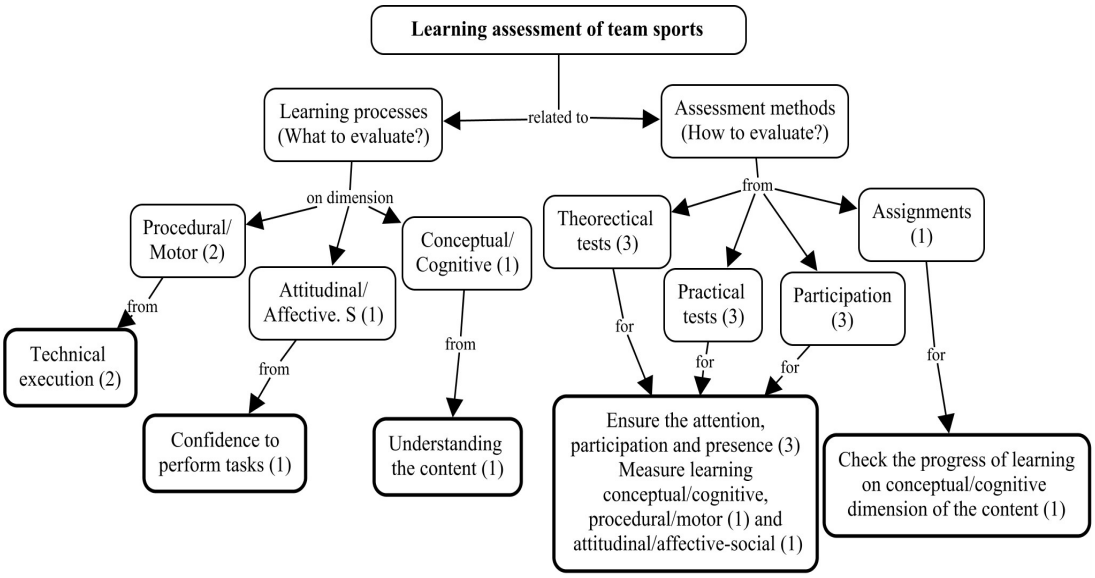

Figure 3. Concept map showing the assessment of physical education students
Source: The authors

Assessment

With respect to the learning processes, the participants reported the identification of the procedural/motor (P1, P3), attitudinal/affective-social (P4) and conceptual/cognitive (P2) learning dimensions. According to the participants, procedural/motor learning is perceived through the capacity of students to execute the technical fundamentals of the sport, as highlighted by P1: "From the moment we looked at them and they were practicing without thinking, somehow acting on instinct, we realized that they had learned". For P4, attitudinal/affective-social learning can be identified in the student's confidence to perform tasks: "From the moment the student feels confident to answer a question, either oral or written, or to make a technical gesture, doing it with confidence". For P2, conceptual/cognitive learning is identified in the students' understanding of the content: "If I ask the student how a point is made in rugby and he can explain it... I realize that he had learned".

The assessment methods adopted by the participants comprised theoretical and practical tests, learner participation in the classes (P1, P2, P3), assignments, and planning activities at the beginning and end of a two-month period (P4). The tests and learner participation were used as strategies to ensure the attention, participation and attendance of students in the classes, as emphasized by P1: "When the student knows that there will be a test, he/she pays attention... it was more to attract their attention". Complementary, P3 reinforces that "we included attendance because many of them miss class and participation because there are many who come to class and do not participate. We did the practical test because many of them skip classes. We used this alternative to retain students". For P2, these resources were used to evaluate the outcomes of conceptual/cognitive and procedural/motor learning: "We wanted to evaluate the students' understanding of the proposed topics, which they could explain in their own way. This was verbal and then the students had to demonstrate them". P1 attributed learner participation to attitudinal/affective-social learning because of the level of student engagement in the classes: "It was more because of what the student was willing to do. She does not know how to do that, but she is willing". Particularly P4 reported that planning and research assignments were important to verify progress in conceptual/cognitive learning: "We asked them to plan activities at the beginning and at the

end, and we compared them to know if they had made progress, if they had understood what we had proposed".

Discussion

The results of the study indicate that the graduating students adopted a critical theoretical framework and procedural/motor goals in their lesson plans. During the interventions, the participants prioritized the teaching of technical/motor content through global and analytical tasks; valued instruction strategies of explanation, demonstration, management interventions, and prescriptive and evaluative feedback; adopted management strategies, primarily group and individual strategies, emphasizing the restricted access of students to materials, and sought to establish a social relationship focused on themselves. Regarding assessment, processes of procedural/motor, conceptual/cognitive and attitudinal/affective-social learning were favored using tests, assignments, and learner participation.

With respect to the theoretical framework, the participants recognized the need to introduce a critical conceptual orientation in their lesson plan. However, the difficulty in stating the personal reasons for this option seems to reflect an incipient understanding of the concepts underlying the proposals and their relevance for teaching. Similarly, studies involving physical education students during the curricular internship in the final years of elementary school[26] or graduating students[27] have shown that curricular orientation of the training programs or teachers was not sufficient to assimilate the concepts and typical procedures of these proposals. Possibly, the reduced duration of undergraduate courses, the nature of the knowledge and experience provided within these contexts[28], and the absence of systematic activities to promote reflection throughout the course[26,29] have led to few opportunities for university students to experiment and to find personal meanings in order to implement new pedagogical practices.

Within this context, the goals related to the need for developing motor/technical capacity seem to have guided a major part of the actions and decisions employed by the participants, particularly during their pedagogical interventions, conferring some congruence between their intentions and practices, as also identified in a study involving supervised trainee primary physical education teachers[9]. The approximation to the goals reported by them regarding the curriculum objectives recommended in the specialized literature[1] suggests some indications of their possible teaching perspectives. Evidence from empirical studies indicates that students who report the need for developing motor skills or who do not value the development of cognitive skills as teaching goals tend to use directive models[30,31].

Regarding contents, the students' understanding of teaching the technical and/or motor aspects of sports based on a curricular organization focused on the complexity of movements seems to agree with the teaching principles of simplification and progression[32]. Hence, teaching is reduced to specific fundamentals that aim to minimize the complex nature of the phenomenon. The organization of contents thus occurs as a function of the level of complexity, starting with the simpler stage and culminating into stages of high difficulty. Studies in the field of physical education[8-10] have demonstrated that students complete the curricular stages and their initial training with an understanding that is restricted to the selection and organization of technical and/or motor contents for the early and final years of elementary school. These studies suggest that past experiences in school physical education classes and sports training influence students' knowledge and beliefs. In the present study, all participants had some past sports experience, a fact that might have contributed to their choice of the content approach .

With respect to strategies, the characteristics of instruction identified in the routine of the participants indicate an understanding based on modeling of the task. A detailed description of the characteristics of the task and reinforcing previous information through positive prescriptive and evaluative feedback, combined with interventions of contextual control, allow successive adjustments to the desired behavior, thus contributing to achieve success in the execution of the tasks[1]. The participants also prioritized global tasks, particularly recreational games at the beginning of the classes, recognizing their pedagogical potential for stimulating sport motivation[33]. In addition, their understanding of the use of analytical tasks and formal games during the main part and at the end of the class, respectively, agrees with the pedagogical principles of execution and application. In this respect, the aim is to separate the technical components of the game context, allowing the learner more time and attention for execution of the movement[33] in order to permit his subsequent reintegration in real game situations[32]. The present results regarding instructional strategies and tasks are similar to evidence found for first-year students of physical education courses about the teaching of sports[11-13]. However, in the present study, the graduating students exhibited a broader concern about student motivation, seeking to teach the sport through global tasks and positive evaluative feedback. This may be an indication of the emergence of pedagogical concerns with students and their learning.

The conviction that the environment should be ordered, structured and controlled for teaching to be effective has led the participants to adopt action strategies such as arranging students in rows and keeping the materials under their responsibility. This approach to teaching permits the "neutralization" of contextual factors (e.g., materials and people) in order to keep students' attention focused on performing the task[1]. Similarly, studies show that the beliefs of graduating students to teach physical education in elementary school are influenced by problems of discipline and they therefore tend to adopt an ordered management system to minimize these difficulties and to potentiate student learning[9,10,34]. In the present study, the reduced teaching experiences seem to explain the intention of the participants to adopt strategies for controlling the context. Thus, the trend is that, with increasing experience, the attention focused on management will be directed at other teaching tasks[10].

The centrality of the process on the figure of the teacher, endorsed by the participants, comprises an understanding based on autocracy and transmission of knowledge. In this unidirectional relationship, the teacher is responsible for the set of decisions and actions while the students assume a more passive role, following the direction of the teacher[1]. Studies indicate that students conclude their training programs believing that the transmission of knowledge and centrality of the process should be assumed by the teacher in physical education teaching for the early and final years of elementary school[34,35]. These studies also suggest that personal experiences of sports practice contribute to the understanding of how to relate to students, as observed for the participants in this study.

Regarding learning assessment, it is important to highlight the meaning attributed to the assessment process by most of the participants, which was interpreted as a mechanism that ensures behaviors of participation control, attention, attendance, and discipline. Empirical studies conducted at the end of the initial training indicate that students who teach physical education in the final years of elementary and middle school have an incipient understanding of the role of evaluation and authentic assessments of learning[15], which are often aimed at the measurement of results and behavior control[36]. The valuation of tasks related to the intervention rather than the assessment and planning of teaching[37], associated with the limited opportunities for reflection and practicing assessments in the pedagogical disciplines of the course, may explain the difficulty in incorporating concepts or evaluative approaches to learning[14,15]. Particularly in this study, too much concern regarding management tasks seems

to have reinforced the understanding of the participants about the functions involved in the evaluation of the teaching-learning process.

Conclusions

The results of the study led us to conclude that the coherence in the pedagogical procedures adopted and in the justifications mentioned by most of the participants, particularly for goal prioritization, content selection and the use of teaching strategies, are similar to the concepts of directive teaching models. In addition, aspects related to a strong concern about class management, past sports experience and reduced teaching experience may explain the difficulty of the participants to present concepts or procedures related to the theoretical framework indicated in the plans, as well as the understanding of the roles of lesson planning and assessment.

This study aimed to analyze team sports teaching only among last year graduating physical education students. Although they do not represent the entire path of knowledge construction for teaching, they portray some indications of this process. Within this context, longitudinal studies are necessary to evaluate the participation of physical education students during the initial training program in order to further describe their individual teaching characteristics, as well as to identify the specific stages of training, experiences and learning situations that contribute to the maintenance, construction and reconstruction of knowledge for teaching team sports.

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