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25 **ABSTRACT**

26 The aim of this study was twofold, firstly, to explore the challenges and successes faced
27 by deaf international futsal players when using a collaborative blended learning (CBL)
28 approach in preparation for a major competition, and, secondly, to provide a discussion
29 of key coaching lessons learned to inspire coaches to consider how to best develop their
30 'little journeys'. Data were collected from 12 players via six semi-structured focus
31 groups, along with 36 reflective diaries maintained by the two researchers (who held the
32 role of 'Joint Head Coach' and 'Performance Analyst'), using a critical participatory
33 action research (CPAR) methodological approach. Data collection and analysis were an
34 on-going and cyclical process during the seven-month study. Four key themes were
35 identified: 'a little journey: a connected approach to learning', 'ownership, collaboration
36 and connection', 'communication barriers and fear of misinterpretation' and 'players'
37 initial 'buy-in' to the constructivist approach to learning'. Key coaching lessons
38 highlighted the need for a flexible and 'connected' approach to learning. Here, through
39 our learning in-action and on-action, we often found ourselves as 'social' managers in
40 trying to explore inter-relational complexities and support individuals to build trust, an
41 aspect seen by players as crucial for actively developing CBL within the group.

42 **KEYWORDS: Collaborative learning; Blended Learning; Vygotsky; Sports**
43 **Coaching; Performance analysis**

44 **Introduction**

45 Over the past decade, sports coaching discussions have focused on the pedagogical expertise
46 of the coach (Vinson *et al.*, 2017; Cope and Partington, 2019) with several scholars paying
47 attention to how various theories of learning have been used to inform coaching practice and
48 subsequently enhance learning in able-bodied sporting populations (Nelson, Groom, & Potrac,
49 2016; Roberts & Potrac, 2014). By adopting a holistic view of learning (and coaching), coaches
50 can create an interactive learning environment whereby individuals can engage in exchanges
51 of cooperation (Toner, Moran, & Gale, 2016). These cooperative activities promote moral,
52 social and intellectual development, which have been found to encourage holistic development
53 (Light & Harvey, 2017).

54 It is the role of the coach to acknowledge the variety of different ways an individual learns,
55 whilst also understanding that learning is more than merely the accumulation of knowledge
56 (Werthner & Trudel, 2006). This approach commonly aligns to a constructivist perspective of
57 learning (Cassidy, Jones, & Potrac, 2016; Vinson, Brady, Moreland, & Judge, 2016), whereby
58 through focusing on creating an active and interpretative process, the learner accrues and
59 develops their knowledge and understanding through reflecting on past performances and
60 engaging in interactions with others (Roberts & Potrac, 2014). This perspective of learning has
61 become common currency within the field of sports coaching when attempting to make sense
62 of current practice and how to promote player learning (Jones, Thomas, Nunes, & Filho, 2018).
63 However, limited knowledge currently exists regarding how players with hearing impairment
64 learn and whether a constructivist approach promotes learning in this population. This article,
65 therefore, attempts to firstly, explore the challenges and successes faced by deaf international
66 futsal players when using a collaborative blended learning approach (i.e., online and face-to-
67 face group activities) in preparation for a major competition. Secondly, it aims to provide a

68 discussion of key coaching lessons learned in an attempt to inspire coaches to consider how to
69 best develop their ‘little journeys’.

70 ***Constructivism, collaborative learning and collaborative blended learning***

71 Constructivist theories focus on how an individual ‘constructs’ knowledge and understanding
72 through considering how their learning has been affected by new experiences and/or
73 information gained as a result of participation and/or interactions with others. It is important to
74 note that constructivism does not refer to a singular theoretical perspective, but a diverse and
75 broad range of theories that attempt to aid understanding of how humans learn (Roberts &
76 Potrac, 2014). Scholars from sports coaching have more recently made attempts to examine
77 what Vygotsky’s theoretical perspective means for coaches and coaching practices (Hendricks
78 et al., 2018).

79 The ‘Zone of Proximal Development’ (ZPD) is one of the most well-known concepts of
80 Vygotsky’s idea of learning (Jones et al., 2018). It is defined by Vygotsky (1978) as “the
81 distance between the actual development level as determined by independent problem solving
82 and the level of potential development as determined through problem solving under adult
83 guidance or in collaboration with more capable peers” (p. 86). The idea is that individuals learn
84 best when working with others and, through such collaborative approach, learners master tasks
85 that were once too difficult to attain on their own. Jones et al. (2018) highlighted there has been
86 a tendency to focus on Vygotsky’s ZPD, which underplays the value of his principal ideas in
87 aiding our understanding in the field of sports coaching. Vinson and Parker (2019) further
88 support Jones et al.'s (2018) review, highlighting the value of Vygotsky’s other concepts,
89 including a cultural-historical perspective, mediation, the more capable other and Perezhivanie,
90 to inform and enhance collaborative approaches to learning.

91 To best understand Vygotsky's assumption of a cultural-historical perspective, he and
92 colleagues deemed that humans behaviour and their learning can only be explained by their
93 historical and social recourse (Morcom, 2017; Vygotsky, 1978). The concept of mediation
94 referred to the use of language as a vehicle for creating meaning and measuring self-regulation
95 through inner speech to facilitate higher psychological functions (Vinson & Parker, 2019;
96 Vygotsky, 1987). Whilst the ZPD refers to the 'more capable other', according to Vygotsky
97 (1987), this does not necessarily have to be an adult but could include a teammate or other
98 individual, as they could equally hold knowledge or assist in generating new knowledge. Thus,
99 the 'more capable other' provides 'scaffolding' to facilitate learning through context-bound
100 interactions that assist the learner in understanding the concept/problem being explored
101 (Cassidy et al., 2016). One of the most difficult concepts of Vygotsky's works to understand is
102 *perezhivanie*; it refers to something that is found or learnt from outside the person through
103 facing a difficult or critical situation (Michell, 2016). The exposure to external events causes
104 internal transformation, which leads to the learner making meaning or sense of the context or
105 situation. These additional concepts provide useful guidance for understanding how learning
106 can occur when faced with a difficult or critical task (Vinson & Parker, 2019). In particular,
107 Vygotsky's perspective can be applied to how coaches and support staff scaffold tactical
108 problems in an attempt to aid learners' ability to problem solve different sporting scenarios
109 when help is removed. Therefore, it underlines the connections between the supportive and
110 assisted training environment, the unassisted competitive gameplay and the appreciation of
111 cognition in enhancing learning, decision-making and performance.

112 According to Monteiro and Morrison (2014), Vygotsky's (1978) view of learning is strongly
113 rooted in collaborative learning and collaborative blended learning (CBL), two techniques that
114 have made strong claims to enhance learners' knowledge. Here, collaborative learning refers
115 to an umbrella term which involves a joint intellectual effort by individuals to search for

116 meanings, solutions or understanding to a task or problem (Laal & Ghodsi, 2012). The process
117 enables the collaborative construction and reconstruction of knowledge, which has been found
118 to promote high performance, high-order thinking and positive interpersonal relationships
119 (Monteiro & Morrison, 2014). Similarly, the use of CBL approaches, which combine face-to-
120 face learning with online learning, is an effective and flexible solution for linking within and
121 outside learning (Sun, Liu, Luo, Wu, & Shi, 2017). Doolan and Hilliard (2006) highlighted
122 how CBL echoes Vygotsky's (1978) view of learning, by providing opportunities for learner-
123 to-learner support through scaffolding. Also, CBL has been found to provide learners with an
124 opportunity to exchange ideas, share views, develop constructive arguments and use previous
125 knowledge and experiences to solve problems in team activities (Monteiro & Morrison, 2014).
126 While recent discussions and movements towards embracing collaborative and blended
127 approaches to learning align with the various forms of constructivism (e.g. psychological and
128 social) and are welcomed, there remains a paucity of evidence and guidance addressing how
129 coaches help players acquire, develop, and refine their sporting attributes, skills and
130 understandings (Roberts & Potrac, 2014). Recently, Vinson et al. (2017) provided supporting
131 evidence to highlight that aligning pedagogical features towards a constructivist lens can
132 contribute to player learning and aspects of team culture and cohesion. In this context,
133 performance analysis (PA) was utilised as an available learning tool to encourage collaborative
134 learning.

135 ***Performance analysis and collaborative blended learning***

136 PA has become an integral component within the coaching process, providing coaches, players
137 and support staff with objective evidence to assist in recalling events and promoting learning
138 (Bateman & Jones, 2019; Eaves, 2015; Groom & Nelson, 2013). Whilst it has been well
139 documented that feedback provided to learners should be accurate, meaningful and suitably

140 pitched to the level of the learner (e.g. Laird & Waters, 2008; Ward & Williams, 2016), limited
141 focus has explored PA's effectiveness in promoting player learning. Fernandez-Echeverria,
142 Mesquita, Conejero, & Moreno (2019) discovered PA was viewed by elite volleyball players
143 as an essential learning tool, contributing to helping inform aspects that need correcting,
144 reinforcing aspects of positive play and helping to prepare for upcoming games. Within
145 association football, Reeves & Roberts (2013) also found coaches and players shared similar
146 views, highlighting PA as a key developmental tool in contributing to team and individual
147 performance by aiding reflection. However, Bampouras, Cronin, & Miller (2012) discovered
148 players can become sceptical to the use of PA if they are excluded from adopting an active role
149 in the process. In agreement, Francis & Jones (2014) and Nelson, Potrac & Groom (2014)
150 identified that players are wanting to play an active role in the PA process due to their
151 awareness of the process in assisting their learning. However, the researchers provided little
152 evidence as to how coaches, players and analysts should go about introducing a CBL
153 environment.

154 When discussing a PA process with association football coaches, Groom, Cushion & Nelson
155 (2011) highlighted the importance of acknowledging contextual factors that need to be
156 considered when delivery a PA provision: social environment, presentation format, session
157 design, coaching and delivery philosophy, delivery process and recipient qualities. The
158 researchers stressed coaches need to be aware of each other's role and the acting of that role
159 and how the integrations are negotiated to aid player learning when delivering PA. Vinson et
160 al. (2017) found when coaches used an online PA platform these aspects were considered.
161 Coaches used the platform to upload and share video from games or individually focused clips
162 for players to view, comment on and discuss at a later time. The footage was uploaded either
163 post-match or pre-training to inform the focus of upcoming sessions or games. Through this
164 specific PA process, the coaches were able to use the online platform to complement their face-

165 to-face deliver, facilitate active involvement in the process of PA, develop a team culture and
166 positive environment, and allow players to demonstrate their creativity through inputting into
167 group activities. O'Donoghue & Mayes's (2013) previous work further support these findings,
168 indicating the recent increase in other online platforms potentially provides a useful learning
169 tool to facilitate video based feedback for players, support traditional face-to-face coaching and
170 enhance team culture for performance sports teams and coaches operating outside a full-time
171 professional setting.

172 *Learning within a deaf sport setting*

173 Despite recent attention within able-bodied populations, research is yet to adequately focus on
174 sports coaches' and players' use of PA as a tool to promote collaborative learning within a deaf
175 sport setting. Working in deaf sport can present its own unique sets of challenges, with barriers
176 to developing an active, social and interpretive approach to learning, potentially surfacing
177 (Mapepa & Magano, 2018). In particular, individuals who are deaf or hard of hearing have a
178 'special culture' (Strnadová, 2001), sometimes electing to be solely part of a 'sociolinguistic
179 community' (Scheetz, 2004). Typically, these individuals do not see themselves as people with
180 disability, rejecting the associated label, instead, considering themselves as part of a cultural
181 and linguistic minority who share pride in communicating through sign language (SL) (Obasi,
182 2008). Thus, the communicative barriers associated with people who are deaf are the only
183 distinguishing factors that separate them from other individuals (Kurková, Válková, & Scheetz,
184 2011).

185 As stated above, people who are deaf have traditionally relied on SL to communicate amongst
186 individuals who are deaf and those who can hear. However, developments in medical science
187 (cochlear implants and hearing aids) and other technological tools have allowed deaf people to
188 "hear" and achieve speech development (Geers, Mitchell, Warner-Czyz, Wang, & Eisenberg,

189 2017). A range of communication approaches have now been adopted by individuals who are
190 deaf, from spoken language to SL to bilingualism, to aid effective communication in a variety
191 of settings and for a variety of purposes (Tomaszewski, Krzysztofiak, & Moroń, 2019). These
192 differences not only present challenges for deaf players to communicate using their preferred
193 approach with one another, but for players and staff who cannot communicate in both spoken
194 language and SL. Marschark & Knoors (2012) highlighted spoken language amongst the deaf
195 community is becoming the first and primary language for a growing number of people.
196 However, if individuals are unable to effectively communicate with each other, challenges may
197 surface in social settings and subsequently, those individuals often find themselves isolated
198 from collaborative activities (Kurková, 2005). As a result, this inability to effectively
199 communicate has also been shown to adversely affect education and development success
200 (Tomaszewski et al., 2019), key aspects that are required when competing in a high level sport.
201 Thus, if adaptations to how deaf teams communicate with one another in face-to-face and distant
202 coaching environments can be made, the ability for these players to learn is likely to increase
203 (Kurková et al., 2011).

204 From the information presented above, there are many claims, but also potential challenges, as
205 to why the use of PA within CBL approaches could be a positive tool to aid learning of futsal
206 players with hearing impairments. The article reports an intervention that was designed over
207 seven months to promote a CBL approach (i.e., online and face to face group activities) by both
208 deaf women international futsal players and staff members when preparing for a major
209 championship in 2018.

210 **Methods**

211 *Background*

212 The initial stimuli for undertaking this project came as we (the researchers) also had the role
213 of ‘Joint Head Coach’ and ‘Performance Analyst’ within an International Deaf Women’s Futsal
214 Team. To help the team achieve the success of getting out of the pool stage at the competition,
215 we were required to reflect upon our current coaching and PA experiences as well as collating
216 the views from the players to develop a suitable learning and performance environment.
217 Luciana’s role within the team included the planning and delivery of coaching sessions, game
218 management, player selection and performance review whilst working collaboratively with the
219 other Joint Head Coach. She began working with the team 19 months before the beginning of
220 the intervention which was when she first experienced coaching deaf players. On a personal
221 level, Luciana grew up with a relative who was profoundly deaf and relied on sign language to
222 communicate. Luciana had no hearing impairments and basic knowledge of sign language. She
223 had over 15 years experience as a futsal player and coach at a national and international level,
224 and held Union of European Football Associations B-licenses in Futsal and Football. John’s
225 role as a performance analyst in the team was to assist the coaching staff and players by
226 providing data and footage to aid reflection, decision-making, learning and preparation for
227 future performance. John worked as a performance analyst for several international and
228 national teams in a variety of sports over the past 10 years, and within the last three years, he
229 has worked with a range of Para-Football teams for a national football association. Before the
230 commencing of the study, John had been involved with the team for nine months but had no
231 prior experience of working with deaf players and did not have a hearing impairment himself.
232 Through working together, it was, therefore, our aim to improve our understanding and
233 practices to support the team’s preparation in the run-up to the major competition and during

234 the 12-day competition. In addition to our joint roles and our limited experiences of working
235 with deaf players, we relied on the communication skills of our interpreter to communicate
236 with those who relied solely on sign language (only 2 players). He was a registered sign
237 language interpreter, having over 20 years of experience working with deaf learners, and had
238 worked within the deaf football/futsal environment for over 6 years.

239 ***Research design***

240 A critical participatory action research (CPAR) process (Kemmis, McTaggart, & Nixon, 2014)
241 was adopted. The approach collectively positions research by bringing together academic
242 researchers and members of a community to create or change practices (Kemmis et al., 2014).
243 It creates conditions for researchers, practitioners and participants to understand and develop
244 the ways in which practices are conducted by establishing conditions for individuals to engage
245 in direct communication and debate (McTaggart, Nixon, & Kemmis, 2017). CPAR does not
246 follow the usual research design steps in conventional scientific research, but through working
247 collectively, the participants and researchers engage in a process of enquiry, action and
248 reflection (Cammarota & Fine, 2007). Throughout the completion of the study, we collected
249 ‘data’ from each other and the players to aid our understanding and plan for change. Therefore,
250 adopting a CPAR approach would support changing ‘what is happening here’, rejecting the
251 premise of objectivity and creating conditions for us and the players to be actively involved
252 and have a voice in all aspects of the research process to inform the future direction the team
253 took. In employing this research methodology, we were able to explore changes through
254 multiple data collection moments, capturing the nuances of everyday practices “over a period
255 encompassing a variety of learning experiences” (De Martin-Silva, Fonseca, Jones, Morgan, &
256 Mesquita, 2015, p.672).

257

258 ***Participants***

259 Following Institutional Ethical approval, a total of 12 international deaf women futsal
260 players (aged 18-27) were invited to take part in the study by the two researchers.
261 Participants were selected through purposive sampling techniques (Bryman, 2016) to
262 select all international deaf women futsal players who were part representing a specific
263 European country in a major competition in 2018. All players reported a hearing loss of
264 at least 55db in the better ear across 3-tone frequencies. The participants' experience of
265 international futsal ranged from two-years to five-years, with nine players also having
266 previously represented their nation in 11-a-side deaf football. Out of the 12 players, two
267 relied solely on SL to communicate, one relied solely on verbal communication and nine
268 could communicate in both SL and verbally with varying levels of fluency. Each
269 participant was made aware that their participation in the study was not compulsory and
270 that there were no links to the support provision they received nor selection for the
271 upcoming competition. During the initial formulating of the research project's idea,
272 players were involved and informed that the research would directly assist them in
273 working towards their overall goal. The relationship that had been built between the
274 players and the two researchers, during the period they were working together prior to
275 commencing the project, assisted in gaining trust and rapport. Before the project started,
276 voluntary informed consent was obtained from all individuals per the Declaration of
277 Helsinki and repeatedly checked throughout the project duration to ensure consent was
278 maintained throughout the study.

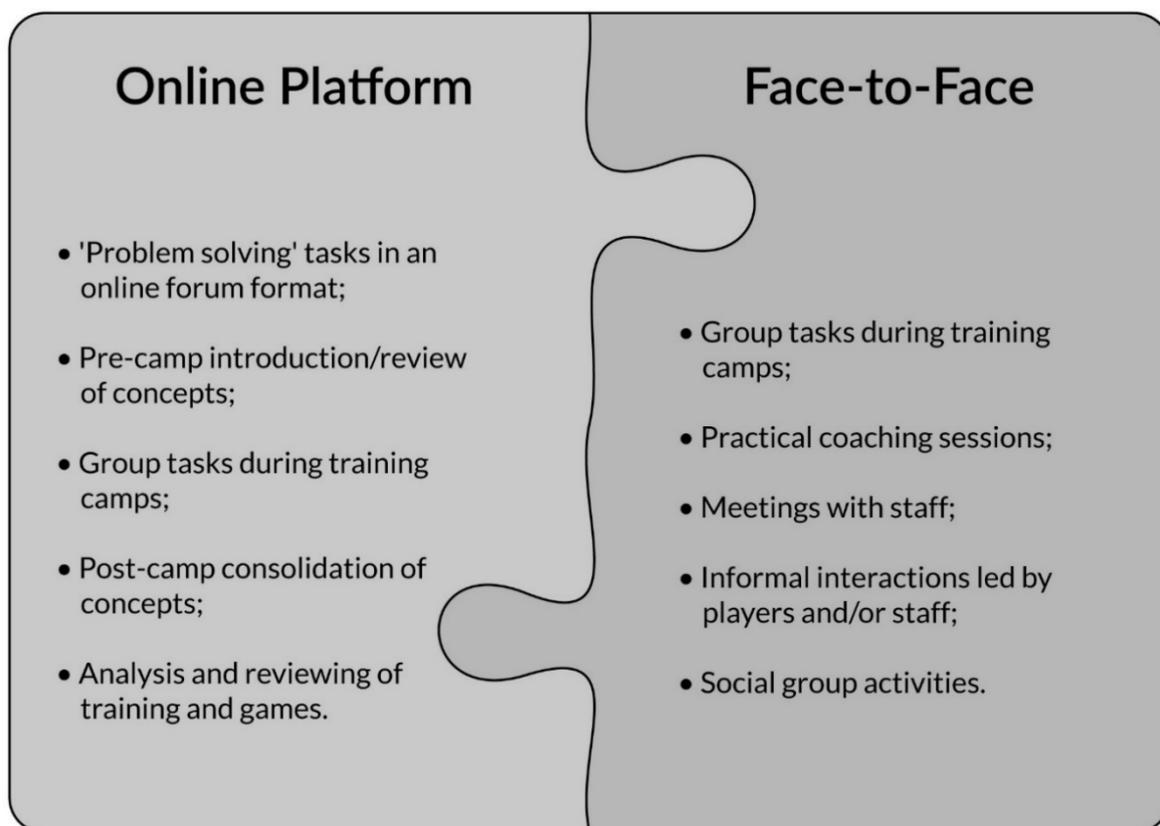
279

280 ***Research process***

281 A key challenge identified by the staff team was how to cater for individual needs (e.g.,
282 different levels of playing ability combined with specific communication support

283 required due to different hearing levels) when leading a team to the major competition.
284 Despite being with most of the 12 players for the previous season, another key challenge
285 was the integration of new players into the squad seven months before the competition.
286 During that time, players had a total of five training camp weekends and spent an extra
287 12 days together during the major competition. To make the most of the final preparations
288 for the competition, we decided that we should invest in creating a learning platform that
289 encouraged learning to take place in and away from training camps. In this context,
290 getting to know players and the best way to support their learning in and away from camp
291 weekends was crucial. After meetings between staff members (of whom we were two),
292 it was agreed that providing a CBL approach could be beneficial to player learning. More
293 specifically, the CBL design was used to ‘connect the dots’, pre-, during and post-training
294 camps, through utilising the online platform as well as traditional face-to-face coaching
295 to facilitate learning. The focus here was on technical, tactical and social elements
296 associated with being part of the team (see Figure 1).

297



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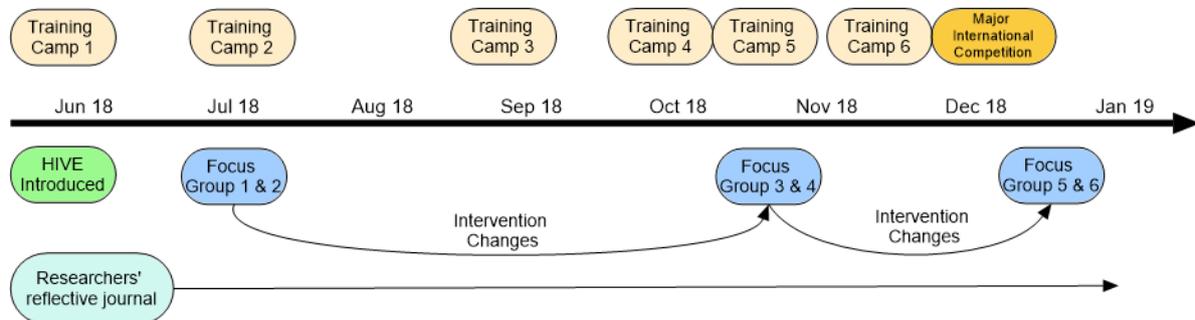
Figure 1: Examples of CBL activities undertaken throughout the study.

300

301 The study was introduced to the players during one of the training camps (June) and individual
 302 accounts to an online learning platform called 'HIVE' (Hive Learning Limited, 2018) were
 303 created for each participant. We created a 'folder' specific for the study and invited players and
 304 staff to join via email. The system was utilised to upload documents, videos and other content
 305 by the participants (players and staff) over the study period. Players were asked to contribute
 306 to the variety of learning activities prior, during and following attendance to five training camps
 307 weekends (one in July, one in August, one in October and two in November) leading up to the
 308 major competition in December 2018 (see Figure 2). Although initially designing a potential
 309 schedule for the activities, we concluded that it was key that participants' needs drove the
 310 process of when, how, why and by whom data would be added. In this sense, a flexible design

311 was crucial to take into account the possibility of different events, situations and learning
312 unfolding when data were collected.

313



314

315 Figure 2: Timeline of research process demonstrating training camps, competition date and
316 data collection periods.

317 *Data Collection*

318 The data were collected through focus groups with players and we maintained reflective
319 journals throughout the study. Throughout the seven months, each participant interacted with
320 both researchers (via text messages, email or private message through the platform). If similar
321 ideas or challenges regarding the interventions arose in these conversations, permission was
322 gained to formulate questions that could be used during focus group discussions to delve deeper
323 and find solutions or explore why current ideas/practices were deemed effective.

324 *Focus group interviews*

325 Players' perceptions of the benefits and challenges associated with their CBL experience were
326 explored during focus groups throughout the study to better understand their experience and
327 guide future practice. Following the introduction of the online learning platform (June), six
328 focus groups took place at three different points during the study, more specifically two in July,

329 two in October and two in December (see Figure 2). Players were divided into two small groups
330 of between four and six participants, dependent on hearing impairment.

331 The focus groups took place in a quiet and convenient meeting room during training camps or
332 competition periods, working around the players' and the interpreter's schedules (e.g., medical
333 clinic; monitoring), which also dictated the selection of participants for each group. The focus
334 group interviews were semi-structured offering a framework of questions and the freedom to
335 probe participants further, allowing for clarification and elaboration (Bryman, 2016). The
336 interviews were based upon the project's aim as well as the unfolding HIVE platform, our
337 reflective diaries and conversations (Phillippi & Lauderdale, 2018) (see Appendix 1). The
338 small group size allowed in-depth perspectives for each individual to be captured (Tausch &
339 Menold, 2016) as well as factoring in the additional time required for the interpreter to
340 communicate the participants' thoughts effectively to both SL and non-SL individuals. The
341 interpreter attended all of the focus groups and acted as a mediator for the flow of information
342 between SL and non-SL users. All focus groups were recorded on a Dictaphone and a camera
343 and lasted for 60 minutes on average. The recordings were transcribed verbatim, and if any
344 audio or signing needed further interpretation, the footage was revisited with the researchers
345 and the interpreter.

346 *Reflective journals*

347 We (both members of staff) maintained reflective journals throughout the seven-month
348 duration of the study, recording key events and thoughts that we felt were important for the
349 research. A total of 36 reflective journal entries were made, at approximately a page in length.
350 Each researcher made an entry a week prior to a camp, during the camp and a week after a
351 camp/tournament had finished. In this sense, content in the reflective journal included thoughts
352 and feelings based on conversations and experiences only possible in our roles as staff

353 members. The journal entries were used as a tool to foster self-awareness and the notes enabled
354 us to understand the emerging situation and modify action if required (McTaggart et al., 2017).
355 Despite not adopting a ‘complete participant’ observer role as such (Sparkes and Smith, 2014),
356 the experiences lived by us (the researchers), including the sense we made of players’
357 interactions, served to impact our views on how successful (or not) the activities were in
358 contributing for an effective learning environment. Here, despite participating fully in the lives
359 of the participants (as per Sparkes and Smith’s description for a complete participant role) we
360 did not aim to register those observations as a method of data collection, but as an informal
361 experience to trigger further discussions during research conversations and focus group
362 interviews.

363 ***Data analysis and credibility***

364 As recommended by CPAR researchers, the data collection and analysis were an on-going and
365 cyclical process that continued throughout the study (MacDonald, 2012). Charmaz’s (2006)
366 process for inductive analyses (Initial coding, focused coding and theoretical coding) was
367 adopted in this study to analyse the focus groups transcripts and the notes within the reflective
368 journals. In the first stage (initial coding), there was special attention to creating codes from
369 interpreting the data rather than “forcing the data to fit them” (Charmaz, 2006, p.49). The
370 second stage (focused coding) consisted of returning to the data and recognising similar codes
371 across the answers provided by the participants. The next stage was the theoretical analysis,
372 whereby we adopted a strategy to narrow our focus on emerging categories and as a technique
373 to develop and refine these categories further. The themes were analysed and rearranged if and
374 when appropriate. We agreed on the themes together as an accurate representation of the
375 participant’s experiences. The narrative and data extracts from the participants’ focus groups
376 and our reflective journals were woven together into a coherent and persuasive story that

377 captured the perceptions of the participants' and our learning experiences in preparation for a
378 major competition.

379 The process of CPAR and the almost 'complete participant' roles we fulfilled inherently
380 encouraged credibility by being deliberate and self-reflexive (Cahill, 2015; Elo et al., 2014) as
381 well as generating rapport and trust between the participants and us (Lennie, 2006). The
382 cyclical processes of CPAR is consistent with guidelines proposed by Sparkes & Smith (2009,
383 2014) and helped guide our work. Through adopting the guidelines we aimed to (a) ensure we
384 understood the player's experiences of CBL, (b) demonstrate that we cared about the player's
385 experiences, (c) provide a narrative that advances knowledge, (d) provide a narrative that others
386 can relate to, (e) uncover our assumptions, (f) provide information that readers of this project
387 can resonate with, and (g) provide information for coaches and support staff to use to inform
388 their own practice.

389 **Results**

390 The results are divided into two sections, more specifically the (a) successes and (b) the
391 challenges faced by deaf international futsal players when using a CBL approach. Data analysis
392 processes produced four main themes: 'a little journey: a connected approach to learning',
393 'ownership, collaboration and connection', 'communication barriers and fear of
394 misinterpretation', and 'players' initial 'buy-in' to the constructivist approach to learning'.
395 Each is now presented in turn.

396 *The successes faced by deaf international futsal players when using a CBL approach*

397 *'A little journey': A connected approach to learning*

398 Players referred to their CBL experience as a 'little journey'. This included opportunities to
399 learn pre, during and post-training camps. As explained by Natasha:

400 Natasha: It's like a little journey. **Pre-task** which occurs before the camp, where we have
401 a little insight into what focus and the content is going to be... **During the camp**, we then
402 attempt to apply the messages learnt before the camp and make suitable adjustments. And
403 also reflect on the activities and the games... Then **following the camp** we get another
404 opportunity to explore our performances in line with the aims and objectives of the camp
405 and the team goal... Those different bits of information given to us **over time** really helps
406 us. (Focus group 3, October 2018)

407 Such a structure included the use of HIVE for face-to-face group tasks as well as practical
408 application on court followed by debriefs and follow up tasks linked to the topic covered during
409 the training camp. This not only allowed for what players perceived to be a connected approach
410 to learning but ensured increased levels of engagement in CBL, as demonstrated in the extract
411 below:

412 Sarah: I was able to go away after the camp and watch the bits of footage of myself and
413 my teammates, I was able to discuss things with other players and then I was able to come
414 to the next camp feeling much much better and perform much better. (Focus group 3,
415 October 2018)

416 In this sense, players used the online learning environment as a platform to support further
417 discussions and consolidation of learning. They also developed their own ways of sharing
418 resources and inviting feedback between camps and even during the in-camp sessions:

419 Ellie: Using our emails we can send clips and watch each other matches and start picking
420 out each other's strengths and weaknesses and that's another opportunity to receive
421 feedback from other people and that's what we've been doing. (Focus group 3, October
422 2018)

423 As the study developed, players started to attribute the use of the CBL approach as a principal
424 factor towards increased success. In particular, the use of videos pre, during and post-camp to
425 provide a framework for discussions was a highly valued aspect. In the words of Ellie:

426 Ellie: The past two months we have been uploading video onto HIVE and I can see a
427 massive improvement in our performances. Not just myself but every single player in the
428 team (Focus group 3, October 2018)

429 John found the adopted approach to be effective as a platform to complement the messages that
430 were delivered in camp sessions and the friendly games and supplement previous methods he
431 had used to deliver objective evidence to players:

432 John: Since using HIVE over the last couple of months, I have found the ability to upload
433 various bits of content extremely valuable. We initially just started with small video clips
434 of best-practice aspects of other teams. However, as we went from camp to camp we were
435 able to input more specific content around the playing style that the coaches built around
436 the players skill level and potential level. Following a suggestion from a player, we began
437 uploading specific aspects of each individual's performance to reflect on and considered
438 the framing of some of the questions that we asked. I saw the platform as a really useful
439 resource for every player and every member of staff to see what we were wanting to work
440 towards and welcomed the feedback and suggestions as a sign of working towards our
441 overall goal (Reflective Journal. Entry: October 2018).

442 *Ownership, collaboration and connection*

443 As the major competition approached, players evidenced a greater sense of being part of a team,
444 which coincided with greater collaboration and connection in their learning journey. The CBL
445 approach was seen as a positive aspect of contributing to a positive culture. In particular, it
446 helped bring the players and staff together to build an effective supportive relationship for the
447 group to achieve their aims.

448 Sarah: I feel because of the videos 100% prepared for the match...I also feel much more
449 connected with the staff and really appreciate their time going through everything. For
450 example, when we are confused the coaches check that everything's going in I know. We
451 respect the staff and we know that they respect us back, important for me and developing
452 that culture. Overall, the team and the culture is really important.

453

454 Kayleigh: It's really important for us to see the staff getting on together well...when we
455 are sat together as a team, at meals or the team activities, for example, we feel all as one.
456 It is more relaxed and is brilliant, it's good for us to see that as players.

457 (Focus group 6, December 2018)

458 Here, the accessibility of content, as well as people, encouraged players to drive some of the
459 team activities. In the words of Ellie and Emilia:

460 Ellie: One of the players said we are putting this game on, come in my room if you want
461 to watch it. Everyone just came into her room and we just started to watch it.

462

463 Emilia: We didn't plan it or anything, I didn't expect the whole team to be in there but it
464 was great.

465

466 Ellie: It wasn't just about watching stuff we got together as a team. That is another good
467 thing about it. Even though we were watching it, we just chilled as a team and just had a
468 general chat as well. It was just a nice thing to do. (Focus group 5, December 2018)

469 Evidence of ownership was also shown in other encounters as shared in the reflective journal
470 entry below:

471 Luciana: During breakfast this morning, Sarah started sharing her learning experiences
472 with me. It was fantastic listening to her and finding out what was going on behind the
473 scenes. Sarah and Laura had spent the evening looking at the content on HIVE and creating
474 their own drawings whilst discussing their understanding regarding team tactics and
475 individual roles as players. Sarah seemed so confident in her own ability now, which was
476 great as she was the last player to join the team. She explained how she and Laura were
477 keen to improve their knowledge of the game and decided to get together to support each
478 other. Here, she mentioned that having the visual resources available on HIVE (i.e.,
479 pictures, text, discussions, diagrams, videos) provided a platform for learning where they
480 shared ideas and thoughts in terms of what they should do in different contexts (Reflective
481 Journal. Entry: December 2018).

482 The ability to access content in an environment that was suitable for the players needs not only
483 aided their learning and understanding of performance but also enabled the team to come
484 together, discuss aspects unrelated to futsal and broke up the long training and competition
485 days.

486 Laura: Sometimes when you're away for a long period of time people can become quite
487 down, so having those [social] activities helps us come together as a team and raises
488 morale. When we come together as a team we're all laughing and we all get on really well

489 and it's perfect so that we can then transfer that into the game because we're all in it
490 together. (Focus group 6, December 2018)

491 An exciting part of this learning journey is that it encouraged players to engage with previously
492 unknown ways of learning. For example, Sarah, who used to see herself as someone who would
493 absorb information from others, found a 'new' way of learning very beneficial:

494 Sarah: I didn't know that having that ability to share ideas is really important for me. (Focus
495 group 6, December 2018)

496 ***The challenges faced by deaf international futsal players when using a CBL approach***

497 *Communication barriers and fear of misinterpretation*

498 Despite many benefits in the players' views, the use of a CBL approach to learning was not
499 without its challenges. Here, the level of collaboration when away from camps was something
500 that players found hard; (Ellie: "When we are all at work and on all different schedules it's
501 hard"). In this sense, the live interaction proved to be a key contributor to players' perceptions
502 of confidence, team cohesion and positive culture. Similarly, communication, despite its
503 significant development, was still a barrier especially for those who relied on SL:

504 Naomi: I think because of using sign it's difficult to put everything in words. Because SL
505 is our first language it's hard to change it into written words.

506

507 Laura: I prefer to use SL and then get it out there but I don't know how to change that into
508 a common written format. (Focus group 6, December 2018)

509 When discussing similar aspects to Naomi and Laura, Bryony aided our understanding
510 regarding why at times players may have felt reluctant to post or why the posted messages were
511 sometimes difficult to understand.

512 Bryony: I'm sure you might have noticed through other people's messages that sometimes
513 ...grammatically it may be incorrect and a little bit of a mess but that's because SL and it
514 is slightly backwards to common spoken language. So when you put that down it looks a
515 little bit muddled up, so then when we put it into our language they almost need to then
516 translate it. That's why face to face interaction is much better for us to ensure that we
517 understand the message, save text messages and emails as well. (Focus group 5, December
518 2018)

519 In this sense, there was a fear of misinterpretation as alluded to by Emilia:

520 Emilia: It's like there are so many different ways to say the same thing and some people
521 can take that in a different way because of how they have interpreted it from written words
522 into SL. I didn't mean it that way I meant it like this, it gets a bit confusing sometimes and
523 then I'm left feeling like err...we don't want discussions to be misinterpreted (Focus group
524 4, November 2018)

525 Despite the progress made during camps and at the competition, the process of transferring
526 thoughts, perceptions and ideas down in written format by those who used SL as their first
527 language was still a challenge that needed to be addressed in terms of promoting learning away
528 from camps. This was a key aspect discussed in our encounters as we reflected during and post-
529 camp and evidenced in our reflective logs:

530 Luciana: Ellie asked to have a chat with me after breakfast today. She just wanted to let
531 me know that she is finding it hard to write her contributions on our online platform. Ellie

532 is one of the players in the squad who is able to communicate verbally and in sign language
533 but acknowledged that her writing skills are not as developed as she wished for. She
534 mentioned that she asked someone else to write her comments for her in previous
535 contributions, as she was not confident to do so. She is really committed to the programme
536 and I really appreciate her views to inform what we do next in our coaching practice. This
537 episode made me aware that a lack of contribution is not necessarily a lack of commitment
538 or understanding. It also showed how Ellie was going above and beyond on creating her
539 own ways to use the platform to benefit her own learning. Moving forward, we really need
540 to keep developing the platform with the help of players to ensure their needs are catered
541 for. Allowing players to upload different types of files needs to be reinforced as well as
542 the support available via our interpreter (Reflective Journal. Entry: November 2018)

543 Additionally, some of the players were returning to the squad without having previously met
544 the current players. In this environment, developing trust in their relationship was something
545 players saw as crucial for actively developing CBL within the group. In the words of Naomi:

546 Naomi: ...especially when we have new players coming into the squad and other players
547 returning. So it is still new and we're still getting or still going through that process of
548 developing trust. (Focus group 4, November 2018)

549 The importance of trust/relationship in developing the process was a crucial aspect that
550 informed further interventions. Here, there was an increased focus on social elements in
551 continuing to develop a positive high performing culture. Among those were the focus on
552 developing more effective communication skills that allowed SL and non-SL individuals
553 (players and staff) to spend more time together and get to know each other better. In the words
554 of Luciana:

555 Luciana: With the increasing focus on the social aspects of coaching and developing trust,
556 we agreed that informal encounters should be encouraged further within the team
557 (including players and staff). Mealtimes were seen as a perfect opportunity to get to know
558 each other better and engage with players' preferred language (e.g., SL; verbal). This
559 meant staff and players who were not fluent in SL sitting by those who were in order to
560 learn it. It was certainly a very enjoyable experience that brought a whole new dimension
561 to the team. It was a unique opportunity to further develop a 'caring' environment
562 (Reflective Journal, November 2018).

563 *Players' initial 'buy-in' to the constructivist approach to learning*

564 Players' 'buy-in' to the constructivist approach to learning did not take place instantly. More
565 specifically, despite recognising the potential benefits of a CBL approach to learning, at the
566 initial stages of the project, players argued that it was "too early to say" (Kayleigh) how
567 successful the approach would be in supporting their learning, due to only being introduced the
568 previous month. Alongside the potential benefits, players recognised that it would require time
569 for them to get used to and actively engage in the discussions and activities using the online
570 platform. For example, despite being informed about the CBL approach, some of the players
571 initially saw the platform as a repository of information. In the words of Steph:

572 Steph: I thought it was going to be where you can show our tactics, our defending style,
573 our attacking style and our set pieces, just things that we can look over all of the time to
574 help us learn and understand the game better. (Focus group 2, July 2018)

575 At this initial stage, there was clear evidence to suggest players' engagement with the platform
576 was often disjointed in the sense that they would represent 'one-off' contributions that would
577 stand on their own rather than contributing to a 'team' discussion. In the words of one:

578 Bryony: I think at the moment there is not any actual discussion. I put my hand up, I wrote
579 the comment and then left it thinking job done!" (Focus group 1, July 2018)

580 Such lack of collaboration was often caused by a focus on content knowledge rather than on
581 the discussion of different perspectives. In this sense, players seemed to think that once what
582 they perceived to be the right answer was mentioned, they would have been left with nothing
583 to contribute:

584 Kayleigh: The other players had already made the points that I wanted to make. (Focus
585 group 1, July 2018)

586 Another barrier faced by players was their 'fear' of being wrong. Here, there was a concern
587 about what others would think of them:

588 Kayleigh: It is more to do with commenting and not wanting to be wrong... I believe that
589 some players lack confidence in writing or commenting on a video.

590

591 Rosie: I would say that as well. I would see that as being an issue.

592 (Focus group 1, July 2018)

593 These initial findings guided further interventions intending to encourage collaboration
594 amongst the players, with players volunteering to aid each other's learning journeys. Among
595 those was the greater attention given to providing a more cohesive experience with clear links
596 between pre, during and post-camp tasks. Additionally, there was an ongoing development of
597 content according to participants' needs and the explicit statement that there was more than
598 one 'right' answer. Different ways to pose questions were introduced to allow for a more
599 flexible and broader approach to the tasks, one that did not focus solely on the content, as
600 reflected by John:

601 John: The structured questions that I thought would help the players facilitate their own
602 questioning and learning actually acted as a barrier. The players felt restricted discussing
603 and commenting on their own thoughts due to the perceived rigidness of the questions.
604 The players were also struggling at times to understand the relevance to the content that
605 was being uploaded. In an attempt to signpost the players to the specific content and
606 whether it was for preparing the player for an upcoming session or reviewing a previous
607 session, we decided to add keywords in the title and provided further detail in the descriptor
608 box to add clarity. These appeared to help following the uploading of the content of the
609 previous camp, as engagement in the number of views and comments left increased.
610 (Reflective Journal Entry: July 2018)

611 Further thoughts are provided by the Joint Head Coach to show the complexity of working with
612 a group who requires different levels of support:

613 Luciana: For those who are not familiar with coaching deaf players, there may be an
614 assumption that they are a group of players with similar needs and backgrounds. This is
615 very far from our experience. Indeed, John and I have been discussing individual players
616 during each camp and the support we need to provide them with, in order to overcome
617 some of the challenges that they face when communicating both during training camps and
618 online. As with any other groups, identifying each player's needs and involving them in
619 coming up with suggestions to best cater for their needs is something that we found very
620 useful in our practice. For example, when on court, some players found it hard and felt
621 completely lost after taking their hearing aids off during the session (which is a requirement
622 during official competitions). For others (those who were profoundly deaf), this was
623 something that they were used to and, therefore, did not have any issues with. In
624 discussions with players, we decided to take a gradual approach in training sessions and
625 allow players to wear their hearing aids, especially when focusing on tactical team

626 concepts. As for our online approach and after discussions with the team's interpreter, it
627 was made clear that players could contact him as a way to enter either a written log or
628 video contribution to the online platform. It was important that we had both formats
629 whenever possible to cater for the SL and non-SL players (Reflective Log. Entry: July
630 2018).

631 **Discussion**

632 Our findings showed players to be increasingly more engaged in a CBL approach during the
633 seven months of the study, resulting in learning as participation and, in some cases,
634 transformation (Taylor, 2017). As our findings showed, among the key contributors to the
635 changes were, firstly, the flexible approach adopted in the study, with the players and us co-
636 constructing the learning environment. Secondly, there was a clear focus on providing a
637 'connected' learning experience. Thirdly, there was a focus on building trust amongst the
638 group, an aspect identified as key for a successful learning experience. Therefore, valuable
639 insights into the challenges and successes faced by using a CBL approach to promote an active,
640 social and collaborative approach to learning for deaf international futsal players were gained.
641 Below, we discuss our findings whilst exploring how they could be utilised to underpin and
642 guide coaches' pedagogical practices.

643 ***Coaching lesson 1 - Flexibility is key when creating a learning environment***

644 Of crucial importance in creating a flexible learning environment was the clear focus on
645 noticing the nuances of the environment and engaging in conversations with players and other
646 members of staff to guide future interventions (Jones, Bailey, & Thompson, 2013). This was
647 key in trying to understand what motivated and facilitated players' engagement in the CBL
648 process (Diep et al., 2019). For example, we truly believed that we were posing questions that

649 created ‘opportunities for discussion, debate, dialogue and reflection’ among players as
650 suggested by Harvey, Cope & Jones (2016, p.34). In this sense, we were trying to avoid “lower-
651 order or ‘fact seeking’ enquiries” (Cope, Partington, Cushion, & Harvey, 2016, p. 380).
652 However, after significant reflection and learning in and on-action (Thorpe et al., 2016), we
653 recognised that players’ perceptions did not match our expectations which made us revisit our
654 learning platform and focus on asking fewer questions in a more exploratory fashion. In this
655 sense, it was an opportunity for us to also develop our own questioning practice, something
656 that we felt we were experts at until we recognised that no question is good enough until tested
657 with players and their contexts. We also started to consider the need to elaborate further on
658 what we meant by CBL instead of assuming that players would have an appropriate and
659 consistent understanding of the term. Here, we borrowed the definition provided by Laal &
660 Ghodsi (2012), that is, “an educational approach to teaching and learning that involves groups
661 of learners working together to solve a problem, complete a task, or create a product” (p. 486).
662 In this sense, we made it clear to players that our focus was on “working together cooperatively
663 to accomplish shared learning goals” (Laal & Ghodsi, 2012, p.486) being those on or off-court,
664 pre, during or post-training camps.

665 Noticing also allowed us to identify how ‘real-life’ challenges could interfere with the project
666 and, consequently player engagement in their learning, especially when away from training
667 camps. Although the players appreciated our research goal, they stated clearly that their
668 participation in the project emerged from their desire to become the best players that they could
669 become in the time that was available to them. The players sought to take advantage and
670 attempted to implement a variety of strategies and activities within their CBL contributions.
671 However, they were constrained by the part-time nature of the programme, balancing
672 educational, work and other day-to-day commitments. This was, therefore, a key aspect that
673 guided how much we required players to do away from training camps. The focus was on the

674 quality of their engagement rather than quantity. Cosh & Tully (2015) supported this notion,
675 highlighting that when working with part-time athletes who are balancing several commitments
676 it is imperative to develop a supportive environment that focuses on engagement. Of crucial
677 importance here, were the individual coaching meetings that were arranged with players which
678 allowed us to understand individual contexts and discuss the most appropriate ways to support
679 players to achieve at least the minimum expectations set for the squad (e.g., fitness training
680 away from camp). Through the support offered, coaching staff were then able to contribute to
681 satisfaction and adaptive forms of motivation that led to the positive athlete and team outcomes
682 (Occhino, Mallett, Rynne, & Carlisle, 2014).

683 The flexibility in our approach to the study was also apparent in the way we coached and
684 analysed performance both on-court and in the classroom. We wanted players to try different
685 approaches and express themselves without fear of being wrong. It is important to highlight,
686 however, that we are not claiming that content knowledge and ‘social agreements’ regarding
687 key components of play is not needed. Within futsal, the actions players perform are not only
688 influenced by the cooperation of teammates but the organisation of opponents, highlighting the
689 need for players to learn and understand the complex, dynamic, and sometimes less predictable
690 challenges surrounding space and time, information and organisation (Travassos, Araújo,
691 Vilar, & McGarry, 2011). In this sense, we worked with Sfard’s (1998) metaphors of
692 acquisition and participation simultaneously, focusing on key concepts (instead of rigid
693 structures) that required players to engage in constant decision making on the court and in
694 discussions around the reasons behind their decisions/choices off the court. It very much
695 emphasised and supported the plan we mutually agreed and adopted (Bampouras et al., 2012),
696 moving away from the traditional linear approach of coaching towards a non-linear style
697 (Vinson & Parker, 2019). Through this approach, the players were able to explore new ways
698 of solving problems during the preparation stages and apply in-game tactical decisions based

699 on situations they faced in the competition regarding player injury/substitutions, quality of
700 opposition and current match (Jayal, McRobert, Oatley, & O'Donoghue, 2018).

701

702 ***Coaching lesson 2 - Connecting the dots and challenging players in a supportive***
703 ***environment is key for learning***

704 As a result of assessing our environment via player and staff feedback, we continued to move
705 forward in our build-up to the major competition and connect the dots pre, during and post-
706 training camps learning experiences (referred to by players as a 'little journey'). In our project,
707 CBL was seen by players as meaningful practice, aligning with previous findings by
708 Hardcastle, Tye, Glassey and Hagger (2015). In particular, it allowed for the development of
709 background knowledge (Sfard, 1998) pre-training camp and, as a result, players felt they were
710 more prepared to engage in meaningful discussions during and post-camp. In this context,
711 groups were carefully arranged during tasks, often allowing new members of the squad to learn
712 with 'more capable others' (Vygotsky, 1987). This approach encouraged players to draw on
713 each other's resources and previous knowledge (Shaked, Schechter, & Michalsky, 2018) whilst
714 focusing on the quality of social interaction during collaboration, an aspect that is key for
715 effective collaborative learning (Sangin, Molinari, Nüssli, & Dillenbourg, 2011). Underpinned
716 by Vygotsky's (1987) concept of Zone of Proximal Development, scaffolding, mediation and
717 Perezhivanie, staff aimed to set players with challenging tasks in a supportive environment.
718 Here, players were required to draw on their lived experiences and sharing these with other
719 players and staff in 'problem-solving' activities to find or suggest solutions. In this sense, we
720 aimed to create an environment where collaborative work was needed to complete the tasks,
721 especially when in training camps. We focused on the two conditions highlighted by Wass and
722 Golding (2014) as key for scaffolding practice: "(1) students are assisted to do something they

723 could not do on their own; and (2) this assistance enables them eventually to learn to complete
724 the task independently” (p. 677). Here, players and staff members acted as ‘more capable
725 others’, a term used by Vygotsky to define those who have more knowledge or expertise in a
726 particular topic area (Potrac, Nelson, & Groom, 2016). In addition, the situations and tasks
727 presented were meant to resemble a difficult or critical situation, allowing for conscious
728 development of the players and transformation through a process of internalization and
729 reflecting on previous experiences (Jones et al., 2018). This scaffolding process and application
730 of *Perezhivanie* involved listening carefully to the conversations (sometimes via the interpreter)
731 to decide when/if further support was needed.

732 As argued by Potrac et al. (2016), “the zone of proximal development is not a clearly
733 demarcated space” (p. 105). In this sense, we acknowledge that our efforts to negotiate
734 understandings with the players via group and individual encounters, as well as noticing the
735 nature of the interactions and relationships within the group, certainly allowed us to try our
736 best in identifying the level at which they should be challenged. Another contributing factor
737 here was the relationship developed among staff members whose input was key in guiding
738 practice. We faced challenges especially at the start of the project in trying to implement what
739 for some players was a previously inaccessible way of learning and thinking (Meyer & Land,
740 2005). This was especially the case for those who had experienced being coached more
741 traditionally during previous playing years and at different teams, creating a greater reliance
742 on the coach as the one they should acquire the knowledge from. As a response, we continued
743 with our approach after reflecting on players’ wants and needs. This in-action and on action
744 approach (Thorpe et al., 2016) led us to a clear focus on supporting the players through
745 challenging situations rather than restructuring tasks in a way that those problems would be
746 removed (Wass & Golding, 2014). In this sense, we accepted that a temporary level of

747 uncertainty regarding a certain task was indeed beneficial to learning (De Martin-Silva,
748 Fonseca, Jones, Morgan & Mesquita, 2015).

749 Results from the current project revealed the CBL approach worked as a catalyst for developing
750 what Entwistle (2000) defined as a deep approach to learning (i.e., a commitment to
751 understanding the content being introduced). For example, the players argued that pre-camp
752 tasks and the discussions they had with other players allowed them to ‘make sense’ of their
753 understandings, especially when they were confronted with previously inaccessible ways of
754 thinking (Meyer & Land, 2005). This deep approach to learning, therefore, although initially
755 mediated by staff members eventually resulted in players seeking to learn from each other,
756 having the initiative to ask questions and develop their understanding supported by others. In
757 doing so, we are not claiming that players became ‘independent learners’, a term often misused
758 in the teaching literature. Instead, players still operated within an environment where the
759 learning framework existed but became more creative and less dependent on staff members
760 when co-creating and using those resources. Examples were apparent especially towards the
761 second half of the project. These included players inviting the team to watch a game together
762 and share their views; players who decided to meet and discuss their knowledge of the game
763 whilst asking questions to each other to support their understanding; players who swapped their
764 individual videos and provided feedback to each other; players who missed a training camp
765 and met up with another player at their own time to review key concepts on HIVE. In all
766 examples above, staff were not aware of players’ initiative until after it happened. In this sense,
767 there was no input in planning or conducting the activities described. A significant input,
768 however, was the learning platform that was provided in accordance with players’ needs. This
769 focus on the relevance of learning activities was, to a certain extent, a catalyst for increased
770 engagement in their learning journey (Karpov, 2014).

771

772 *Coaching lesson 3 – Focus on developing social and communication skills can have a*
773 *positive impact on engagement and learning*

774 Our study also served to show that a focus on so-called ‘social skills’ was key in developing
775 an effective learning environment. Indeed, there was a clear effort ‘behind the scenes’ to
776 ‘orchestrate’ such an environment. Orchestration, here as argued by Jones et al., (2013, p.280)
777 “should not be seen as underhand, Machiavellian scheming, but the acting out of considered
778 strategies designed to make social interactions and related contexts work.” It also provided a
779 space for discussions and alternative actions based on trying to manage a complex learning
780 environment. In our experience, the focus of orchestration was developed mainly from players’
781 feedback via the focus groups, informal interactions and the act of ‘noticing’. For example,
782 findings from the focus groups pointed out for the need to focus on building a social foundation
783 where players were able to trust each other and collaborate. This is in line with Baturay and
784 Toker (2019), who claim “trust can motivate individuals to complete a task as a group while a
785 lack of trust can have the opposite effect” (p. 154). To consolidate a CBL environment, we
786 often found ourselves as ‘social’ managers (Jones et al., 2013, p.280) in trying to explore inter-
787 relational complexities and how to support individuals to build trust. To do so, we looked
788 ‘beyond the immediate’, trying to focus on the nourishing earth beneath the blooming flowers
789 “which has a secret and richness of its own” (Lefebvre, 1991, p.87).

790 During the initial stages of the project, the SL and non-SL individuals congregated in different
791 groups, forming a clear divide in the group. Kurková et al. (2011) inferred that this divide was
792 not uncommon within the deaf community, but connecting these two groups together could
793 play an important role in integrating deaf athletes into mainstream society. Among our
794 interventions were the focus on developing more effective communication skills that allowed
795 SL and non-SL individuals (players and staff) to spend more time together and get to know

796 each other better. The intention was that those informal interventions were not forced but very
797 flexible. Based on feedback from players, we noticed a clear preference for face-to-face contact
798 to avoid misunderstandings and allow for players with a variety of communication levels (e.g.,
799 fluent SL, non-SL, verbal) to make sense of the messages being communicated. This was in
800 contrast to research completed by Bishop, Taylor & Froy (2000) who found only 17% of the
801 deaf participants favoured face-to-face communication over computer-mediated
802 communication. The reasons for the low percentage preference may be due to the quality of
803 the relationship developed between the researchers and the participants. In our case, due to the
804 closeness, commitment and cooperation of staff to listen and make changes (Jowett, 2007,
805 2017), our relationships and understanding of the players and deaf culture increased overtime.
806 Some of our interventions, for example, simply involved providing players with a two-hour
807 'social activity' slot instead of what used to be another team meeting in the evening. Players
808 dictated what they would like to do in that slot, as long as it was within the team's professional
809 standards, strengthening the feelings of trust and respect amongst the group. Another example
810 was to change our habitual practices of having staff members and players sitting at separate
811 tables during meal times. Instead, we started to take advantage of informal interactions to
812 communicate with players and get to know each other better. For some, this was the first
813 attempt to communicate with a player who relied on SL without the help of an interpreter.
814 Players' perceptions showed how those initiatives were key in contributing to building trust
815 amongst themselves and with staff members. In their words, this originated from a feeling that
816 the staff cared and were catering for their needs, important aspects highlighted by Rhind and
817 Jowett (2010) for building and maintaining relationships. As a result, there was a sense of more
818 fluid power relationships with players choosing to invite staff members to some of their social
819 time to engage with activities that they had created.

820 Of crucial importance in this study was not only the learning experienced by players but the
821 relationship developed among staff members, who, likewise advanced their practice and trust
822 as the study progressed. Here, among the contributing factors were the opportunities created to
823 discuss our practices in a non-judgemental environment. Ensuring that each staff member had
824 a key contributing role in the journey to the competition was crucial in making us feel like a
825 team (Sinotte, Bloom, & Caron, 2015). Through the development of the staff-joint-head coach
826 relationship, the importance of developing an open relationship underpinned by honesty and
827 being able to provide an opinion was encouraged, allowing for individuals to have autonomy
828 in their role and bring new ideas to the table to successfully support the coaches practices and
829 teams goal. More importantly, as some staff members were doing most of their work behind
830 the scenes, there was a clear effort by the Joint Head Coaches to acknowledge their contribution
831 in the process. This is in line with the work of Cruickshank & Collins (2013, p.9) who remind
832 us of the importance of engaging with support staffing “reflecting the numerous and wide-
833 ranging disciplines which now aid performance delivery”.

834 **Conclusion**

835 Our intention in this paper was, firstly, to explore the challenges and successes faced by deaf
836 international futsal players when using a collaborative blended learning approach in
837 preparation for a major competition and, secondly, to provide a discussion of key coaching
838 lessons learned. Our findings showed the successes to be the development of a connected
839 approach to learning, which was referred to by players as ‘a little journey’ and the ‘ownership,
840 collaboration and connection’ that were involved in the CBL approach. The challenges faced
841 evolved around ‘communication barriers and fear of misinterpretation’ and ‘players’ initial
842 ‘buy-in’ to the constructivist approach to learning’. As the findings have highlighted,
843 facilitating player learning is not a straightforward activity, however, over time the use of CBL

844 aided not only in performance improvements through increased tactical decision making but
845 also the personal growth of players and staff.

846 The feedback provided by players and the staff team as well as our constant reflections in-
847 action and on-action were crucial in guiding the development of our CBL environment. As
848 such, coaches must seek to constantly reflect on their practices to ensure a flexible approach to
849 learning, providing an environment that is meaningful and accessible to players. As we grapple
850 with the complexities of coaching practice, it is also key that we position it as a social activity
851 and, therefore, place social skills at the forefront of our practices. Here, recognising learners as
852 active participants and learning as a process of ‘being in the world’ is an important step if
853 coaching is to move beyond prescriptive practices.

854 Finally, we hope that the experiences shared in this project inspire coaches to consider how to
855 best develop their ‘little journeys’, something that will undoubtedly have its challenges and
856 uncertainties. Not to engage with coaching as a contextualised and ever-changing environment,
857 by holding a view that it can be unproblematically planned in spite of participants’ needs, does
858 coaches a continuing disservice.

859 **References**

- 860 Bampouras, T. M., Cronin, C., & Miller, P. K. (2012). Performance analytic processes in elite
861 sport practice: an exploratory investigation of the perspectives of a sport scientist, coach
862 and athlete. *International Journal of Performance Analysis in Sport*, *12*(2), 468–483.
863 <https://doi.org/10.1080/24748668.2012.11868611>
- 864 Bateman, M., & Jones, G. (2019). Strategies for maintaining the coach–analyst relationship
865 within professional football utilizing the COMPASS model: The performance analyst’s
866 perspective. *Frontiers in Psychology*, *10*(Article 2064), 1–12.
867 <https://doi.org/10.3389/fpsyg.2019.02064>

- 868 Baturay, M. H., & Toker, S. (2019). The comparison of trust in virtual and face-to-face
869 collaborative learning teams. *Turkish Online Journal of Distance Education*, 3, 153–164.
870 <https://doi.org/10.17718/tojde.601929>
- 871 Bishop, J. M., Taylor, L., & Froy, F. (2000). Computer-mediated communication use by the
872 deaf and hard-of-hearing. *Kybernetes*, 29(9–10), 1078–1086.
873 <https://doi.org/10.1108/03684920010342143>
- 874 Bryman, A. (2016). *Social research methods* (5th ed.). Oxford: Oxford University Press.
- 875 Cahill, H. (2015). Using the drama workshop as a site for conducting participatory action
876 research. *Drama Australia Journal*, 30(2), 61–72.
877 <https://doi.org/10.1080/14452294.2006.11649500>
- 878 Cammarota, J., & Fine, M. (2007). Youth participatory action research: A pedagogy for
879 transformational resistance. In J. Cammarota & M. Fine (Eds.), *Revolutionizing*
880 *education: Youth participatory action research in motion* (pp. 1–22). Abingdon:
881 Routledge.
- 882 Cassidy, T., Jones, R., & Potrac, P. (2016). *Understanding sports coaching: the pedagogical,*
883 *social and cultural foundations of coaching practice* (3rd ed.). London: Routledge.
884 <https://doi.org/10.4324/9780203797952>
- 885 Charmaz, K. (2006). *Constructing grounded theory. A practical guide through qualitative*
886 *analysis*. Thousand Oaks, CA: SAGE Publications.
887 <https://doi.org/10.3402/qhw.v1i3.4932>
- 888 Cope, E., & Partington, J. (2019). *Sports coaching: a theoretical and practical guide*. London:
889 Routledge.
- 890 Cope, E., Partington, M., Cushion, C. J., & Harvey, S. (2016). An investigation of professional

891 top-level youth football coaches' questioning practice. *Qualitative Research in Sport,*
892 *Exercise and Health, 8(4), 380–393.*

893 Cosh, S., & Tully, P. J. (2015). Stressors, coping, and support mechanisms for student athletes
894 combining elite sport and tertiary education: Implications for practice. *Sport Psychologist,*
895 *29(2), 120–133.* <https://doi.org/10.1123/tsp.2014-0102>

896 Cruickshank, A., & Collins, D. (2013). Culture change in elite sport performance teams :
897 Outlining an important and unique construct. *Sport & Exercise Psychology Review, 9(2),*
898 *6–21.*

899 De Martin-Silva, L., Fonseca, J., Jones, R. L., Morgan, K., & Mesquita, I. (2015).
900 Understanding undergraduate sports coaching students' development and learning: the
901 necessity of uncertainty. *Teaching in Higher Education, 20(7), 669–683.*
902 <https://doi.org/10.1080/13562517.2015.1072153>

903 Diep, A. N., Zhu, C., Cocquyt, C., De Greef, M., Vo, M. H., & Vanwing, T. (2019). Adult
904 learners' needs in online and blended learning. *Australian Journal of Adult Learning,*
905 *59(2), 223–253.*

906 Doolan, M. A., & Hilliard, A. (2006). Collaborative Learning: using technology for fostering
907 those valued practices inherent in constructive environments in traditional education.
908 *Journal for the Enhancement of Learning and Teaching, 3(2), 7–17.*

909 Eaves, S. (2015). A history of sports notational analysis: a journey into the nineteenth century.
910 *International Journal of Performance Analysis in Sport, 15(3), 1160–1176.*
911 <https://doi.org/10.1080/24748668.2015.11868859>

912 Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative
913 content analysis: a focus on trustworthiness. *SAGE Open, 4(1), 215824401452263.*

- 914 <https://doi.org/10.1177/2158244014522633>
- 915 Entwistle, N. (2000). Promoting deep learning through teaching and assessment: conceptual
916 frameworks and educational contexts. Paper presented at the Teaching and Learning
917 Research Programme.,Leicester.1-12. Frameworks and educational contexts. Paper
918 presented at TLRP Conference, Leicester, November.
- 919 Fernandez-Echeverria, C., Mesquita, I., Conejero, M., & Moreno, M. P. (2019). Perceptions of
920 elite volleyball players on the importance of match analysis during the training process.
921 *International Journal of Performance Analysis in Sport*, 19(1), 49–64.
922 <https://doi.org/10.1080/24748668.2018.1559544>
- 923 Francis, J., & Jones, G. (2014). Elite rugby union players perceptions towards performance
924 analysis. *International Journal of Performance Analysis in Sport*, 14(1), 188–207.
925 <https://doi.org/10.1080/24748668.2014.11868714>
- 926 Geers, A. E., Mitchell, C. M., Warner-Czyz, A., Wang, N. Y., & Eisenberg, L. S. (2017). Early
927 sign language exposure and cochlear implantation benefits. *Pediatrics*, 140(1), 1–9.
928 <https://doi.org/10.1542/peds.2016-3489>
- 929 Groom, R., Cushion, C., & Nelson, L. (2011). The delivery of video-based performance
930 analysis by England youth soccer coaches: towards a grounded theory. *Journal of Applied*
931 *Sport Psychology*, 23(1), 16–32. <https://doi.org/10.1080/10413200.2010.511422>
- 932 Groom, R., & Nelson, L. (2013). The application of video-based performance analysis in the
933 coaching process: the coach supporting athlete learning. In P. Potrac, W. Gilbert, & J.
934 Denison (Eds.), *Routledge handbook of sport coaching* (pp. 96–107). London: Routledge.
935 <https://doi.org/10.4324/9780203132623.ch8>
- 936 Hardcastle, S. J., Tye, M., Glassey, R., & Hagger, M. S. (2015). Exploring the perceived

937 effectiveness of a life skills development program for high-performance athletes.
938 *Psychology of Sport and Exercise*, 16(3), 139–149.
939 <https://doi.org/10.1016/j.psychsport.2014.10.005>

940 Harvey, S., Cope, E., & Jones, R. (2016). Developing questioning in game-centered
941 approaches. *Journal of Physical Education, Recreation & Dance*, 87(3), 28–35.
942 <https://doi.org/10.1080/07303084.2015.1131212>

943 Hendricks, S., van Niekerk, T., Sin, D. W., Lambert, M., den Hollander, S., Brown, J., ... Jones,
944 B. (2018). Technical determinants of tackle and ruck performance in International rugby
945 union. *Journal of Sports Sciences*, 36(5).
946 <https://doi.org/10.1080/02640414.2017.1322216>

947 Hive Learning Limited. (2018). Hive Learning: The collaborative learning platform for leaders,
948 teams and organisations. London. Retrieved from <https://www.hivelearning.com/site/>

949 Jayal, A., McRobert, A., Oatley, G., & O'Donoghue, P. (2018). Sports analytics applications
950 in soccer. In *Sports analytics: analysis, visualisation and decision making in sports*
951 *performance* (pp. 220–244). Abingdon: Routledge.
952 <https://doi.org/10.4324/9781315222783-12>

953 Jones, R., Bailey, J., & Thompson, A. (2013). Ambiguity, noticing, and orchestration: Further
954 thoughts on managing the complex coaching context. In P. Potrac, W. Gilbert, & J.
955 Denison (Eds.), *Routledge Handbook of Sports Coaching* (pp. 271–283). London:
956 Routledge. <https://doi.org/10.4324/9780203132623>

957 Jones, R., Thomas, G. L., Nunes, R. L., & Filho, I. A. T. V. (2018). The importance of history,
958 language, change and challenge: What Vygotsky can teach sports coaches. *Motriz: Revista*
959 *de Educação Física*, 24(2), 1–8. <https://doi.org/10.1590/S1980-6574201800020008>

- 960 Jowett, S. (2007). Interdependence analysis and the 3+1Cs in the coach–athlete relationship.
961 In S. Jowett & D. Lavalley (Eds.), *Social psychology in sport* (pp. 15–27). Champaign,
962 IL: Human Kinetics.
- 963 Jowett, S. (2017). Coaching effectiveness: the coach–athlete relationship at its heart. *Current*
964 *Opinion in Psychology*, *16*, 154–158. <https://doi.org/10.1016/j.copsyc.2017.05.006>
- 965 Karpov, Y. V. (2014). *Vygotsky for educators. Vygotsky for Educators*. Cambridge: Cambridge
966 University Press. <https://doi.org/10.1017/CBO9781107588318>
- 967 Kemmis, S., McTaggart, R., & Nixon, R. (2014). *The action research planner: Doing critical*
968 *participatory action research. The Action Research Planner: Doing Critical Participatory*
969 *Action Research*. New York, NY: Springer Publishing Co. [https://doi.org/10.1007/978-](https://doi.org/10.1007/978-981-4560-67-2)
970 [981-4560-67-2](https://doi.org/10.1007/978-981-4560-67-2)
- 971 Kurková, P. (2005). Sport as a means to the inclusion of people with hearing disability into an
972 integrated environment/society. In *4th International Scientific Conference on*
973 *Kinesiology: Science and Profession—A Challenge for the Future* (pp. 7–11). Opatija.
- 974 Kurková, P., Válková, H., & Scheetz, N. (2011). Factors impacting participation of European
975 elite deaf athletes in sport. *Journal of Sports Sciences*, *29*(6), 607–618.
- 976 Laal, M., & Ghodsi, S. M. (2012). Benefits of collaborative learning. *Procedia - Social and*
977 *Behavioral Sciences*, *31*, 486–490. <https://doi.org/10.1016/j.sbspro.2011.12.091>
- 978 Laird, P., & Waters, L. (2008). Eyewitness recollection of sport coaches. *International Journal*
979 *of Performance Analysis in Sport*, *8*(1), 76–84.
980 <https://doi.org/10.1080/24748668.2008.11868424>
- 981 Lefebvre, H. (1991). *The production of space*. Oxford: Blackwell.
- 982 Lennie, J. (2006). Increasing the rigour and trustworthiness of participatory evaluations:

- 983 learnings from the field. *Evaluation Journal of Australasia*, 6(1), 27–35.
984 <https://doi.org/10.1177/1035719X0600600105>
- 985 Light, R., & Harvey, S. (2017). Positive pedagogy for sport coaching. *Sport, Education and*
986 *Society*, 22(2), 271–287. <https://doi.org/10.1080/13573322.2015.1015977>
- 987 MacDonald, C. (2012). Understanding participatory action research: a qualitative research
988 methodology option. *The Canadian Journal of Action Research*, 13(2), 34–50.
- 989 Mapepa, P., & Magano, M. D. (2018). Support to address barriers to learning for learners who
990 are deaf. *African Journal of Disability*, 7(Article 381), 1–8.
991 <https://doi.org/10.4102/ajod.v7i0.381>
- 992 Marschark, M., & Knoors, H. (2012). Educating deaf children: Language, cognition, and
993 learning. *Deafness and Education International*, 14(3), 136–160.
994 <https://doi.org/10.1179/1557069X12Y.0000000010>
- 995 McTaggart, R., Nixon, R., & Kemmis, S. (2017). Critical participatory action research. In L.
996 L. Rowell, C. D. Bruce, J. M. Shosh, & M. M. Riel (Eds.), *The Palgrave International*
997 *Handbook of Action Research* (pp. 21–35). New York, NY: Palgrave Macmillan US.
998 https://doi.org/10.1057/978-1-137-40523-4_2
- 999 Meyer, J. H. F. F., & Land, R. (2005). Threshold concepts and troublesome knowledge (2):
1000 epistemological considerations and a conceptual framework for teaching and learning.
1001 *Higher Education*, 49(3), 373–388. <https://doi.org/10.1007/s10734-004-6779-5>
- 1002 Michell, M. R. (2016). Finding the “prism”: Understanding Vygotsky’s perezhivanie as an
1003 ontogenetic unit of child consciousness. *International Research in Early Childhood*
1004 *Education*, 7(1), 5–33. <https://doi.org/10.4225/03/580ff5fe07f08>
- 1005 Monteiro, E., & Morrison, K. (2014). Challenges for collaborative blended learning in

1006 undergraduate students. *Educational Research and Evaluation*, 20(7–8), 564–591.
1007 <https://doi.org/10.1080/13803611.2014.997126>

1008 Morcom, V. (2017). Developing a collaborative classroom: A cultural historical perspective.
1009 In *The International Society for Cultural-historical and Activity Research (ISCAR) 2017*.
1010 Quebec City, Canada.

1011 Nelson, L., Groom, R., & Potrac, P. (2016). Introduction. In L. Nelson, R. Groom, & P. Potrac
1012 (Eds.), *Learning in sports coaching: Theory and application* (pp. 1–5). London:
1013 Routledge.

1014 Nelson, L., Potrac, P., & Groom, R. (2014). Receiving video-based feedback in elite ice-
1015 hockey: a player’s perspective. *Sport, Education and Society*, 19(1), 19–40.
1016 <https://doi.org/10.1080/13573322.2011.613925>

1017 O’Donoghue, P., & Mayes, A. (2013). Performance analysis, feedback and communication in
1018 coaching. In T. McGarry, P. O’Donoghue, & J. Sampaio (Eds.), *Routledge handbook of*
1019 *sports performance analysis* (pp. 155–164). Abingdon: Routledge.
1020 <https://doi.org/10.4324/9780203806913.ch13>

1021 Obasi, C. (2008). Seeing the deaf in “Deafness.” *Journal of Deaf Studies and Deaf Education*,
1022 13(4), 455–465. <https://doi.org/10.1093/deafed/enn008>

1023 Occhino, J., Mallett, C., Rynne, S., & Carlisle, K. (2014). Autonomy-supportive pedagogical
1024 approach to sports coaching: Research, challenges and opportunities. *International*
1025 *Journal of Sports Science and Coaching*, 9(2), 401–415.

1026 Phillippi, J., & Lauderdale, J. (2018). A guide to field notes for qualitative research: context
1027 and conversation. *Qualitative Health Research*, 28(3), 381–388.
1028 <https://doi.org/10.1177/1049732317697102>

- 1029 Potrac, P., Nelson, L., & Groom, R. (2016). Lev Vygotsky: Learning through social interaction
1030 in coaching. In L. Nelson, R. Groom, & P. Potrac (Eds.), *Learning in Sports Coaching:
1031 Theory and Application* (pp. 101–112). London: Routledge.
1032 <https://doi.org/10.4324/9781315746012>
- 1033 Reeves, M., & Roberts, S. (2013). Perceptions of performance analysis in elite youth football.
1034 *International Journal of Performance Analysis in Sport*, 13(1), 200–211.
1035 <https://doi.org/10.1080/24748668.2013.11868642>
- 1036 Rhind, D., & Jowett, S. (2010). Relationship maintenance strategies in the coach-athlete
1037 relationship: the development of the COMPASS model. *Journal of Applied Sport
1038 Psychology*, 22(1), 106–121. <https://doi.org/10.1080/10413200903474472>
- 1039 Roberts, S., & Potrac, P. (2014). Behaviourism, constructivism and sports coaching pedagogy:
1040 A conversational narrative in the facilitation of player learning. *International Sport
1041 Coaching Journal*, 1, 180–187.
- 1042 Sangin, M., Molinari, G., Nüssli, M. A., & Dillenbourg, P. (2011). Facilitating peer knowledge
1043 modeling: Effects of a knowledge awareness tool on collaborative learning outcomes and
1044 processes. *Computers in Human Behavior*, 27(3), 1059–1067.
1045 <https://doi.org/10.1016/j.chb.2010.05.032>
- 1046 Scheetz, N. (2004). *Psychosocial aspect of deafness*. Boston, MA: Pearson Education.
- 1047 Sfard, A. (1998). On two metaphors for learning and the dangers of choosing just one.
1048 *Educational Researcher*, 27(2), 4–13. <https://doi.org/10.2307/1176193>
- 1049 Shaked, H., Schechter, C., & Michalsky, T. (2018). Collaborative learning from personal cases
1050 in a principal preparation programme. *International Journal of Leadership in Education*,
1051 21(4), 479–490. <https://doi.org/10.1080/13603124.2016.1151942>

- 1052 Sinotte, C.-A., Bloom, G., & Caron, J. (2015). Roles, responsibilities and relationships of full-
1053 time university assistant coaches. *Sports Coaching Review*, 4(2), 99–114.
1054 <https://doi.org/10.1080/21640629.2016.1158542>
- 1055 Sparkes, A., & Smith, B. (2009). Judging the quality of qualitative inquiry: Criteriology and
1056 relativism in action. *Psychology of Sport and Exercise*, 10(5), 491–497.
1057 <https://doi.org/10.1016/j.psychsport.2009.02.006>
- 1058 Sparkes, A., & Smith, B. (2014). *Qualitative research methods in sport, exercise and health:
1059 from process to product*. Abingdon: Routledge. <https://doi.org/10.4324/9780203852187>
- 1060 Strnadová, V. (2001). *Hádej, co říkám, aneb odezírání je nejisté umění [Guess what I am
1061 saying or lip-reading is an uncertain discipline]* (2nd ed.). Prague, Czech Republic:
1062 ASNEP.
- 1063 Sun, Z., Liu, R., Luo, L., Wu, M., & Shi, C. (2017). Exploring collaborative learning effect in
1064 blended learning environments. *Journal of Computer Assisted Learning*, 33(6), 575–587.
1065 <https://doi.org/10.1111/jcal.12201>
- 1066 Tausch, A. P., & Menold, N. (2016). Methodological aspects of focus groups in health research:
1067 Results of qualitative interviews with focus group moderators. *Global Qualitative Nursing
1068 Research*, 3, 1–12. <https://doi.org/10.1177/2333393616630466>
- 1069 Taylor, E. W. (2017). Transformative learning theory. In A. Laros, T. Fuhr, & E. W. Taylor
1070 (Eds.), *Transformative Learning Theory* (pp. 17–29). Leiden, The Netherlands: Brill
1071 Sense.
- 1072 Thorpe, H., Olive, R., Beal, B., Booth, D., Laurendeau, J., Palmer, C., ... Wheaton, B. (2016).
1073 Looking back, moving forward? Reflections from early action sport researchers. In H.
1074 Thorpe & R. Olive (Eds.), *Women in Action Sport Cultures* (pp. 23–44). London: Palgrave

- 1075 Macmillan UK. https://doi.org/10.1057/978-1-137-45797-4_2
- 1076 Tomaszewski, P., Krzysztofiak, P., & Moroń, E. (2019). From sign language to spoken
1077 language? A new discourse of language development in deaf children. *Psychology of*
1078 *Language and Communication*, 23(1), 48–84. <https://doi.org/10.2478/plc-2019-0004>
- 1079 Toner, J., Moran, A., & Gale, L. (2016). Jean Piaget: Learning and the stages of athlete
1080 development. In L. J. Nelson, R. Groom, & P. Potrac (Eds.), *Learning in sports coaching:*
1081 *Theory and application* (pp. 89–100). Abingdon: Routledge.
- 1082 Travassos, B., Araújo, D., Vilar, L., & McGarry, T. (2011). Interpersonal coordination and ball
1083 dynamics in futsal (indoor football). *Human Movement Science*, 30(6), 1245–1259.
- 1084 Vinson, D., Beeching, K., Morgan, M., & Jones, G. (2017). Collaborative evaluation of
1085 individual and team performance in training and match environments using the Coach
1086 Logic online platform. *International Sport Coaching Journal*, 4, 47–62.
1087 <https://doi.org/10.1123/iscj.2016-0048>
- 1088 Vinson, D., Brady, A., Moreland, B., & Judge, N. (2016). Exploring coach behaviours, session
1089 contexts and key stakeholder perceptions of non-linear coaching approaches in youth
1090 sport. *International Journal of Sports Science and Coaching*, 11(1), 54–68.
1091 <https://doi.org/10.1177/1747954115624824>
- 1092 Vinson, D., & Parker, A. (2019). Vygotsky and sports coaching: non-linear practice in youth
1093 and adult settings. *Curriculum Studies in Health and Physical Education*, 10(1), 91–106.
1094 <https://doi.org/10.1080/25742981.2018.1555003>
- 1095 Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*.
1096 Harvard: Harvard University Press.
- 1097 Vygotsky, L. (1987). Thinking and speech. In R. Rieber & A. Carton (Eds.), *The collected*

- 1098 *works of L.S. Vygotsky* (pp. 39–225). London: Plenum Press.
- 1099 Ward, P., & Williams, A. M. (2016). Perceptual and cognitive skill development in soccer: the
1100 multidimensional nature of expert performance. *Journal of Sport and Exercise*
1101 *Psychology*, 25(1), 93–111. <https://doi.org/10.1123/jsep.25.1.93>
- 1102 Wass, R., & Golding, C. (2014). Sharpening a tool for teaching: The zone of proximal
1103 development. *Teaching in Higher Education*, 19(6), 671–684.
1104 <https://doi.org/10.1080/13562517.2014.901958>
- 1105 Werthner, P., & Trudel, P. (2006). A new theoretical perspective for understanding how
1106 coaches learn to coach. *Sport Psychologist*, 20(2), 198–212.
1107 <https://doi.org/10.1123/tsp.20.2.198>
- 1108

1109 **Appendix 1: Semi-structured focus group guide**

1110 **Understanding and Expectations**

- 1111 • What do you understand by a collaborative blended learning approach?

1112 - *What does it mean to you?*

1113 - What do you see as the expectations regarding your contributions?

1114 - Why do you think we have adopted this approach?

1115 **Successes**

- 1116 • What are the benefits (if any) that you have found so far when taking part in the
1117 approach?

1118 - *Build upon answers exploring each benefit ('x') that was highlighted with further
1119 questions such as:*

1120 - *Can you tell me a bit more about x?*

1121 - *Can you give me an example of how and when it happened?*

1122 - *Why do you think it was beneficial?*

1123 **Challenges**

- 1124 • What are the challenges (if any) that you have experienced so far?

1125 - *Build upon answers exploring each challenge ('y') that was highlighted with further
1126 questions such as:*

1127 - *Can you tell me a bit more about 'y'?*

1128 - *Can you give me an example of how and when it happened?*

1129 - *Why do you think it was a challenge?*

1130 **Suggestions – implications for coaching practice**

1131 • What suggestions would you make to ensure that we cater for your individual needs?

1132 How can we better structure our CBL approach to make sure it is meaningful and

1133 accessible to you?

1134 - *Build upon answers exploring each suggestion ('z') that was highlighted with*

1135 *further questions such as:*

1136 - *Can you tell me a bit more about 'z'?*

1137 - *Can you give me an example of how it could be implemented?*

1138 - *How do you think it would support your development? Why?*

1139 **Ending**

1140 • Is there anything else that you would like to mention?

1141