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Makopoulou, Kyriaki

DOI:

[10.1080/17408989.2017.1406463](https://doi.org/10.1080/17408989.2017.1406463)

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Document Version

Peer reviewed version

Citation for published version (Harvard):

Makopoulou, K 2018, 'An investigation into the complex process of facilitating effective professional learning: CPD tutors' practices under the microscope' *Physical Education and Sport Pedagogy*, vol. 23, no. 3, pp. 250-266. <https://doi.org/10.1080/17408989.2017.1406463>

[Link to publication on Research at Birmingham portal](#)

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This is an Accepted Manuscript of an article published by Taylor & Francis in *Physical education and sport pedagogy* on 24th November 2017, available online: <http://www.tandfonline.com/10.1080/17408989.2017.1406463>

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1 **An investigation into the complex process of facilitating effective**
2 **professional learning: CPD tutors' practices under the microscope**

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By Dr. Kyriaki Makopoulou

5

Lecturer in Physical Education and Sport Pedagogy

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School of Sport, Exercise and Rehabilitation Sciences

7

University of Birmingham

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England

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B152TT

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Email: k.makopoulou@bham.ac.uk

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Abstract

18 **Background.** Research evidence on what makes CPD effective is accumulating. Yet,
19 fundamental questions about the specific CPD features that lead to programme success
20 remain. Furthermore, very little research investigates the nature and quality of CPD
21 providers' (tutors) practices. Taking a closer look at the 'pedagogy of facilitation'
22 (Poekert, 2011) is therefore an important direction for research in order to offer specific
23 guidance on how to design and deliver future CPD programmes for maximum impact.

24 **Purpose.** The present study aimed to advance this line of inquiry by seeking to examine
25 tutors' perceptions and practices in the context of a short course on Inclusive Physical
26 Education (IPE). Two research questions were addressed: 1) What were the tutors'
27 *perceptions* of effective CPD delivery? And 2) How were these interpretations *evidenced*
28 in practice? The short course, delivered by 40 different tutors across the country, was
29 part of a National CPD programme which reached and educated over 5000 school staff
30 in England. The scale of this Programme offered an ideal setting in which to address the
31 research questions.

32 **Participants and setting.** A case study design was adopted where the case was
33 identified at the level of individual courses. A cluster sampling procedure was adopted
34 (one cluster for each of the nine geographical areas in England). Where possible,
35 systematic sampling within the nine clusters was employed (i.e. collect evidence from the
36 first two courses delivered in each cluster each year). A total of 27 courses, delivered by

37 20 tutors across eight geographical areas in England were selected as cases and all
38 tutors involved in their delivery were invited to participate in the study.

39 **Data collection.** To explore tutors' perceptions of effective CPD delivery (research
40 question 1), qualitative data were collected via an online questionnaire and individual
41 interviews. To examine how these interpretations were *evidenced* in practice (research
42 question 2), both quantitative and qualitative data were collected via systematic
43 observations and ethnographic field notes.

44 **Data analysis.** Qualitative data were analysed using a constructivist approach to
45 grounded theory (Charmaz, 2006). Data from the observations was entered into SPSS
46 version 21 (IBM Statistics) for analysis.

47 **Findings.** Findings suggest that tutors' perceptions and beliefs did not always
48 materialize. Data from the observations suggest variation in the ways tutors structured,
49 supported, and facilitated professional learning. This variation was evident not only in the
50 actual time dedicated to practical vs. theoretical activities and active vs. passive learning
51 opportunities but also in tutors' ability to facilitate professional learning. This finding
52 suggests that there is a significant set of skills involved in supporting, nurturing, and
53 challenging professional learning in CPD contexts. It is therefore important to consider
54 how tutors can be best supported to develop and implement these skills effectively.

55 **Conclusion.** The results consolidate existing understandings about the importance of
56 (inter)active and practical learning opportunities in CPD; but also add nuance and detail
57 on the diverse ways in which tutors engaged participants in the learning process.

58 Findings draw our attention to the important issue of the selection and continuing
59 education of CPD tutors.

60 **Keywords**

61 Continuing Professional Development, Short Courses, Tutors' practices, Systematic
62 observations, Effective facilitation / facilitators.

63 **Introduction**

64 The idea that carefully designed Continuing Professional Development (CPD)
65 programmes help to raise standards of teaching and learning in schools is widely
66 accepted (Higgins, Cordingley, Greany and Coe, 2016). Although research on what
67 makes CPD effective is accumulating, the evidence base is mixed and inconclusive
68 (Goodyear, 2016). Different CPD forms are rarely compared to yield firm conclusions
69 about cost effective forms of provision (Wayne, Suk Yoon, Zhu, Cronen and Garet,
70 2008). Equally, evaluations of individual CPD initiatives often do not 'tease apart' the
71 specific features that lead to programme success (Hill, Beisiegel and Jacob, 2013),
72 whether success is measured against teacher (e.g., improved practice) and/or pupil
73 learning outcomes. Further robust research is thus needed to answer some of the most
74 pressing questions about effective CPD.

75 When external or internal CPD providers are involved (herein also referred to as
76 'providers', 'tutors' or 'facilitators' interchangeably), they are expected to play a central
77 role (Patton et al., 2012). If what providers do during the CPD is indeed a critical factor
78 determining CPD effectiveness, it is important for research to begin to unpack the

79 complex, multiple and varied ways they support teachers to learn. Once providers'
80 practices are better understood, then questions about the different forms of support (i.e.,
81 features of great tutoring) that are most likely to enable teachers to further enhance their
82 practices can be answered. Taking a closer look at the 'pedagogy of facilitation' (Poekert,
83 2011) is therefore an important direction for research in order to offer specific guidance
84 on how to design and deliver future CPD programmes for maximum impact.

85 The few studies that have started looking at the pedagogy of facilitation examine
86 tutors' thinking and decision making (Fevre and Richardson, 2002), offer insights on the
87 challenges and dilemmas encountered (Poekert, 2011), explore tutors' perceptions of
88 effective CPD facilitation (Patton and Parker, 2014), and compare tutors' and CPD
89 participants' views on the effectiveness of the CPD strategies employed (Patton, Parker
90 and Pratt, 2013). This body of literature expands understandings about the range of CPD
91 strategies *reported* to be employed and *perceived* to be effective. However, although
92 significant insights on what works in specific contexts are offered, this evidence is
93 grounded in self-reports and individual evaluations of events. Researchers cannot thus
94 be certain about what learning activities took place, how providers supported professional
95 learning, and what features of their practices were effective.

96 Existing research has also primarily examined the experiences and perspectives
97 of facilitators involved in long-term, sustained CPD programmes (e.g., Patton et al., 2013)
98 but little is known about the practices that are effective and feasible in CPD opportunities
99 of shorter duration. In this context, a more nuanced understanding of not only CPD
100 providers' perceptions (what they say they do) but also the ways they structure and
101 support professional learning (what they actually do) in *various* CPD contexts is required.

102 Understanding the varied ways tutors support professional learning is an important
103 starting point before trying to assess the impact of their practices on teacher (or student)
104 outcomes.

105 **Study Purpose**

106 The present study aimed to advance this line of inquiry by seeking to examine tutors'
107 perceptions and practices in the context of a national CPD Programme on Inclusive
108 Physical Education (IPE), delivered in the form of a short, day-long course. Two research
109 questions were addressed: 1) What were the tutors' *perceptions* of effective CPD
110 delivery? And 2) How were these interpretations *evidenced* in practice? In order to
111 answer the second question, it was necessary to develop and validate a new systematic
112 observation tool that allowed for the delineation and identification of tutors' practices in a
113 way that has not been attempted previously.

114 From inception through to September 2016, the Programme evaluated, reached
115 and educated over 5000 school staff in England. Relying on a large number of tutors
116 implementing courses with diverse participants, the scale of this Programme offered an
117 ideal setting in which to address the research questions. The research reported in this
118 paper was part of a larger, mixed method independent evaluation study, funded by the
119 Youth Sport Trust¹, which had two broad objectives: (i) to measure the impact of the
120 Programme; and (ii) to examine the quality of CPD implementation in order to provide
121 evidence based recommendations to improve future activities. The present paper is
122 concerned with the second objective and the methods outlined are those that were

¹ Charity in England seeking to support and improve the provision of physical education and school sport
(<https://www.youthsporttrust.org/>)

123 adopted to answer research questions about *CPD processes* and the quality of
124 implementation.

125 **Effective professional learning: The role of the provider**

126 In both policy (Department of Education, DoE, 2016) and research (Higgins et al., 2016),
127 the value of professional development that is sustained, collaborative and *in situ* is
128 increasingly recognised. However, teachers rarely have the resources (e.g., time,
129 funding) to pursue the kind of prolonged and intensive professional learning that research
130 suggests has a substantial impact on student learning (Cordingley, Higgins, Greany,
131 Buckler, et al., 2015). The workplace learning literature also highlights the importance of
132 regular access to external expertise in various contexts, as external partners can
133 stimulate new thinking and offer challenge and support to practitioners to improve their
134 practices (Stoll, Harris and Handscomb, 2012).

135 Whilst accessing external expertise is undoubtedly a necessary component of
136 CPD, one-shot opportunities have been criticised for failing to support meaningful and
137 deep level change (Higgins et al., 2016). Critics' concerns revolve around the 'artificial
138 separation' of knowledge from practice (Timperley, Wilson, Barrar and Fung, 2007); and
139 the passive transmission of intellectually superficial content to large groups of teachers
140 without careful consideration of individual contexts and diverse professional learning
141 needs (Armour and Makopoulou, 2012; Patton et al., 2012). A deficit approach is also
142 frequently reportedly adopted, as effective CPD appears to be primarily about the
143 success of information-giving activities (Armour, Quennerstedt, Chambers and
144 Makopoulou, 2017).

145 Despite these concerns, recent studies have found that well designed short
146 courses can bring positive participant outcomes (Lauer, Christopher, Pirpo-Triplett et al.,
147 2014) and have a ‘considerable and lasting impact on teaching and learning’ (Cordingley
148 et al., 2015, p. 15). It is also apparent that the quality of provision can vary significantly
149 within and across programmes (DfE 2016; Higgins et al 2016). Therefore, it is erroneous
150 to assume that all courses are ineffective by default. Ensuring ‘adequate’ or sufficient
151 time for CPD participation does not, on its own, guarantee success. What matters is how
152 the time is used and the extent to which the CPD experience enables teachers to refine
153 ideas, embed approaches and change their practices in ways that benefit pupils (DfE,
154 2016).

155 How teachers engage in the learning process, and more specifically the
156 opportunities they have for active engagement, is a critical programme design feature
157 (Desimore, 2009). Participant-centered CPD (Patton et al., 2012) reflects a constructivist
158 perspective on learning which suggests that learning is neither linear nor straightforward;
159 it rather involves a process of knowledge construction, reconstruction and remaking
160 (Dewey, 1938) and is more likely to occur as a result of meaningful engagement with
161 material and activities (Organisation for Economic Co-operation and Development –
162 OECD, 2007). The implications for CPD are clear. Professional learning is maximised
163 when teachers are treated as knowledge creating professionals rather than passive
164 recipients of ‘simplistic formulas or cookie-cutter routines’ (Darling-Hammond, 1998, p.
165 5).

166 Contemporary theories of learning (i.e. social constructivism, situated learning)
167 also encourage teachers to access others’ ‘practical wisdom’ (Shulman, 2007) and

168 diverse approaches. Although difficult to monitor and accredit and certainly not a
169 panacea, research shows that when certain conditions are in place, collaborative learning
170 is valued by teachers and can have an impact on their practices (Stoll et al., 2012).
171 Professional learning is also perceived to be effective when professionals have
172 opportunities to construct knowledge through the mediation of a facilitating agent (i.e.
173 tutor; Day, 2015). The notion of social scaffolding (Bruner, 1983) is particularly relevant in
174 the context of this study. To maximise professional learning, it is argued, tutors need to
175 not only provide high quality, innovative and challenging content but also be effective
176 facilitators by creating the right social infrastructures (Wenger, 1998) that support
177 learning in effective ways. What the facilitation process involves can however be
178 interpreted differently by different tutors.

179 Research suggests that one fundamental aspect of effective facilitation involves
180 helping teachers to ground new ideas into existing practices (Patton et al., 2012).
181 Experienced PE-CPD facilitators argue that understanding teachers' contexts, listening to
182 their voices (by creating a safe environment where teachers can voice their thoughts),
183 and making teachers feel valued so that they have the confidence to engage in the
184 process fully is paramount (Patton et al., 2012). Given the diversity of teachers' learning
185 needs and contexts, conscious efforts to diversify the CPD content to make it relevant to
186 its participants should thus be evident in CPD programmes (Higgins et al., 2016). In this
187 context, the need for a personalised and tailored approach to teachers' CPD is widely
188 acknowledged (Louws, Meirik, van Veen and van Driel, 2017).

189 Another important element of effective facilitation is for tutors to not only 'provide
190 structure without dictating' (Patton et al., 2013, p.34) but also support, challenge and

191 'push' (Poekert, 2011) teachers to transcend established (and sometimes outdated)
192 understandings and practices. Researchers suggest that tutors need to act as
193 independent honest brokers (Whitehouse, 2011), to offer teachers opportunities to
194 explore alternative modes of teaching (Kennedy, 2016) in meaningful contexts (Hunuk,
195 2017) and to create opportunities for discussion that are both affirmative and
196 contradictory in order to introduce 'disequilibrium' (Patton et al., 2012, 530).

197 Experienced PE-CPD tutors acknowledge the importance of problematizing
198 aspects of teachers' practice through critical analysis; and argue that when such
199 interactions are in place, teachers can experience 'real and 'deep level' changes (Patton
200 and Parker, 2014). Poekert (2011) however also cautions that although tutors are
201 generally effective at providing resources and advice, engaging teachers in self-reflection
202 and critical analysis is a much more challenging task. Achieving the right balance
203 between *leading* (i.e. providing expert input, resources), *listening* (i.e. understanding
204 teachers' contexts and learning needs) and *challenging* teachers is considered one of the
205 great complexities of tutoring (Higgins et al 2016).

206 In summary, whilst in educational research the quality of teaching appears to be
207 'the single biggest factor determining pupil learning outcomes' (Pianta and Hamre, 2009,
208 p. 1), tutors' practices (i.e., the ways they support or facilitate effective professional
209 learning) are rarely examined in a detailed and systematic way. Research that seeks to
210 examine tutors' practices is therefore an important step in developing a more nuanced
211 understanding of aspects of programme delivery that support meaningful and impactful
212 professional learning. Yet, examining specific tutoring practices in the context of
213 evaluation poses a number of challenges as no established, valid and reliable measures

214 have been reported in the literature. This necessitated the development of an innovative
215 methodological approach and this is explained and justified in the next section.

216 **Methods**

217 **The context**

218 Launched in 2013, the CPD Programme aimed to increase the competence and
219 confidence of primary, secondary, and trainee teachers (as well as other adults involved
220 in the education of children) to deliver high quality Inclusive Physical Education (IPE).
221 The Programme was delivered in the form of a one-off, six-hour course. The ‘inclusion
222 spectrum²’, developed by Black and Stevenson (Stevenson, 2009) in the UK, provided
223 the theoretical framework (or ‘theory of instruction’, Wayne et al., 2008) for the
224 programme.

225 The content and structure of the courses were designed and reviewed centrally by
226 experts on inclusion. The delivery was the responsibility of approximately 40 tutors
227 consisting mainly of PE teachers working in secondary or special schools with tutoring
228 experience, or independent consultants. Tutors were invited to participate in ‘tutor
229 development days’ approximately twice a year, during which course material was
230 presented, explained and debated, practical sessions to illustrate examples of effective
231 course implementation were included, and issues of concern were discussed.

²The main principle of the Inclusion Spectrum is that all students can be included and challenged to progress in their learning when teachers design the learning environment by including ‘open’ (i.e. all learners participate in activities that do not emphasise individual differences), ‘modified’ (i.e. provide differentiated instruction using the STEP tool), ‘parallel’ (i.e. ability groups) or ‘separate’ (i.e. temporary interventions aligned with the learning objectives of the lesson) activities – or through a process called ‘reverse integration’ where all pupils participate in disability sport (Stevenson, 2009).

232 Although variability in delivery was anticipated, detailed course material for tutors
233 was made available to ensure that the key deliverables were implemented adequately by
234 different tutors. Contemporary approaches to CPD design were apparent in the
235 philosophy of the programme in various ways. For example, tutors were expected to
236 facilitate discussions about theoretical and practical issues, provide hands-on and
237 innovative practical activities to explore effective IPE into practice, support participants to
238 develop effective inclusive pedagogies by having opportunities to ‘design and modify’
239 activities in practical settings, foster sharing of expertise, and engage participants in
240 ‘action planning’ through reflection. Overall, there was a clear emphasis on practical and
241 interactive professional learning experiences and this shaped the content and purpose of
242 the data collection tools employed in the evaluation research.

243 **Research design and sampling**

244 A case study design (Thomas and Myers, 2015) was adopted where the case was
245 identified at the level of individual courses. To capture the anticipated variation in
246 programme implementation, and given the ad hoc nature of course advertising and
247 delivery, a cluster sampling procedure was considered the most appropriate and
248 applicable method. Each of the nine geographical areas in England was identified as a
249 cluster (nine clusters in total). Where possible, systematic sampling within the nine
250 clusters was employed with the aim to collect evidence from the first two courses
251 delivered in each cluster each year. However, this was not always possible in practice
252 due to tutor response and availability.

253 Between October 2013 and September 2015, a total of 27 courses, delivered by
254 20 tutors across eight³ geographical areas were observed in their entirety (all six hours).
255 17 tutors were observed only once whilst 1 and 2 tutors were observed 4 and 3 times
256 each respectively. From this sample, and at the start of each course, all course
257 participants (n= 450, with an average of 20 participants per course) as well as the course
258 tutors were invited to participate in the study. Although course participants engaged in a
259 range of research activities, the purpose and focus of the present paper is on tutors'
260 perceptions and practices.

261 **Data collection tools**

262 To explore tutors' perceptions of effective CPD delivery (research question 1), qualitative
263 data were collected via an online questionnaire and individual interviews. To develop a
264 realistic and contextual understanding of how these interpretations were *evidenced* in
265 practice (research question 2), both quantitative and qualitative data were collected via
266 systematic observations and ethnographic field notes.

267 *Tutor questionnaire*

268 All tutors involved in the delivery of the programme (n=40) were invited to complete an
269 anonymous online questionnaire at the end of the second year of the evaluation (May
270 2015). The questionnaire consisted of two open-ended questions asking tutors to provide
271 details on the features of their practices that they believed were effective (i.e. supported

³ Courses from eight rather than all nine geographic areas in England were observed as, during the timeframe of the research, only a limited number of courses were delivered in one area and observations were not possible due to lack of tutor response.

272 meaningful professional learning with the aim to improve pupils' PE experiences).
273 Eighteen tutors (45% response rate) provided full responses.

274 *Tutor interviews*

275 Each tutor delivering the courses observed (n=20) was invited to and participated in one
276 face-to-face, individual interview that was in most cases conducted informally as the
277 situation allowed (e.g., taking place during breaks or at the end of the courses observed).
278 The aims of these interviews were to explore tutors' views about the features of effective
279 CPD, discuss their reasoning about the strategies they employed during the course of the
280 day, understand some of the challenges they encountered, and to determine how they
281 could be best supported to deliver a high quality CPD experience. The duration of the
282 interviews with each tutor ranged from 10 to 30 minutes and they were conducted by the
283 author, who in most cases made extensive notes of tutors' comments/responses as
284 audio recording the discussions was not a possible option (e.g., noisy environment, tutors
285 on the move).

286 *Systematic course observations and ethnographic field notes*

287 Observation is an established research tool in both qualitative and quantitative research.
288 Used well, it has the potential to enable researchers to 'get close to' and develop in-depth
289 understandings of social practices studied (Ohman and Quennerstedt, 2012). While there
290 is little research regarding the use of systematic observation in teachers' CPD settings,
291 there is a long and rich history of systematic observation in education and physical
292 education (Grossman, Loeb, Cohen and Whychoff, 2013; Pianta and Hamre, 2009). In

293 this evaluation, the work of McKenzie (2012) was drawn upon in order to develop an
294 observation tool, called the Observation of Tutors' Practices (or OTP)⁴.

295 Observations can focus on a range of domains but should be carried out with
296 consideration as to what is feasible given the available resources (Schoenfeld, 2014). In
297 the context of this study, decisions on the specific domains to be included were grounded
298 in a careful analysis of the programme aims and philosophy. More specifically, particular
299 emphasis was placed on how tutors supported participants to engage in 'active
300 professional learning', offered opportunities for practical application, facilitated tasks and
301 interactions, and tailored provision. The observation tool provided space for two types of
302 data to be collected simultaneously: systematic coding of pedagogical practices and
303 ethnographic field notes regarding the nature of those practices.

304 The first type of data collected involved a detailed coding system which was
305 developed to record systematically (for every one minute interval) tutors' pedagogical
306 practices in terms of the *time* allocated to 'active' or 'passive' opportunities as well as the
307 division between theory and practice. A partial-internal recording (Subramaniam &
308 Wuest, 2017) was adopted; i.e., coding the tutor behaviour that dominated the first thirty
309 seconds of each minute, giving the observer time to code and collect other relevant data
310 (field notes) about the events during the second half of the minute interval.

⁴ A copy of the **systematic** observation tool **and questions that guided the collection of qualitative field notes** can be obtained **from** the author upon request.

311 The domain of ‘active’ engagement included tutors setting tasks that enabled
312 participants to: (i) engage in discussions about an issue/concept (e.g., the features of
313 learners who make progress in PE); (ii) reflect upon theoretical or practical ideas and
314 elaborate on how these can be used in different contexts; (iii) design, modify, and apply
315 different inclusive activities in small groups; (iv) explain the activities they created verbally
316 or through demonstrations; (v) teach the activities they created to other participants or
317 pupils; and (vi) provide a clear rationale for the perceived effectiveness of their modified
318 activities.

319 The domain of ‘passive engagement’ was intended to focus on those occasions
320 when tutors delivered material in relation to the theory of instruction (e.g., present the
321 inclusion spectrum and explain its components); offered examples or led practical
322 activities to illustrate the practical application of the model or discuss other effective
323 inclusive practices; or set equipment and tasks. The extent to which tutors offered
324 practical opportunities, and the content and purpose of these opportunities were also
325 captured. For example, different codes were noted when tutors set up equipment and
326 explained a range of progression tasks while participants were watching a demonstration
327 as opposed to tutors allocating time for participants to experience vicariously the activity.

328 The second type of data collected involved taking detailed open-ended field notes
329 on the nature and quality of tasks set by the tutors and their ability to facilitate participant
330 engagement. Informed by theory and research on effective CPD, and guided by a set of
331 questions, the observer examined and monitored the ways in (and extent to) which tutors
332 tailored provision, facilitated discussions, probed participants’ thinking and made effective
333 use of questioning and feedback. As an illustration, examples of guiding questions in

334 relation to 'tailoring provision' included: Did tutors check whether participants were
335 familiar with material presented? Did tutors ask about existing IPE practices (what works
336 – or not – and why)? Did tutors check participants' existing knowledge and did they use
337 this information to shape the content of the course? Did tutors support participants to
338 explore ways to implement new ideas into their PE lessons?

339 **Trustworthiness**

340 The trustworthiness of the qualitative data was established by data triangulation and
341 member reflections (Smith and McGannon, 2017). The collection of evidence using
342 multiple data collection tools ensured that data triangulation was possible; and results are
343 reported accordingly.

344 Member reflections were possible both during and following the end of each tutor
345 interview. During the interviewing process, tutors were probed to elaborate further on the
346 issues discussed and sought clarification when required in order to collect rich, detailed
347 and accurate data. At the end of each interview, a summary containing key points from
348 the interview was created by the researcher and discussed in length with the tutors in
349 order to ensure that the researcher's interpretations reflected tutors' perspectives and to,
350 generate additional data (if something was omitted or not extensively discussed
351 previously). The trustworthiness of the results from the field notes was ensured by
352 randomly selecting tutors observed (n=4), developing a course report including a
353 summary of the key points identified, sharing the report with the selected tutors and
354 engaging in discussions with them about their views on the key themes reported.

355 **Validity and reliability**

356 The systematic observation tool was developed through an extensive partnership-based
357 process between the author and programme designers⁵. Although the results reported in
358 this paper derive from observations conducted by the author, the initial reliability of the
359 observation tool was also tested. Two research associates observed two separate
360 courses each, alongside the lead researcher (author). Pearson's correlations and t-tests
361 were conducted to examine the relationships and mean differences between the ratings
362 made by the lead researcher and the two research associates. The results revealed the
363 ratings made by the different observers to be strongly positively correlated ($r=.0.74$) and
364 to reflect a good degree of inter-observer reliability (M ICC = 0.93 and 0.91).

365 To test the observation tool's convergent validity, results in relation to the
366 percentage of time allocated to active and passive learning were compared to course
367 participants' responses to the end-of-course questionnaire. All participants attending the
368 courses observed completed two items pertaining to their opportunities for active learning
369 at the end of each course⁶. Pearson correlation analyses showed that there were
370 significant positive correlations between the data from the observations (percentage of
371 time allocated to active learning) and the participants' perceptions of the opportunities to
372 put ideas forward (construct knowledge) ($r = .19, p = .005$) and opportunities to share
373 knowledge ($r = .26, p < .001$).

⁵ Initial codes were developed by the author following the observation of four separate courses, which provided a sharper understanding of the diversity of tutor practices. These codes were then piloted during four additional courses. The final codes were reviewed by programme designers to ensure clarity and alignment with programme expectations.

⁶ In this course, I had opportunities to 'put ideas forward' and 'share knowledge and ideas with other participants and/or the tutor'. Participants responded to these statements on a 7-point Likert scale ranging from 1 (*not at all in agreement*) to 7 (*completely in agreement*).

374 **Data analysis**

375 Qualitative data were analysed using elements of grounded theory (Charmaz 2006). The
376 process of data analysis was *ongoing; iterative* (to enable further data collection when
377 required) and *theoretically sensitive* as the researcher acknowledged entering the
378 fieldwork 'cognisant of sensitive concepts that provided a point of departure for data
379 collection' and analysis (Weed, 2017, p. 152).

380 Once data were available, the researcher engaged in initial coding - an incident-
381 by-incident analysis seeking to describe phenomena and attach names or labels to data
382 extracts. This was supported by memo writing (i.e. initial interpretations of evidence)
383 (Charmaz, 2006) and constant comparisons between codes to decide which belonged
384 together (Harry, Sturges, and Kllinger, 2005). The process was *theoretically sensitive* as
385 codes were developed and compared not just with other codes but also with theory and
386 research to ensure that the results remained grounded (Weed, 2017).

387 As a result of the constant comparison, categories were developed. For example,
388 codes revolving around the notion of learning with and from other participants (e.g.,
389 "share ideas with others in similar positions", "debate teaching approaches", "discuss
390 barriers", "explore realistic ways to include pupils") were grouped under the category of
391 "The importance of interactions". Different categories (e.g., "The importance of
392 interactions"; "Opportunities to construct knowledge") were then clustered together under
393 the relevant themes (e.g., "Engaging participants in 'active' learning").

394 The quantitative data from the observations were entered into SPSS version 21
395 (IBM Statistics) for analysis. Separate percentages were created for the amount of time

396 dedicated to theory vs. practice as well as active vs. passive learning. Descriptive
397 statistics were conducted to identify mean scores per course. As reported earlier,
398 Pearson's correlation and t-tests were conducted to test the observation tool's
399 convergent validity and intra-reliability.

400

Results

401 Tutors appeared to share some fundamental assumptions about effective CPD
402 implementation, including the importance of affording opportunities for practical
403 experiences (theme 1), tailoring provision (theme 2) and engaging participants in
404 (inter)active learning (theme 3). Course observations however showed a degree of
405 variation in the ways different tutors offered such opportunities and facilitated
406 professional learning (theme 4). In the following section, field notes from observations
407 and quotes from the tutor questionnaire and interviews are identified with the initial
408 capitals (Course – C, Tutor Questionnaire – TQ and Interview - Int) while each tutor or
409 course has been given a unique numerical code (e.g., TQ-4, Int-4, C-4).

410 **Offering opportunities for practical engagement**

411 When interviewed, all tutors believed that offering practical experiences was one of the
412 most important components of effective delivery. There was consensus that
413 professionals learn by doing and that opportunities for '*hands-on*' experiences were
414 pivotal in supporting participants to develop a '*good understanding*' (TQ-9) of effective
415 IPE and to be '*confident to begin the process of change within their own delivery*' (TQ-
416 14). Evidence from course observations showed that all tutors led practical sessions
417 aimed at enhancing participants' understanding of the application of the inclusion

418 spectrum, through demonstrations and explanations on how this can be applied in
419 practice. In most cases, these were tutor-led, vicarious experiences with participants
420 engaging in tasks as learners.

421 Aligned with the course material, most tutors (with the exception of courses 5, 14
422 and 26) also encouraged participants to design and modify practical activities using some
423 of the key principles of IPE introduced earlier in the course. Some tutors believed that the
424 practical dimension was strengthened when participants had opportunities to work with
425 and teach '*real pupils*' (C-11) because it is a '*memorable*' experience that '*gives staff*
426 *confidence to include all*' (TQ-2). They, however, acknowledged that this was not always
427 feasible.

428 Despite consensus about the importance of practical opportunities, course
429 observations identified variation in the percentage of time dedicated to theoretical input
430 and opportunities for practical application. Figure 1 provides a breakdown of the
431 theory/practice divide per course. In 55% of the courses observed, tutors dedicated more
432 time to theory/discussion than practical application. In four of these courses (9, 14, 15
433 and 16), only 30% of the duration of the course was practical. This finding suggests that
434 tutors made alterations to the suggested course structure with some offering fewer
435 opportunities for practical application than anticipated by programme designers. For
436 example, two tutors (C-9 and C-15) encouraged participants to design activities in a non-
437 practical setting (roundtables) with neither access to equipment nor opportunities to
438 demonstrate and analyse the activities they had created / modified.

439 Evidence from field notes suggest that tutors' practices also varied in the ways
440 and extent to which they explained, justified and theorised the tasks they led. More
441 specifically, in most of the tutor-led practical sessions, there was a clear emphasis on the
442 'how' and 'what' of the activity. All tutors shared the rationale of the activity demonstrated
443 and encouraged participants to consider the links between the inclusion spectrum and
444 the activity at hand in order to develop a more in-depth understanding of its practical
445 application. However, only a small number (n=4) encouraged participants to examine the
446 activities presented in a critical and reflective way (e.g., 'Would such an approach be
447 relevant to my pupils, how, and why?' 'Who would benefit if this approach was adopted,
448 and why?' or 'In what ways does this approach deviate from what I currently offer?' 'Can I
449 implement this activity with my learners or not and why? What do I need to change to
450 make it feasible in my school context?'). This finding suggests that most tutors missed
451 opportunities to tailor provision and this is an issue expanded upon in the next section.

452 **Tailoring provision**

453 Some tutors argued that effective CPD is evident when participants '*complete [the*
454 *course] with their questions answered'* (TQ-21). They talked about the importance of
455 '*listening to them [participants] and valuing their experience'* (TQ-3); '*identifying what*
456 *participants' starting points are, just as we would with a class and try to move everybody*
457 *in some way'* (TQ-7); and '*using open questions to bring out their understanding'* (TQ-
458 15). Identifying participants' needs prior to workshop implementation (TQ-3) or through
459 targeted questions at the beginning of the workshop was crucial to these tutors in order
460 to understand what participants were '*hoping to learn'* (TQ-2) and consequently enable

461 them to make appropriate adaptations to the content of the workshop '*to tailor [provision]*
462 *to the needs of participants*' (TQ-4).

463 A few tutors (n=5) however were not convinced that tailoring provision to this
464 degree and for every participant was possible because of the nature and duration of the
465 course (TQ-14). Limited time was reported to be the main barrier. One tutor strongly
466 believed that the only way to overcome this was to offer '*a different type of CPD*
467 *experience*', with the provision of a '*longer summer workshop and regular meetings*
468 *throughout the year*' (Int-6).

469 Other tutors (n=8) meanwhile believed that tailoring provision, one of the most
470 important albeit challenging aspects of their delivery (Int-4), was possible if sufficient time
471 for relevant tasks was '*built-in*' the course material (TQ-12) and clear guidance was
472 offered on how much time to dedicate on this. As one tutor explained, '*there should be*
473 *dedicated time on the course for discussion. Barriers [to inclusion] are inputted on one of*
474 *the tasks but we are advised not to dwell*' (TQ-18). To be better prepared to respond to
475 participants' questions effectively, one tutor recommended that they should have
476 opportunities to share experiences by '*discuss[ing] questions which arise*' (TQ-12) during
477 tutor development days.

478 Despite their good intentions, evidence from field notes suggested that most tutors
479 made limited (if any) meaningful connections between the CPD experience and
480 participants' existing practices. In most cases, tutors (with the exception of two) allowed
481 insufficient opportunity for participants to talk about their existing practices at the start of
482 the course; to provide examples of what they perceived to be high quality IPE in the

483 context of their school; or to discuss the pedagogical challenges encountered. Most
484 discussions revolved around external barriers to inclusion (e.g., worrying parents,
485 Teaching Assistants who take over pupils' learning, lack of resources and facilities) but
486 little attention was given to pedagogical considerations in relation to inclusive teaching
487 and learning. There was also little evidence of in-depth analysis of existing effective or
488 ineffective practices, meaningful discussions on how these related to the model
489 presented in the course (as explained at the end of the previous section), or sharing of
490 ideas on ways to overcome real or perceived barriers to embed new knowledge in
491 practice⁷.

492 Although some tutors claimed that they made conscious efforts to identify
493 participants' questions and to adapt the content of the course based on these needs,
494 there was little evidence of pedagogical differentiation to ensure that participants with
495 different roles, responsibilities, knowledge, attitudes, and needs or priorities experienced
496 a more personalised CPD. Only one out of the three tutors who were observed more than
497 once showed a degree of content diversification and 'on the spot' adaptation based on
498 the background, questions or needs of the participants. In the case of the other two
499 tutors, both the content and delivery mode of the different courses varied very little – if at
500 all. For example, courses 6, 14 and 26 were delivered by the same tutor and had
501 identical content and tasks. This suggests a degree of pre-specification and

⁷ In C3, for example, participants sought the tutor's advice about feasible ways to include elements of the inclusion spectrum in their contexts especially in relation different activity areas (e.g., dance, gymnastics, games) or when the conditions were challenging (e.g., 'very busy class' with some 'very naughty children'). However, the tutor offered very brief responses stressing the importance of effective planning without further investigation of existing practices, specific school cultures or barriers teachers or learners encountered.

502 standardisation of the IPE course. It could be therefore argued that overall, and despite
503 their intentions and beliefs, most tutors missed opportunities to offer tailored support.

504 **Engaging participants in 'active' learning**

505 Evidence from tutor interviews and questionnaires suggested that there was an
506 embedded, and to some extent, shared understanding that participants need
507 opportunities to engage actively in learning and to share knowledge and experiences, in
508 order to have '*some ownership of the day*' (TQ-6).

509 Some tutors believed that the development of professional practice should come
510 from the participants themselves. Despite their extensive experience working with pupils
511 with diverse and complex needs, they did not consider themselves as the experts who
512 should merely transmit knowledge. They believed that participants have a '*wealth of*
513 *experience*' (Int-1) and a workable understanding of their learners and practices (Int-7),
514 and this experience needed to be shared in order to maximise learning for all involved.
515 As one tutor put it, '*By sharing challenges and ideas with colleagues in similar positions*
516 *they will gain more realistic and practical ways to include pupils*' (TQ-14). Establishing a
517 '*relaxed atmosphere*' (Int-10) where people '*move around, interact with others*' (Int-4) and
518 feel '*safe to talk, share their views*' (Int-8) and '*try out different ideas*' (TQ-8) was
519 considered important.

520 In contrast, a small number of tutors (n=5) described their role as pivotal in
521 providing (delivering) feasible and innovative ideas, including '*practical examples and*
522 *suggestions*' for '*participants to take away*' and use in their own contexts (TQ-6). In some
523 cases, tutors were concerned that their tutoring style would result in a less engaging and

524 interactive course than desired, planned and anticipated. For example, tutors admitted to
525 the habit of *'talking too much instead of taking a step back'* (Int-4) or feeling under
526 pressure to *'give as much information to participants'* as possible in the short space of
527 time available (Int-14).

528 Some tutors (n=4) however believed that their approach to course delivery was not
529 fixed but dependent on who the participants were and what kinds of support they needed.
530 When participants demonstrated limited subject knowledge (as it was expected when
531 working with primary staff, Int-5) or lacked confidence in teaching PE (Int-9), some tutors
532 believed that a more direct approach in their delivery was preferred.

533 Evidence from course observations identified significant variation in CPD
534 implementation. The means for active and passive learning, as captured by the
535 systematic observations, indicated that in general tutors offered more 'passive' than
536 'active' learning opportunities. A breakdown of the percentage of active/passive divide
537 per course is reported in table 1, showing that although a few tutors (1%) achieved a
538 balance between the two (50/50), in the majority of courses observed (74%), tutors' input
539 appeared to dominate the experience. This was particularly the case for three courses (5,
540 6, 14 and 26). On the other hand, the tutors in courses 11, 20, 21 and 22 offered
541 substantially more and different opportunities for active engagement, including
542 collaborative lesson planning and co-teaching of PE classes. In these instances,
543 participants were encouraged to be actively engaged and to contribute to the workshop
544 experience for more than 60% of the duration of each course.

545 Different tutors also seemed to value (and afford) different professional learning
546 activities. For example, some tutors (n=14) encouraged whole group discussion and
547 sharing of ideas following group tasks, whilst others (n=6) did not appear to incorporate
548 such activities in their delivery. In those cases, tutors missed opportunities to engage
549 participants in pedagogical discussions and to share insights generated widely.
550 Furthermore, although some tutors provided opportunities for participants to 'try out' their
551 ideas by teaching children (n=2) or, more frequently, other participants (n=4), this
552 pedagogical approach was not embedded in a number of the courses observed (e.g., C-
553 23 to C-27). This variation in provision is illustrated in figure 2.

554 **Facilitating professional learning**

555 Field notes suggested that tutors' practices differed not only in the selection of the
556 learning activities but also in the ways in which tutors facilitated participant engagement.
557 Examples of pedagogical strategies identified to facilitate professional learning included
558 tutors clearly demonstrating examples of inclusive teaching (n=15), articulating the
559 thoughts and reasons that underpinned activities demonstrated (n=10), making
560 suggestions to allow participants to see other possibilities in the activity they created
561 (n=3), responding and addressing participants' questions and misconceptions (n=5), and
562 asking participants questions that encouraged them to explain and justify the decisions
563 made (n=4). When facilitated skilfully (e.g. C-11, C-13), discussions were linked
564 effectively to the practical or theoretical aspect of the workshop, to the participants'
565 practices, and to a shared vision about outstanding PE; with these opportunities adding
566 an important dimension to the whole experience.

567 An illustrative example was evident in course 11 where the tutor asked
568 participants to consider ways to include pupils with Special Educational Needs and
569 Disabilities (SEND) in competitive games activities. The extract below illustrates how this
570 tutor used questions to encourage participants to consider potential barriers to
571 participation, discuss alternative possibilities, and to justify their thinking and decision
572 making:

573 Tutor: How can you include SEND participants in invasion games?
574 *Participants share ideas – they build upon each others' suggestions*

575 Tutor: But what can you do to ensure that this disabled child gets the
576 touches....? How can you ensure that this child is truly included and not in
577 the periphery of the game? *Participants hesitate. Two primary teachers*
578 *offer some suggestions about zone play and change of rules.*

579 Tutor: How do you adapt that? *Two participants draw upon the STEP⁸ tool*
580 *previously discussed to make adaptations using space and people.*

581 Tutor: Which approach is best in that case and why? *One participant offers*
582 *his rationale.*

583 Tutor: But then, what can you do to ensure that this student (SEND) is
584 safe?

585 However, in many other courses observed (with the exception of courses 4, 11, 18 and
586 21), field notes suggest that questions were employed as a means to either check

⁸ All pupils can be included and challenged to progress in their learning if and when their teachers differentiate activities by Space, Task, Equipment or People (STEP)

587 participants' understandings or monitor how the delivery was going as opposed to
588 incorporating questions for their value as a pedagogical tool.

589 Equally, only a few tutors encouraged participants to elaborate on their responses
590 or to explain the rationale that underpinned their modifications (e.g., how and why
591 activities were modified, to what end and for whom) (n=5). Whilst most tutors asked
592 participants to share their ideas with the whole group following group tasks (enhancing
593 opportunities for ideas dissemination between participants) (e.g., C21-15), only a small
594 number commented on participants' suggestions and thoughts (n=3, e.g., C-21). In most
595 of these cases, tutors' comments involved praise ('well done; that is a very good practical
596 illustration', C-26) or merely the reiteration of key points raised by participants'
597 responses. Crucially, there was little scrutiny of the quality, effectiveness and application
598 of the 'end product' (the outcome of group activities), as explained in the extract from the
599 observer's field notes below:

600 *When asked to share their activities with the other groups, no discussion on how*
601 *(and why) they adapted and what worked and did not work occurred at the end of*
602 *the session. Despite approaching me earlier raising concerns about the uninspired*
603 *activities developed by participants, and the lack of innovation in their thinking*
604 *around inclusion, the tutor neither provided feedback about the ways participants*
605 *modified activities (and how it could be improved or applied), nor raised questions*
606 *to make participants think critically about the effectiveness of their ideas*
607 *(fieldnotes, C-18).*

608 **Discussion**

609 This paper set out to examine CPD tutors' perceptions and practices in the context of a
610 'traditional' day-long course. By exploring tutors' perceptions on effective delivery and by
611 observing them in action, a number of pedagogical strategies reflecting the international
612 CPD literature were identified but also areas for consideration were raised.

613 Most tutors had strong views about the importance of embedding a practical
614 element in the courses they delivered, encouraging participants to experiment with and
615 share their ideas. This is not a surprising finding as it reflects an accumulative body of
616 CPD knowledge (e.g., Desimore, 2009; Day, 2015). Data from the observations though
617 suggest variation in the ways tutors structured, supported, and facilitated professional
618 learning. This variation was evident not only in the actual time dedicated to practical vs.
619 theoretical activities and active vs. passive learning opportunities but also in the quality of
620 implementation (i.e., tutors' ability to facilitate professional learning). The variation
621 identified was perhaps anticipated given the large number of tutors involved. Yet, given
622 the limited evidence of pedagogical and content adaptations in the courses in order to
623 address the needs of the participants, this finding draws attention to the important issue
624 of the selection and continuing education of tutors.

625 CPD research suggests that effective professional learning requires some
626 'disequilibrium' as participants' existing theories, beliefs and practices are challenged in a
627 non-threatening way (Higgins et al., 2016). It is argued that activities that foster
628 participants to debate ideas, discuss and rationalise pedagogical decisions, and to draw
629 upon and question existing practices are grounded in and aligned with constructivist
630 understandings of professional learning (Reich, Rooney and Boud, 2015). Although one
631 could contest that the duration of the course posed significant limits to what was feasible,

632 it was nonetheless evident that a small number of tutors offered such learning
633 opportunities and attempted to tailor provision. Most tutors however appeared to lack the
634 conceptual and practical tools to engage in the process effectively. This finding suggests
635 that there is a significant set of skills involved in supporting, nurturing, and challenging
636 professional learning in CPD contexts. It is therefore important to consider how tutors can
637 be best supported to develop and implement these skills effectively.

638 When preparing a large number of tutors to deliver a CPD programme, setting
639 clear expectations about the features of effective implementation is an important first
640 step. In the context of the programme evaluated, there was a consistent effort to do this
641 through tutor development days and the provision of detailed course material. However,
642 evidence suggested that the importance of practical activities was not embedded in all
643 courses observed despite consensus amongst tutors about the importance of experiential
644 learning. Furthermore, it appeared that tutors needed further support in developing an in-
645 depth understanding of the multi-layered and complex nature of effective facilitation.
646 More specifically, it is proposed that tutors needed opportunities to closely examine their
647 own practice and assumptions about effective facilitation, consider more deeply what
648 their understanding of active construction of knowledge and sharing of expertise
649 involved, and to reflect upon and question the extent to which they provided high quality
650 theoretical or practical experiences and facilitated professional learning in meaningful
651 ways.

652 CPD research suggests that to transform practice in a way that benefits pupils,
653 CPD providers need to ensure that participants have ample opportunities to explore
654 different teaching approaches in a critical way and analyse them in light of their own,

655 'ongoing' and sometimes embedded 'systems of practice' (Kennedy, 2016). Such critical
656 engagement was nevertheless absent from most courses observed. It is therefore
657 recommended that at a practical level and in the context of this and similar programmes,
658 tutors need support in developing their understanding of how (and when) to: (i) take a
659 step back, be observant and listen to participants' experiences and questions; (ii) make
660 effective pedagogical interventions to challenge participants' perceptions and existing
661 practices; (iii) offer 'vivid portraits of alternative models of teaching' (Kennedy, 1998, 3);
662 and (iv) support participants to not only *experiment* with different ideas/strategies but also
663 *articulate* their understandings (Michael, 2006), *evaluate* (scrutinise) their ideas, and
664 *synthesise* new with existing understandings.

665 Meaningful engagement and learning can also be achieved by ensuring that
666 learning activities are rooted in evidence of what and how professionals do (Boud and
667 Hager, 2012) so that existing beliefs and practices are shared, articulated, discussed,
668 reflected upon, compared to the new professional learning, and – when required –
669 problematized and reviewed (Timplerley et al., 2007). Locating participants' needs and
670 questions centre stage also requires a shift in the ways tutors structure the learning
671 environment and highlights the importance of demonstrating the ability to adapt – rather
672 than standardise - CPD content.

673

Conclusion

674 The research community is under considerable pressure to improve the precision of
675 studies on the effects of CPD (Day, 2015) in order to offer trustworthy and clear
676 evaluations for its the benefit to policy makers and practitioners. There are many ways to

677 do so. The present study focused on CPD input, namely what happens during the CPD
678 programme, and examined tutors' perceptions and practices in the context of a short
679 course. The results consolidate existing understandings about the perceived importance
680 of (inter)active and practical learning opportunities in CPD; but also add nuance and
681 detail on the diverse ways in which tutors engaged participants in the learning process.

682 The results suggest that effective tutoring is a dynamic, complex and multi-
683 dimensional process. Providing a blueprint with a set of fixed skills and knowledge that
684 tutors should display or develop in order to be effective in their delivery might be
685 restrictive and certainly not sufficient in the long term. Rather, it is important that those
686 responsible for the education of CPD providers offer meaningful and sustained support
687 so that tutors develop a nuanced and critical understanding of the relevant literature and
688 their own practices.

689 In the context of the teacher effectiveness literature, the use of lesson
690 observations to evaluate the quality of teaching is growing in popularity (Mashburn et al.,
691 2014) and this body of literature has an important role to play in delineating the aspects
692 of teaching associated with student learning and achievement. It is argued here that
693 pursuing a similar line of inquiry in CPD research and understanding how tutors facilitate
694 effective professional learning is important for at least two reasons. First, this type of
695 evidence can be used diagnostically (Grossman et al., 2013) informing and shaping the
696 way tutors are educated to support professional learning in effective, tailored and
697 innovative ways. Second, making tutors' practices more visible can provide the basis for
698 examining the effects of different approaches to tutoring on both teacher and pupil
699 learning outcomes. In this context, the observation tool used in this study needs to be

700 developed further and applied in different contexts and to different programmes so that
701 fruitful comparisons can be made to contribute to the existing knowledge base about the
702 specific aspects of CPD implementation that lead to programme success.

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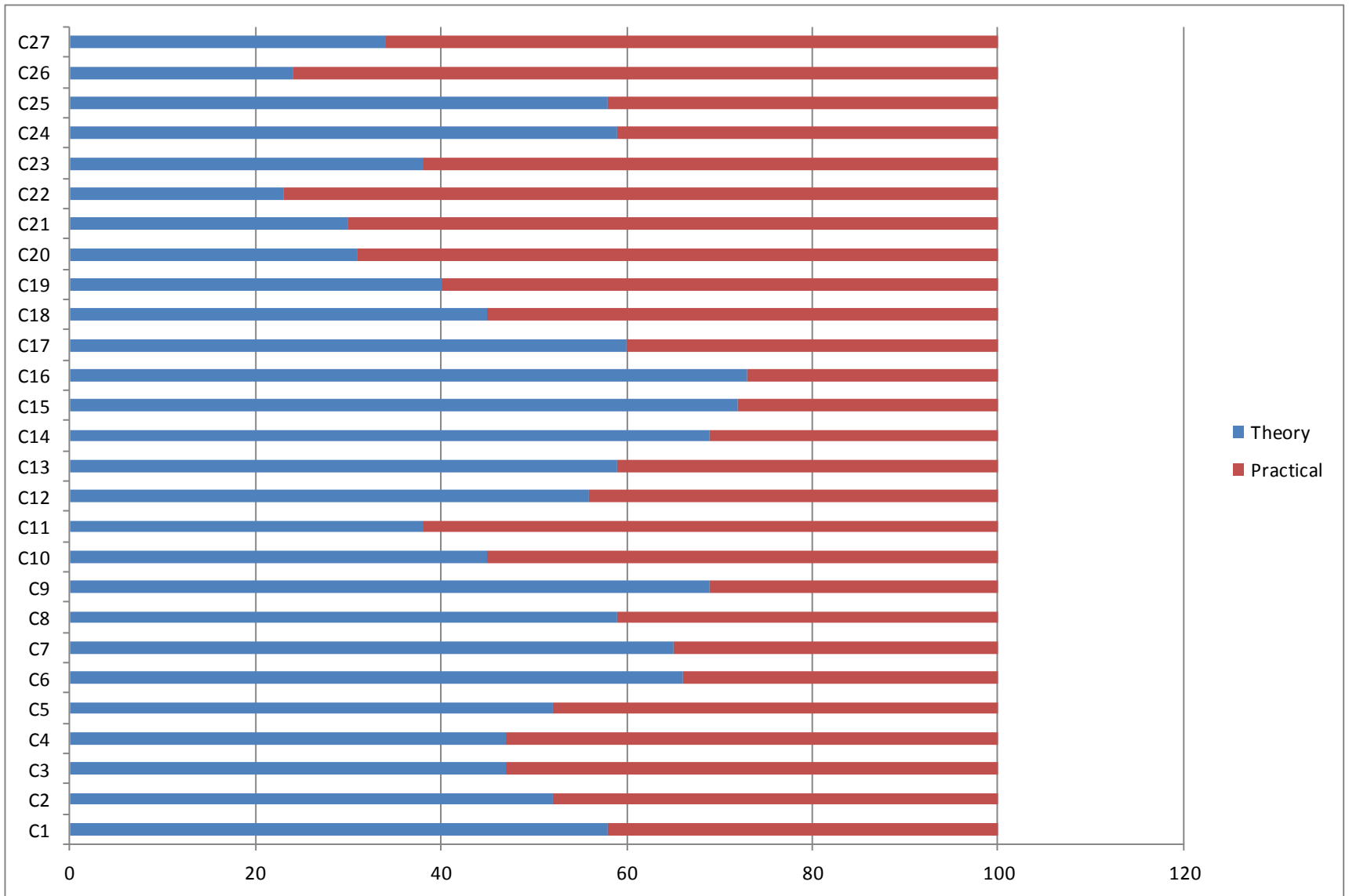
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821 **Figure 1** (overleaf): % Time dedicated to 'Theory' vs. 'Practical experiences' per course
822 (courses 1-6 were delivered in 2013, courses 7-16 in 2014 and 17-27 in 2015)



824 Table 1: % Time dedicated to 'Passive' vs. 'Active' learning experiences per course

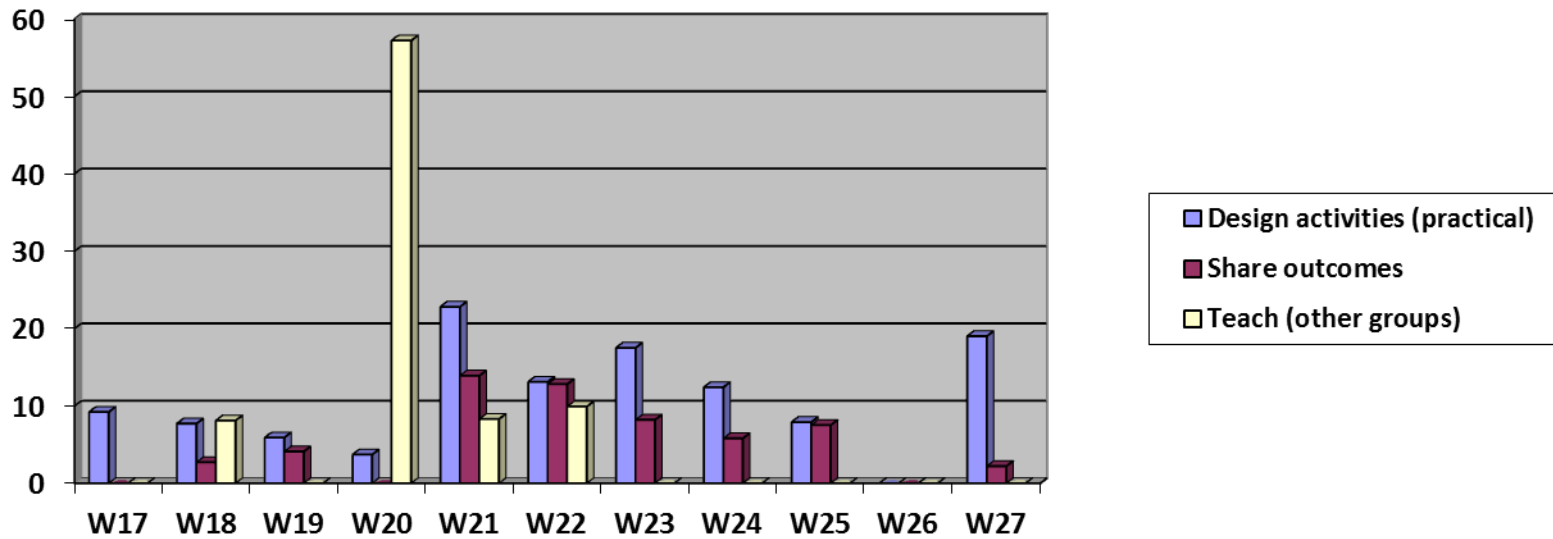
2013	C-1		C-2		C-3		C-4		C-5		C-6	
%	Passive 60	Active 40	Passive 55	Active 45	Passive 60	Active 40	Passive 64	Active 36	Passive 95	Active 5	Passive 90	Active 10
2014	C-7		C-8		C-9		C-10		C-11		C-12	
%	Passive 55	Active 45	Passive 65	Active 35	Passive 72	Active 28	Passive 54	Active 46	Passive 36	Active 64	Passive 70	Active 30
	C-13		C-14		C-15		C-16					
%	Passive 50	Active 50	Passive 75	Active 25	Passive 55	Active 45	Passive 64	Active 36				
2015	C-17		C-18		C-19		C-20		C-21		C-22	
%	Passive 70	Active 30	Passive 49	Active 51	Passive 68	Active 32	Passive 35	Active 65	Passive 20	Active 80	Passive 35	Active 65
	C-23		C-24		C-25		C-26		C-27			
%	Passive 60	Active 40	Passive 54	Active 46	Passive 65	Active 35	Passive 94	Active 6	Passive 61	Active 39		

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827 **Figure 2:** Variation between workshops in terms of the percentage of time allocated to designing activities in practical settings
828 (including developing and modifying activities and working on the scenarios), share outcomes (explain verbally what they've done or
829 through demonstrations) and teach other groups of participants or pupils.

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