Transcultural impact of learning to teach Sport Education on preservice teachers' perceived teaching competence, autonomy and academic motivation

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Purpose. The purpose of this study was to compare the impact of a learning to teach Sport Education experience on preservice teachers from Spain, Chile, and Mexico perceived professional competence, autonomy, and academic motivation; and to explore participants' perceptions of their country's socio-cultural and curricular aspects that may influence Sport Education implementation.

Method. Framed by the 'pedagogy of dialogue' and a 'living the curriculum' approach, three consecutive mini-seasons on invasion alternative games were enacted (n =30 lessons). A quasi-experimental pre-test-post-test mixed-methods design was followed with a total of 163 preservice teachers. Quantitative data on preservice teachers teaching competence, autonomy, and academic motivation were collected through three validated questionnaires. Focus group interviews and field notes were used to gather qualitative information.

Results. Main quantitative analysis exposed no relevant differences among the transcultural sample of preservice teachers related to the analysed variables. Qualitative analysis showed the power of contextual factors to filter their understanding of the model.

Conclusion. The dialogical nature of the approach and the mini-seasons structure, allowed the preservice teachers to achieve a better understanding of the pedagogy of Sport Education and to optimise their motivation to use it in the future. The rigidity of the national curriculum and the custodial nature of school reality however present strong barriers to this end.

Keywords: Teacher education, pedagogical models, teacher agency, socio-cultural background.

One of the most relevant and influential aspects for the future welfare of society is the initial education of preservice teachers (Darling-Hammond, 2006). As Weber, Gold, Prilop, and Kleinknecht (2018) recently noted, the improvement of their professional vision during college, indirectly enhances their future performance. Previous work has addressed that physical education teacher education (PETE) programs need to provide meaningful and powerful experiences to help preservice teachers examine and reframe assumptions about themselves as teachers and change agents (Tannehill & MacPhail, 2014). Conversely, authors as Darling-Hammond (2006) and Lawson (1983) emphasized the weak impact of teacher education programs, in the life of a teacher.

One of the challenges for PETE, is to explore its effect to support graduates' contributions to students' learning in different school contexts (O´Sullivan & Parker, 2018). In the last decade, a growing body of literature has advocated and explored the potential of pedagogical models that may be used to enact physical education curriculum (Kirk, 2013; Casey & MacPhail, 2018). Fletcher and Casey (2014) noted for example, that it is important to explore how teacher education can teach preservice teachers, to challenge their beliefs and become skillful proponents of robust and innovative approaches to teaching. The latest published review on models-based practice, highlighted that despite the improvement experienced regarding the attitude and enthusiasm of the active teachers, they felt like beginners when integrating the selected models in their teaching (Casey, 2014). The relationship between schools and universities was cited as a decisive factor to a sustained incorporation of these models (Casey & MacPhail, 2018). It has also been suggested, that teacher educators need to challenge, not only students' expectations around what it means to teach, but also their own pedagogies of teacher education (Fletcher & Casey, 2014). Nevertheless, despite the complexity of transferring learning from college to schools (Dillon, Tannehill, & O'Sullivan, 2017), and some critical perspectives around the enactment of a model (or models) based approach (Landi, Fitzpatrick, & McGlasha, 2016), preservice teachers' first perceptions after being taught how to use the models at schools are quite positive and optimistic (McCaughtry, Sofo, Rovegno, & Curtner-Smith, 2004).

The actual implementation of a model (or models) based approach in schools will be possible if teacher educators and PETE programs propose a robust and innovative approach to learning how to teach using pedagogical models (Fletcher & Casey, 2014). Currently, Sport Education and how is introduced to novice and experienced teachers has been extensive studied (Deenihan & MacPhail, 2017; Hordvik, MacPhail, & Ronglan, 2017; Hordvik, MacPhail, Ronglan, 2019a; McCaughtry et al. 2004; McMahon & MacPhail, 2007). It is well known that this pedagogical model considers the conception of sport from a global perspective, acquiring an intrinsic motivation towards practice which helps increase students' sporting culture, enthusiasm, and motor competence (Siedentop, Hastie, & van der Mars, 2020). In learning to teach through Sport Education, Hordvik et al. (2019a) reported that the design of "comprehensive learning experiences" (p.13) allowed preservice teachers to develop the complex understanding of teaching and learning using Sport Education. In this sense, McMahon and MacPhail (2007) also reported a focus on the social context of the classroom in the first experiences in which the model was used. Hordvik et al. (2019a) also suggested that teacher educators need to acknowledge that learning to teach Sport Education and other pedagogical models is more than learning how to deliver models of teaching. They advocated for a "continuing growth of understanding where preservice teachers develop knowledge through various teaching and learning experiences tailored around their needs and concerns" (Hordvik et al., 2019a, p.14). It is generally accepted that preservice teachers have to 'live the curriculum' as a participant to gain a better appreciation of content and pedagogical content knowledge (Deenihan et al. 2011; Dillon, et al., 2017).

To allow for a meaningful enactment, teacher educators using the living the curriculum approach, would be required to possess considerable expertise in both the content areas they are teaching and the pedagogical models (Deenihan et al., 2011). It is also worth noting however that sometimes, living the curriculum did not appear to prepare the preservice teachers for utilizing 'teachable moments' despite having experienced such teachable moments during teacher education (Dillon et al., 2017). In this sense, the true power of the living the curriculum approach might be

best observed when applied with preservice teachers from different countries in which the national curriculum and socio-cultural background is different. This is something that to date, has not been researched in learning to teach Sport Education. Hortigüela, Fernández-Río, González-Calvo, and Pérez-Pueyo (2018) explored the impact of Teaching Personal and Social Responsibility with physical education teachers from different countries and reported that they held different views of its effects on social goals, discipline strategies, and autonomy support. These differences were based on their socio-cultural background, the teacher education program, and their professional identity (Hortigüela et al., 2018).

These variables have been profoundly explored through the lens of Occupational Socialization Theory (Lawson, 1983). For instance, Richards, Templin, and Gaudreault (2013) recommended not only the involvement of teachers in discussions and reflections about physical education teacher identity, but also about the organizational challenges and the reality of school life. They suggested that PETE programs should provide preservice teachers with opportunities to dialogue about their sense of agency and voice their opinions related to teaching physical education (Richards et al., 2013). In the same vein, Jacobs, Richards, Wahl-Alexander, and Ressler (2019), highlighted the potential for preservice teachers to develop a socio-political awareness and relational skills through an outdoor education field experience. They framed as an important goal of this experience, the discussion about the socio-political challenges the preservice teachers will likely face as beginning teachers in their workplace. It is important to note however, that despite positive experiences reported in PETE about learning to teach Sport Education (McMahon & MacPhail, 2007), professional socialization is often viewed as the weakest form of socialization (Stran & Curtner-Smith, 2009). The pedagogy of dialogue (Fernández-Balboa & Marshall, 1994) is aligned with Occupational Socialization Theory. Dialogue and discussion have to be promoted among preservice teachers for a better understanding of the socialization into the teaching profession. Pascual (2006) advocated for the pedagogy of dialogue as a mechanism for PETE to develop the personal, as well as professional, preparation of preservice teachers. This dialogical

approach creates an opportunity for them to improve their professional competence and be better physical education teachers (Pascual, 2006). Shrehan and Curtner-Smith (2019) also advocated for theoretical dialogue as key to create a critical consciousness of preservice teachers around sociocultural issues in physical education.

Given this context, while learning to teach Sport Education has received relevant research attention in the last decade (Deenihan, et al., 2011; Deenihan & MacPhail, 2017; Hordvik et al., 2017, 2019a; McCaughtry, et al., 2004; McMahon & MacPhail, 2007), we undertook this study to broaden current knowledge on learning to teach Sport Education, with preservice teachers from three different PETE programs where this pedagogical model is still underdeveloped (Spain, Chile, and Mexico). Interestingly, this was the first attempt to explore how preservice teachers with different socio-cultural and academic backgrounds learn to teach through Sport Education. Specifically, this paper re-examines the extent to which learning to teach Sport Education will influence their teaching competence, their autonomy and their academic motivation, and how this understanding is conditioned (or not) by the different socio-cultural backgrounds and educational realities. Our work, under the perspective of living the curriculum together with the pedagogy of dialogue, has the potential to advance the knowledge about this innovative approach and Occupational Socialization Theory.

Method

Participants and Setting

The participants in this study were 163 preservice physical education teachers (58 from Spain, 55 from Chile, and 50 from Mexico) with a mean age of 21.52± 2.18 years; 88 (54%) were male students and 75 (46%) were female students. All were enrolled in the bachelor's degree in physical education at three university institutions from the three countries. More specifically the experience was conducted with those pursuing degrees linked to physical education teacher education and sport (Table 1). Due to an existing research and teaching partnership agreement between the three universities a convenience sampling was used. The teacher educator who acted as facilitator of the

experience in the three countries had eight-years experience in initial teacher education and professional development with an expertise in pedagogy, and a publication record about pedagogical models in physical education. He travelled to the different countries and was part of the research team (first author). The first author's University's Research Ethics Committee approved the research protocol according to the Helsinki Declaration. In addition, the preservice teachers completed informed consent forms (giving right to withdraw at any time and confidentiality).

Table 1

Participants and study context.

University/degree	No. of students	Course	Aim/Objective	Program description and professional socialization
Spanish University/ Bachelor's degree in Primary Education	58	Pedagogy of physical education	To comprehend the principles contributing to cultural, personal and social training through physical education.	Strategies and methods in the teaching of physical education are addressed. Professional identity as physical education teachers is generated from the experiences developed in the course and those perceived during the practicum period. Didactics and methodology are studied throughout. The program has a mix of teaching and coaching orientations.
Chilean University/ Bachelor's degree in Physical Education	55	Education for motor skills	To be able to acquire resources in order to foster the active participation in motor tasks in and out of school.	The pedagogical orientation of the program is mostly teacher-centered. There is a focus on the psychomotor development of children and biomedical aspects. The program has a strong coaching and health-related orientation.
Mexican University/ Bachelor's degree in Physical Culture and Sports	50	Pedagogical and didactic principles of physical education	To know and apply pedagogical methods to improve the levels of physical activity and sport as the main way to improve the quality of life.	Different methods and strategies to teach PE and sport are addressed. There is a clear difference between courses related to pedagogy and teaching and those related to sport performance. The program has a strong coaching and health-related orientation.

Physical Education national curriculum and acculturation. The three countries that participated in this study varied in their educational structure and requirements. Pertinent characteristics of physical education in schools include:

1. Spain: Pre-primary, primary and secondary stages. Different strands in physical education: physical fitness, sports, and corporal expression. Three hours per week in primary and two hours per week in secondary of physical education. A mix of teaching and coaching orientation is embedded within the different contexts.
2. Chile: Motor learning is very important pre-primary and primary levels from a strong discovery and exploration perspective. In secondary education, physical education tends to be equated to physical fitness. The experiential component of motor skills is lost upon arrival in secondary school. There is a strong to moderate coaching orientation and teacher directed instruction.
3. Mexico: In primary and secondary stages one hour a week of physical education occurs in public schools. In private schools they can freely choose the allocated curriculum time for physical education. The approach focuses exclusively on sport performance with a strong coaching orientation and teacher directed instruction.

Design

This study followed a pre and post-test mixed-methods design (Thomas, Nelson, & Silverman, 2015). A pre-test on preservice teachers' teaching competence, autonomy, and motivation took place before the three units began, while a post-test took place following completion of instruction (Figure 1). Three validated questionnaires were used to obtain information about participants before and after experiencing the practical workshops. Focus group interviews and field notes were also used as data collection instruments.

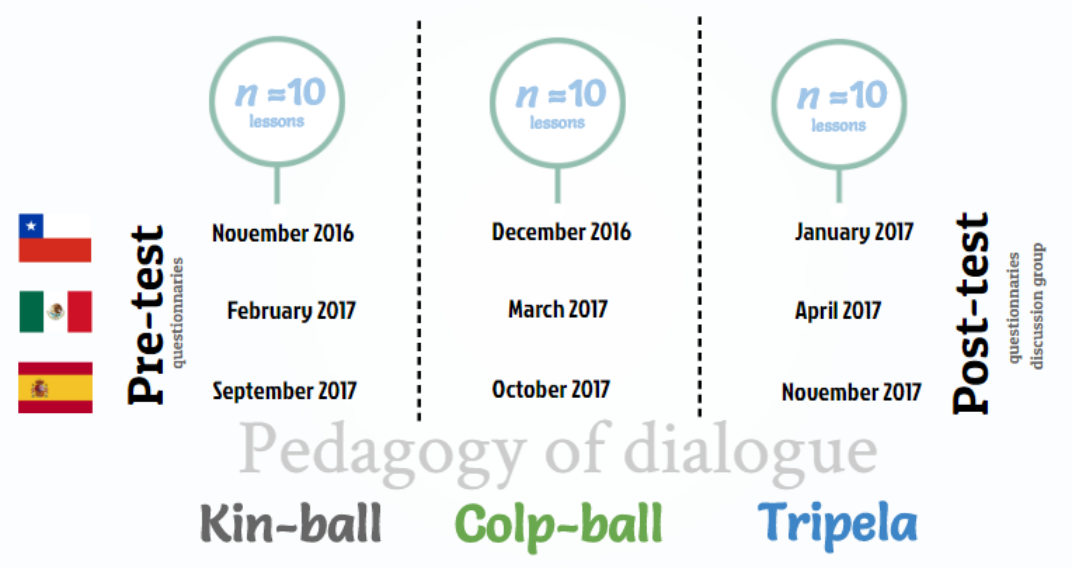

Figure 1. Research design, timeline, and data collection points in the three countries

Procedure. Following McCaughtry et al. (2004) recommendations, all the preservice teachers experienced as participants a total of 30 lessons structured in three mini-seasons of ten lessons each that took place over a period of one to two months (depending on the university course timetable). Heterogeneous teams in terms of gender and ability were selected through a blind selection process (Siedentop et al., 2020) and remained across the whole experience. None of the preservice teachers had prior experiences with Sport Education. The five aspects that Hastie (2012) noted to appropriately describe a particular unit in Sport Education (extended period of time, affiliation within a persistent group, developmentally appropriate competition, taking of various roles and responsibilities by students other than that of player, and the festivity atmosphere) were implemented consistently across the three settings by the same teacher educator.

Detailed description of the program context. The three mini-seasons began with two lessons, which were initially teacher directed, that focused on the skills and tactics of each game small-sided games. In these early lessons, students were also introduced to the rules and officiating procedures of the game (Table 2). The next three lessons constituted small-sided games within peer-teaching instructional tasks related to the alternative sport being taught. The unit concluded with a formal competition spanning three lessons that took the form of a no-elimination, round-robin

challenge, with post-competition days of practice and reinforcement of skills and tactics based on the team performance. After the final games, a closing ceremony provided a formal end to the unit and various awards were presented to students. Three alternative invasion games were selected to enact the mini-seasons (Table 3). Novelty, applicability, and alignment of the content with the respective national curriculum, were the criteria used for this selection.

To implement the pedagogy of dialogue, we followed Fernández-Balboa and Marshall (1994) suggestions: (1) to create a safe environment; (2) it must be ongoing and contextual process (; and (3) prompted by specific teaching scenarios. A safe environment is one in which participants could freely talk about the lesson in general, learning potential, pitfalls, going forward, learning enablers, and learning constraints explained to the preservice teachers. In order to create this safe atmosphere, as proposed, we explained the preservice teachers that they had the right to speak, the right to remain silent, and the right to regulate the dialogical process that was, acting as facilitators and prompting the dialogue. It was also an ongoing process given that it took place throughout the program and contextual given that it was framed by real teaching scenarios the preservice teachers lived during the experience. The teacher educator acted as a critical friend to prompt preservice teachers' perceptions of their country's social, cultural, and curricular aspects that might influence Sport Education implementation. This conversation took place at the end of each lesson and at the end of each mini-season. Prompting questions were related to the possibilities of applying Sport Education within the national curriculum of each country or the different school realities. Some examples were: to what extent Sport Education could be used in your classes? what challenges and enablers you envisage? Different aspects related to groupings, skill practice, content development or teacher-student interactions were also addressed. This guaranteed to properly link between each mini-season and a better understanding of the model.

Table 2

Unit plan format of the three mini-seasons.

Lesson	*Phase*	*Content*	*Teacher's role*	*Preservice's role*
1	Teacher directed: Skill development phase	Introduction to teaching approach. Description of daily roles. Team selection	Class leader	Participant
2		Explanation of the alternative sport. Skill and tactics of the game in team activities	Class leader	Participant
3	Pre-season: work in teams within peer-teaching. Scrimmages	Modified versions of the game. 4 vs 4	Head coach Referee advisor	Coaches, players, learn duty role, practice duty roles
4		Modified versions of the game. 5 vs 5	Head coach Referee advisor	Coaches, players, learn duty role, practice duty roles
5		Modified versions of the game. 6 vs 6	Head coach Referee advisor	Coaches, players, learn duty role, practice duty roles
6	Formal competition: Day one	Tournament: 7 vs 7	Program manager	Duty team roles
7	Practice and reinforcement of skills and tactics from the competition	Student-designed games	Head coach Referee advisor	Coaches, players, learn duty role, practice duty roles
8	Formal competition: Day two	Tournament: 7 vs 7	Program manager	Duty team roles
9	Practice and reinforcement of skills and tactics from the competition	Student-designed games	Head coach Referee advisor	Coaches, players, learn duty role, practice duty roles
10	Culminating event and introducing the next sport	Exhibition day Festivity Award ceremony	Master of ceremonies	Participant

It should be noted that the first two lessons were not purely direct instruction since, although the teacher educator had an active role, he interacted with the students and resolved doubts about the roles played by each participant, the rules, and the technical and tactical aspects of the sport. Likewise, not all the skills were taught in isolation at the beginning. Game-like learning experiences

were used. In lessons 3, 4, and 5, specific technical and tactical aspects were worked on in game-based situations, linked to the spatial orientation on the court, individual defense, the zonal, the transition attack-defense and the throw to a free zone of rivals. In lesson 6 the first day of competition was carried out in real game situation so that in lesson 7 games were developed by the students that allowed them to better prepare for the second day of the competition in lesson 8. These games dealt with attacking the goal and maintaining possession purposes. The same structure was followed in lessons 9 and 10, with a culminating event that included some activities to introduce the next mini-season and content.

Table 3

Structural features of the alternative games taught.

	Description	Objective	Equipment	Rules
Kin-Ball	An invasion and alternative game in which three mixed teams play (pink, grey and black) consisting of four people each	Throwing the ball by the attacking team and getting it to touch the ground before the receiving team can grab it	1-kg soft ball Diameter 1.2m	Prior to hitting the attacking team decides the colour of the opposite team they want to receive it.
Colp-ball	An invasion and alternative game. Two mixed teams consisting of seven players each participate in it.	The objective consists of putting a ball into the opposite goal by hitting it with the hands.	1-kg soft ball The ball has a dynamic bounce and 70cm in circumference	Players can never touch the ball twice in a row. Players can never touch the ball with the fist The ball can never be grabbed and must be bounced or
Tripela	An invasion and alternative game. Two mixed teams consisting of seven players each participate in it.	The objective consists in putting a ball into the opposite goal by hitting it with the hands.	1-kg soft ball The ball has a dynamic bounce and 70cm in circumference	The ball can be carried in the hand for a distance of three steps The ball cannot be grabbed for more than three seconds; The ball cannot be taken from your opponent's hands.

Data collection

There were three forms of data collection: (i) questionnaires, (ii) focus group interviews, and (iii) field notes. To minimize the language issues and misunderstanding of the questions, eight volunteer students from each country, and non-participants in this research, completed the three

questionnaires and participated in an online pilot focus group directed by an independent member of the research team. After this process, seven questions and three questions of the focus group were re-written.

Questionnaries. The preservice teachers completed three questionnaires twice during the research process, once before and once after the experience. Questionnaires were completed anonymously thus encouraging students to answer honestly.

Teaching competence questionnaire. It was designed and validated by Moreno-Murcia and Silveira (2015). The questionnaire consists of eight items and the questions are preceded by the following introduction: "What my physical education teachers teach me allows me to be able to…" For instance, item 4 "analyse, evaluate and assess individual and collective situations, to identify problems, to interpret data and to formulate solutions to individual or collective problems". The responses were collected on a Likert-type scale with score ranges from between 1 (totally disagree) and 7 (totally agree). High FC = .80 and VME higher than .50 (50.46%) were obtained. The Cronbach's alpha this scale presented was of .85. A confidence level of 95% was applied.

Autonomy questionnaire. The dimension of autonomy of the Satisfaction Scale of Psychological Needs in Education validated by León et al. (2011) was used in this case. The questionnaire consists of six items and the questions are preceded by the following introduction: "In the practical sessions of physical education…" For example, item 6 "I feel free in my decisions". The responses were collected on a Likert-type scale with score ranges between 1 (totally disagree) and 7 (totally agree). High FC = .87 and VME slightly lower than .50 (48.12%) were obtained. The Cronbach's alpha this scale presented was of .81. A confidence level of 95% was applied.

Academic Motivation Scale. The Spanish version of the *Academic Motivation Scale* (Vallerand et al., 1992) was used in this case. This version was validated by Núñez, Martín-Albo, and Navarro (2005). The responses were collected on a Likert-type scale whose score ranges varied between 1 (totally disagree) and 7 (totally agree). The questions are preceded by the following introduction: "Why are you studying physical education?" Seven factors are measured: a)

demotivation (four items), for example item 2: “At the time I had good reasons to go to university, but now I wonder whether I should continue attending it”; b) *external regulation* (four items), for example item 7: “Because in the future I want to have a ‘good life’”; c) *introjected regulation* (four items), for example item 12: “Because I want to prove myself that I am capable of succeeding in my studies”; d) *identified regulation* (four items), for example item 14: “Because it will possibly allow me to enter the labour market within the field I like”; e) *motivation intrinsic to knowledge* (four items), for instance item 19: “For the pleasure of knowing more about subjects that appeal me”; f) *motivation intrinsic to achievement* (four items), for example item 24: “Because university allows me to experience a personal satisfaction in my quest for excellence within my studies”; g) *motivation intrinsic to stimulating experiences* (four items), for example item 25: “Because of the intense moments I experience as I convey my own ideas to others”. High FC = .89 and VME slightly higher than .50 (50.32%) were obtained. The value of alpha obtained in this study was of .84 for *demotivation* and *external regulation*, .80 for *introjected regulation* and *identified regulation*, .84 for *motivation intrinsic to knowledge*, .81 for *motivation intrinsic to achievement* and .74 for *motivation intrinsic to stimulating experiences*. A confidence level of 95% was applied.

Focus group interviews. Three focus group interviews were held at the end of the experience (one in each country). Each of them consisted of eight random participants (four men and four women). The objective was to explore the thoughts and feelings of the preservice teachers from each country about the experiences after the three mini-seasons around the three dependent variables. The questions were open-ended (Table 3), allowed preservice teachers to deepen them. It all helped to create an environment of confidence and tranquillity aimed at seeking a personal dialogue based on the conversation (Patton, 2002). This structure favors a more varied and deeper exchange of ideas (Smith & Osborne, 2003). Eight participants in each focus group were considered an appropriate number within this data collection technique (Sparkes & Smith, 2014).

Table 4

Basic script of the focus group

1. In what way do you think this pedagogy helps you to improve (or not) your professional teaching skills?
2. Could you describe how the pedagogy addresses the autonomy and responsibility for students? And for teachers?
3. What aspects of this pedagogy do you think may be more motivating or demotivating for students? And for you?
4. Could you describe in your own words what are the main features of Sport Education?
5. Could you tell us about the challenges you may have (or not) when applying Sport Education in your country context? What advantages or resistances could it have at a social, cultural and curricular level?

Field notes. To detail the overall setting and provide rich context in each of the three countries, notes about the geographic, educational and research setting, participants, and critical reflection, were taken by the teacher (Phillipi & Lauderdale, 2017). Overall, it promoted the close monitoring of the environment and interactions; documented researcher impressions shortly after they occurred; encouraged researcher reflection and identification of bias thus increasing rigor and trustworthiness and providing essential context to inform the data analysis. Field notes were also used to document the fidelity of treatment in the three countries and to ensure that the teacher educator adhered to the outline provided.

Data analysis

Statistical analysis of quantitative data was conducted with the statistical package SPSS (version 22.0), while content analysis and constant comparison were used to assess qualitative data.

Questionnaires. Within the quantitative analysis a repeated measures design (RMD) was used. ANOVA was used for independent groups. The analysis was performed by using the statistical package SPSS (v. 22.0). Following completion of Kolmogorov-Smirnov test (n >50) and acceptance of the null hypothesis (p = .131), it is observed that the sample responds to normality parameters. Parametric tests were therefore performed.

Focus groups interviews and field notes. Data analysis was conducted by the second and third authors through an amalgamation of an inductive and deductive approach. We intentionally

included this outsider perspectives to balance and account for the first author bias, given his role of teacher educator and researcher (Da Matta, Richards, & Hemphill, 2015). From the cross-pattern text analysis the most coinciding excerpts were codified in the initially (Saldaña, 2009). Such excerpts were grouped into categories which were related to the three pre-existing categories (teaching competence, autonomy, and academic motivation). These categories were the same factors extracted from the quantitative analysis. Within each factor, content analysis and constant comparison of answers were used for data triangulation (Libarkin & Kurdziel, 2002). The themes produced in the first independent analysis were critically examined by all the researchers through a reflexive dialogue. The reliability was supported through continuous feedback and the participative analysis by researchers, who revised and refined the subthemes (Lincoln & Guba, 1985). The objective was to obtain specific information that deepened and complemented quantitative data, giving thus greater comprehensibility to the obtained results. The most significant and saturated text excerpts from each of the analysis categories were presented (Strauss & Corbin, 2002). Trustworthiness was supported through participative analysis and researcher triangulation on the part of the three researchers as they reviewed the codes and descriptors (Lincoln & Guba, 1985). In addition, member-checking for credibility and confirmability was done. In this case, all participants received a verbatim transcription of their interview to verify the correctness of data, clarify confusing quotes, and add/modify information (some ideas were re-written, due especially to the different words used in Latin-American and Spanish). A certified Spanish to English translator completed the translation into English.

Results

The findings of this study are presented in two parts. In the first, the quantitative results of the questionnaires are presented, while in the second, the qualitative results of the content analysis of the focus group interviews and field notes are reported.

Questionnaires

The pre-test showed significant differences regarding the teaching competence factor between the group from Spain and from Mexico (p =.029). There are two significant differences obtained between pre-test and post-test (Table 5).

Table 5.

Comparison of means by factors for each of the groups in the pre-test-post-test.

	Pre-test			Post-test				
	Mean	*SD*	*Var.*	*Mean*	*SD*	*Var.*	F^1	F^2
Preservice teachers from Spain								
F.1. Teaching competence	4.87^{*ac}	1.03	1.06	6.68^{**aa}	.31	.09	.89	-
F.2. Autonomy	5.35	.89	.79	6.15	.45	.20	-	-
F.3. Academic motivation	5.61	.82	.67	6.32	.39	.15	-	-
Preservice teachers from Chile								
F.1. Teaching competence	5.27	.74	.54	5.65^{****ba}	.62	.38	-	.93
F.2. Autonomy	5.12	1.13	1.27	6.23^{***bb}	.84	.70	.94	-
F.3. Academic motivation	5.85	.56	.31	6.00	.45	.20	-	-
Preservice teachers from Mexico								
F.1. Teaching competence	5.89	.91	.82	6.03	.75	.56	-	-
F.2. Autonomy	6.02	.45	.20	6.31	.22	.04	-	-
F.3. Academic motivation	6.13	.87	.75	6.75^{*****cb}	.64	.41	-	.87

Note: Different superscripts between groups indicate significant differences at $p < .05$ level; f^1: size of the pre-test-post-test effect; f^2: size of the effect between post-tests. Measuring range in response from 1 to 7.

*Pre-test differences between group A and group C in factor 1
**Differences between pre-test and post-test in group A in factor 1
*** Differences between pre-test and post-test in group B in factor 2
****Post-test differences between group B and A in factor 1
****Post-test differences between groups C and B in factor 3

The first difference refers to the teaching competence factor in the Spanish group (p =.008). Mean values increased almost two points in this country. The second significant increase occurred in the Chilean group regarding the autonomy factor (p =.024). In addition, there were two significant differences between post-tests. The first one between the Chilean and the Spanish groups regarding the teaching competence factor (p =.028), since values were higher in Spain. The second

difference was found between the Mexican and the Chilean groups regarding the academic motivation factor (p =.042), being this factor higher in Mexico than in either of the other countries.

Focus groups interviews and field notes

Quantitative findings exposed that there were few if any between-country differences that were clinically important. Therefore, we have decided to focus the qualitative findings of the group as a whole. All the information extracted from the responses from the focus group interviews and the field notes was assigned to the developed subthemes within each existing category. By means of the cross-pattern analysis, the most significant literal text excerpts resulting in each category are shown together with the developed themes: Managerial features of Sport Education (Teaching competence); National curriculum constraining preservice teachers' agency (Autonomy); and Motivation tempered with caution (Academic motivation).

Managerial features of Sport Education

Overall, the preservice teachers from the three countries presented a high satisfaction concerning the usefulness of Sport Education to improve their teaching competence (258 text excerpts). For them, the most remarkable features deriving from this pedagogical model were the diversity of resources that allowed for management in the classroom. In particular, they highlighted the persisting teams and the roles as the most important managerial variables. As one Spanish preservice teacher emphasised: "I feel that I will be a more organized and effective teacher if I use Sport Education in the future – the idea of being in the same team for the whole unit and assuming different roles really makes a different". This comment was common from the preservice teachers in the different countries. They felt that all the rules, routines, and accountability systems associated with Sport Education, would have an impact on themselves as future physical education teachers. A Chilean preservice teacher noted for example:

> We were very surprised that there are such advanced pedagogies in PE for students to learn. It's a pity that the (PE) teaching profession is so devalued in my country. In the end we look for career opportunities related to performance and rehabilitation because economic benefits

are higher and are more socially recognised. However, pedagogies as Sport Education will really improve our competence and I suppose will make us better PE teachers or health professionals.

This aspect was also noted by the teacher educator in his field notes. He mentioned the better managerial and instructional competence of the Spanish preservice teachers, but also the ability to articulate their ideas and reflections around the main managerial features of Sport Education and how their alignment of this idea.

> It seems that the Spanish preservice teachers have a better understanding of basic concepts around teaching and learning. I can see this now after my earlier experience in Chile and Mexico. The dialogues that we had in Chile for example, were filtered by the strong coaching and health-related orientation of their respective programs. Nonetheless, the students also acknowledged the power of the teams and roles. (Spain field notes).

National curriculum constraining preservice teachers' agency

In terms of autonomy (289 excerpts), preservice teachers from the three countries valued the importance of Sport Education to increase both teachers and students' autonomy within the lesson. Particularly, the Chilean and the Mexican students were very surprised in seeing no need for physical education to be taught with directive and teacher-led instruction. They all however highlighted the dramatic change of the instructional and assessment approach used in Sport Education compared to what they had previously experienced. Therefore, they were cautious about their potential implementation in their country. One Chilean preservice reported:

> I could never imagine that teaching PE would be like this. My memories about PE were totally different. We usually followed teacher's indications and instructions. This approach is great to improve the autonomy of the students throughout the whole

> teaching unit. However, I don't know if this innovative approach will fit in our national curriculum and if our secondary students will behave appropriately.

They were constantly mentioning their respective sociocultural context and their scepticism towards an organic application of the model. The teacher educator field notes also emphasized the enthusiasm and positive feedback from the preservice teachers, but at the same time, the caution all of them had when they talked about autonomy. He wrote:

> It is amazing the level of engagement of all of them when we talk about autonomy. Students have no doubt that this is one key feature of Sport Education, but at the same time they are sceptical about the applicability in their country, specially the preservice teachers from Chile and Mexico. (Mexico field notes).

Motivation tempered with caution

The preservice teachers from the three countries commented on a high level of academic motivation towards teaching when a using pedagogical model such Sport Education. They commented on the meaningfulness of the experience in building their motivation and professional identity. They however reported some doubts considering some school organizational issues, for example the lack of coordination of physical education teachers in schools and the support from their principals.

> We're used to hearing about innovative pedagogies, but never experienced and talked about them as students, so I hope that my future working school place is supportive to this kind of pedagogies, because I've heard from colleagues that some of them are not. (Spanish preservice teacher)

The preservice teachers appreciated the opportunity to experience Sport Education as students but especially the opportunity to discuss and reflect with other preservice teachers about their experience in each of the mini-seasons. As one Mexican preservice teacher pointed out:

> The mini-seasons structure and the continuous dialogue was super great and very helpful to understand better the way this pedagogy operates, that was actually key in my understanding. This is amazing! However, I am kind of pessimistic when I think in the schools of my country.

One of the aspects that was more present in the field notes entries, was related to this subtheme. It was a common thread in the discussions their scepticism considering their respective school context. This quote from one of the final entries is an accurate representation:

> I have mixed feelings now at the end of this amazing transcultural learning adventure. Most of the times, the level of motivation of the students in the lessons was outstanding, they've been fully engaged in the whole process. However, they always brought in our dialogues the 'dark side' of their school context. This is something that worries me, because I am well aware of the power of this factor to 'wash-out' their practice.

Discussion

In this study we present an experience of learning to teach Sport Education with preservice teachers from Spain, Chile, and Mexico. We aimed to compare the impact of a learning to teach Sport Education experience on preservice teachers' perceived professional competence, autonomy, and academic motivation; and to explore participants' perceptions of their country's socio-cultural and curricular aspects that may influence Sport Education implementation This paper constitutes the first where there are a substantial number of participants, across three different countries enacting a 'living the curriculum' approach with the pedagogy of dialogue embedded. The strength of the paper, in our view, therein lies with the pedagogical approach used coupled with the consistent findings across cultures.

Given our purpose and the findings, Occupational Socialization Theory (Lawson, 1983) has been used to examine how the preservice teachers past teaching experiences, but especially their

PETE experience and the realities of their national curriculum and school culture, influenced and impacted on the experience of learning to teach Sport Education. Accordingly, two main findings are worthwhile to highlight and discuss. First, the preservice teachers' understanding of some of the core features of Sport Education and their predisposition to implement it, despite their coaching orientation and the custodial nature of their PETE program. Second, their scepticism towards a meaningful implementation, given the reality of their school context, and the rigidness of their national curriculum. In our study, the preservice teachers perceived that using some of the managerial components of Sport Education, would improve their teaching competence. In particular, they highlighted the persisting teams and the roles as the most important managerial variables (Siedentop, 2002). This is aligned with Hastie (2000), who reported on the relationship of effective teachers to have a strong managerial task system. His study showed that Sport Education involves managerial responsibility that is extended to student leadership and self-management (e.g. through peer accountability and responsibility handed over to student-captains). Considering the transcultural context of the sample, this is an important finding to highlight, given that there were no differences in this aspect. Our approach had a positive impact on their teaching competence and their understanding (Hastie, 2012). It is also relevant however to appreciate that learning to teach pedagogical models in teacher education may differ from how teaching and learning occurs in schools (Dillon et al., 2017). Especially in this research, in which the preservice teachers did not have the chance to teach using Sport Education in their respective local schools. In fact, this is a significant limitation of the study and may hinder their exploration and understanding the "complex nature of teaching and learning" (Hordvik et al. 2019b). To compensate, the mini-seasons structure allowed for an ongoing process of reflection and conversations where the preservice teachers developed knowledge through various teaching and learning experiences tailored around their needs and concerns (Hordvik, et al., 2019a). However, while the educational experiences provided generated reflection among participants, some conceptual aspects around Sport Education did not seem to be understood. Interestingly as we described, the preservice teachers equated the

understanding of some managerial aspects of Sport Education to good teaching and enabled them to be better teachers. It seems plausible to think that the marginalization and the status of physical education in the three countries, constrained a more holistic understanding of the model. It might be seen as an early or alternative 'wash-out' (Lawson, 1983).

The preservice teachers exposed a strong scepticism to the integration of Sport Education into their actual school context. Especially, they mentioned the rigid structure of their national curriculum, the custodial aspect of their school settings and the dominance of teacher-led pedagogies. Sport Education aims to give students shared responsibility and ownership, and that in most cases is confronted with how physical education is typically delivered where teachers are the sole decision makers (Siedentop et al., 2020). Findings already supported by Hortigüela et al. (2018) in their study focused on learning to teach the Social and Personal Responsibility model, also with a transcultural sample of preservice teachers (Spain, Chile, and Costa Rica). Currently, we know that schools with a custodial orientation can be challenging contexts for physical education teachers to navigate (Richards, et al., 2014). In our study, the ongoing dialog with the preservice teachers about the pedagogy of Sport Education and the realities of the school context, was a way of supporting them to think about innovative pedagogies and about the realities of teaching in the different school contexts. The programs from the three countries had a strong coaching-performance and health-related orientation, but a weak teaching one. That was an issue, especially for the Chilean and Mexican preservice teachers in the sample.

In this context as Jacobs et al. (2019) reported, dialogue and discussions have to have an important place in PETE programs to learn about socio-political contexts. Therefore, the preservice teachers will improve their ability to actively choose to accept or resist certain elements of their socialization (Richards & Templin, 2011). This is strongly connected with the ecological notion of (preservice) teacher agency. Biesta and Tedder (2007) and other relevant authors, conveyed that teachers' ability to achieve agency varies from context to context based upon certain environmental conditions of possibility and constraint, and that an important factor in this lies in the beliefs,

values, and attributes that teachers mobilise in relation to particular situation (Priestley, Edwards, Priestley, & Miller, 2012). Preservice teachers from our sample, discussed about the challenges of their respective custodial school context, and about the potential confrontation with policies and physical education practices (Richards, et al., 2013). Therefore, and considering their acculturation, the orientation of their PETE program, and the rigidness of their national curriculum and school reality, their ability to achieve agency might be minimal (Priestley et al., 2012). This is another reason why theoretical dialogue is important to help preservice teachers raise their critical consciousness (Shrehan & Curtner-Smith, 2019) and in the same way, to achieve agency. In doing so, Shrehan and Curtner-Smith (2019) advocated for a "problem-posing" pedagogy to enable critical awareness of preservice teachers.

It is visible in the countries that the definition of traditional physical education is massively embedded in their political, social and cultural elements (Kirk, 1992; MacPhail, 2004). That was a powerful reason, why the preservice teachers, despite the positive lived learning experience learning to teach Sport Education at the PETE level, were sceptical about a successful application in their different school contexts. The marginalization of physical education programs has been and is a reality across countries and cultures for a variety of reasons (Laureano et al., 2014). Findings from Lux and McCullick (2011) for example, showed that the marginal status of physical education in the school setting, impacted the way that teachers felt about themselves and their jobs. This was evidenced in our transcultural study and while Sport Education might improve the status of physical education in their country, they were reluctant (or showed caution) in implementing it. Hortigüela et al. (2018) also reported those negative perceptions in a similar research exploring TPSR. In their research, the preservice teachers also reported high levels of attraction towards the pedagogical model, but they commented how external factors acted as barriers to its use (Hortigüela et al., 2018; McCaughtry, et al., 2004). Our approach was particularly enriching for the preservice teachers to achieve a better understanding the pedagogy of Sport Education, but also to respect each other opinions and improve their relationship (Pascual, 2006). Learning experiences like the one

presented in this study, may have a positive impact on preservice teachers' initial motivation to teach, and this variable has been recently reported to have an impact on professional identity development (Nesje, Canrinus, & Strype, 2018).

The living the curriculum approach we followed, led the preservice teachers to question their PETE experience. They questioned their initial teacher education through reflection and dialogue (Enright, Coll, Ní Chronín, & Fitzpatrick, 2017) and they built an optimal academic motivation for the future. In short, the preservice teachers broadened their thinking about physical education. This experience was perceived as useful, both to improve teaching skills and to potentially transform educational curricula towards more emancipatory and pedagogical sport practices. The latter however will be a challenging endeavor.

Conclusions

The dialogical nature of the approach was particularly enriching for the preservice teachers with different socio-cultural backgrounds to achieve a better understanding the pedagogy of Sport Education and to understand the challenges of organizational socialization in their respective countries. However, their ability in achieving agency might be minimal given their acculturation, the orientation of their PETE program, and especially, the rigidness of their national curriculum and school reality. This is another reason why we, as others have done (Shrehan & Curtner-Smith, 2019) advocate, for the pedagogy of dialogue to help preservice teachers raise their critical consciousness. This study reinforces the power of external elements such as the policies and national curriculum, and the ethos of each PETE program, as strong factors that condition preservice teachers' pre-disposition to use this and/or other curriculum models in the future, and to filter a holistic understanding of the model. Further work needs to be done to explore how PETE programs at a programmatic level, could counter the potential negative effects of some of the social-political elements on preservice teachers' integration of innovative pedagogies into their future teaching.

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