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

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

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

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

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

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

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

29

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

38 One of the challenges for PETE, is to explore its effect to support graduates' contributions to
39 students' learning in different school contexts (O'Sullivan & Parker, 2018). In the last decade, a
40 growing body of literature has advocated and explored the potential of pedagogical models that may
41 be used to enact physical education curriculum (Kirk, 2013; Casey & MacPhail, 2018). Fletcher and
42 Casey (2014) noted for example, that it is important to explore how teacher education can teach
43 preservice teachers, to challenge their beliefs and become skillful proponents of robust and
44 innovative approaches to teaching. The latest published review on models-based practice,
45 highlighted that despite the improvement experienced regarding the attitude and enthusiasm of the
46 active teachers, they felt like beginners when integrating the selected models in their teaching
47 (Casey, 2014). The relationship between schools and universities was cited as a decisive factor to a
48 sustained incorporation of these models (Casey & MacPhail, 2018). It has also been suggested, that
49 teacher educators need to challenge, not only students' expectations around what it means to teach,
50 but also their own pedagogies of teacher education (Fletcher & Casey, 2014). Nevertheless, despite
51 the complexity of transferring learning from college to schools (Dillon, Tannehill, & O'Sullivan,
52 2017), and some critical perspectives around the enactment of a model (or models) based approach
53 (Landi, Fitzpatrick, & McGlasha, 2016), preservice teachers' first perceptions after being taught
54 how to use the models at schools are quite positive and optimistic (McCaughy, Sofu, Rovegno, &
55 Curtner-Smith, 2004).

56 The actual implementation of a model (or models) based approach in schools will be
57 possible if teacher educators and PETE programs propose a robust and innovative approach to
58 learning how to teach using pedagogical models (Fletcher & Casey, 2014). Currently, Sport
59 Education and how is introduced to novice and experienced teachers has been extensively studied
60 (Deenihan & MacPhail, 2017; Hordvik, MacPhail, & Ronglan, 2017; Hordvik, MacPhail, Ronglan,
61 2019a; McCaughy et al. 2004; McMahon & MacPhail, 2007). It is well known that this
62 pedagogical model considers the conception of sport from a global perspective, acquiring an
63 intrinsic motivation towards practice which helps increase students' sporting culture, enthusiasm,
64 and motor competence (Siedentop, Hastie, & van der Mars, 2020). In learning to teach through
65 Sport Education, Hordvik et al. (2019a) reported that the design of "comprehensive learning
66 experiences" (p.13) allowed preservice teachers to develop the complex understanding of teaching
67 and learning using Sport Education. In this sense, McMahon and MacPhail (2007) also reported a
68 focus on the social context of the classroom in the first experiences in which the model was used.
69 Hordvik et al. (2019a) also suggested that teacher educators need to acknowledge that learning to
70 teach Sport Education and other pedagogical models is more than learning how to deliver models of
71 teaching. They advocated for a "continuing growth of understanding where preservice teachers
72 develop knowledge through various teaching and learning experiences tailored around their needs
73 and concerns" (Hordvik et al., 2019a, p.14). It is generally accepted that preservice teachers have to
74 'live the curriculum' as a participant to gain a better appreciation of content and pedagogical
75 content knowledge (Deenihan et al. 2011; Dillon, et al., 2017).

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

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

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

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

140

141 Table 1

142 *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.

143

144 **Physical Education national curriculum and acculturation.** The three countries that

145 participated in this study varied in their educational structure and requirements. Pertinent

146 characteristics of physical education in schools include:

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

160 **Design**

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

167

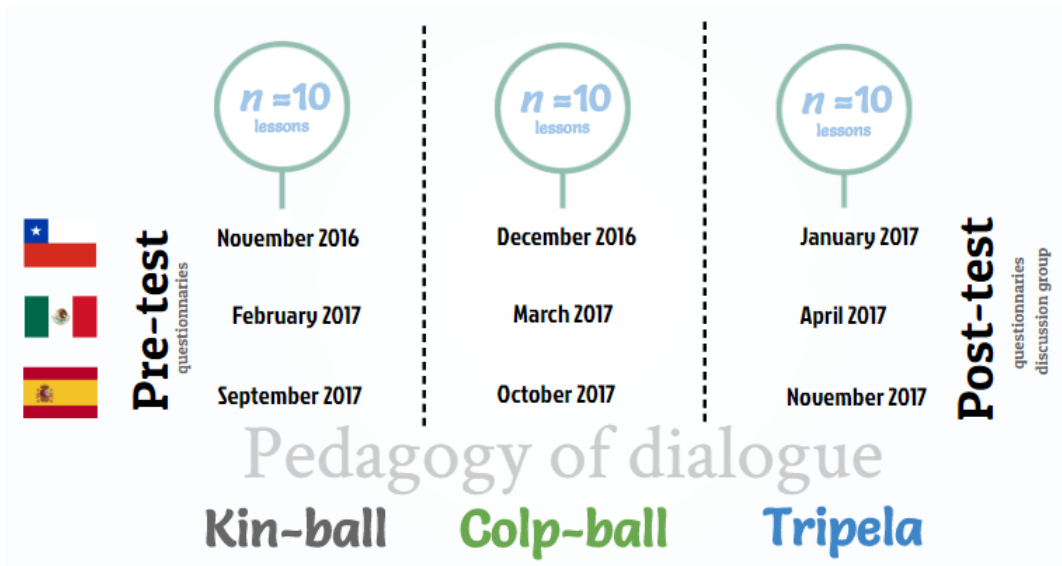


Figure 1. Research design, timeline, and data collection points in the three countries

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

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

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

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

207

208 Table 2

209 *Unit plan format of the three mini-seasons.*

<i>Lesson</i>	<i>Phase</i>	<i>Content</i>	<i>Teacher's role</i>	<i>Preservice's role</i>
1	Teacher directed:	Introduction to teaching approach. Description of daily roles. Team selection	Class leader	Participant
2	Skill development phase	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

210

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

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

223

224 Table 3

225 *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.

226

227 **Data collection**

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

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

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

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

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

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

257 *demotivation* (four items), for example item 2: “At the time I had good reasons to go to university,
258 but now I wonder whether I should continue attending it”; b) *external regulation* (four items), for
259 example item 7: “Because in the future I want to have a ‘good life’”; c) *introjected regulation* (four
260 items), for example item 12: “Because I want to prove myself that I am capable of succeeding in my
261 studies”; d) *identified regulation* (four items), for example item 14: “Because it will possibly allow
262 me to enter the labour market within the field I like”; e) *motivation intrinsic to knowledge* (four
263 items), for instance item 19: “For the pleasure of knowing more about subjects that appeal me”; f)
264 *motivation intrinsic to achievement* (four items), for example item 24: “Because university allows
265 me to experience a personal satisfaction in my quest for excellence within my studies”; g)
266 *motivation intrinsic to stimulating experiences* (four items), for example item 25: “Because of the
267 intense moments I experience as I convey my own ideas to others”. High FC = .89 and VME
268 slightly higher than .50 (50.32%) were obtained. The value of alpha obtained in this study was of
269 .84 for *demotivation* and *external regulation*, .80 for *introjected regulation* and *identified*
270 *regulation*, .84 for *motivation intrinsic to knowledge*, .81 for *motivation intrinsic to achievement*
271 and .74 for *motivation intrinsic to stimulating experiences*. A confidence level of 95% was applied.

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

281

282 Table 4

283 *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?
-

284

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

293 **Data analysis**

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

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

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

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

323
324

Results

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

328

329 *Questionnaires*

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

333

334 *Table 5.*

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

	Pre-test			Post-test			F^1	F^2
	Mean	SD	Var.	Mean	SD	Var.		
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	1.1 3	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

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

338

339 *Pre-test differences between group A and group C in factor 1

340 **Differences between pre-test and post-test in group A in factor 1

341 *** Differences between pre-test and post-test in group B in factor 2

342 ****Post-test differences between group B and A in factor 1

343 ****Post-test differences between groups C and B in factor 3

344

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

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

352 *Focus groups interviews and field notes*

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

361 *Managerial features of Sport Education*

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

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

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

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

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

389 *National curriculum constraining preservice teachers' agency*

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

398 I could never imagine that teaching PE would be like this. My memories about PE
399 were totally different. We usually followed teacher's indications and instructions.

400 This approach is great to improve the autonomy of the students throughout the whole

401 teaching unit. However, I don't know if this innovative approach will fit in our
402 national curriculum and if our secondary students will behave appropriately.
403 They were constantly mentioning their respective sociocultural context and their scepticism
404 towards an organic application of the model. The teacher educator field notes also
405 emphasized the enthusiasm and positive feedback from the preservice teachers, but at the
406 same time, the caution all of them had when they talked about autonomy. He wrote:

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

411 *Motivation tempered with caution*

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

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

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

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

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

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

440 **Discussion**

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

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

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

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

482 The preservice teachers exposed a strong scepticism to the integration of Sport Education
483 into their actual school context. Especially, they mentioned the rigid structure of their national
484 curriculum, the custodial aspect of their school settings and the dominance of teacher-led
485 pedagogies. Sport Education aims to give students shared responsibility and ownership, and that in
486 most cases is confronted with how physical education is typically delivered where teachers are the
487 sole decision makers (Siedentop et al., 2020). Findings already supported by Hortigüela et al.
488 (2018) in their study focused on learning to teach the Social and Personal Responsibility model,
489 also with a transcultural sample of preservice teachers (Spain, Chile, and Costa Rica). Currently, we
490 know that schools with a custodial orientation can be challenging contexts for physical education
491 teachers to navigate (Richards, et al., 2014). In our study, the ongoing dialog with the preservice
492 teachers about the pedagogy of Sport Education and the realities of the school context, was a way of
493 supporting them to think about innovative pedagogies and about the realities of teaching in the
494 different school contexts. The programs from the three countries had a strong coaching-
495 performance and health-related orientation, but a weak teaching one. That was an issue, especially
496 for the Chilean and Mexican preservice teachers in the sample.

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

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

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

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

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

540 **Conclusions**

541 The dialogical nature of the approach was particularly enriching for the preservice teachers
542 with different socio-cultural backgrounds to achieve a better understanding the pedagogy of Sport
543 Education and to understand the challenges of organizational socialization in their respective
544 countries. However, their ability in achieving agency might be minimal given their acculturation,
545 the orientation of their PETE program, and especially, the rigidness of their national curriculum and
546 school reality. This is another reason why we, as others have done (Shrehan & Curtner-Smith,
547 2019) advocate, for the pedagogy of dialogue to help preservice teachers raise their critical
548 consciousness. This study reinforces the power of external elements such as the policies and
549 national curriculum, and the ethos of each PETE program, as strong factors that condition
550 preservice teachers' pre-disposition to use this and/or other curriculum models in the future, and to
551 filter a holistic understanding of the model. Further work needs to be done to explore how PETE
552 programs at a programmatic level, could counter the potential negative effects of some of the social-
553 political elements on preservice teachers' integration of innovative pedagogies into their future
554 teaching.

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