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Constructivist Mentor: Influence of Mentor teachers on Mentees

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ABSTRACT

The importance of mentor teachers in assisting preservice teachers in their transition into the teaching profession has increased significantly over time. Mentor teachers' practical experience in the classroom is highly valued as it complements the theoretical knowledge that trainees acquire. This paper discusses the constructivism theory and Hudson's five-factor model, which includes personal attributes, system requirements, pedagogical knowledge, modeling, and feedback. The paper explores the role of mentor teachers, the characteristics of constructivist mentors, challenges that mentors face, and ways to improve mentorship to develop preservice teachers' professional competencies during their teaching practice. The recommended strategies include classroom observation, professional learning communities, reflection, technology integration, and field experience, among others. Constructivist theory is a valuable addition to field experience models as it enables mentors to build on the mentee's previous knowledge to assist in their acquisition of the necessary knowledge and skills to teach.

Keywords: Constructivism, Mentor teachers, Mentees, Mentorship, Preservice Teachers, Professional development

INTRODUCTION

Teacher education and preparation programs worldwide consider teaching practice an indispensable part of the curriculum (Jenset et al., 2018). It is a crucial aspect of preparing new teachers for their careers (Damoah & Omodan, 2023). Teaching practice offers new teachers an opportunity to acclimate to the teaching community and become better educators (Grossman, 2021). According to Izadinia (2018), mentor teachers play a critical role in the development of preservice teachers (mentees). They are experienced educators who guide, support, and provide feedback to mentees throughout the teaching practice. Mentor teachers are responsible for helping mentees acquire the knowledge, skills, and attitudes necessary for effective teaching.

Ellis et al. (2020) contend that mentor teachers support mentees by modeling effective teaching practices. Mentor teachers demonstrate how to plan and deliver lessons, manage classroom behavior, and assess student learning. By observing their mentor teacher in action, mentees can learn how to implement these practices themselves. Gholam (2018) intimated that mentor teachers also provide ongoing feedback and support to mentees. They observe their teaching, provide constructive feedback, and help them identify areas for growth. Mentor teachers may also provide resources and guidance to help mentees address specific challenges they encounter in their teaching. Grossman (2021) and Izadinia (2018) further argued that one significant role of mentor teachers is to provide opportunities for mentees to engage in reflective practice. Mentor teachers encourage mentees to reflect on their teaching experiences, analyze their teaching practices, and make changes to improve their teaching.

Likewise, Gjelaj et al. (2022) emphasized that a successful teaching practice experience depends on two factors: the mentor teachers who direct and assist mentees, and the locations where the experiences take place. To progress as a mentee, mentor teachers play a critical role. Mentor teachers are suitably placed to help mentees navigate the needs and expectations of the practical training, primarily in vital issues of curriculum and classroom management issues. As qualified teachers, mentors are conversant and abreast with issues in education and are knowledgeable about how to best help mentees get exposure to the school system. Mentors are the only source of information for professional development for mentees.

The mentee's professional growth as a teacher is most strongly influenced by the mentors (Briscoe, 2019). In addition, Gjedia and Gardinier (2018) posited that it's an essential duty to have a mentor during teaching practice. The university partnership greatly values the expertise, dedication, and participation needed to make this opportunity worthwhile for mentees and mentors. Both the mentor and the mentee will benefit from an atmosphere conducive to effective communication and the ability to ask questions and voice concerns. Therefore, for mentors to help mentees throughout their field experiences in classrooms, the university must make sure that they are informed about their obligations (Mulcahey et al., 2018).

Weisling and Gardiner (2018) argued that mentoring had some effect on mentees' performance, but the mentor teachers still needed effective training. This indicated the need for improved mentoring techniques during teaching practice that would improve the current structure. To consistently enhance the current frameworks, research on mentoring mentees is required.

LITERATURE REVIEW

A study conducted in the USA and Australia intimated that teachers leave the profession a few years after the completion of their training (García & Weiss, 2019; Weldon, 2018). According to Manuel et al., (2019), up to one-third of teachers in Australia quit their jobs during the first three to five years of their employment. Initial favorable experiences in teacher education have been viewed as important motivating drivers in continuing to teach, even though issues including workload, school circumstances, and remuneration have impacted the teachers' decisions to quit. For example, retention is correlated with feeling appreciated, thinking you've succeeded, and having a sense of value

The interaction between a mentor teacher and a mentee has the power to change both teachers. Inculcating a feeling of self-assurance, authority, and responsibility in mentees can help mentor teachers guide the formation of their work values (Kutsyuruba & Godden, 2019). Teaching Practice provides prospective teachers with their first first-hand experience teaching a class rather than the more traditional position of the student teachers in university lecture halls (Acquah et al., 2020). Mentor teachers assigned by the principal of the school are required to supervise and assist mentees in practical learning during teaching practice. effective education (Willis et al., 2019).

Teaching practice gives aspiring teachers their first true classroom experience as the instructor of the class rather than the known role of the learner in the classroom (Jenset et al., 2018). Mentees must be paired with a mentor teacher chosen by the school's principal to oversee and support student teachers' practical learning during teaching practice (Tindall-Ford et al., 2018). Student teachers pick up tips from seasoned teachers on handling unique or challenging situations in the classroom by watching what constitutes successful instruction (Spencer et al., 2018, Damoah & Omodan, 2023).

Mentor teachers have a direct and substantial impact on student teachers' professional development since they devote much of their time to them (Damoah & Adu, 2020). However, mentor teachers are sometimes not adequately equipped and prepared to accomplish their primary goal of developing students into qualified and competent teachers during teaching practice (Damoah & Adu, 2019). The mentor teachers' standpoint on how they see how to mentor the student teachers and how to effectively perform their jobs is lacking other scholarly publications. In this paper, the functions of mentor teachers in the training of mentees were critically examined (Izadinia, 2018).

It is imperative to keep in mind that getting students to practice teaching is an important factor in teacher development since it offers them practical experience and is regarded to be the main way for them to put theory into practice (Kostiainen et al., 2018).

Izadinia (2018) further argued that mentees have higher levels of teacher confidence when the mentoring relationship is positive, and expectations are met. However, some people who had unfavorable encounters said their confidence had fallen and they had not grown. This situation demonstrates how little support is provided by the schools where student instructors undertake their teaching activities. This paper is anchored on constructivist theory as the premise to guide effective mentee mentorships during teaching practice.

The Constructivist Mentorship Theory

Mentorship of mentees is based on the principles of the construction of knowledge from mentor teachers' experiences (Orland-Barak & Wang, 2021). This paper is then theoretically lensed on social constructivist theory.

Constructivism

Jean Piaget and Lev Vygotsky are the two protagonists and proponents of the constructivist theory (Piaget, 1932; Vygotsky, 1978). Constructivism is a learning theory that suggests learners (mentees) actively construct their knowledge and meaning from their experiences, rather than passively receiving information (Brau, 2020). Clark (2018) intimated that learners build their mental structures to make sense of the world around them. According to constructivism, learning is a process of adapting to new experiences by incorporating them into existing knowledge structures. This process involves active engagement with the material, and learners construct their understanding by building connections between new information and what they already know (Clark, 2018; Brau, 2020). There are two main types of constructivism: individual constructivism and social constructivism (Taylor, 2018).

Individual constructivism

Individual constructivism is a theory that suggests that individuals actively construct their understanding of the world around them through their experiences, interactions, and reflections (Clark, 2018). This theory is rooted in the idea that everyone has their own unique set of experiences, beliefs, and values, which shape how they perceive and make sense of new information. Chuang (2021) argued that in individual constructivism, learning is a personal and active process that involves making connections between new information and existing knowledge. This theory emphasizes the importance of allowing learners to explore and discover information on their own, rather than simply receiving information from a teacher or other authority figure.

Individual constructivism also emphasizes the role of metacognition, or the ability to think about one's thinking, in the learning process. Mentees who can reflect on their thought processes and adjust their strategies for learning are thought to be more successful in constructing their understanding of new information (Andrade & Brookhart, 2020). Individual constructivism is a mentee-centered approach to mentorship that emphasizes the importance of allowing mentees to construct their understanding of the world through their own experiences and reflections during teaching practice (Kaba, 2021).

Social constructivism

Social constructivism is a theory that suggests that knowledge and understanding are constructed through social interactions and shared experiences (McDonald, 2018). This theory emphasizes the importance of social context in shaping individual understanding and development. According to social constructivism, learning is a collaborative and interactive process that involves sharing and negotiating meaning with others. This theory emphasizes the role of culture, language, and social norms in shaping how individuals understand and interpret the world around them.

In addition, social constructivism also underscores the importance of scaffolding or providing support and guidance to mentees as they acquire new concepts in their classroom experience. This can involve offering opportunities for mentees to work together, receive feedback, and engage in reflective discussions with peers and mentors. It is a learner-centered approach to education that emphasizes the value of social interactions, mentoring, and shared experiences in constructing knowledge and understanding (Damoah & Omodan, 2022). It highlights the importance of creating a supportive and collaborative learning environment in which mentees can actively engage with each other and with the world around them to develop their professional careers (Vygotsky & Cole, 2018).

Ersin and Atay (2021) argued that the social constructivist theory has important implications for mentee mentorship. Rather than simply transmitting information to mentees, mentors should create opportunities for mentees to engage in active, hands-on experiences that allow them to construct their understanding in the classroom. Mentors can facilitate this process by asking open-ended questions, encouraging mentees to make connections between new information and what they already know from theoretical orientation, and providing opportunities for collaboration and discussion. Given that teaching is a complicated process that needs specialized knowledge to produce good teaching, this idea may also be useful for directing mentees' understanding of teaching techniques (Ersin, Atay & Mede, 2020).

What Makes a Constructivist Mentor?

A constructivist mentor is someone who uses the constructivist approach to mentorship. Constructivism is a learning theory that emphasizes the active role of the mentees in creating their understanding of knowledge and the world around them. As such, a constructivist mentor aims to facilitate the mentee's active construction of knowledge and understanding, rather than simply transmitting information (Fernando & Marikar, 2017).

A constructivist mentor recognizes that the mentee's prior experiences, beliefs, and perspectives influence their learning and understanding of new concepts. Therefore, the mentor seeks to engage the mentee in discussions and activities that build on their existing knowledge and experiences (Perry & Parikh, 2018). The mentor also encourages the mentees to reflect on their learning and to make connections between new concepts and their prior knowledge (Izadinia, 2018).

In addition, a constructivist mentor values the process of learning as much as the product (Keazer, 2023). The mentor encourages the mentee to engage in experimentation, exploration, and inquiry, rather than simply focusing on perfection in the classroom (Goodrich, 2021). The mentor also recognizes that learning is a social process and promotes collaboration and communication among mentees. A constructivist mentor creates a supportive and empowering learning environment that promotes active learning, reflection, and the construction of new knowledge and understanding for mentees (Nolan & Molla, 2018).

According to this paper, constructivist mentoring in teacher education can be divided into five guiding principles which are in sync with the Five-factor model. It is a model that outlines key components of effective mentoring relationships. The mentee's teaching experiences may be framed in a constructivist manner by the mentoring roles within these aspects. Per this paradigm, the mentor coaches and scaffolds the mentee toward a degree of skill. These factors are based on research and best practices in the field of mentoring and though not

exhaustive could be used to guide the development and implementation of effective constructivist mentorship. The five factors are:

Hudson's Five-Factor Mentoring Model

The idea of five factors in mentorship was developed by Peter Hudson. This model was developed to educate mentor teachers about their roles in effective mentoring, how to mentor in a meaningful and purposeful manner, and how to evaluate mentoring practices (Hudson, 2013; Hyde, 2019). We can investigate and understand proper mentoring practices in classroom practices at the same time using Hudson's five-factor mentoring model, and we can use this model as the foundation for the theoretical framework. This model includes five qualities that, according to Hudson (2013) and Hudson (2010), mentor instructors must possess for effective mentoring to take place during pre-service teachers' practice:

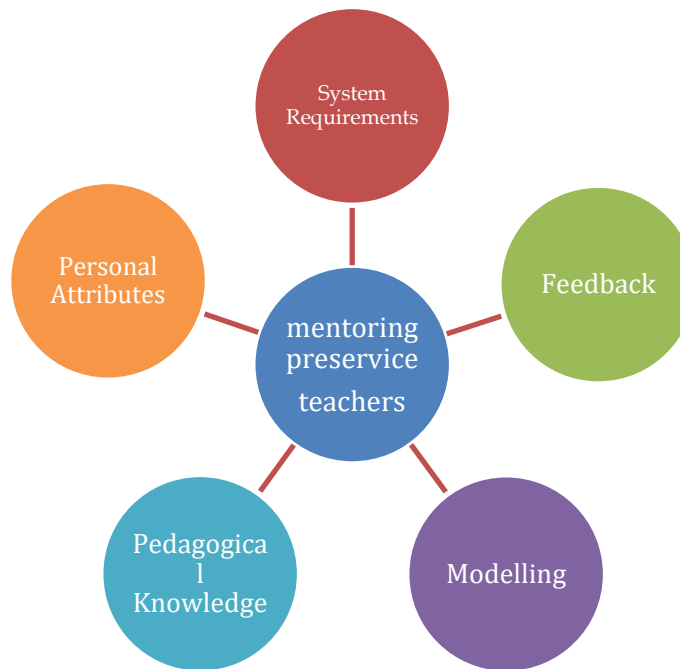


Figure 1: Hudson's Five-Factor Model for Mentoring Preservice Teachers

- **Personal Attributes:** Teachers serving as mentors should demonstrate adequate, proper, and suitable interpersonal and personal qualities to pre-service teachers.
- **System Requirements:** Mentors must show that they are familiar with the nation's educational principles, framework, and standards.
- **Pedagogical Knowledge:** To assist future teachers with lesson planning, a mentor should transmit practical information and instructional techniques from their own experience.
- **Modeling:** Mentors should provide chances for pre-service teachers to practice while modeling their own ideas and perspectives during interactions.
- **Feedback:** After completing observations, mentors should offer positive and informative comments to the pre-service teachers.

The consequences of these characteristics have a significant impact on how mentees grow throughout their teaching practice. They should be mentored by mentor teachers who exhibit excellent interpersonal and personal skills. These qualities include being attentive, supportive, enthusiastic, responsible, and willing to help. These traits greatly build a strong relationship and mutual trust between the two parties and consequently improve the mentoring processes. Mentees would understand how institutions operate and be able to adapt to these policies and systems while following the fundamental strategies all through when a mentor teacher educates them about the school's educational policies and systems (Hudson, 2010; Hudson & Hudson, 2018; Hyde, 2019).

Hudson (2013) and Hyde (2019) contend that mentees may broaden their pedagogical repertoire and carry out successful lessons and activities by being exposed to and informed by pedagogical knowledge. Mentees benefit from this pedagogical expertise as a mentor teacher exemplifies appropriate conduct and pedagogical methods for them to watch and use in their own classroom instruction. Finally, when mentees have taught lessons, feedback from the mentor teachers encourages them to feel more confident in their teaching strategies and participate in reflective teaching to advance their current level of teaching ability and proficiency.

The Role of Mentor Teachers During Teaching Practice

Mentor teachers play a critical role in supporting mentees during their professional development. Here are some significant ways that mentor teachers can support and guide mentees.

Mentor teachers can model effective teaching practices for mentees by demonstrating effective instructional strategies, classroom management techniques, and assessment methods. A mentee's growth is significantly impacted by modeling teaching techniques when they are used in real-world classroom settings. Mentors are characterized as subject matter specialists who may serve as models for good teaching techniques. The mentor's modeling of instructional strategies must adhere to the demands of the modern educational system and the Fourth Industrial Revolution(4IR) expectations (Khalo & Damoah, 2023). To do this in the classroom, mentors must show excitement, engage mentees in the material they are teaching, and do so in a way that demonstrates excellent classroom management techniques and a connection with the students. As they grow their knowledge and abilities, mentees can work independently (Bird & Hudson, 2025).

Hudson and Hudson (2018) contend that mentor teachers can provide regular feedback to mentees on their teaching performance, including strengths and areas for improvement. They can offer constructive criticism and guide how to improve teaching skills. Feedback is a crucial component of the mentoring process because it enables mentors to express their expert thoughts on the mentee's progress toward positively becoming a teacher. The mentee's confidence can be boosted by the mentor's readiness to offer constructive criticism. This calls for mentors to assess the mentee's lesson plans and programs in the classroom to give more thorough and detailed feedback.

Bressman et al. (2018) corroborate with Hudson and Hudson's (2018) perspective on mentorship. They posited that mentor teachers can offer guidance and support to mentees on a wide range of issues, including lesson planning, curriculum development, and classroom management. They can provide mentees with strategies for working with diverse student populations and adapting instruction to meet the needs of individual learners. Izadinia (2018) argues that mentor teachers can create a positive and supportive learning environment for mentees. They can encourage open communication, provide opportunities for reflection, and create a safe space for mentees to ask questions and seek guidance.

Then again, Betlem et al. (2019) assert that mentor teachers can foster a culture of collaboration by encouraging mentees to work together and share resources and ideas. They can facilitate opportunities for mentees to collaborate with other educators, both within and outside the school. The importance of field experiences in mentees' education programs is mostly due to the mentor's pedagogical expertise. Of course, the mentor's knowledge of classroom instruction may give mentees a better understanding of teaching practice. Mentors must define what subject-specific pedagogical expertise comprises to effectively communicate this to their mentees because this information might vary from subject to subject and lesson to lesson (Hudson & Hudson, 2018). The professional growth of mentees depends heavily on mentor teachers. Mentor instructors can assist mentees in developing into capable and effective teachers by offering advice, encouragement, and feedback.

Drawbacks in Preservice Teachers Mentorship

Mentor teachers face several challenges during teaching practice that can impact their ability to effectively support and develop mentees. Some of these challenges include.

Ewing (2021) argues that mentor teachers often have full-time teaching responsibilities in addition to supporting mentees. Balancing their teaching load with mentoring and providing feedback to mentees can be challenging, particularly if they have multiple mentees to support. Mentor teachers may not have access to the resources and materials needed to effectively support mentees. For example, they may not have access to professional development opportunities or may not have the necessary technology to provide online support (Ottenbreit-Leftwich et al., 2018).

According to Balali et al. (2018), effective communication is crucial between mentor teachers and mentees, but language barriers or cultural differences can sometimes make communication challenging. In addition, mentor teachers may need to work with mentees who have different learning styles or preferences, which can further complicate communication. Some mentees may not be fully prepared for the teaching practice experience, which can make it challenging for mentor teachers to effectively support them. For example, a mentee may not have a solid understanding of classroom management or may not be able to effectively plan and deliver lessons (Manasia et al., 2019).

González et al. (2018) argue that mentor teachers and mentees may have different teaching styles, which can make it challenging for mentor teachers to provide effective guidance and support. Mentor teachers may need to adapt their teaching style to match the needs of the mentees. Mentor teachers play a critical role in the professional development of mentees, but they also face several challenges during teaching practice. By understanding these challenges and working to address them, mentor teachers can more effectively support and develop the next generation of educators (Damoah & Adu, 2019).

Improving the Quality of Mentorship for Preservice Teachers

Mentoring is a critical component of the teacher education experience. It provides mentees with the opportunity to observe and learn from experienced teachers, receive feedback on their practice, and develop their teaching skills. However, the quality of mentoring can vary widely, and not all mentees receive the support they need to become effective teachers. Here are some ways to improve the quality of mentoring for mentees.

According to Cape and Lawrence (2018), It is important to establish clear expectations for what mentees should expect from their mentor and what the mentor expects from the mentees. Guidelines for communication, observation, feedback, and evaluation should be established and communicated clearly to all parties involved. Mentors should receive ongoing training and support to help them develop the skills they need to provide effective mentoring. This training should include topics such as effective communication, observation, feedback strategies, and strategies for supporting mentees in different contexts. Mentors and mentees should work together collaboratively to set goals and plan lessons. This approach promotes shared ownership and encourages the mentees to take an active role in their learning (Stanulis et al., 2019).

Izadinia (2018) further argues that Reflection is a critical component of learning and growth. Mentors should provide opportunities for mentees to reflect on their practice and identify areas for improvement. This can be done through regular meetings, self-assessment, or other reflective practices. Mentoring relationships should be built on trust, respect, and mutual understanding. Mentors should create a positive learning environment that encourages mentor teachers to take risks, ask questions, and learn from their mistakes (Hudson & Hudson, 2018; Cape and Lawrence, 2018). By implementing these strategies, teacher education programs can improve the quality of mentoring for mentees and help them develop into effective teachers.

CONCLUSION

The five-factor model for focused mentoring and constructivist theory may improve mentee development. Constructivist theory is a helpful complement to field experience models because it enables mentors to build on the mentee's prior knowledge to assist in their acquisition of the knowledge and skills required to teach. Mentors can acquire the information, abilities, and experience necessary to succeed as excellent teachers. The professional growth of mentees is significantly influenced by mentor teachers. To assist mentees in acquiring the information, abilities, and attitudes required for successful teaching, mentors offer advice, support, and feedback. Mentor teachers assist mentees in developing their self-confidence and ability as teachers by offering regular feedback and support, setting an example of successful teaching techniques, and encouraging reflective practice.

RECOMMENDATION

The professional development of mentees is crucial in preparing them for the demands of teaching. Here are some strategies that can be used to enhance the development of mentees during their teaching practice.

Classroom observations: mentees can learn a lot by observing experienced teachers in action. They can observe different teaching styles, strategies, and techniques and reflect on what they have learned.

Mentoring: Pairing mentees with experienced teachers can help them develop their skills and knowledge. The mentor can provide feedback, guidance, and support as the mentees navigate the challenges of the classroom.

Professional learning communities: Mentees can benefit from collaborating with their peers and other educators to share ideas, resources, and best practices. They can participate in online forums, attend workshops, and engage in other professional development activities.

Reflection: Reflection is a critical component of professional development. Mentees can reflect on their experiences in the classroom, their teaching strategies, and their interactions with students. This can help them identify areas for improvement and develop new skills.

Technology integration: Technology is increasingly important in education, and mentees should be familiar with the latest tools and techniques. They can participate in online courses, attend workshops, and explore new technologies to enhance their teaching skills.

Field experiences: Mentees should have opportunities to work with students in a variety of settings. This can include student teaching, practicums, and other field experiences. These experiences can help them develop their teaching skills, gain confidence, and build relationships with students.

Relationship building: Effective mentoring relationships are built on trust, respect, and open communication. Mentors and mentees should take time to get to know each other and establish a rapport before diving into more specific mentoring activities.

Goal setting: Mentoring relationships should be focused on achieving specific goals or outcomes. Mentors and mentees should work together to identify goals that are relevant and meaningful to the mentee and develop a plan for achieving them.

Skill development: As a constructivist, mentors should help their mentees develop the skills and knowledge needed to achieve their goals. This may involve providing guidance, feedback, resources, or opportunities for practice and learning.

Career development: Mentors should help their mentees navigate their career paths and make progress toward their long-term career goals. This may involve providing advice, networking opportunities, and support in finding and applying for jobs.

Personal development: Mentors should also support their mentees in their personal growth and development. This may involve providing guidance on work-life balance, managing stress, building relationships, and developing a sense of purpose and meaning in their work.

REFERENCE

1. Acquah, E. O., Szelei, N., & Katz, H. T. (2020). Using modelling to make culturally responsive pedagogy explicit in preservice teacher education in Finland. *British Educational Research Journal*, 46(1), 122-139.
2. Andrade, H. L., & Brookhart, S. M. (2020). Classroom assessment as the co-regulation of learning. *Assessment in Education: Principles, Policy & Practice*, 27(4), 350-372.
3. Balali, S., Steinmacher, I., Annamalai, U., Sarma, A., & Gerosa, M. A. (2018). Newcomers' barriers... is that all? an analysis of mentors' and newcomers' barriers in OSS projects. *Computer Supported Cooperative Work (CSCW)*, 27, 679-714.
4. Betlem, E., Clary, D., & Jones, M. (2019). Mentoring the mentor: Professional development through a school-university partnership. *Asia-Pacific Journal of Teacher Education*, 47(4), 327-346.
5. Bird, L., & Hudson, P. (2015). Investigating a model of mentoring for effective teaching.
6. Brau, B. (2020). Constructivism. *The Students' Guide to Learning Design and Research*.
7. Bressman, S., Winter, J. S., & Efron, S. E. (2018). Next generation mentoring: Supporting teachers beyond induction. *Teaching and teacher education*, 73, 162-170.
8. Briscoe, P. (2019). Virtual mentor partnerships between practicing and preservice teachers: Helping to enhance professional growth and well-being. *International Journal of Mentoring and Coaching in Education*.
9. Capel, S., & Lawrence, J. (Eds.). (2018). *Mentoring Physical Education Teachers in the Secondary School: A Practical Guide*. Routledge.
10. Chuang, S. (2021). The applications of constructivist learning theory and social learning theory on adult continuous development. *Performance Improvement*, 60(3), 6-14.
11. Clark, K. R. (2018). Learning theories: constructivism. *Radiologic Technology*, 90(2), 180-182.
12. Damoah, B., & Omodan, B. I. (2023). Tracing The Footprints of Environmental Education in Teacher Education: A Review of Pre-Service Teachers' Training in Universities.
13. Damoah, B., & Adu, E. O. (2020). Teacher's Awareness Of The Integrated Environmental Education Curriculum In South Africa. *e-BANGI Journal*, 17(6).
14. Damoah, B., & Adu, E. O. (2019). Challenges teachers face in the integration of Environmental Education into the South African curriculum. *American Journal of Humanities and Social Sciences Research*, 3(10), 157-166.
15. Damoah, B., & Omodan, B. I. (2022). Post-COVID-19 Teaching and Learning Strategies in South African Schools.
16. Ellis, N. J., Alonzo, D., & Nguyen, H. T. M. (2020). Elements of a quality pre-service teacher mentor: A literature review. *Teaching and Teacher Education*, 92, 103072.
17. Ersin, P., & Atay, D. (2021). Exploring online mentoring with preservice teachers in a pandemic and the need to deliver quality education. *International Journal of Mentoring and Coaching in Education*.
18. Ersin, P., Atay, D., & Mede, E. (2020). Boosting preservice teachers' competence and online teaching readiness through e-practicum during the COVID-19 outbreak. *International Journal of TESOL Studies*, 2(2), 112-124.
19. Ewing, L. A. (2021). Mentoring novice teachers. *Mentoring & Tutoring: Partnership in Learning*, 29(1), 50-69.
20. Fernando, S. Y., & Marikar, F. M. (2017). Constructivist Teaching/Learning Theory and Participatory Teaching Methods. *Journal of Curriculum and Teaching*, 6(1), 110-122.
21. García, E., & Weiss, E. (2019). US Schools Struggle to Hire and Retain Teachers. The Second Report in "The Perfect Storm in the Teacher Labor Market" Series. Economic policy institute.
22. Gholam, A. (2018). A mentoring experience: From the perspective of a novice teacher. *International Journal of Progressive Education*, 14(2), 1-12.

23. Gjedia, R., & Gardinier, M. P. (2018). Mentoring and teachers' professional development in Albania. *European Journal of Education*, 53(1), 102-117.
24. Gjelij, M., Kaçaniku, F., & Saqipi, B. (2020). Understanding mentoring role as a step towards improving quality of teacher education: Kosovo experience. *International Journal of Education Economics and Development*, 11(2), 188-203.
25. González, A., Conde, Á., Díaz, P., García, M., & Ricoy, C. (2018). Instructors' teaching styles: Relation with competences, self-efficacy, and commitment in pre-service teachers. *Higher Education*, 75, 625-642.
26. Goodrich, A. (2021). Online peer mentoring and remote learning. *Music Education Research*, 23(2), 256-269.
27. Grossman, P. (Ed.). (2021). *Teaching core practices in teacher education*. Harvard Education Press.
28. Hudson, P. (2013). Mentoring as professional development: 'growth for both' mentor and mentee. *Professional development in education*, 39(5), 771-783.
29. Hudson, P., & Hudson, S. (2018). Mentoring preservice teachers: Identifying tensions and possible resolutions. *Teacher Development*, 22(1), 16-30.
30. Hyde, B. (2019). *Exploring the practice of mentoring student teachers in an internship programme* (Doctoral dissertation).
31. Izadinia, M. (2018). Mentor teachers. Contributions to the development of preservice teachers' identity. *Research on teacher identity: Mapping challenges and innovations*, 109-119.
32. Izadinia, M. (2018). Mentor teachers. Contributions to the development of preservice teachers' identity. *Research on teacher identity: Mapping challenges and innovations*, 109-119.
33. Jensen, I. S., Klette, K., & Hammerness, K. (2018). Grounding teacher education in practice around the world: An examination of teacher education coursework in teacher education programs in Finland, Norway, and the United States. *Journal of Teacher Education*, 69(2), 184-197.
34. Kaba, M. L. (2021). *Mediating Effect of Sex Match on Mentorship Quality and Self-Efficacy* (Doctoral dissertation, Capella University).
35. Keazer, L. M. (2023). Creating a context for graduate student learning through constructivist inquiry: Introduction to academia as learning through play. *Theory Into Practice*, 62(1), 50-61.
36. Khalo, X., & Damoah, B. (2023). Reinvigorating Climate Change Education in Universities a Social Transformative Agenda. *Environmental Science & Sustainable Development*, 19-26.
37. Kostianen, E., Ukskoski, T., Ruohotie-Lyhty, M., Kauppinen, M., Kainulainen, J., & Mäkinen, T. (2018). Meaningful learning in teacher education. *Teaching and Teacher Education*, 71, 66-77.
38. Kutsyuruba, B., & Godden, L. (2019). The role of mentoring and coaching as a means of supporting the well-being of educators and students. *International Journal of Mentoring and Coaching in Education*.
39. Manasia, L., Ianos, M. G., & Chicioeanu, T. D. (2019). Pre-service teacher preparedness for fostering education for sustainable development: An empirical analysis of central dimensions of teaching readiness. *Sustainability*, 12(1), 166.
40. Manuel, J., Dutton, J., & Carter, D. (2019). 'The dream and aspirations of teaching': English teachers' perspectives on sustaining the motivation to teach. *English in Australia*, 54(2), 5-23.
41. McDonald, M. (2018). *Constructivisms*. In *Security Studies* (pp. 48-59). Routledge.
42. Mulcahey, M. K., Waterman, B. R., Hart, R., & Daniels, A. H. (2018). The role of mentoring in the development of successful orthopaedic surgeons. *JAAOS-Journal of the American Academy of Orthopaedic Surgeons*, 26(13), 463-471.
43. Nolan, A., & Molla, T. (2018). Teacher professional learning in early childhood education: Insights from a mentoring program. *Early Years*, 38(3), 258-270.
44. Orland-Barak, L., & Wang, J. (2021). Teacher mentoring in service of preservice teachers' learning to teach: Conceptual bases, characteristics, and challenges for teacher education reform. *Journal of teacher education*, 72(1), 86-99.
45. Ottenbreit-Leftwich, A., Liao, J. Y. C., Sadik, O., & Ertmer, P. (2018). Evolution of teachers' technology integration knowledge, beliefs, and practices: How can we support beginning teachers use of technology?. *Journal of Research on Technology in Education*, 50(4), 282-304.
46. Perry, R. E., & Parikh, J. R. (2018). Developing effective mentor-mentee relationships in radiology. *Journal of the American College of Radiology*, 15(2), 328-333.

47. Spencer, P., Harrop, S., Thomas, J., & Cain, T. (2018). The professional development needs of early career teachers, and the extent to which they are met: a survey of teachers in England. *Professional development in education*, 44(1), 33-46.
48. Stanulis, R. N., Wexler, L. J., Pylman, S., Guenther, A., Farver, S., Ward, A., ... & White, K. (2019). Mentoring as more than "cheerleading": Looking at educative mentoring practices through mentors' eyes. *Journal of teacher education*, 70(5), 567-580.
49. Taylor, S. P. (2018). Critical realism vs social constructionism & social constructivism: application to a social housing research study. *International Journal of Sciences: Basic and Applied Research*, 37(2), 216-222.
50. Tindall-Ford, S., Ledger, S., Williams, J., & Ambrosetti, A. (2018). Immersion programs in Australia: Exploring four models for developing 'classroom-ready' teachers. *Educating future teachers: Innovative perspectives in professional experience*, 193-215.
51. Vygotsky, L., & Cole, M. (2018). Lev Vygotsky: Learning and social constructivism. *Learning theories for early years practice*, 66, 58.
52. Weisling, N. F., & Gardiner, W. (2018). Making mentoring work. *Phi Delta Kappan*, 99(6), 64-69.
53. Weldon, P. (2018). Early career teacher attrition in Australia: Evidence, definition, classification and measurement. *Australian Journal of Education*, 62(1), 61-78.
54. Willis, J., Churchward, P., Beutel, D., Spooner-Lane, R., Crosswell, L., & Curtis, E. (2019). Mentors for beginning teachers as middle leaders: the messy work of recontextualising. *School Leadership & Management*, 39(3-4), 334-351.