

## ***Mentoring to Enhance Student Teachers' Self-Efficacy for E-portfolio Development During Teaching Practice***

Ratokelo Willie Thabane, Central University of Technology, South Africa

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### **Abstract**

Teaching Practice is a critical phase of teacher education that provides opportunities for student teachers to reflect on the development of their teaching philosophies and put them into action. Student teachers' self-efficacy refers to their beliefs in their ability to effectively handle the tasks, obligations, and challenges related to their professional activity. In the South African context, e-portfolios are increasingly being considered in teacher training programs to enable student teachers to reflect in, on and about practice in a structured way, whereby they demonstrate their growth and development as professionals. Good quality mentoring during teaching practice contributes to the development of critical professional skills of student teachers and ensures the best quality learning experiences for pupils. This paper is arranged as an ideas paper that seeks to explore how mentoring may enhance student teachers self-efficacy for e-portfolio development during teaching practice. A qualitative research design was adopted in gathering information used for this study. A literature review process was used as a data collection tool and this involved activities such as identifying, recording, understanding, meaning-making, and transmitting information pertinent to the enhancement of student teachers self-efficacy for e-portfolio development during teaching practice through mentoring. Findings revealed that good quality mentoring may enhance the student teachers' self-efficacy for e-portfolio development and that e-portfolios are practical tools for self-directed, reflective and collaborative professional learning. Further findings show that formal mentoring programs are essential to meet student teachers professional learning needs. These findings will encourage mentor teachers to optimally assist student teachers to develop e-portfolios for their professional learning.

Keywords: Mentoring, Self-Efficacy, E-portfolios Development

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## **Introduction**

Teaching practice is an integral feature of any education-based program. During this period student teachers are afforded an opportunity to develop and refine teaching competency, expertise and quality. They practice how to plan and deliver content, how to assess learners, how to engage their learners in the learning process, and also how to reflect on their teaching experience. During this time student teachers are expected to develop electronic portfolios, also known as e-portfolios. These e-portfolios succeeded paper-based portfolios. E-Portfolios generally refer to “digital dossiers, in which students compile and reflect upon multimodal artefacts to review their learning journeys” (Yancey, 2019).

During teaching practice, student teachers are assigned mentor teachers whose duties are crucial in helping pre-service teachers hone their pedagogical abilities and grow as professionals in the classroom (Li, Sani & Azmin, 2021). Mentoring, in a pre-service teacher context, occurs during professional placements (or practicum) in which student teachers are being placed with classroom teachers (mentor teachers) to learn, develop and practise teaching knowledge and skills (The Queensland College of Teachers, 2007).

## **The Mentoring Context in Pre-service Teacher Education**

During teaching practice student teachers attend schools to have a real life professional experience and develop their teaching skills under close supervision of expert mentor teachers. Ambrosetti (2014:31) argues that mentoring “concerns the development of the relationship between the mentor and mentee, which in turn provides the underpinning for the growth of the mentee’s skills”. In order to assume the tasks of welcoming, accompaniment, and direction in the dynamic engagement of the placement school or classroom and the student evaluation, the mentor teacher must have the necessary knowledge, leadership, and interpersonal skills (Fernandez-Morante, Leranoz-Iglesias, Cabriero-Lopez & Abel-Pereira, 2024:2).

When mentoring pre-service teachers during their teaching practicum, mentor teachers must always act out their roles. They are expected to be role models as experienced professionals who demonstrate best practice for the student teachers to emulate.

## **The Teaching Practicum**

Teaching practice, often called teaching practicum, involves learners, school administrators, mentor teachers, university supervisors, and student teachers. It is a mandatory course in teacher education programs that works with schools to try and acquaint student teachers with the teaching environment and its variables (Aghabarari & Rahimi, 2020:2). According to Aglozar (2017), the following sets of objectives have been established for why teaching practice is a mandatory component of teacher training: “to expose student-teachers to real life classroom experiences under the supervision of professional teachers; to provide the forum for student-teacher to translate educational theories and principles into practice; to enable student-teachers discover their own strengths and weaknesses in classroom teaching and provide opportunities to enable them address their weaknesses and enrich their strengths; to familiarize student-teachers with real school environment as their future work place; to provide student-teachers with an opportunity for further acquisition of professional skills, competencies, personal characteristics and experience for full-time teaching after graduation; to help student-teachers develop a positive attitude towards the teaching profession; and to

serve as a means of assessing the quality of training being provided by teacher training institutions” (102).

Teaching practice is also aimed at closing the gap between theory and professional practice. Mesa (2018:303) defines professional practice as “a range of opportunities for observation, analysis, and interpretation of what happens, how and when it happens in teaching situations, as well as experimentation in real contexts”. Theory, on the other hand, is defined as “the knowledge needed to handle professional activities”. In this sense, the placement schools effectively contextualize, apply, and reconstruct information for use in the classroom while the university disseminates knowledge through its teaching staff in the teaching professions that are mobilized in the programs of teacher education (Mesa 2018:303).

Teaching practice is designed to improve student teachers' ability to teach by providing them with the opportunity to apply the knowledge, beliefs, and skills they have been studying at the university (Badawi, 2021:692). Thus, teaching practicum gives student-teachers a chance to have contact with the real world of their profession. The content of teaching practicum therefore helps student teachers get acquainted with educational practice, practice the work of a class teacher, practice teaching and prepare final a portfolio of evidence for both developmental and assessment purposes.

### **The E-portfolio**

An e-portfolio can be defined as a digitized collection of artifacts including demonstrations, resources, and accomplishments that represent an individual, group or institution. Using ePortfolios in teacher education programs has a number of benefits. Among these benefits include improved pedagogical and technical topic knowledge, reflective teaching abilities, values, beliefs, and positive attitudes, as well as improved lifelong learning (Thabane, 2022). In teacher education programs, e-portfolios are employed as instruments for reflection and empowerment. Pre-service teachers stand to gain the most from the usage of e-portfolios in the development of their reflective competences. A crucial component of a teacher's professional development is reflection. The e-portfolio captures the learning process itself because the student's progress can be monitored along the way . It also allows the exchange of ideas and feedback (López-Crespo<sup>1</sup>, Carmen Blanco-Gandía<sup>1</sup>, Valdivia-Salas, Fidalgoi & Sánchez-Pérez, 2022:5234). An e-portfolio therefore showcases a student teacher's personal growth and demonstrate specific knowledge and skills gained during the learning programme. This means that student teachers use the ePortfolio to reflect, engage, collaborate and enhance active, authentic learning. E-portfolios therefore provide a comprehensive way to document personal progress, to reflect on work activities, to support learning and to serve as a tool for feedback and evaluation (Totter & Wyss, 2019).

E-portfolios provide student teachers with an opportunity and a virtual space to critically assess their academic work through reflection. Student teachers use e-portfolios to provide evidence of competencies required for certification (Lorenzo & Ittelson, 2005:4). Student teachers are also able to make connections among different activities undertaken during teaching practice through the use of e-portfolios. Student teachers can benefit from e-portfolios in a number of ways, including the opportunity to incorporate multimedia, ubiquitous portfolio access, and an easier way to view their own development (Beckers, Dolmans, & Merrenboer, 2016).

## **The E-portfolio Development**

Developing an e-portfolio involves skills essential for the 21<sup>st</sup> century learning such as organizing and planning material, giving and receiving feedback, reflecting, selecting and arranging content to communicate with others in a more effective way. E-portfolios help student teachers grow by encouraging continuous self-evaluation through reflection on their own strengths and weaknesses, identification of knowledge and competency gaps, celebration of accomplishments, assessment of future directions, and conversation with others (JISC, 2008).

Student teachers' experiences during teaching practice have a significant impact on their subsequent integration of technology upon entering the field. With the assistance of mentor teachers, student teachers become empowered to develop e-portfolios. Student teachers are assisted in technology integration. During this process student teachers are provided with knowledge on how to utilize content and technological and pedagogical expertise effectively for the benefit of pupils' learning (Hodges, 2018). The creation and management of an e-portfolio provides student teachers with opportunities to build digital fluency, using technologies to create, select, organise, edit, and evaluate their work.

## **Self-Efficacy in E-portfolio Development**

Self-efficacy is built upon the tenets associated with Bandura's (1986) Social Cognitive Theory (SCT). SCT defines self-efficacy as people's judgement of their capabilities to organize and execute courses of action required to attain designated types of performance. During teaching practice student teachers are required to develop e-portfolios to demonstrate their capabilities to organize their teaching to benefit pupils' learning. Although electronic portfolios have numerous potential advantages, the process of constructing one involves several processes, such as gathering, choosing, reflecting, projecting/directing, and displaying (Yang & Wu, 2013:121). Unfocused instruction and/or poorly defined tasks result in low reliability for evaluations in portfolio assessment; the electronic portfolio requires a level of technological skill that not all teachers and students possess; it takes time for students to put together and for teachers to guide and provide feedback.

## **Method**

The research issue in this paper is addressed through a critical literature evaluation on the role of mentoring in enhancing student teachers' self-efficacy in e-portfolio development, a task that student teachers are required to undertake since the start of the covid-19 pandemic going forward. A literature review process helped in identifying, recording, understanding, meaning-making, and transmitting information pertinent to the enhancement of student teachers self-efficacy for e-portfolio development during teaching practice through mentoring.

## **Discussion and Conclusions**

Mentoring student teachers in developing e-portfolios provides a strong link between knowledge of theory and teaching practices with technology embedded. When technology, content and pedagogy are simultaneously considered, student teachers are more effective in responding to challenges in technology and can engage in reflective practice (Hodges, 2018).

As alluded to by Yang and Wu (2013:167), developing an electronic portfolio is quite challenging in practice. However, Syzdykova, Koblandin, Mikhaylova, and Akinina (2021:121) maintain that it is also important to provide technical support to students and teachers as it can significantly affect student motivation and their perception of e-portfolios. This technical support is best provided by the mentor teacher. Student comfort when using the e-portfolio technology is also an important aspect of motivation. Intrinsic motivation is the key to the acceptance of new technologies, and self-efficacy (competency) is a prerequisite for motivation. It is noted that problems with the IT infrastructure and the system used to create an e-portfolio negatively affect student motivation (Syzdykova, *et al*, 2021).

Student teachers usually hold their mentor teachers in high regard. The involvement of mentor teachers in the student teacher's activities brings about hope and a willingness to succeed, hence their believe to succeed in developing an e-portfolio is enhanced by the mentoring they receive. Mentor teachers carefully considered their students' design layouts and included materials after exploring the elements and the structures of some existing examples. Difficulties with integrating multimedia are more prevalent when schools do not provide predefined formats (Hsieh, Lee, & Chen, 2015).

Self-efficacy beliefs among new teachers have an impact on their levels of drive and tenacity in the face of challenges. Often, these teachers want to engage more and be autonomous, but experience limited support from their school management teams (Mokone, Palmer & Thabane, 2022). Self-efficacy is a powerful motivator that helps people decide how much work is necessary (Alexiou & Paraskeva, 2013). The mentor teacher needs to ensure that the student teacher spends sufficient time and effort in the development of an e-portfolio so as to realize self-improvement. Mentor teachers may enhance the student teachers' self-efficacy to develop an e-portfolio by helping to identify helpful resources that student teachers may access to develop their e-portfolios. Mentor teachers should foster meaningful dialogues between themselves and the student teachers. These dialogues should encourage exploration as thereby leading to deep learning.

Reflection as a process of making sense of ideas and concepts in relation to our existing knowledge structure and our feelings is a crucial aspect of e-portfolio development. Student teachers are unlikely to reflect successfully without considerable guidance from the mentor teacher. Therefore, in order to properly help the student teachers during their placements in schools, the university must make sure that mentor teachers are aware of their responsibilities. From the above trends in literature it may be concluded that good quality mentoring can enhance the self-efficacy of student teachers in the development of e-portfolios.

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**Contact email:** [rthabane@cut.ac.za](mailto:rthabane@cut.ac.za)