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How prepared are Primary Pre-Service Teachers when teaching Physical Education? What impact do their prior experiences of PE have on their preparedness to teach the subject? Part Two

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Introduction

This article, the second of five, focuses on a research question from a Master's in Education thesis considering the impact of Primary Pre-Service Teachers' (PPSTs) prior experiences of physical education (PE) upon their preparedness to teach the subject after competing Initial Teacher Education (ITE). Making links with educational theories including Ecological Systems Theory, Emotional Intelligence, Growth Mindset and the Four Stages of Competence, this article explores who impacted PPSTs' early PE experiences and the factors underpinning

their perceptions either negatively or positively. The article provides a literature review followed by a brief overview of the methodology (a comprehensive overview of the research's theoretical framework and methodology is provided in The *Study Outline – Part 1* , Chapman, 2023) before summarising the data's findings and outlining initial recommendations.

Literature Review

The Reflective and Academic Engagement domain of the Professional Knowledge Model (PKM) (Randall, 2016) (Figure 1) states teachers' prior experiences can impact their attitudes towards teaching PE; subsequently, these experiences must be reflected upon. This supports Bronfenbrenner's Ecological Systems Theory (1979) which states children's environments are nested arrangements of structures, each contained within the next, in order of how significantly they impact a child (Figure 2). The theory provides a holistic, inclusive approach of all systems children are involved in (Hayes et al, 2017). Those within the microsystem (family, peers and teachers) can impact learners positively and negatively as interactions within this system are often personal occurring within the immediate environment. Academics agree: Ginott (1972) noted teachers possess the power to inspire, humiliate, hurt and heal learners and considering Emotional Intelligence, Rich (2010) suggests teachers must apply PE approaches carefully as autocratic teaching cultivates humiliation and disregard towards pupils' emotions. Pickup (2012) argues once negative perceptions are established, including, being able to teach PE or not, they are hard, but not impossible, to amend.

Research highlights that during school placements, PPSTs use prior experiences when delivering PE (Morgan and Bourke, 2008). Many contest this is not sufficient as PPSTs' prior knowledge and understanding of PE pre-ITE is limited (Chedzoy, 2000; Tsangaridou, 2012) and their experiences are often having previously led physical activity and school sport, not curriculum PE (Huddleston, 2021).

Morgan and Hansen (2007) note that PPSTs' prior experiences may negatively impact the PE experiences of the children they teach citing limited self-regulation, whilst Morgan and Bourke (2008) suggest PPSTs are concerned about PE pre-ITE, suggesting more positive prior experiences are needed, developed through reflection and group work to improve self-esteem.

Studies maintain that physically active PPSTs, those with growth mindsets, are more likely to promote positive PE experiences for children (Hayes, 2017; Cheung, 2020). Dweck (2006; 2014) suggests through hard work, instruction and positive language, individuals can remove themselves from the tyranny of now, limit helplessness and maximise abilities in areas, like PE. Warburton and Spray (2016), suggest fixed mindsets exist within PE due to prior experiences, and to progress, individuals should acknowledge these developing self-awareness and self-regulation.

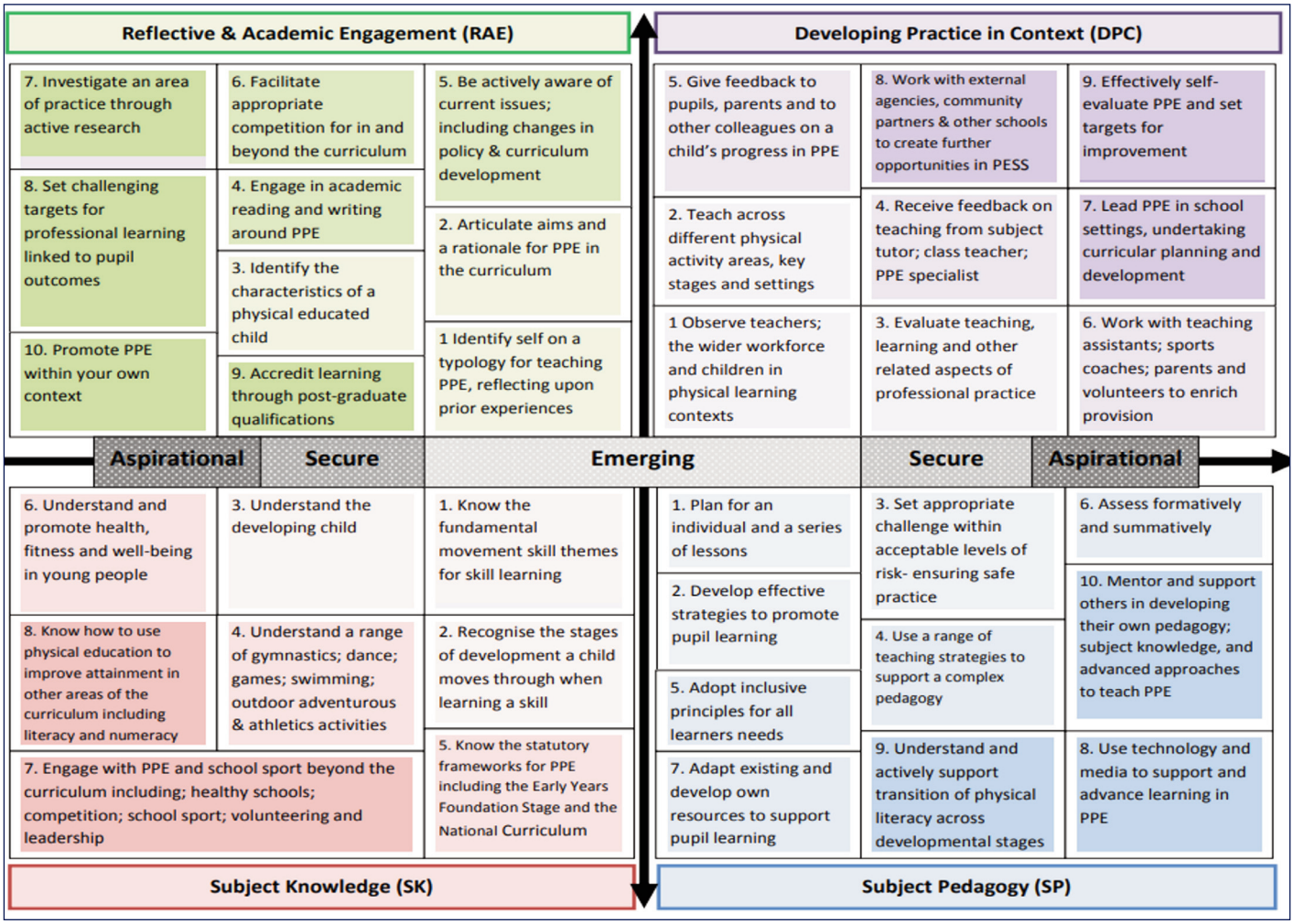

Figure 1: Professional Knowledge Model (Randall, 2016).

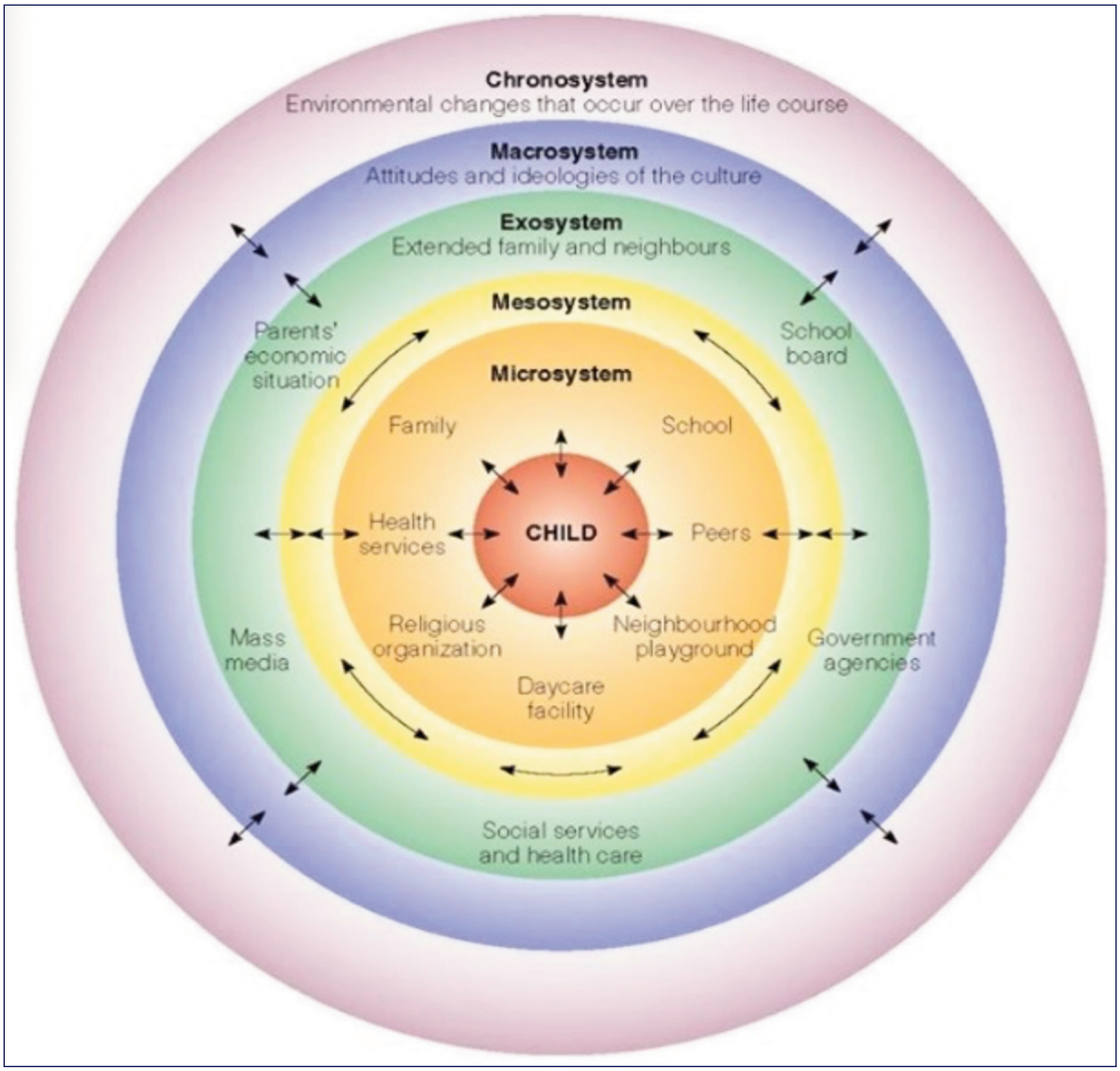

Figure 2: Bronfenbrenner's Ecological Systems Theory (1979).

The notion of prior experiences impacting preparedness is not PE specific; parallels exist with other subjects including mathematics where studies demonstrate large percentages of PPSTs experience high levels of anxiety pre-course due to past experiences of failing (Gresham, 2007; Boyd et al., 2014), drawing concerns, like in PE, that PPSTs' negativity could transfer to children, generating long-term educational implications (Sloan et al., 2002).

Methodology

In this study, research was conducted within a Higher Education Institution cohort considering organisational boundaries (Cohen et al., 2018). Using a case study approach, participants' truths at a specific moment were explored using a pragmatic paradigm to solve a real-life problem using fit for purpose 'what works' methods (Patton, 1990).

A mixed methods research approach of online questionnaires (n=39) followed by semi-structured interviews (n=6) with questions based upon the PKM (Randall, 2016) (Figure 2), provided greater opportunities to understand participants' truths by converging quantitative and qualitative methods (Feilzer, 2010), increased data validity and improved possibilities of generating stronger recommendations for practice (Denscombe, 2010).

When analysing data, coding identified key themes (Braun and Clarke, 2006). With quantitative data, an in-built JISC Survey analysis tool was used to generate statistics and charts; for qualitative data, transcriptions were made using Otter.ai (Otter.ai, 2022), which were manually coded into primary and secondary themes.

Ethically, before researching, the BERA Guidelines (2018) were consulted to ensure the study was rigorous, with ethical approval given by the institution; participant consent was obtained during the questionnaire and in advance of interviews.

Findings

Within this study 64.1% (n=25) of participants suggested their early PE experiences negatively or positively impacted their ability to teach the subject. The research investigated this area by exploring who impacted PPSTs' early experiences and the factors that underpinned the negative or positive PE views.

Bronfenbrenner (1979) suggests, those within the microsystem – family, peers and teachers – can impact learning experiences negatively and positively; collected data (Figure 3) was consistent with this theory as 41% (n=16) of PPSTs highlighted their teachers and sports coaches, across primary and secondary phases, were the main contributors to negative experiences. Additional reasons for negative perceptions included teachers focusing on naturally sporty children (33.3%, n=7); teachers giving little encouragement to PPSTs who found PE challenging

(23.5%, n=5); and PPSTs being forced into doing PE (9.5%, n=2). Interviewees noted they were "not encouraged despite it being obvious they were anxious about PE" and teachers were "only interested in children who were already good at sport." This underlines the importance educators have in shaping pupil views albeit sometimes unconsciously; The Youth Sport Trust (2021) found 40% of pupils believed teachers and coaches inspired their physical activity. Conversely, 56.4% (n=22) of participants noted teachers positively impacted their experiences, supporting Dyson (2014) who noted that through establishing engaging environments, pupils can be positively influenced.

	Negatively	No impact	Positively
Family members	5.1% (n=2)	43.6% (n=17)	51.3% (n=20)
Friends and peers	15.4% (n=6)	12.8% (n=5)	71.8% (n=28)
Teachers	41% (n=16)	2.6% (n=1)	56.4% (n=22)

Figure 3: Groups who influenced PPSTs' prior PE experiences

Additionally, 15.4% (n=6) suggested friends and peers negatively impacted early experiences meaning PPSTs must consider their own impact as teachers more than the influence peers might have. Participating PPSTs cited several reasons for this including "being bullied by peers due to their weight increasing their self-consciousness" and being "influenced by friends who didn't enjoy PE."

PE schemes, including RealPE (Create Development, 2017) give teachers tools to support peers working together developing social and personal skills through positive reinforcement (Chapman, 2021). Collaboration can reduce potential negative prior experiences friends and peers afford one another. One interviewee experienced RealPE noting the scheme "supported planning, developed their skills and helped friends and peers work well together [because] they got along in lessons." However, 71.8% (n=28), stated friends and peers positively impacted prior experiences.

Despite Bronfenbrenner highlighting the family's role, data showed family negatively impacted prior experiences of just two participants with 51.3% (n=20) noting a positive impact implying many participants' families provided strong vicarious experiences and were role models of PE.

PPSTs begin ITE with different starting points of preparedness with some possessing less confidence compared to others. Despite this, individuals used negative experiences effectively when teaching PE; one interviewee outlined negative pre-course experiences, but noted lectures prepared them to be "aware of their own preconceived opinions of PE; they used this when planning lessons, making sure when teaching, they were learning with the pupils, pushing themselves to create positive experiences."

Figure 4: How regularly PPSTs had opportunities to discuss their prior PE experiences.

Within lectures, PPSTs were encouraged to discuss prior experiences; 76.9% (n=30) believed they occasionally or frequently did this (Figure 4). Reflection opportunities can develop growth mindsets (Dweck, 2006); within PE, embracing fixed mindsets helps individuals develop their Emotional Intelligence (Warburton and Spray, 2016). Trainees must recognise and control their instincts so they can positively manage the emotions of children (Strong et al., 2020). However, one interviewee outlined "because lecturers were so enthusiastic about PE," they "didn't feel they could raise feelings" reinforcing prior negative experiences about PE. Rich (2010) notes, interaction between teacher and student can positively or negatively impact mental health and achievement with Usher and Pajares (2008) suggesting being attentive promotes higher student self-efficacy, positively impacting motivation and perceptions.

Negative perceptions

When asked about feelings concerning teaching PE pre-ITE, 76.9% (n=39) of participants provided negative responses highlighting 'nervous' (n=10), 'scared' (n=7) and 'unprepared' (n=5) most frequently (Figure 5).

Figure 5: PPSTs' negative feelings towards teaching PE pre-ITE.

Overall, 82.1% (n=32) had not taught any PE pre-course (Figure 6) and 66.7% (n=26) had not coached any sports (Figure 7) reinforcing why the most significant reasons for negative responses were a lack of previous training or experience delivering PE (33.3%, n=13) meaning pre-course opportunities for vicarious experiences, required to enhance competency, were restricted (Randall, 2015). Other factors included poor school experiences (26.7%, n=8) and personal struggles with school PE (13.3%, n=4). Interviewees reinforced this stating they "only ever had negative experiences with PE" being told they "couldn't do PE because they weren't a sporty person" and "growing up as a bigger child, PE experiences were not positive in primary and secondary leading to no interest in PE when starting university."

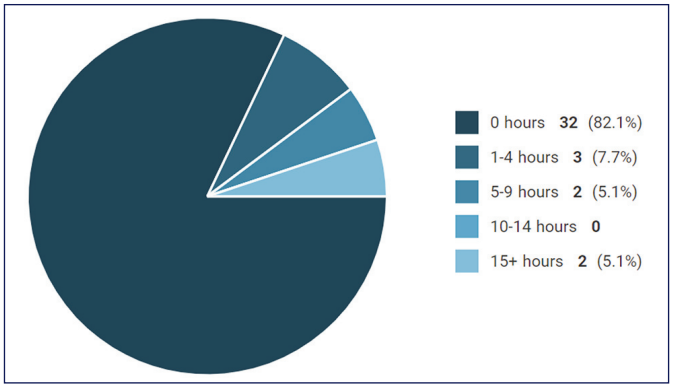

Figure 6: The number of hours PPSTs had teaching curriculum PE pre-ITE.

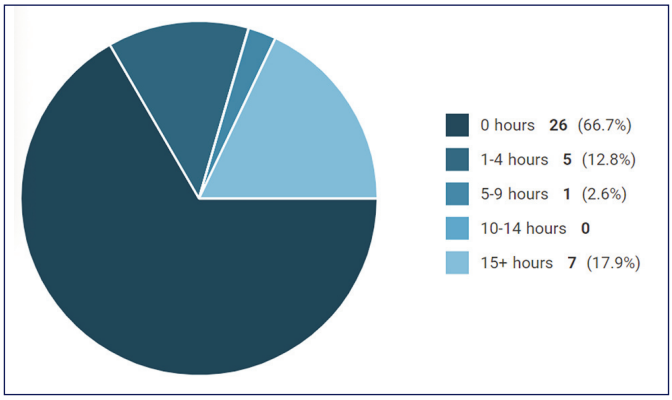

Figure 7: The number of hours PPSTs had coaching sports pre-ITE.

Dweck (2006) suggests individuals with negative perceptions may exhibit fixed mindsets and helplessness learning something new. However, Burch's Four Stages of Competence (Adams, 2015) suggests awareness of negativities, means individuals are 'consciously incompetent' recognising new skills must be learnt whilst appreciating barriers exist preventing proficiency. It could be argued PPSTs need more quality PE instruction within ITE to prepare them to teach the subject effectively rather than relying on prior experiences; opportunities to address mindsets and develop awareness can impact their efforts (Morgan and Bourke, 2008).

Positive perceptions

Contrastingly, 23% (n=9) of participants offered positive responses concerning PE pre-ITE; perceptions PPSTs referenced most frequently included 'confident' (n=4), 'excited' (n=3) and 'interested' (n=3) (Figure 8).

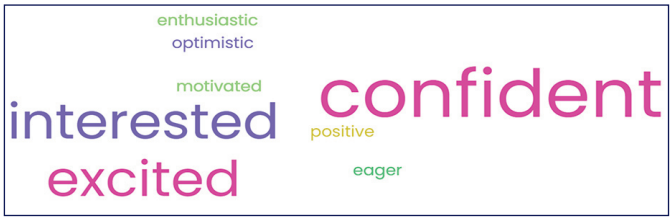

Figure 8: PPSTs' positive feelings towards teaching PE pre-ITE.

Respondents outlined they had competed in sports including gymnastics, swimming and dance noting they "grew up doing sports, playing them, participating in team events so felt confident." Furthermore, 88.9% (n=8) worked or volunteered in schools and 44.4% (n=4) experienced teaching sports stating they "played and taught netball, football and hockey and swam in galas having skills to rely on." However, Huddleston (2021) urges caution, despite some PPSTs observing and delivering physical activity and school sport, that differs from curriculum PE.

A correlation exists between PPSTs acquiring vicarious experiences with positive pre-course perceptions, compared to those who did not. An interviewee reinforced this as "reflecting on their positive experiences helped them deliver lessons thinking about their learning." However, positive outlooks could result in over-confidence. Prior experiences within physical activity and school sport do not equate to proficiency delivering PE and understanding the National Curriculum; School Sport and Curriculum PE are different entities (AfPE, 2019). Therefore, confident PPSTs must not become complacent, what Burch refers to as 'unconscious incompetence,' where trainees do not recognise new skills require development and rely on previously developed skills without improving practice.

Conclusion

PPSTs' prior PE experiences can be negative or positive (Morgan and Hansen, 2007) influencing ITE starting points; perceptions may continue throughout training impacting PE preparedness, but these views are not fixed and subjective. Negative perceptions are difficult but not impossible to change (Pickup, 2012); developing Emotional Intelligence through effort and discussing concerns can alter mindsets and reduce helplessness (Dweck, 2006); PPSTs must develop the emotional skillsets required to teach PE to different primary children (Strong et al., 2020) and become 'consciously competent.'

PPSTs outlined negative pre-ITE PE perceptions yet data shows 86.2% (n=33) of participants agreed or somewhat agreed their course prepared them to deliver PE. Therefore, the mindset PPSTs begin ITE with does not necessarily equate to post-course preparedness; some PPSTs reflect positively upon negative experiences: two interviewees used their negative prior experiences to develop self-awareness ensuring they "learned PE with the children" and were "inclusive in their practice."

Contrastingly, PPSTs with positive prior experiences appear confident and more likely to promote PE having had experiences within schools through competing, coaching, working or volunteering (Hayes, 2017; Cheung, 2020). However, these experiences are not curriculum PE; these PPSTs must develop subject knowledge and subject pedagogy to become better prepared (Randall, 2016).

Recommendations

Findings suggest PPSTs can be further supported in exploring their prior PE experiences; trainees themselves and lecturers have roles to play.

Pre-ITE, PPSTs could acquire more experience observing and teaching PE (Morgan and Bourke, 2008) achieved through working as a Teaching Assistant or volunteering. When doing so, individuals must ensure experiences are of curriculum PE, not school sport or physical activity as these differ (Huddleston, 2021).

Lecturers could plan Assessment for Learning opportunities to ascertain a cohort's perceptions; this would encourage adapted provision to incorporate additional discussion opportunities to explore feelings with specialists and peers supporting one another. PPSTs felt the PKM could prove useful here because "by RAG-rated statements at the beginning of the course, they could recognise where they needed support and discuss this with lecturers."

Additionally, lecturers must continue developing their Emotional Intelligence showing awareness of the impact they could have on PPSTs' PE attitudes. Bronfenbrenner (1979) outlines the significance teachers have on learners' experiences; this study found teachers are three times more likely to impact pupils' PE perceptions than peers.

What's Next?

The next article, part three, focuses on the study's second research question exploring whether university-based lectures effectively develop PPSTs' PE subject and pedagogical

knowledge. It outlines how a combination of discrete PE lectures alongside a cross-modular approach and school placement experiences help develop understanding in these areas, subsequently developing preparedness.

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