

1 **‘While we may lead a horse to water we cannot make him drink’:**
2 **Three physical education teachers’ professional growth through and**
3 **beyond a prolonged participatory action research project**

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5 Lars Bjørke^{a*}, Øyvind Førland Standal^{ab} and Kjersti Mordal Moen^a

6 *^aInland Norway University of Applied Sciences, Elverum, Norway; ^bOslo Metropolitan*
7 *University, Oslo*

8 lars.bjorke@inn.no

9 *Corresponding author: Lars Bjørke, lars.bjorke@inn.no, Department of Public Health
10 and Sport Sciences, Inland Norway University of Applied Sciences, Hamarvegen 112,
11 2406 Elverum, Norway, @larsbjorke, ORCID: <https://orcid.org/0000-0003-2328-8919>

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1 Instead of ‘the frenetic rush’ to find effective models of continuing professional
2 development (CPD) that will ‘work’, Armour et al. (2017) suggest rethinking the nature
3 of effective CPD by drawing on the work of John Dewey, and particularly his notion of
4 education as growth. Against this backdrop, the study evaluated three physical education
5 (PE) teachers’ engagement with a prolonged transformative CPD initiative using
6 participatory action research (PAR) to implement Cooperative Learning. More
7 specifically, the study posed two research questions: ‘How do three PE teachers
8 experience their engagement with a prolonged CPD initiative using PAR?’, and ‘How do
9 their experiences facilitate and/or obstruct development and growth?’ I, the first author,
10 took the role of facilitator, supporting the teachers throughout their journeys. The study
11 draws on data from interviews with the teachers conducted at four points through their
12 journey, from nine professional development workshops and from about 100 pages of my
13 reflective diary. On analysing the data, we identified four themes relevant to
14 understanding the teachers’ journeys: ‘PAR as an educative CPD experience’;
15 ‘experiencing Cooperative Learning as something that “works” – and “costs”’;
16 ‘reconstruction of mis-educative experiences’; and ‘further development and growth’. We
17 found that the tension between previous experiences of teaching PE and new experiences
18 of teaching through Cooperative Learning challenged the teachers’ established
19 knowledge and practices. However, not all experiences were equally educative, and some
20 restricted possibilities for further development and growth. We found that the teachers’
21 journeys beyond the pedagogical intervention developed along different paths, making
22 the project both educative and non-educative. We acknowledge that education must be
23 understood as a complex endeavour (Quennerstedt, 2019), making the directions of
24 teachers’ learning journeys hard to predict.

25 Keywords: participatory action research, growth, physical education, Dewey,
26 continuing professional development.

27 **Introduction**

28 Continuing professional development (CPD) is an umbrella term for different
29 educational activities aimed at improving teachers’ practices and pupils’ learning
30 outcomes. These activities may be voluntary or mandatory, individual or collaborative,
31 formal or informal (Kennedy, 2005, 2014). CPD for physical education (PE) teachers
32 includes activities such as professional learning communities, conferences, workshops,

1 staff development programs and reading journals and books (Tannehill et al., 2015).
2 Despite its different characteristics and purposes, there seems to be general agreement
3 on the value of CPD, as it enables teachers to become learners in a changing society
4 (e.g. Dadds, 2014).

5 Drawing on a wide range of CPD literature, Kennedy (2005, 2014) identified a
6 spectrum of nine CPD models, each with different characteristics. According to
7 Kennedy (2005), these can be divided into three groups based on whether the purpose is
8 transmission, transitional or transformative. At one end of the spectrum, transmission
9 CPD is perceived as ‘fulfilling the function of preparing teachers to implement reforms’
10 (Kennedy, 2005, p. 248), while at the other end of the spectrum, transformative CPD
11 seeks to help teachers contribute to educational policy and practice. Transformative
12 CPD models are typically collaborative professional inquiry models, such as action
13 research (Kennedy, 2014). In the middle of the spectrum, CPD can be viewed as
14 transitional or malleable, being able to support underlying agendas of both transmission
15 and transformative CPD, depending on how they are implemented (Kennedy, 2014).
16 Transmission approaches have low levels of teacher autonomy, while teacher autonomy
17 increases as one moves through transitional approaches towards transformative
18 approaches to CPD. However, even within the transformative category, Kennedy (2005)
19 warns that external stakeholders might set the agenda, thus restricting teacher agency.
20 Hence, the greater potential for professional autonomy offered by transformative
21 models such as action research is not necessarily achieved (Kennedy, 2005).
22 Since Kurt Lewin’s (1946) first conceptualization of action research, various action-
23 research traditions have emerged with different or even conflicting perspectives on how
24 it should be operationalized to help practitioners develop their practices. The
25 participatory action research (PAR) tradition emerged as a critique of how action

1 research had developed within education (Carr & Kemmis, 1986). While Lewin (1946)
2 had originally intended action research as a social movement, it later evolved largely
3 into a technique for developing individual practices (Carr & Kemmis, 1986; Kemmis &
4 McTaggart, 2008). PAR was therefore positioned as a collective movement of teachers
5 who wish to understand their practices and address the challenges they might identify in
6 their practices (Kemmis & McTaggart, 2008; Lewin, 1946). Within the field of PE,
7 several studies have previously explored how PAR can support teachers to develop their
8 pedagogical practices (e.g. Farias, Hastie & Mesquita, 2017; Goodyear, 2017;
9 Goodyear, Casey & Kirk, 2014; Luguetti & Oliver, 2020; Petrie, Devcich & Fitzgerald,
10 2018).

11 Although evidence on what makes CPD effective is growing (see Armour et al.,
12 2017; Lee et al., 2019), it is so far contradictory and inconclusive (Goodyear, 2017;
13 Makopoulou, 2018; Parker & Patton, 2017). According to Parker and Patton (2017), the
14 question of effectiveness is contingent upon ‘the CPD’s purpose, the context, and
15 school culture within which it resides’ (p. 448). Effective CPD can thus, for example, be
16 viewed in terms of increased teacher commitment, teacher development and improved
17 teacher practice or students’ learning (Patton & Parker, 2017). In their discussion about
18 the future of CPD in PE, Armour et al. (2017) argue for a ‘pause in the frenetic rush to
19 find practical models of “effective” CPD that will “work”’ (p. 800). They suggest taking
20 one step back and rethinking the nature of effective CPD. By drawing on the work of
21 John Dewey, and especially his notion of ‘education as growth’, they suggest a new
22 conceptual framework for CPD policy, research and practice that fit the dynamic nature
23 of contemporary and future PE. Armour et al. (2017) argue that using a Deweyan
24 framework for designing, implementing and evaluating effective CPD in PE would
25 encourage us to ‘(i) recognize the dazzling complexity of the learning process; (ii)

1 understand context and contemporary challenges; (iii) seek to bridge research/theory–
2 practice in innovative ways; and (iv) focus on nurturing the career-long growth of PE
3 teachers’ (p. 809).

4 In response to Armour et al.’s (2017) appeal, this study aims to evaluate three
5 PE teachers’ engagement with a prolonged transformative CPD initiative using PAR.
6 The study posed two research questions: ‘How do three PE teachers experience their
7 engagement with a prolonged CPD initiative using PAR?’ and ‘How do their
8 experiences facilitate and/or obstruct development and growth?’ To answer these
9 questions, the study investigates the teachers’ journeys as learners over the two-year
10 PAR project, and one year beyond. Inspired by Armour et al. (2017), we draw on
11 Dewey’s educational theory, and specifically on his ideas of education as growth
12 occurring through continuous reconstruction of experiences.

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14 **A Deweyan perspective on CPD as an educational experience**

15 By viewing education as growth, Dewey (1916) challenged the perception that
16 development has an end point. He criticized the way in which educational goals were
17 ‘conceived of as completion, perfection’ (Dewey, 1916, p. xlii) and the view that the
18 journey towards attaining these goals was merely an unavoidable means to something
19 else, without any particular educational significance. Another problem of measuring
20 development against predefined standards is that once the learner has reached the fixed
21 end point or objective, no more development is needed or even possible. Instead,
22 Dewey (1916) suggested that one of the main purposes of education was to create
23 conditions so that all could become, in present-day parlance, lifelong learners. For
24 Dewey (1916), life is an ongoing process of growth in the sense that we must all
25 continuously work towards development and change due to the ever-changing nature of

1 the world in which we exist. Importantly, growth holds a normative aspect, and Dewey
2 (1938) stated that ‘only when development in a particular line conduces to continuing
3 growth does it answer to the criterion of education as growing’ (p. 36). Hence, in the
4 context of PAR as an educational activity holding a transformative mission, expressions
5 of growth could, for example, be transformed practices and teachers shaping their own
6 pedagogical practice from within (Dewey, 1916, 1938; Kennedy, 2005).

7 For Dewey (2004), education needed to be understood ‘as a continuing
8 reconstruction of experience’ in which ‘the process and the goal of education are one
9 and the same thing’ (p. 21). In this form, Dewey considered education as the
10 fundamental method for social progress and reform. In Dewey’s (2008/1922) theory,
11 experience represents the interaction between our beliefs and our actions. More
12 precisely, since beliefs and actions are in a cyclical interdependent relationship,
13 teachers’ beliefs about CPD inform their actions just as actions shape their beliefs.

14 For Dewey (1938), some experiences are educative as they create curiosity,
15 allow new perspectives and create conditions for further growth. However, not all
16 experiences are equally educative. Some experiences are non-educative, while others
17 might even be mis-educative as they obstruct further growth. While these experiences
18 might develop a teacher’s skills on the one hand, they might also restrict or narrow the
19 possibilities for future experiences on the other. For example, a teacher who has several
20 positive experiences of teaching PE in a particular way and who even improves his
21 teaching through his preferred model might not see the need to develop different
22 pedagogical approaches and thus may end up in what Dewey (1938) labelled a ‘groove
23 or rut’ (p. 26).

24 To determine the quality of an experience, Dewey (1938) highlighted two
25 principles: the principle of continuity and the principle of interaction. According to the

1 principle of continuity, ‘every experience both takes up something from those which
2 have gone before and modifies in some way the quality of those which come after’
3 (Dewey, 1938, p. 35). This highlights how humans always bring something from the
4 past into current experiences, thereby influencing the quality of future experiences. The
5 principle of interaction concerns the interdependence between learner and environment
6 (Dewey, 1938). Through the dynamic reconstruction of experiences, people gain new
7 understandings, meanings, actions and habits. Dewey (1938) highlights how these
8 experiences must not ‘repel’ the learner yet need to be more than just enjoyable (p. 27).
9

10 **Methods**

11 PAR emphasises creating spaces for dialogue, negotiation and analysis between the
12 participants (Ax et al., 2008; Kemmis & McTaggart, 2008), as the teachers move
13 through the cyclical action research process of think–plan–act–evaluate–reflect (Lewin,
14 1946). Hence, although each teacher individually changes his or her own practices, the
15 construction of knowledge about the change is collectively generated.

16 The PAR project on which this study is based was established after I, the first
17 author, reached out to schools in search of a PE department interested in developing
18 their PE practices. This led me to Forest School (pseudonym), whose upper primary PE
19 department (grades 5–7; students aged 10–13 years) comprised three PE teachers. To
20 ground the project in the teachers’ challenges and needs as experienced by the teachers
21 themselves, I began by interviewing the teachers individually about what they wanted
22 from the project. Based on their wish to explore more student-centred pedagogies, and
23 on X’s knowledge about Cooperative Learning (CL), they agreed to use CL as the
24 project’s pedagogical intervention.

25

1 ***Setting and participants***

2 Forest School is an averaged-sized Norwegian primary school. PE is typically taught
3 once (one 90-minute lesson) or twice (two 45-minute lessons) per week in co-ed
4 classes. At the time of the study, the upper primary school PE department comprised
5 three male PE teachers: Ole, Erik and David (pseudonyms). David and Ole had one and
6 two years of experience as teachers, respectively, while Erik had over 25 years of
7 teaching experience. Due to changes in teaching duties, Ole did not participate in the
8 second year of the pedagogical intervention. However, he has been included in the study
9 to allow us to investigate how his shorter engagement with PAR might have facilitated a
10 journey different from those of his colleagues.

11 Due to his training and expertise in CL, the first author, X, took a facilitator role
12 to support the teachers' professional development. More precisely, I sought to create
13 conditions for constructive discussions, cause disruption in the teachers' thinking
14 through presenting new ideas, and help teachers cooperate, debate and reflect (Cook,
15 2009). I had six years of primary-school PE teaching experience prior to becoming a
16 teacher educator in 2013.

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20 ***The pedagogical intervention***

21 In CL, students learn from, by, with and for each other in small groups (Dyson &
22 Casey, 2016; Johnson & Johnson, 2009). The CL model is centred around five key
23 principles that guide teachers in their teaching (Table 1). None of the teachers in this
24 study had prior experience of using CL in PE.

25

1 [INSERT TABLE 1 ABOUT HERE]

2

3 The pedagogical intervention (Figure 1) was designed by me and the teachers together.
4 The overall purpose of the design was to create contexts for analysis, dialogue and
5 negotiation throughout the duration of the project (Ax et al., 2008) while simultaneously
6 enabling me to collect research data.

7

8 [INSERT FIGURE 1 ABOUT HERE]

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10 The nine professional development workshops, in which all teachers and I were present,
11 were used to collectively *think* about and discuss the theoretical foundation for CL (all
12 workshops). The workshops were also used to *plan* lessons in accordance with CL
13 (workshops 2, 4, 6 and 8), before *acting* in each of the four intervention periods. These
14 intervention periods lasted for six lessons and gave the teachers practical experiences of
15 teaching through CL. I observed all of the lessons live. After each lesson, the teacher
16 discussed his experiences from the lesson with X, so that the teacher could continuously
17 learn from his experiences and enhance his understanding of CL.

18 After each intervention period, new workshops enabled the teachers to *evaluate*
19 and *reflect on* the completed intervention periods alongside their colleagues and me
20 (workshops 3, 5, 7 and 9). Student actions, behaviours and comments from the lessons
21 were important sources of information, as we continuously sought to enhance the
22 delivery of CL to better meet the students' needs.

23 In addition to these formal contexts, informal meetings occurred regularly
24 throughout the project as a result of X's close and systematic presence at the school. A
25 private Facebook group was established to keep the dialogue going and to address any

1 practical issues that arose. In other words, action research cycles of think–plan–act–
2 evaluate–reflect (Lewin, 1946) occurred at different times and at different levels during
3 the project. Hence, the project should be understood as comprising multiple cycles
4 within cycles (Casey, 2018; see Figure 2) and not as a stand-alone event.

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6 [INSERT FIGURE 2 ABOUT HERE]

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8 ***Data collection***

9 To answer the study’s research questions, we draw on data from the teacher interviews,
10 workshop recordings and X’s reflective diary. The teacher interviews lasted about 25
11 minutes each and were recorded and transcribed verbatim. Questions in these interviews
12 related to how teachers experienced the project and how the project influenced their
13 pedagogical practice. Since Ole could not participate in the second year of the
14 intervention, he was only interviewed before and after the second semester. However,
15 one year after the pedagogical intervention was completed, all three teachers were
16 interviewed again to investigate their journeys beyond their formal collaboration with
17 X. All nine professional development workshops were recorded. Due to the large
18 amount of data (about 25 hours of recordings in total), the workshops were not
19 transcribed in full. However, I wrote down a summary immediately after each
20 workshop. This summary highlighted the different aspects of the workshops (e.g., how
21 the teachers experienced their own journey), allowing me to revisit the recordings for
22 more in-depth investigation. Finally, the researcher’s reflective diary (about 100 pages)
23 included X’s ongoing reflections, observations, informal conversations and other events
24 occurring during the project that were not captured by the other data-collection
25 methods.

1

2 *Data analysis*

3 Data were organized chronologically, teacher by teacher, to allow exploration of each
4 teacher's journey over time. Analysis followed Braun et al.'s (2017) six-step model. I
5 was very familiar with the data due to his close participation in the project and his role
6 in data collection and transcription. Nevertheless, I sought to analyse the data in more
7 depth after the project's completion by repeated readings of all data sources. Data of
8 special interest regarding the research focus were labelled with 139 different codes
9 (phases 1 and 2). Then, the 139 codes were grouped into initial themes through a
10 recursive process. At this point, the process was data driven. By the end of phase 3, five
11 themes had been identified: 'going all the way', 'what works', 'duration', 'working
12 together' and 'external researcher's role'. After identifying the initial themes, I went
13 back to all the codes within each theme and reread the data several times to further
14 develop and adjust the themes. Dewey's educational theory was then applied to move
15 the themes from a 'semantic' level to a 'latent' level (Braun et al., 2017). More
16 precisely, the themes moved from encapsulating what was explicitly said and done, to
17 the implicit ideas underpinning the actions. In this process, the themes went through
18 new rounds of adjustment and refinement. After several rounds of generating themes
19 and revisiting the initial codes, as well as discussions between the authors, four themes
20 were defined: 'PAR as an educative CPD experience', 'experiencing CL as something
21 that "works" – and "costs"', 'reconstruction of mis-educative experiences' and 'further
22 development and growth'. In the final phase, I selected text extracts to demonstrate the
23 prevalence of each theme. Extracts were also chosen based on their suitability to
24 demonstrate the overall story we had generated in response to our research questions.

1 Instead of applying criteria in a universal way to judge the validity of the study,
2 the study was guided by a relativist approach (Burke, 2017). X's close and prolonged
3 engagement strengthened the credibility of the study. The teachers explicitly highlighted
4 how the relationship between me and themselves encouraged them to share their true
5 experiences of their journeys, rather than merely saying what they believed I wanted to
6 hear (follow-up interview). Credibility was also ensured through triangulation of data
7 sources and ongoing member checks, which enabled me to get a richer and more
8 appropriate understanding of each teacher's journey. In terms of transparency, the co-
9 authors acted as critical friends to challenge my interpretations of the data (Burke,
10 2017).

11

12 ***Ethics***

13 The project was approved by the Norwegian Centre for Research Data. The study
14 followed the ethical guidelines provided by the Norwegian National Research Ethics
15 Committees. Before joining the project, all teachers signed a declaration of consent and
16 were informed that they could withdraw from the project at any point, without any
17 consequences.

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21 **Four themes relevant to understanding the teachers' journeys**

22 Here, we present our analyses of the teachers' journeys through four themes. To
23 acknowledge X's close presence in the empirical work and present the teachers journeys
24 from a personal perspective, we use 'I' instead of 'the first author' or 'X' in this section.

25

1 *PAR as an educative CPD experience*

2 Although this paper investigates three teachers' experiences in a single CPD initiative,
3 Dewey's (1938) principle of continuity helps us understand how their experiences did
4 not occur in a vacuum. Through his 25 years of working as a teacher, Erik had
5 repeatedly experienced CPD initiatives such as seminars or courses at the local
6 university as top-down and de-contextualized. Erik expressed his frustration with this,
7 suggesting that

8 in Norwegian schools, the way I have experienced it, we are often introduced to new theories
9 and thoughts from above. [...] You are presented with the theory and someone who is passionate
10 about it. Then it stops. You do not get help with how this could be done in practice, and you do
11 not get the time to make it your own. (Mid interview)

12

13 These initiatives, as experienced by Erik, were too shallow and short to have an impact
14 on his pedagogical practice. Since the quality of an experience is always influenced and
15 shaped by experiences from the past (Dewey, 1938), Erik's experience from prior CPD
16 initiatives emerged as a challenge at the beginning of the project. Through his previous
17 negative experiences of CPD, Erik was left with a strong belief that CPD was not
18 relevant, and consequently not worth doing.

19 Through several informal meetings with other staff members working at Forest
20 School, I got the impression that Erik's CPD experiences were not unique. It was almost
21 taken as fact by all the school's teachers that CPD did not facilitate pedagogical
22 development and growth. On the contrary, most staff considered CPD a burden
23 (reflective diary). Despite having far less teaching experience, Ole and David's
24 interaction with senior colleagues (such as Erik) had provided several experiences of
25 what 'being exposed' to CPD involved. For example, after the intervention, Ole
26 suggested that prior to the project he 'had imagined that you [X] only would come by to

1 interview and observe once or twice' (follow-up interview) to gather data for research
2 purposes. Moreover, all teachers expressed their fear of how their engagement with
3 PAR would be 'on-top' of their many compulsory tasks as teachers (pre interviews).

4 Since beliefs and actions are in an interdependent relationship (Dewey,
5 2008/1922), the three PE teachers' beliefs about CPD were mirrored in their actions.
6 After the first workshops and lessons, I noted several times in my reflective diary my
7 frustration from what I experienced as a lack of engagement and initiative from the
8 teachers: I felt that they expected me to present solutions on how to do things and that
9 they perceived their role to be passive receivers of knowledge. Put another way, there
10 was a gap between my seeking a transformative mission through the PAR approach, and
11 the teachers' expectation of transmission (Kennedy, 2005). Dewey (1938) warned that
12 not all experiences are equally educative, and in this respect, the teachers' previous
13 experiences of CPD as transmission can be regarded as mis-educative. More precisely,
14 the teachers' experiences of CPD had left them with beliefs and actions that from a
15 transformative point of view restricted their development and growth (Dewey, 1938;
16 Kennedy, 2005). The teachers' critique of previous CPD initiatives could even indicate
17 that they in fact wanted a transmission approach, for example, to get 'fixed lessons'
18 from an external 'expert' ready to be implemented in their classes.

19 Through a series of connected experiences of themselves working collectively
20 with me discussing theory, developing lesson plans based on theory, giving lessons with
21 the students and collectively reflecting after the lessons, the teachers' perspectives on
22 CPD were gradually challenged. After being engaged with PAR for one year, Erik
23 contrasted his previous frustration with CPD with his PAR experiences, suggesting that
24 in this project, I have been so fortunate to have two colleagues and you. We sat down together,
25 worked out lesson plans, and then we do it with the kids. It is about going all the way. It feels
26 like [...], for me, theory and practice are very close to each other. We plan and we act. [...]

1 That's it, it's the theory, the whole phase of planning, and then we do it. We do the whole
2 process – BANG [claps his hands]! (Mid interview)

3
4 What was especially different between the teachers' prior experiences of CPD and the
5 present PAR approach was the time and space allocated for collective discussions on
6 how to transfer theoretical knowledge into practical teaching, with assistance from an
7 external 'expert'. All three teachers highlighted how this process of 'going all the way'
8 (from theory to practice) was particularly beneficial for learning how to use CL with
9 their students (workshop 5) as it allowed them to 'talk about the lessons, in contrast to
10 just doing them' (David, post interview).

11 Since these experiences were significantly different from their previous
12 experiences of CPD, an interaction between 'previous' and 'current' experiences
13 challenged the teachers' beliefs and actions (Dewey, 1938). For example, as the
14 teachers learned more about my role in the project, I was considered as an 'opposite' to
15 my colleagues working at the university (Erik, mid interview), as they began to realize
16 that I wished to facilitate their professional development. As the project progressed, the
17 teachers began to act more as full members of the PAR community by sharing their
18 reflections, frustrations, ideas and perspectives instead of expecting me to provide all
19 the answers. In general, the teachers went from being reluctant and sceptical, to
20 willingly sharing ideas and showing growing enthusiasm (reflective diary).

21 Grounded in Dewey's (1938) claim that the active union of the principles of
22 continuity and interaction determine the value of experience, the teachers' experiences
23 of PAR held educational value. Through subsequent experiences of PAR (continuity)
24 that were significantly different from how they previously had experienced CPD
25 (interaction), teachers' beliefs and actions changed. In a Deweyan sense, these
26 experiences were educative, as experiencing PAR as something meaningful and relevant

1 for their own pedagogical development paved the way for new and richer experiences
2 during the rest of the project. For example, parallel to changing their beliefs and actions,
3 the teachers gradually began experiencing ‘successes’ in teaching through CL.

4

5 *Experiencing Cooperative Learning as something that ‘works’ – and ‘costs’*

6 According to the teachers, the second unit of implementing CL was a ‘big success’. At
7 this point, the teachers experienced how their new pedagogical approach had begun to
8 facilitate student learning in a way that had not been possible through their traditional
9 way of teaching PE (workshop 5). For example, all teachers experienced how many
10 students managed to learn from, by and with each other in their respective CL groups,
11 and how this had positive effects on the class environment (workshop 5). These
12 experiences, among others, convinced the teachers that CL was a useful approach for
13 teaching PE. In fact, after the first year, all three teachers expressed that CL was a
14 pedagogical approach that ‘worked’ (workshop 5). Although the ‘success’ in unit 2 was
15 important in terms of giving the teachers practical evidence of how CL could benefit
16 student learning, these experiences could also be seen as problematic, at least in the
17 Deweyan view of education. For example, Ole stated that the lesson plans created in the
18 workshops are ‘just gold for us’ since the lessons are ‘something that you can carry with
19 you for a long time’ (post interview). Erik and David shared his view, with Erik
20 explaining that

21 now we have a ‘stock’, and we can just raise interest in the future. That is something I have
22 discussed with my colleagues, that, oh my god, this is something we just use again year after
23 year even though the project is finished and you leave. It’s already created! (Mid interview)

24

25 Such experiences may narrow the possibilities for further development and growth
26 despite being enjoyable and meaningful. More specifically, experiencing how CL had

1 'worked' with their students led the teachers to believe that blueprinting these lessons in
2 the future would guarantee the same 'success'. The teachers thought they had learned
3 how to teach PE using CL, and that no more development was needed. In a Deweyan
4 view of the purpose of education, this is highly problematic. Instead of having created a
5 desire and interest for continued development and growth, which Dewey (1916) argued
6 should be the goal for educational experiences, the project had at this point caused the
7 teachers to view their own development as complete. The interviews after unit 2 had
8 also left me with the impression that the teachers felt they had reached their pre-defined
9 objective of learning how to teach PE through a more student-centred approach
10 (reflective diary). Thus, besides being 'not needed', further development was 'not
11 possible' as they had reached the state of 'completion' and 'perfection' that Dewey
12 (1916, p. xlii) warned about. Hence, although the teachers' skills in planning and
13 teaching PE using CL had improved, their desire for further development and growth
14 both in and beyond the project had become limited or had even disappeared altogether.
15 Their experiences had instead promoted the formation of what Dewey (1938) labelled 'a
16 slack and careless attitude' (p. 26).

17 At the same time, the teachers 'success' had been hard won. More specifically,
18 the teachers had also experienced the 'costs' of their pedagogical change (workshop 5
19 and mid interviews). For example, looking back at his one-year engagement with PAR,
20 Ole suggested that it was 'surprising how much time we used' (follow-up interview).
21 Not only did learning to teach through CL take time, it required focus, dedication and
22 energy. In this process, the teachers sometimes experienced frustration and little
23 motivation to continue (reflective diary).
24 On top of that, the teachers' experiences of successful implementation in unit 2 was in
25 strong contrast to their experiences from unit 1. In the first unit, the teachers had

1 experienced how changing their pedagogical approach made them feel uncomfortable
2 and stressed, as their new role as pedagogues was quite different from their old way of
3 teaching (mid interviews and reflective diary). The student responses to CL in first unit
4 were also quite different from the second, as the students found changing their role as
5 learners to be hard (workshop 3). Many students had trouble with learning from, with,
6 by and for each other, and many students were negative towards CL and wanted the
7 teachers to return to traditional lessons (reflective diary). In the opinion of the teachers,
8 the first unit was generally experienced as problematic and as chaotic (workshop 3).

9 Thus, although their experiences of teaching PE using CL had gradually become
10 more positive and had challenged their traditional teaching practices, their experiences
11 had at the same time repelled (Dewey, 1938) them from further development and
12 growth. An example illustrating this is how Ole suggested in his post interview that
13 although the project had been ‘very interesting’ and ‘productive’, and that he had ‘learnt
14 a lot’, he would probably return to teach PE ‘traditionally’ now that he had to withdraw
15 from the project. At this point in the project, Erik and David held a similar stance, as
16 neither of them believed that being involved with PAR for one year would have much
17 influence on their way of teaching in the future, beyond using the reusable lessons that
18 had already been developed and ‘worked’ (mid interviews). In other words, the ‘costs’
19 were considered too high to continue growing as teachers through using CL.

20

21 *Reconstruction of mis-educative experiences*

22 David and Erik’s experiences of successful implementation in unit 2 were followed by
23 new positive experiences of students learning over the second year of the project.
24 However, while the experiences from unit 2 had been limited to doing CL one particular
25 way for six consecutive lessons, the experiences from the second year included CL

1 'working' in a broad variety of settings (e.g., inside, outside or in different seasons),
2 with different tasks (e.g., creating dance routines or building a snow castle) to work
3 with different objectives (reflective diary). Over the second year of the project, both
4 teachers experienced what they perceived as 'strong individual episodes', particularly
5 referring to how all students benefited from CL (post interviews). For example, Erik
6 highlighted how 'students who normally struggle a lot [with fitting in], suddenly are
7 included in their group [...] and they experience success'.

8 Moreover, the teachers also experienced fewer 'costs' related to their change.
9 For example, in a Facebook message sent between units 3 and 4, Erik suggested that it
10 was 'remarkable how easily everything flows', referring to how he now experienced
11 both lesson planning and implementation. While we had taken several hours planning
12 unit 1 (which was a 'failure'), planning the 'successful' units 3 and 4 took
13 approximately 60 minutes each (reflective diary). The feelings of discomfort and
14 uncertainty had gradually diminished as both teachers showed growing confidence in
15 teaching through CL (reflective diary).

16 For Dewey (1938), education is continuing reconstruction of experience, and for
17 this project, the teachers' reconstruction of experiences between the first to the second
18 years led to them 'seeing numerous opportunities instead of seeing numerous
19 challenges' in terms of how CL could be implemented (Erik's post interview and
20 workshop 9). Through the interaction between experiences of CL working in one
21 particular way and working in various other ways, the teachers could expand their
22 boundaries and see CL as something that could be developed and adjusted to reach
23 different objectives with different students. A similar interaction between experiencing
24 the 'cost' and later experiencing 'fewer costs' supported a growing optimism in terms of

1 whether the project had changed them as teachers, both during and beyond the project's
2 duration.

3

4 ***Further development and growth***

5 Despite sharing many of the same experiences of 'ups and downs' during the project,
6 David and Erik's development outside and particularly beyond the duration of the
7 intervention followed two different paths.

8 Erik argued that his engagement with the PAR project had radically changed
9 how he acted as a teacher, and perhaps more importantly, how he would choose to act
10 as a teacher in the future (post interview). I asked Erik how he felt about the
11 pedagogical intervention being over:

12 *Erik:* I am left with a really good feeling [...] This has changed the way I view the subject. Both
13 what PE is, but also how I choose to act as a PE teacher in the future.

14 *X:* Can you tell me a little more about what you mean by that?

15 *Erik:* I will continue to use the idea of how students can be more active in their own learning in
16 PE [...] I can be creative and continue to develop lessons and units with students working in
17 groups. [...] I will not fall back now to where I used to be. I used to be the instructor, the one
18 who started the activity and then showed them how to do it. That was how the lessons were. I
19 still need to do some of that, but that's not me anymore. I'm changed, really, as a teacher.

20

21 Erik enthusiastically explained how he had 'used this way of thinking' to develop new
22 lessons in PE outside the project and how he had begun to experiment with CL in other
23 school subjects (post interview). One year later, in the follow-up interview, Erik
24 confirmed how the project had changed the way he acted as a teacher:

25 Each time when I think about my next PE lesson, I start by reflecting on whether my experiences
26 [of using CL in the project] can be used [...] I start, and I have never done that before, by
27 thinking about how it [CL] might be a useful approach for the upcoming lessons and units. My

1 experiences from the project have convinced me that this approach is so positive for the kids, so
2 I want all lessons to be based on the principles.

3
4 Erik explained how he had developed new lessons and adjusted old lessons to make
5 them better. For example, he challenged himself to use his experiences from the project
6 to go back to the lessons that ‘did not work’ in the first unit to see if he could make
7 them work. Across all subjects, Erik estimated that 30% of his teaching beyond the
8 pedagogical intervention was delivered through CL. From a transformative point of
9 view, these are examples of how educative experiences from the project facilitated
10 Erik’s further development and growth (Dewey, 1916; Kennedy, 2005). Two years
11 earlier, Erik suggested that he had reached a predefined objective of becoming more
12 student-centred. One year after the project’s completion, however, he had become a
13 learner without any particular end beyond continuing to develop and grow as a teacher
14 using CL (Dewey, 2004).

15 David’s journey took a slightly different path than Erik’s. In his post interview,
16 David argued that his involvement had been an ‘extremely valuable learning situation’
17 and given him ‘solid theoretical knowledge’ that would help him develop as a teacher in
18 the future. For example, CL could help him ‘overcome his fear of teaching football’, as
19 CL enabled him to emphasise skills and objectives other than those he traditionally used
20 in his football lessons. At the same time, David believed that he would not use CL much
21 after the project, other than in ‘bits and pieces’, as most of his lessons would probably
22 be ‘normal again’ (post interview). One year later, David confirmed these predictions.
23 He explained how he had used parts of the CL lessons in more ‘traditional lessons’,
24 such as using group processing towards the end of a ‘normal’ or ‘traditional’ lesson
25 (follow-up interview). However, as the conversation with David progressed, I realised
26 that perhaps David had changed more than he himself was aware. Confronted with my

1 observation, David laughed and argued that ‘it has become so ingrained so maybe I’m
2 not aware of it anymore’. David suggested that through his journey he had changed his
3 view of the students from being ‘objects to subjects that can contribute to each other’s
4 learning’ (follow-up interview). This helped David think differently when he planned
5 and implemented lessons (although his lessons did not follow the five key CL
6 principles). This change appeared to be more at a theoretical level, however, and was
7 not mirrored in how he described his actual teaching. Hence, from a transformative
8 point of view, David’s experiences in the project were educative at a theoretical level
9 (to the extent that they facilitated growth), but were non-educative at a practical level
10 (to the extent that they reinforced the status quo). This reminds us that PE teachers’
11 growth through CPD is not only reflected in their beliefs – true growth, on the contrary,
12 must be reflected in their actions, as improving students’ conditions for growth must
13 always be at the heart of CPD.

14 Interestingly, although Ole had to withdraw from the project after the first year,
15 the follow-up interview with him revealed that his development as a teacher using CL
16 had continued beyond the project. Given his previous suggestions in the post interview,
17 this was a surprise. Looking back, Ole explained how the project had enabled him to
18 think differently, even when he taught the ‘most simple play-lessons’. Ole explained
19 that he had used the five key CL principles as a starting point to develop new lessons in
20 PE and in other subjects with his third-grade class. He even suggested that he had
21 ‘definitely changed my view on teaching, and this [CL] is absolutely something I will
22 keep on developing in the future’. Confronted with my surprise regarding this, Ole
23 highlighted how he had continued closely collaborating with Erik even though he did
24 not participate in the second year of the pedagogical intervention. Put another way,

1 while his formal participation lasted for only one year, his professional development
2 had continued through a more indirect engagement.

3

4 **Conclusion**

5 Although CPD encapsulates a spectrum of educational activities with different
6 characteristics and purposes, most seem to value CPD as it allows teachers to become
7 learners in a world characterized by continuous change (Dadds, 2014). However,
8 evidence about what makes CPD effective remains contradictory and inconclusive
9 (Goodyear, 2017; Makopoulou, 2018; Parker & Patton, 2017). Instead of trying to
10 identify the best model for CPD, this paper is inspired by Armour et al. (2017), who
11 suggest that using a Deweyan framework can help us rethink our perspectives on what
12 truly constitutes effective CPD. Hence, the purpose of this study was to explore how
13 three teachers' experienced a CPD initiative using a PAR approach and how their
14 experiences facilitated or obstructed development and growth, both in and beyond the
15 project.

16 The Deweyan framework helped us understand how teachers' experiences of
17 CPD were influenced by prior experiences of other, comparable CPD initiatives. While
18 our PAR approach emphasized the transformative aspect of CPD, the teachers' previous
19 experiences of CPD had led them to believe that CPD was a form of transmission in
20 which they were passive receivers of knowledge (Kennedy, 2005). Their previous
21 experiences had also convinced them that CPD was not worth engaging in, as previous
22 initiatives had repeatedly failed to have an impact on their practices. While this was a
23 barrier to having fruitful experiences particularly at the beginning of the project,
24 subsequent experiences of PAR as something meaningful and helpful for their
25 pedagogical development gradually facilitated changes in beliefs and actions. In other

1 words, the PAR approach helped the teachers see renewed value in CPD, as their
2 experiences of PAR challenged many of their previous criticisms of CPD. For example,
3 the teachers highlighted how PAR over time helped them transfer theoretical knowledge
4 into practice with support from an external researcher.

5 The study also shows how experiences of successful implementation of a
6 pedagogical intervention such as CL might be problematic according to the Deweyan
7 view of education. Armour et al. (2017) warn that ‘specific CPD activities could only be
8 regarded as educative if they promoted an appetite and aptitude for, and engagement in,
9 further learning’ (p. 807). When the teachers in our project experienced CL as
10 something that ‘works’, their desire for further development and growth became limited
11 as they believed they had reached a state of completion (in attaining their objective of
12 becoming more student-centred). This was further reinforced by their experiencing the
13 ‘costs’ of pedagogical change (i.e., such change is uncomfortable and requires much
14 time and energy). In this respect, we argue that although PAR was found to be an
15 efficient approach to help teachers overcome the initial challenges of implementing a
16 new pedagogical approach, PAR experiences are not necessarily educative from a
17 Deweyan point of view.

18 Over the second year of the project, Erik and David experienced how CL could
19 work in numerous ways to reach different objectives and how the ‘costs’ of CL reduced
20 as they gained more experience using it. This challenged their experiences from the first
21 year, thereby changing their view from one that saw only challenges to one that could
22 see possibilities in terms of how their teaching through CL could be further developed.
23 Our findings lead us to suggest that in order to make teachers’ PAR experiences truly
24 educative, teachers must undergo a broad variety of experiences over time, including,

1 for example, experiencing how CL can be implemented in different ways to reach
2 different objectives.

3 Our analysis shows how the teachers' journeys took different paths, particularly
4 after the pedagogical intervention was completed. While Erik continued to learn more
5 and develop as a teacher using CL, David suggested that his actions after the project
6 continued to be mainly expressions of the status quo despite his beliefs about teaching
7 having changed. We agree with Armour et al.'s (2017) assertion that while the
8 professional growth of teachers may be the focus of CPD initiatives, effective CPD
9 ultimately enables teachers to facilitate fruitful experiences and growth for their
10 students. Hence, from our transformative perspective of CPD and a Deweyan
11 perspective of education, we conclude that the project might be characterized overall as
12 having been educative for Erik and non-educative for David. Despite his shorter
13 engagement with PAR, Ole had continued to develop and grow beyond his formal
14 participation in the project. This was largely a result of an indirect participation in the
15 project facilitated by his close collaboration with Erik.

16 As a final reflection, we believe that Dewey's (1916) well-known phrase 'while
17 we may lead a horse to water we cannot make him drink' (p. xxi) offers an important
18 message for future CPD initiatives in general and for PAR projects specifically. Our
19 project is a good example of how education is a complex endeavour (Quennerstedt,
20 2019) and of how creating 'effective' CPD initiatives that guarantee a certain outcome
21 can be difficult. While designing an optimal CPD programme and predicting how
22 teachers' learning journeys will evolve may be hard, we believe that the Deweyan
23 framework used in this study helped us to recognize the complexity of learning,
24 understand context, bridge the theory–practice divide and focus on the continued
25 growth of PE teachers (Armour et al., 2017).

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Disclosure statement

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