

*Shaping Epistemological Profiles: School Placement Communities' Impact on
Preservice Teachers' Personal Discovery and Knowledge Evolution*

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Abstract

In educational literature, collaborative contexts have been highlighted as effective teacher development promoters. Especially in initial teacher education (ITE), the role of communities of practice gains prominence during school placement. Given the relevance of preservice teachers' (PSTs) beliefs in their professional growth, this work aimed to understand these communities' value in developing epistemological systems. Eleven PSTs of an ITE in Physical Education were intentionally chosen for this study. Data collection took place during the school placement year. Three focus group moments and reflexive logs were explored. Data analysis was carried out through the procedure presented by Charmaz (2006) based on theoretical and deep coding, where emerging themes were identified. The study has shown that: a) the cooperating teacher was a catalyst for PSTs' personal discovery about their role as teachers, and b) the communities of practice enhanced the understanding of knowledge as evolving and connected. The engagement with guided discovery, experimentation, empowerment, and knowledge construction through different voices of the community led the PSTs to understand the nature of knowledge as mutable and knowledge development as a collaborative effort. Since communities of practice during the school placement represented availing epistemology, it is possible to understand that these contexts enable PSTs to perceive knowledge in a complex manner, rejecting absolutist thoughts. This rejection of absolutist thoughts is a crucial aspect of the learning process, as it allows for a more open-minded and dynamic understanding of knowledge. Similar practices can enhance PSTs' knowledge, ITE reconfiguration, and teacher training policies.

Keywords: Epistemological System, Initial Teacher Education, School Placement, Communities of Practice

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Introduction

Preservice teachers (PSTs) must develop a thorough understanding of their epistemological beliefs (EB) during initial teacher education (ITE), as these beliefs influence how they assimilate new knowledge (Brownlee et al., 2001).

As Perry (1970) explained, EB are individuals' beliefs about the nature of knowledge and the processes of knowing. Various models have been proposed to explain EB, such as developmental models (King & Kitchener, 1994; Kuhn et al., 2000), the EB system (Schommer-Aikins, 2004), and personal epistemology (Hofer & Pintrich, 1997, 2002). Given the specificity, developmental nature, and research context, the personal epistemology model (Hofer & Pintrich, 1997, 2002) is the theoretical framework for this study.

EB serves as a filter for new knowledge, and research indicates that sophisticated EB are more effective lenses for education (Neber & Schommer-Aikins, 2002). However, the role of ITE in fostering a reflective and critical attitude necessary for the evolution of EB has yet to be explored.

A collaborative approach can enhance the understanding of EB. By engaging with professional communities, PSTs can reflect on their beliefs, connect theory to practice, and develop their professional identity (Valério et al., 2023). These interactions allow PSTs to examine and refine their views on knowledge and learning, thus improving their EB (Güven et al., 2014).

Collaboration in schools is essential for teachers' professional development (Ostovar-Nameghi & Sheikahmadi, 2016). According to Patton et al. (2005), PSTs and their mentors and colleagues form a community where PSTs play significant roles. These communities help develop teachers' pedagogical identities, alter their positionalities, and negotiate culture and beliefs (Luguetti et al., 2019). While research has highlighted the benefits of these communities, more is needed to know about how they enhance the development of sophisticated EB in physical education teacher education (PETE).

The school placement phase in PETE presents challenges that require vulnerability, stepping out of comfort zones, and consistently reassessing beliefs (MacPhail, 2011). Therefore, this study aims to understand the value of internship communities for developing PSTs epistemological systems during a PETE program's second year (school placement year).

Context of the Study

In the context of this study, several important features shape the school placement environment. PSTs are encouraged to engage in deep group reflection about their teaching practices and learning experiences. This emphasis on profound understanding pushes them to critically assess their approaches, encouraging them to delve into the underlying principles and theories rather than merely addressing superficial issues.

A vital component of this environment is the role of the cooperative teacher, who provides essential guidance and challenges PSTs to refine their pedagogical strategies. This mentorship is crucial for developing effective teaching practices. Additionally, PSTs are stimulated to organise and structure their teaching practices, promoting independence and critical thinking in their professional growth.

Collaboration within the internship team and discussions with peers also play a significant role in the learning process. These interactions facilitate group reflection and the exchange of diverse perspectives, which enrich PSTs' understanding and practice.

The ITE program fosters a collaborative learning environment where PSTs are encouraged to integrate new knowledge and refine their ideas continuously. This iterative process of reflection and dialogue contributes to substantially reconstructing their pedagogical beliefs and practices.

Methodology

Participants

The participants were 11 PSTs (6 males and five females) in their second year of the ITE program explored in this work. The intentional choice of participants was privileged for a deeper understanding of the analysed cases and considering the research questions (Patton, 2015). For this reason, PSTs were selected for convenience and criteria from previous research on EB, such as gender (Adamakis, 2018; Kulinna et al., 2010) and sports experience (Yildizer, 2020).

All the participants are enrolling in this ITE program as full-time students (school year 2022/2023), and all completed the first year.

Data Collection

Focus group interviews were carried out three times and in groups of 3 or 4 participants, totalling nine focus group interviews lasting approximately 90 minutes. These moments were defined considering critical moments of the school placement year: the beginning, middle, and end of the school year. Semi-structured scripts allowed the discussion to stimulate relevant thoughts and questions to access EB. During the focus group interview sessions, the interviewer created an environment to share experiences and opinions that generated reflection and discussion on the thoughts and practices of the participants (Jones et al., 2012).

A detailed analysis of the reflections logs (RL) made during the school placement year of the PETE program was also carried out. This method constitutes a source through which the researcher can extract evidence that substantiates the participants' statements and monitors the evolution of their thoughts. In addition, it is a data source that reflects the participants' thoughts in a context without interference from the formal moment of collection. The individual reflections of each participant were analysed in 3 moments, and they were related to post-practice feelings, difficulties, adaptations and connection with the PE school context, cooperative teacher and colleagues.

Data Analysis

The data analysis process involved verbatim transcription of focus groups and multiple readings of the transcripts and documents. According to Charmaz (2006), critical points in the data were identified through coding, then grouped into concepts to organise the information, and finally, similar concepts were categorised to develop themes. The analysis process employed a deductive approach, allowing themes to emerge from the data. An interpretive stance meant the possibility of developing ideas about what the documents could

describe and considering the relationships between these experiences, giving them meaning alongside the existing literature (Braun & Clarke, 2006). Themes were subsequently analysed through the lens of Hofer & Pintrich's (1997) theoretical framework and provided insights into participants' EB concerning the dimension of the source of knowledge.

Trustworthiness was guaranteed through data triangulation, participants check, and peer debriefing (Creswell, 2013).

Findings and Discussion

Cooperant Teacher as a Catalyst for PSTs Personal Discovery

The cooperative teacher was one of the major catalysts for the EB development in PSTs. Throughout the school placement, they were able to guide, question, and challenge professional development, enhancing the alteration of ideas and conceptions of future teachers.

“Not in an obvious way, but through the entire process of questioning and all the guided teaching he does with us, he caused me to have an immense change in my way of thinking about physical education.” (Alice, FG)

"He does not give us the answers to the problems. He makes us think about them until we find a solution. That helped me to think and reflect on things." (Anna, FG)

PSTs understood these contexts of reflection and challenge presented by the cooperative teacher as ways to question and alter their understandings. This openness to evolving in practice as teachers and believing there are various ways to approach PE reveals the strengthening of more sophisticated EBs. As Nieves et al. (2021) concluded, PSTs reported that the collaborative approaches changed their beliefs regarding PE and contributed to values and life skills development.

Additionally, the way PSTs built their professional identity reveals a negotiation between their previous beliefs and the new understandings coming from the cooperative teacher.

"He doesn't give you the final product all at once; he encourages you to get there yourself, and that helped me to build my vision of what it means to be a teacher." (William, RL)

“I continue to maintain my values for physical education. He just added to them.” (Lucas, FG)

It was assumed that constructing knowledge in PE and teaching PE derives from various sources and internal discussions about them. Nurturing this social sharing environment in the profession, particularly with the cooperative teacher, is imperative for negotiating the challenges of professional construction and learning (Tannehill & MacPhail, 2017).

The Community Role in Understanding Knowledge As Evolving

Together with the cooperative teacher, the internship colleagues, and the other PE teachers, they formed a community of practice. This group's reflective collaboration and discussions

added value to developing sophisticated EB by opening PSTs' minds to perspectives on PE and teaching.

“Group reflection complemented my individual reflection. Understanding whether my way of seeing things was correct or if the way others see things is different and more advantageous for me.” (James, FG)

This context had a noteworthy impact on the perception of individual actions during the lessons PSTS taught. As the internship colleagues and the cooperative teacher attended the PE classes, the subsequent discussion touched on critical points of the PSTs' actions and led them to reflect on things they had not considered.

“I learn more about the mistakes I make in class regarding content and how I deliver the content because if it is just self-reflection, I can see what the students missed, but I cannot notice all my own mistakes.” (Sofia, FG)

"Reflection was important, especially in a group. It helped me to become aware of things that I would not have noticed on my own." (Natalia, FG)

Seeing things differently, assuming multiple truths, and being active in understanding mistakes are characteristics of sophisticated EB that were developed in this context. This result aligns with other contexts that have also noted that teachers in communities demonstrated changes in attitudes and beliefs (Oliver et al., 2017).

Respect and trust within the community impacted the restructuring of subsequent practices, leading to the adaptation of planning, attitudes, and interventions for PSTs.

"Regardless of whether we agreed or not, we explained to each other why we did things. Our core discussions were productive for the lessons because we observed the classes, talked, and adapted things." (Henry, FG)

“That helped me to think and reflect on things. We are all in different realities, and that sometimes leads to the development of different ways of dealing with the problems that arise in practice.” (Clara, FG)

The engagement with guided discovery, experimentation, empowerment, and knowledge construction through different voices of the community led the PSTs to understand the nature of knowledge as mutable and knowledge development as a collaborative effort. Since communities of practice during the school placement represented the development of more sophisticated epistemology, it is possible to understand that these contexts enable PSTs to perceive knowledge in a complex manner, rejecting absolutist thoughts. Support within these communities is essential because learning and change happen through conversations and discussions about challenges and complex cases, which catalyses the epistemological development of PSTs (Patton & Parker, 2017).

Conclusion and Implications

The support from internship colleagues and cooperative teachers in discussions, challenges, and idea sharing catalysed sophisticated EBs in PSTs. These results have implications for ITE programmes beyond PE.

Similar practices can enhance PSTs' knowledge, curricular reconfiguration, and teacher training policies. Teacher education programmes should reconsider the role of school placements and communities of practice in shaping PSTs' epistemological profiles. Emphasising collaborative learning environments and mentorship is crucial for professional development.

Strategies should be developed to help PSTs navigate diverse perspectives on knowledge within educational contexts. The findings advocate for policy changes supporting collaborative learning and reflective practices in teacher education programmes. Policymakers should facilitate partnerships between schools and universities to strengthen school placements' impact. Additionally, professional development initiatives for cooperative teachers should be proposed to enhance their mentoring and support for PSTs' epistemological development.

In conclusion, the support from internship colleagues and cooperative teachers significantly contributes to sophisticated EBs in PSTs. Integrating collaborative and reflective practices into teacher education, reshaping policies, and providing professional development for cooperative teachers are vital for enhancing PSTs' professional growth and epistemological awareness, ultimately improving teacher education.

Future Research

It is essential to acknowledge that EB and the school placement experience can differ significantly across countries due to diverse teaching methods and educational settings. Hence, it is crucial to explore these factors in various contexts.

Moreover, an expanding body of experimental research demonstrates the beneficial effects of interventions on modifying EB dimensions (Güven et al., 2014). Nevertheless, additional empirical studies employing various methodologies are required to understand the circumstances under which EB changes occur thoroughly. Investigating the role of epistemic reflexivity in initiating these changes and its subsequent impact on teaching practices is also essential.

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