

ORIGINAL SCIENTIFIC PAPER

Beyond Games: Unspoken Challenges of Pre-Service Physical Education Teachers – A Pilot Study

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Abstract

Studies on teacher preparation highlight the importance of practical experiences such as internships in adequately preparing pre-service teachers for the demands of the profession. However, there has been a lack of focus on the specific difficulties encountered by pre-service physical education (PE) teachers during internships. This study utilized qualitative methods to examine the specific obstacles encountered by eight pre-service physical education teachers while completing their internships at private secondary schools in the northern region of the Philippines. Through thematic analysis of weekly reflective journals, four main themes were identified: personal well-being and emotional strain, classroom management and student interactions, instructional practices and pedagogical challenges, and school environment and institutional factors. The results emphasize the importance of integrating well-being strategies into PE teacher education programs, improving PE-specific classroom management training, and promoting stronger partnerships between universities and schools to offer consistent support, resources, and practical experiences for future teachers navigating the complexities of the PE teachers and provide practical suggestions for enhancing teacher preparation and support systems.

Keywords: physical education, pre-service teachers, teaching internships, classroom management, pedagogical skills, instructional strategies

Introduction

Teaching internships are crucial components of physical education (PE) teacher preparation, allowing pre-service teachers to gain hands-on experience in authentic classroom environments. However, these internships can present considerable challenges that impact pre-service teachers' development. Heavy workloads and unclear expectations during internships caused anxiety among pre-service teachers (Gorospe, 2022; Lee et al., 2022; Nghia & Huynh, 2017). Other noted challenges include deficient mentorship, inadequate field experience, and difficulty applying theoretical knowledge (Moore, 2003; Reese, 2013; Canipe & Gunckel, 2019). Given the significance of high-quality teaching internships for pre-service teacher preparation, it is important to examine the obstacles faced by PE teacher candidates during these transitional experiences. Practical experiences in teacher education provides a bridge between theory and real-world application. Teaching internships and student teaching help develop essential skills like planning, classroom management, and assessment, enhancing instructional competence (Shernoff et al., 2017; Qian & Youngs, 2015). High-quality practical experiences with mentoring and guided reflection boost effectiveness and retention, leading to more confident teachers (Evans-Andris et al., 2006; Hong et al., 2019). Early field experiences impact teaching commitment, highlighting the need for a developmental continuum of clinical practice (Kelly, 2013; Cribbs et al., 2020). Integrating coursework with fieldwork prepares future educators for the profession's complexities (Darling-Hammond, 2006; Zelkowski et al., 2023). Effective teacher education depends on incorporating practical experiences that equip educators to excel in the classroom and make a lasting im-

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pact on student learning.

Given the significance of high-quality teaching internships for pre-service teacher preparation, it is important to examine the obstacles faced by PE teacher candidates during these transitional experiences. As extended field experiences in authentic classroom settings, internships aim to link theory and practice through planning, teaching, assessment and reflection (Salviana et al., 2021; Moore, 2003). However, pre-service teachers often face challenges related to unclear expectations, deficient mentorship, inadequate preparation, and difficulty applying knowledge, which can cause anxiety and hinder development (DeAngelis, 2013; Canipe & Gunckel, 2019; Stripling et al., 2014; Jita & Munje, 2021). Furthermore, pre-service teachers may struggle with developing their professional identity, dealing with uncertainties, and balancing theory with practice during demanding internship experiences (Obiagu, 2023; Nghia & Tai, 2017; Kadroon, 2023). Targeted support through mentorship, reflective practices and aligning theoretical knowledge with practical experiences is crucial to help pre-service teachers successfully navigate their internships and overcome obstacles.

While there is extensive research on various aspects of teacher education and internships in general, only a limited number of studies have specifically focused on the challenges encountered by PE pre-service teachers during their internships (Silva et al., 2021). As Kadroon (2023) and Valencia et al., (2009) highlights, teaching internships present distinct challenges that can impact pre-service teachers' development of professional skills. Similarly, Nghia and Huynh (2017) examined the internship-related difficulties faced by pre-service teachers, emphasizing implications for teacher preparation programs. These studies reveal a gap concerning the unique challenges PE pre-service teachers experience in their internships. Although research shows the significance of quality mentoring and internships for pre-service teacher identity and efficacy (Prichard, 2017; Izadinia, 2015; Zhao & Zhang, 2017), there is minimal research delving into obstacles faced by PE teacher candidates specifically.

While studies have addressed challenges for pre-service teachers in various contexts like urban schools (Gaikhorst et al., 2016), agricultural education (Wells et al., 2019) and student teaching (Silva et al., 2021), the focus on pre-service PE teacher internship challenges remains limited. Further research is needed to examine these specific difficulties in order to provide tailored support and preparation for pre-service PE teachers entering the field. Thus, the objective of this study is to explore the challenges encountered by pre-service PE teachers during their internships, as discerned from their weekly journals.

This study examining pre-service PE teachers' internship challenges is vital for enhancing teacher preparation programs. Analyzing their reflective journals can provide insights into these challenges (Sahin et al., 2019) and inform targeted interventions to address problem areas (Silva et al., 2021; Soytürk & Öztürk, 2019). This will allow teacher educators to better support pre-service teachers in implementing effective instruction and successfully navigating demands. Additionally, it can guide mentorship initiatives to provide needed guidance and motivation (Clarà et al., 2019). Thus, this study exploring pre-service PE teachers' journals is significant for elucidating internship challenges, improving preparation programs, and ensuring quality education.

Methods

Research Design

This study used a qualitative phenomenological approach to explore the challenges faced by pre-service PE teachers during their internships. Phenomenology seeks to understand and describe individuals' lived experiences (Mapp, 2008), delving into their subjective experiences to gain insights into their views, opinions, feelings, and knowledge (Neubauer et al., 2019).

Participants and Setting

The study's participants were eight pre-service PE teachers from a university in northern Philippines, selected using purposive sampling (Etikan, 2016). This qualitative research technique involves establishing specific criteria and choosing participants who meet them to ensure the sample aligns with the study's objectives (Tuckett, 2004). The inclusion criteria for this study were: pursuing a Bachelor of Physical Education (BPEd) degree, being in their fourth and final year, and undertaking internships at private secondary schools in the area for the last two months of their studies. The study excluded pre-service PE teachers with internships in public secondary schools and those with incomplete journal submissions for the final two months.

Instrumentation

Data was collected from participants' weekly journals submitted over eight weeks during their teaching internships at private secondary schools. The journals were uploaded to a secure online platform (Google Classroom), accessible only to their college supervisor. Participant journals provided valuable insights into their thoughts, feelings, and experiences over time (Jacelon & Imperio, 2005; Rudrum et al., 2022). By offering detailed and rich information, journals captured the complex nature of participants' perspectives, serving as a window into their lived experiences (Rudrum et al., 2022).

Data Explication and Analysis

The study's primary data collection method involved analyzing and interpreting weekly journal entries from participants. Following the institution's guidelines, permission was obtained from the school's dean and informed consent was acquired from participants through a formal letter. Participants were assured of privacy, confidentiality, and anonymity, and their journals were securely stored and treated as confidential. Consent was obtained to use the journals for the study, maintaining participant anonymity.

The participants' journal data was analyzed using Braun and Clarke's (2006) thematic analysis method, a widely recognized qualitative approach for identifying patterns and themes (Forbes, 2021). This method involves a series of steps: familiarizing oneself with the data, generating initial codes, identifying potential themes, reviewing and refining themes, and formally defining and naming the themes (Braun & Clarke, 2006). Thematic analysis is a versatile approach that enables the identification of recurring topics and concepts in the data.

Results

The findings of this study are structured around key themes related to the challenges that pre-service PE teachers documented in their weekly journals during their internships. These include personal well-being and emotional strain, classroom management and student interactions, instructional practices and pedagogical challenges, and school environment and institutional factors.

Personal well-being and emotional strain

This theme highlights the challenges faced by pre-service PE teachers during their internships, which affected their personal well-being and emotional state. Table 1 presents codes that reveal various struggles, including health challenges, emotional vulnerability, and personal life demands, as illustrated by participant quotes.

Codes	Sample Quoted Statements
Health challenges	"My biggest challenge is Friday's grueling teaching schedule, with only a 1-hour break, but I am determined to deliver engaging lessons despite fatigue and exhaustion". [PT8]
Emotional vulnerability	"My biggest challenge was overcoming nervousness about teaching PE subject. I found it demanding to develop engaging lesson plans and activities that promote active participation". [PT7]
Personal life interference	"I struggled to balance school and personal life, overwhelmed by financial stress, mental health struggles, and daily tasks, making it hard to eat, sleep, and function". [PT6]

Table 1. Personal Well-being and Emotional Strain

Classroom management and student interactions

This theme demonstrates the critical challenges pre-service PE teachers encountered in classroom management and student engagement during internships. Table 2 illustrates the challenges they experienced in maintaining control, fostering meaningful student interactions, and navigating classroom dynamics.

Table 2. Classroom Management and Student Interactions

Codes	Sample Quoted Statements
Maintaining control	"Whenever I assign an activity, some students sleep or refuse to participate, citing exhaustion. Despite my reminders, they're stubborn and would not comply". [PT4]
Encouraging engagement	"Teaching PE subjects is my biggest obstacle. I struggle to create engaging lesson plans and activities that inspire participation and discussion, both in and out of the classroom". [PT2]
Navigating boundaries	"While fixing mats for a physical activity, a student suddenly hugged me from behind. I froze in shock, paused for a second, and was taken aback by the unexpected gesture". [PT2]

Instructional practices and pedagogical challenges

This theme encapsulates the challenges pre-service PE teachers confronted in their instructional practices and pedagogical

approaches during their internships. Table 3 shows the codes that emerged, revealing complexities in planning and preparing lessons, adapting instruction, and evaluating student learning.

Table 3. Instructional Practices and Pedagogical Challenges

Codes	Sample Quoted Statements
Planning and preparation	"I am struggling to choose instructional materials for my dancing demonstration teaching. I worried about incomplete attire, so I opted for our PE uniform instead. Amidst exams, it is hard to focus on papers since our minds are preoccupied with demonstration preparation, adding to my anxiety". [PT6]
Instructional adaptability	"On my first day monitoring and facilitating, managing students across various grade levels and their diverse learning environments presented a significant challenge". [PT1]
Evaluation and assessment	"The sheer volume of submissions from large class sizes or multiple classes makes it challenging to provide thorough feedback and assessment within time constraints, compromising educational quality". [PT8]

School environment and institutional factors

This theme illustrates the challenges that pre-service PE teachers dealt within the broader school environment and the institutional factors that influenced their internship experience.

Table 4 highlights the emergent codes that shed light on the lack of consistency, communication barriers, and institutional constraints these pre-service teachers navigated during their time in the field.

Table 4. School Environment and Institutional Factors

Codes	Sample Quoted Statements
Lack of consistency	"The ever-changing schedule is my only obstacle, as it disrupts my pre-set plans and requires adaptability". [PT6]
Communication barriers	"Despite clear directives from the PE Learning Area Coordinator, unforeseen scheduling conflicts regarding practice areas and upcoming intramurals have caused tension among some pre- service teacher interns, highlighting the persistence of miscommunication". [PT6]
Institutional constraints	"Managing four grade levels simultaneously in a shared space, with limited support from co-interns, is challenging. While I occasionally envy peers with more scheduling flexibility, I understand the crucial need for constant student supervision in this environment". [PT4].

Discussion

The purpose of this study is to examine the difficulties faced by pre-service PE teachers during their internships, as identified through their weekly journals. The first theme highlights the substantial impact of internship demands on pre-service PE teachers' well-being and emotional state. This is consistent with Maslach's burnout concept, which encompasses emotional exhaustion, depersonalization, and reduced personal accomplishment (Caraus, 2022). Participants shared challenges unique to PE teaching, such as health issues due to demanding schedules involving constant physical activity and demonstration, along with emotional vulnerability arising from anxieties about creating engaging lessons for diverse learners and managing student behavior in dynamic PE settings. These findings align with research emphasizing the distinctive stressors PE teachers face, including ensuring student safety during high-energy activities and adapting lessons to various learning styles and physical abilities (Åsebø et al. 2020; Trad et al. 2021). The analysis indicated a critical need to incorporate well-being support and coping strategies tailored to PE's specific demands within teacher education programs, enabling future PE teachers to manage stress and prioritize their well-being, ultimately fostering a more sustainable and effective workforce committed to promoting physical literacy and healthy lifestyles.

The second theme underscores the significant challenges pre-service PE teachers encounter in classroom management and student interaction during internships. Bandura's Social Learning Theory posits that learning occurs through observation and modeling (Hardiyana & Maemonah, 2023), highlighting the need for pre-service teachers to observe and practice effective PE management strategies. Participants reported difficulties in managing student defiance and disengagement, creating engaging activities, and maintaining appropriate student-teacher boundaries. These findings are consistent with previous research showing that classroom management in PE requires specialized skills and strategies (Sanetti et al., 2017; Gage et al., 2017). Effective PE teachers use movement-based activities and transitions to minimize downtime and proactively manage their behavior (Weaver et al., 2017; Harun et al., 2015). Thus, PE teacher education programs must emphasize explicit instruction and mentored practices in proactive behavior management, differentiated instruction techniques, and strategies for establishing clear, respectful boundaries to prepare future PE teachers for positive and productive learning environments.

The third theme focuses on the difficulties pre-service PE teachers encounter in instruction and pedagogy. This corresponds to Schön's idea of reflection-in-action, which highlights the importance of adapting in real-time (Segal, 2023). Journal entries revealed that pre-service teachers grappled with lesson planning for diverse learners in inclusive settings, adapting instruction to varied physical abilities, and managing assessments and feedback in active learning environments. These findings resonate with the literature that emphasizes the complexities of PE instruction and the need for ongoing reflection (Mendoza & Calabia, 2024; García-Hermoso et al., 2020). Yin et al. (2020) and Sevil-Serrano et al. (2020) underscore the importance of catering to diverse learners, while Modell and Gerdin (2021) highlight the role of ongoing assessment in effective PE instruction. Therefore, PE teacher education programs should prioritize practical experiences, such as micro-teaching, peer observation, and structured feedback, focusing on differentiated instruction, assessment in active settings, and reflective practices to support continuous growth.

The last theme addresses the challenges faced by pre-service PE teachers as they navigate the school environment and deal with the institutional factors. This aligns with Bronfenbrenner's Ecological Systems Theory (Perron, 2017), which emphasizes the significant impact of various environmental systems on development. The journals of pre-service teachers revealed frustration with inconsistent schedules, breakdown in communication, and limited resources and support within their placements. These experiences are consistent with research that emphasizes how the school context, including organizational culture, administrative support, and mentoring relationships, greatly influences novice teachers' experiences and the formation of their professional identities (Bertram, 2023; Çakmak et al., 2018; Saleem et al., 2021; Hanifah, 2022; Hou et al., 2023). Therefore, effective preparation for PE teachers requires stronger partnerships between universities and schools. This will help provide consistent schedules, clear communication channels, and adequate resources to support pre-service teachers, as they navigate the complexities of the school environment.

Conclusion

This study aimed to explore the various challenges encountered by pre-service PE teachers during internships, which greatly influence their well-being, classroom management approaches, instructional practices, and overall school experiences. These findings underscore the pressing need for PE teacher education programs to prioritize well-being support, enhance PE-specific classroom management training, and offer more opportunities for practical experience in diverse settings. It is crucial to strengthen the collaboration between universities and schools to ensure consistent schedules, effective communication, and adequate resources for pre-service teachers. By addressing these challenges and fostering collaborative support systems, the field can better equip future PE educators to promote physical literacy, health, and well-being among all students. This pilot-study provides valuable insights into teacher education reform and contributes to the advancement of a more resilient and effective PE workforce.

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Conflict of Interest

The authors reported no known conflicts of interest relating to the research, analysis, or publication of this study's findings.

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References

- Åsebø, E. S., Løvoll, H. S., & Krumsvik, R. J. (2020). Perceptions of contextual stressors in physical education. A qualitative case study. *Frontiers in Sports and Active Living*, 2. https://doi.org/10.3389/fspor.2020.528979
- Bertram, C. (2023). A systems approach to understanding novice teachers' experiences and professional learning. *Journal of Education*, (90), 11-31. https://doi.org/10.17159/2520-9868/i90a01
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. https://doi.org/10.1191/1478088706qp063oa
- Canipe, M. M. & Gunckel, K. L. (2019). Imagination, brokers, and boundary objects: Interrupting the mentor–preservice teacher hierarchy when negotiating meanings. *Journal of Teacher Education*, 71(1), 80-93. https://doi.org/10.1177/0022487119840660
- Caraus, A. L. (2022). The concept of burnout in the medical Field: A literature review. *Bulletin of the Transilvania University of Brasov Series V Economic Sciences*, 69-82. https://doi.org/10.31926/but.es.2022.15.64.2.8
- Clarà, M., Mauri, T., Colomina, R., & Onrubia, J. (2019). Supporting collaborative reflection in teacher education: A case study. *European Journal of Teacher Education*, 42(2), 175-191. https://doi.org/10.1080/0 2619768.2019.1576626
- Cribbs, J. D., Day, M., Duffin, L., & Cowley, K. (2020). Mathematics and science teacher training program improves inquiry practices for teachers. *School Science and Mathematics*, 120(8), 443-455. https://doi. org/10.1111/ssm.12437
- Darling-Hammond, L. (2006). Constructing 21st-century teacher education. Journal of Teacher Education, 57(3), 300-314. https://doi. org/10.1177/0022487105285962
- DeAngelis, K. J., Wall, A. F., & Che, J. (2013). The impact of Preservice preparation and early career support on novice teachers' career intentions and decisions. *Journal of Teacher Education*, 64(4), 338-355. https://doi.org/10.1177/0022487113488945
- Etikan, I. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1. https://doi.org/10.11648/j.ajtas.20160501.11
- Evans-Andris, M., Kyle, D. W., & Carini, R. M. (2006). Is mentoring enough? An examination of the mentoring relationship in the pilot two-year

Kentucky teacher internship program. *The New Educator, 2*(4), 289-309. https://doi.org/10.1080/15476880600974867

- Forbes, M. (2021). Thematic analysis: A practical guide. Evaluation Journal of Australasia, 22(2), 132-135. https://doi.org/10.1177/ 1035719x211058251
- Gage, N. A., Scott, T., Hirn, R., & MacSuga-Gage, A. S. (2017). The relationship between teachers' implementation of classroom management practices and student behavior in elementary school. *Behavioral Disorders*, 43(2), 302-315. https://doi.org/10.1177/0198742917714809
- Gaikhorst, L., Beishuizen, J., Roosenboom, B., & Volman, M. (2016). The challenges of beginning teachers in urban primary schools. *European Journal of Teacher Education*, 40(1), 46-61. https://doi.org/10.1080/026 19768.2016.1251900
- García-Hermoso, A., Alonso-Martínez, A. M., Ramírez-Vélez, R., Pérez-Sousa, M. Á., Ramírez-Campillo, R., & Izquierdo, M. (2020). Association of physical education with improvement of health-related physical fitness outcomes and fundamental motor skills among youths. JAMA Pediatrics, 174(6), e200223. https://doi.org/10.1001/jamapediatrics.2020.0223
- Gorospe, J. D. (2022). Pre-service teachers' teaching anxiety, teaching selfefficacy, and problems encountered during the practice teaching course. *Journal of Education and Learning*, *11*(4), 84. https://doi. org/10.5539/jel.v11n4p84
- Hanifah, M., Damayanti, I. L., & Muslim, A. B. (2022). Indonesian English novice teachers' identity constructions and their teaching practices. *International Journal of Education*, 15(1), 38-49. https://doi. org/10.17509/ije.v15i1.46155
- Hardiyana, M. R., & Maemonah, M. (2023). The effect of the application of Albert Bandura's behaviorism theory on the motivation and learning outcomes. Jurnal Fundadikdas (Fundamental Pendidikan Dasar), 6(2), 93-110. https://doi.org/10.12928/fundadikdas.v6i2.8191
- Hong, Y., & Matsko, K. K. (2019). Looking inside and outside of mentoring: Effects on new teachers' organizational commitment. *American Educational Research Journal*, 56(6), 2368-2407. https://doi. org/10.3102/0002831219843657
- Hou, Y., Chen, S., & Yu, S. (2023). Unspoken teacher conflict: Uncovering female novice teachers' conflict experiences in professional learning community. *Journal of Professional Capital and Community*, 8(2), 90-108. https://doi.org/10.1108/jpcc-03-2022-0020
- Izadinia, M. (2015). A closer look at the role of mentor teachers in shaping preservice teachers' professional identity. *Teaching and Teacher Education*, *52*, 1-10. https://doi.org/10.1016/j.tate.2015.08.003
- Jacelon, C. S., & Imperio, K. (2005). Participant diaries as a source of data in research with older adults. *Qualitative Health Research*, 15(7), 991-997. https://doi.org/10.1177/1049732305278603
- Jita, T., & Munje, P. N. (2021). Preservice teachers' mentorship experiences during teaching practice in a South African teacher preparation program. *International Journal of Higher Education*, 11(1), 140. https:// doi.org/10.5430/ijhe.v11n1p140
- Kadroon, T. (2023). Using coaching and mentoring supervision of lesson study to enhance classroom research competencies: A multi-case study. International Journal for Lesson & Learning Studies, 12(4), 330-342. https://doi.org/10.1108/ijlls-05-2023-0055
- Kelly, S. N. (2013). The influence of student teaching experiences on preservice music teachers' commitments to teaching. *Journal of Music Teacher Education*, 24(2), 10-22. https://doi.org/10.1177/1057083713506120
- Lee, A., Fung, W. K., Datu, J. A. D., & Chung, K. K. (2022). Well-being profiles of pre-service teachers in hong kong: associations with teachers' self-efficacy during the covid-19 pandemic. *Psychological Reports*, 003329412211276. https://doi.org/10.1177/00332941221127631
- Mapp, T. (2008). Understanding phenomenology: The lived experience. *British Journal of Midwifery*, 16(5), 308-311. https://doi. org/10.12968/bjom.2008.16.5.29192
- Mendoza, D., & Calabia, M. (2024). Capabilities in physical education: A comparative analysis of school heads' and teachers' perspectives. *Physical Education and Sports: Studies and Research*, 3(1), 26-45. https:// doi.org/10.56003/pessr.v3i1.347
- Modell, N., & Gerdin, G. (2021). 'But in PEH it still feels extra unfair': Students' experiences of equitable assessment and grading practices in physical education and health (PEH). *Sport, Education and Society*, *27*(9), 1047-1060. https://doi.org/10.1080/13573322.2021.1965565
- Moore, R. (2003). Reexamining the field experiences of preservice teachers. *Journal of Teacher Education, 54*(1), 31-42. https://doi. org/10.1177/0022487102238656
- Moore, R. (2003). Reexamining the field experiences of preservice teachers. *Journal of Teacher Education*, *54*(1), 31-42. https://doi. org/10.1177/0022487102238656
- Neubauer, B. E., Witkop, C. T., & Varpio, L. (2019). How phenomenology can help us learn from the experiences of others. *Perspectives on Medical*

Education, 8(2), 90-97. https://doi.org/10.1007/s40037-019-0509-2

- Nghia, T. L. H. & Huynh, N. T. (2017). Preservice teachers' identity development during the teaching internship. *Australian Journal of Teacher Education*, 42(8), 1-15. https://doi.org/10.14221/ajte.2017v42n8.1
- Nghia, T., & Tai, H. (2017). Preservice teachers' identity development during the teaching internship. *Australian Journal of Teacher Education*, *42*(8), 1-15. https://doi.org/10.14221/ajte.2017v42n8.1
- Obiagu, A. (2023). "Not motivated but frustrated": Preservice teachers' career choice motivations and professional identity in an African context. *Current Issues in Education*, *24*(1). https://doi.org/10.14507/cie. vol24iss1.2069
- Perron, N. C. (2017). Bronfenbrenner's ecological systems theory. College Student Development. https://doi.org/10.1891/9780826118165.0018
- Prichard, S. (2017). A mixed-methods investigation of Preservice music teaching efficacy beliefs and commitment to music teaching. *Journal* of Research in Music Education, 65(2), 237-257. https://doi. org/10.1177/0022429417710387
- Qian, H., & Youngs, P. (2015). The effect of teacher education programs on future elementary mathematics teachers' knowledge: A fivecountry analysis using TEDS-M data. *Journal of Mathematics Teacher Education*, 19(4), 371-396. https://doi.org/10.1007/s10857-014-9297-0
- Reese, J. (2013). Online status. *Journal of Music Teacher Education, 24*(2), 23-39. https://doi.org/10.1177/1057083713506119
- Rudrum, S., Casey, R., Frank, L., Brickner, R. K., MacKenzie, S., Carlson, J., & Rondinelli, E. (2022). Qualitative research studies online: Using prompted weekly journal entries during the COVID-19 pandemic. *International Journal of Qualitative Methods*, 21, 160940692210931. https://doi. org/10.1177/16094069221093138
- Sahin, F., Sen, M., & Dincer, C. (2019). Early childhood preservice teachers' experiences with reflective journal writing. *Eurasian Journal of Educational Research*, 19(84), 1-22. https://doi.org/10.14689/ ejer.2019.84.5
- Saleem, A., Muhammad, Y., & Siddiqui, M. F. (2021). Effectively managing classroom: A case study of four novice elementary teachers in private schools. *Global Social Sciences Review*, VI(III), 72-79. https://doi. org/10.31703/gssr.2021(vi-iii).08
- Salviana, S., Muslem, A., & Daud, B. (2021). An investigation of English studentteachers' constraints during teaching internship program. *English Education Journal*, 12(2), 358-378. https://doi.org/10.24815/eej. v12i2.19132
- Sanetti, L. M., Williamson, K. M., Long, A. C., & Kratochwill, T. R. (2017). Increasing in-service teacher implementation of classroom management practices through consultation, implementation planning, and participant modeling. *Journal of Positive Behavior Interventions*, 20(1), 43-59. https://doi.org/10.1177/1098300717722357
- Segal, A. (2023). Rethinking collective reflection in teacher professional development. *Journal of Teacher Education*, 75(2), 155-167. https://doi. org/10.1177/00224871231188702
- Sevil-Serrano, J., Aibar, A., Abós, Á., Generelo, E., & García-González, L. (2020). Improving motivation for physical activity and physical education through a school-based intervention. *The Journal of Experimental Education*, *90*(2), 383-403. https://doi.org/10.1080/00220973.2020.176 4466
- Shernoff, D. J., Sinha, S., Bressler, D. M., & Ginsburg, L. (2017). Assessing teacher education and professional development needs for the implementation of integrated approaches to STEM education. *International Journal of STEM Education*, 4(1). https://doi.org/10.1186/s40594-017-0068-1
- Silva, R., Farias, C., & Mesquita, I. (2021). Challenges faced by preservice and novice teachers in implementing student-centred models: A systematic review. *European Physical Education Review*, 27(4), 798-816. https://doi. org/10.1177/1356336x21995216
- Soytürk, M., & Öztürk, Ö. T. (2019). An investigation of the attitudes and competence perceptions of first- and fourth-year pre-service physical education teachers regarding teaching. *Journal of Education and Training Studies*, 7(4), 154. https://doi.org/10.11114/jets.v7i4.4141
- Stripling, C. T., Thoron, A. C., & Estepp, C. M. (2014). Learning activities utilized and readiness for the student teaching internship. *Journal of Agricultural Education*, 55(4), 148-161. https://doi.org/10.5032/jae.2014.04148
- Taib Harun, M. (2015). Effective classroom management skills in physical education at Institute of teacher education. *Education Journal*, 4(2), 60. https://doi.org/10.11648/j.edu.20150402.12
- Trad, A. M., R. Richards, K. A., & Wilson, W. J. (2021). Strategies to increase self-, student, and discipline advocacy in adapted physical education. *TEACHING Exceptional Children*, 54(1), 52-62. https://doi. org/10.1177/00400599211018838
- Tuckett, A. G. (2004). Qualitative research sampling: The very real complexities. Nurse Researcher, 12(1), 47-61. https://doi.org/10.7748/ nr2004.07.12.1.47.c5930

- Valencia, S. W., Martin, S. D., Place, N. A., & Grossman, P. (2009). Complex interactions in student teaching. *Journal of Teacher Education*, 60(3), 304-322. https://doi.org/10.1177/0022487109336543
- Weaver, R. G., Webster, C. A., Beets, M. W., Brazendale, K., Chandler, J., Schisler, L., & Aziz, M. (2017). Initial outcomes of a participatory-based, competency-building approach to increasing physical education teachers' physical activity promotion and students' physical activity: A pilot study. *Health Education & Behavior*, 45(3), 359-370. https://doi. org/10.1177/1090198117731600
- Wells, T., Hainline, M. S., & Smalley, S. W. (2019). Identifying challenges pre-service teachers encountered when teaching curriculum for agricultural science education (CASE) coursework during student teaching. Journal of Agricultural Education, 60(3), 128-140. https://doi.

org/10.5032/jae.2019.03128

- Yin, H., Lee, J. C., & Zhang, Z. (2020). Catering for learner diversity in Hong Kong secondary schools: Insights from the relationships between students' learning styles and approaches. *ECNU Review of Education*, 3(4), 610-631. https://doi.org/10.1177/2096531120911800
- Zelkowski, J., Campbell, T., & Moldavan, A. (2023). The relationships between internal program measures and a high-stakes teacher licensing measure in mathematics teacher preparation: Program design considerations. *Journal of Teacher Education*, *75*(1), 58-75. https://doi. org/10.1177/00224871231180214
- Zhao, H., & Zhang, X. (2017). The influence of Field teaching practice on preservice teachers' professional identity: A mixed methods study. *Frontiers in Psychology*, 8. https://doi.org/10.3389/fpsyg.2017.01264