

Cooperative Learning and Social Learning

Subjects: **Others**

Contributor: Rita Silva

Cooperative Learning (CL) has been seen as a student-centered model (SCM) capable of promoting students' active engagement and improvement. The model has five elements: positive interdependence, appropriate social skills, promotive face-to-face interaction, individual accountability, and group processing, which have been identified as critical and are widely described in the literature. Namely, in Physical Education (PE), CL has been important in the four learning domains, i.e., physical, cognitive, social, and affective. Particularly, from CL, students can improve their ability to listen to others, construct understanding together, and respect, encourage, and support each other to learn.

novice in-service teacher

student-centered model

school-based research

action-research

qualitative

1. Overview

An emphasis on providing authentic and inclusive educational experiences to students has been recommended in many educational systems as essential for motor, social, and psychological development. Despite the focus of recent studies on the preparation of physical education (PE) teachers for entering the profession, little attention has been paid to beginner teachers and how these teachers can promote educationally rich PE experiences. Therefore, this study sought (1) to understand how a novice PE teacher implemented the cooperative learning model and shared the responsibility for teaching–learning processes with students; and (2) to examine students' perspectives about their cooperative experiences and student-centered learning. Participants included 25 high school students and one novice PE teacher. Through an action-research design, data were collected by utilizing three qualitative techniques and analyzed using thematic analysis. CL was found to be a complex model that needed time to be implemented effectively and allow students to take advantage of its potential. The development of cooperative relationships allowed students to assume greater responsibility in the lessons. Novice teachers should be encouraged to adopt CL and promote a gradual process of sharing responsibility with students.

2. Cooperative Learning

The premise that pupils learn better when they learn together through negotiation, cooperation ^{[1][2]}, teamwork, and commitment to others is increasingly acknowledged as essential for motor and psychological development ^[3]. In line with scientific evolution ^[4], the development of these competencies, in addition to skills such as communication, has become fundamental and useful for the students' future careers ^{[5][6][7]}.

Cooperative Learning (CL) has been seen as a student-centered model (SCM) capable of promoting students' active engagement [8] and improvement. The model has five elements: positive interdependence, appropriate social skills, promotive face-to-face interaction, individual accountability, and group processing, which have been identified as critical and are widely described in the literature [9][10]. Namely, in Physical Education (PE), CL has been important in the four learning domains, i.e., physical, cognitive, social, and affective [9]. Particularly, from CL, students can improve their ability to listen to others, construct understanding together, and respect, encourage, and support each other to learn [11][12][13].

Despite the high volume of research conducted in the last two decades on CL, the use of this model in PE has been studied much less [9], arriving earlier in other curricular areas such as Science, Math or English [14]. In general, PE literature has suggested that CL (1) can be used in a great variety of curricular contents such as team sports (e.g., volleyball, basketball, football), individual sports (e.g., table tennis) and sports related to health and basic motor skills [15]; (2) has been mostly investigated in primary and secondary education; (3) with the main purpose for understanding the model effects in students' motivation [16].

From a teaching point of view, however, in CL, teachers need to promote students' ability to cooperate and deal with potential conflicts and divergent ideas [17]. This requires teachers to abandon traditional and authoritative roles, in which the teacher is the full instructional leader, and start acting as facilitators of student-centered learning [2][18][19]. This involves 'developing students' capacity to become their own teachers and supporting them to know how to assess knowledge claims, how to learn (...) to seek help (...) how to be resilient (...) and helping students know what to do when they do not know what to do' [19] (p. 275). As facilitators of student-centered learning, teachers should: (1) see learners as central actors in the teaching–learning process [20]; (2) empower them to take responsibility for and control of their learning experiences [2][21]; (3) guide students to be sensitive to each other's ideas and work with each other cooperatively [21]; and (4) modify activities to meet learners' developmental needs to optimize their success and engagement [2]. This allows students to have a more proactive role in their own learning experience [18].

Importantly, the innovation of teaching practices often requires a shift from long-established 'traditional' (i.e., teacher-centered) forms of education. Although the process of teaching practice renovation, as it relates to school implementation of CL or other SCMs [22], has been found to be highly complex, most existing research has examined this phenomenon somewhat at a 'surface level' (e.g., most research protocols are of short duration). Research has shown, essentially, that teachers appreciate the fact that CL is less directive and therefore more engaging to students [11][23] and that teachers face numerous challenges in trying to adhere to a long-lasting and sustainable adoption of CL in their PE lessons [12]. Overall, most research has been conducted with experienced PE teachers who seem to have trouble coping with the pedagogical demands of practically implementing the CL elements, typically displaying a lack of conceptual clarification about the educational purpose of CL [24].

This problem is even more relevant in the case of pre-service teachers (PSTs) and teachers at the beginning of their professional careers (novice teachers) (NTs) [25]. On the one hand, the (future) teachers are still struggling with building effective (general) teaching skills. On the other hand, the effective implementation of CL implies the

operationalization of complex instructional strategies (associated with the role of facilitator: e.g., empowering and transferring decision-making to students and mediating social interactions and cooperative problem solving) [26], which may come as an additional challenge to beginner teachers. In addition, research shows that effective physical education teacher education (PETE) programs, PSTs' teaching practice during their school placement, and the professional practice of beginner teachers in the first years in the profession are fundamental mechanisms for the renovation of the PE curriculum in schools (mainly through the implementation of SCMs) [22]. Nonetheless, although recent studies have focused on the preparation of future teachers (PSTs) during their school placement experiences [27], there is a marked dearth of research aimed at investigating the experiences of beginner teachers.

Conducting research on beginner teachers is particularly relevant, for it is known that the experiences lived, and the skills and conceptions developed, during these years are important indicators of their future professional practice (e.g., adhering to CL) and because it is the first moment when they have to work completely independently without support, for example from their university supervisors (unlike PSTs who have that support) [28]. In addition, to our knowledge, only two studies have conducted research on CL as implemented by NTs [13][26]. These studies contributed important information about the impact of CL on girls' engagement [13] and the barriers and facilitators of purposeful technology integration when using CL in PE [26]. Nonetheless, this research has not captured the students' voices, feelings, and perceptions about their lived experiences and thus the knowledge generated did not allow us to understand the reasons for their attitudes towards PE and how the teachers' intervention may have impacted on that [29]. Allowing young people to share their opinions with teachers [30] can be a transformative practice, empowering them to thrive and improve their experiences of schooling [31].

A knowledge gap in the students' perceptions and feelings exists and can likely best be understood through qualitative investigations [29] so that practitioners can become aware of students' specific actions and the reasons that lead them to act in a certain way [24]. Furthermore, a recent systematic review on CL [24] showed that almost half of the articles used a single didactic unit of 8–12 lessons, a unit length that seems to be insufficient to allow us to affirm that the positive results observed are a consequence of this short implementation. CL needs a larger number of lessons to be fully developed, particularly when the students and teachers do not have extensive previous teaching experience [27]. Indeed, longer didactic units with an intervention-focus have been enabling teachers to progress from a frustration state, where they experience a negative impact of their non-successful intervention on students' participation and learning, to a stage where they could effectively help students through improved teaching skills [26].

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