MENTORING STUDENT TEACHERS FOR SELF-DIRECTED PROFESSIONAL LEARNING THROUGH THE USE OF E-PORTFOLIOS DURING TEACHING PRACTICE

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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. Self-directed learning pertains to a process where these students take responsibility for their own learning by setting outcomes, choosing material or human resources, selecting appropriate learning strategies, and evaluating their learning. E-portfolios as learning tools can be utilized to facilitate the development of skills for self-directed learning. Good quality mentoring in schools 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 the intersections between mentoring, self-directed professional learning of student teachers and the use of e-portfolios during teaching practice. The most common trends on these topics will be described and intersections identified, thereby exploring how self-directed learning could be supported by the use of e-portfolios and good quality mentoring. Findings showed 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 use e-portfolios to enhance student teachers self-directed professional learning.

Keywords: Mentoring, self-directed professional learning, e-portfolios.

1. Introduction

Towle and Cottrel (1996) describe self-directed learning as a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes, that is, they take responsibility for, and control of, their own learning. The concept of self-directed learning according to Morris (2019) grew out of popular scholarly works published in North America during the 1960s. The concept is grounded in humanistic philosophy, pragmatic philosophy and constructivist epistemology, which together represent a process of learning that is individual, purposeful and developmental.

2. Professional learning

A general description of professional learning is any type of work-related educational experience that a person may acquire to improve his/her performance on the job. It also refers to updating or building up job-related competencies that enable individuals to function effectively in their chosen profession (Bakhshi, 2019). Professional learning should also include occasions for teachers to reflect critically on their practice and to fashion new knowledge and beliefs about content, pedagogy, and learners (Shurr, Hirth, Jasper, McCollow, & Heroux, 2014). In professional learning, teaching is viewed as a craft that includes a broad range of skills and mindsets that must be adapted to teachers' unique classroom and school contexts (Brennan, 2021). Professional learning therefore positions the teacher as an active, professional learner. Professional learning, according to Brennan (2021) views knowledge through a constructivist lens. Constructivists assert that knowledge is constructed by learners, and as learners bring their unique sets of prior knowledge and experiences to their learning, there is no single true way of interpreting the world (Charalambos, 2000). Professional learning, therefore, exemplifies a constructivist worldview, as teachers

are engaged in creating knowledge and new understandings through the learning process. Bakhshi (2019) argues that professional learning may take a variety of forms: formal, informal or variations of both. Formal professional learning on one hand may include face-to-face training, distance learning and mentoring. These types of professional learning are structured, top down and usually guided by an instructor. On the other hand, informal professional learning such as reading scientific publications, watching documentaries, conversation among colleagues, independent reading and research, or using professional learning websites is seen as open-ended, flexible and self-directed. While professional learning models honour individual teachers' needs and strengths as individual learners, they must also be grounded in a clear mission, vision, and set of values for the school and district so that teachers' learning ultimately serves to support student learning and growth (Brennan, 2021).

3. Self-directed professional learning

According to Shurr, Hirth, Jasper, McCollow, and Heroux, (2014) professional learning is self-directed when the learner, in our case the teacher, takes the lead role in facilitating his/her own professional growth and also that self-directed professional learning (SDPL) includes such components as planning what is to be learned, practicing the skills in everyday settings, self-monitoring and assessment to track skill development, and lifelong learning. In self-directed professional learning teachers provide the momentum and direction of professional learning through their use of self-management, monitoring, and motivation (Garrison, 1997). In self-directed professional learning, teachers take control of their learning experiences. It allows teachers to grow in knowledge, skills, and dispositions in areas such as implementing instructional strategies, managing student behaviours, and engaging students in the learning process (Carpenter & Green, 2018). Self-directed professional learning can give teachers the voice and the choice of what to learn, how to learn and when to learn to improve teaching and learning practices and keep up with students' needs and rapidly expanding knowledge (Bakhshi, 2019).

4. Mentoring student teachers

Student teachers are usually supported, supervised and mentored by experienced school-based teachers. Mentoring in education has long been regarded as one of the most important factors that contribute to teacher professional development (Feiman-Nemser, 2001). Mentoring during student teaching has been reported to be an important aspect of teacher training, and mentor teachers significantly influence the development of student teachers (Jaspers, Prins, Meijers & Wubbels, 2019).

5. Functions of mentoring

The Alberta Teachers Association (2003) identifies the following functions of mentoring: *Teaching:* Teaching the protégé the skills that skilled mentors (unconsciously or consciously) practise daily is difficult. Many experienced teachers teach instinctively, which makes it difficult for them to analyze their own teaching. In order to teach the protégé, the mentor must become a reflective practitioner; *Sponsoring:* Sponsoring the protégé is another function of mentoring. The mentor must identify the strengths of the protégé and advise the protégé as to what activities would be most successful. Sponsoring then requires the mentor to support the protégé when he or she attempts the new practice; *Encouraging:* Encouragement is a key mentor function. By helping protégés see the positive side of their teaching practice and building on those reflections, the mentor is supporting and encouraging the growth of the protégé; *Counselling:* Counselling is the fourth function of mentoring. Protégés need sound advice regarding teaching practice, professional conduct and the culture of the school and community; *Befriending:* The fifth function of mentoring is befriending—protégés need someone to whom they can speak freely.

6. Roles of the mentor

The mentor teacher supports the learning process in the field, improves the quality of teaching and eases the confrontation with the reality of the classroom. They primarily offer instructional and emotional support (Becker, Waldis, & Staub, 2019). Instructional support mainly focusses on the development of the professional knowledge and skills needed to succeed in the classroom. Among other things it includes assistance with lesson planning, instruction related feedback and advice, and help with assessment and diagnostic issues (Becker, Waldis, & Staub, 2019). When offering instructional support, the emphasis is on learning activities that support pupils' learning in the classroom. it is expected that instructional support not

only impact (student) teachers' competence (knowledge and skills) but also the quality of instruction and pupils' learning.

Emotional support consists of careful listening, building confidence, encouraging self-esteem, and enhancing self-reliance. The mentor teacher, therefore, helps the student teacher to put difficult experiences into perspective, which helps the student teachers to increase their motivation and job satisfaction. When they receive emotional support, student teachers experience heightened sense of safety and confidence or reduced feelings of isolation and stress (Becker, Waldis, & Staub, 2019).

After an extensive review of literature on the roles of the mentor, Ambrosetti and Dekkers (2010) identify possible mentor roles and outline how the mentor may perform them.

Supporter: Assists in mentee's personal and professional development; inclusion and acceptance of the mentee; outlines expectations; gives honest, critical feedback; provides advice during task performance; provides protection from unpleasant situations; advocates for the mentee.

Role Model: Assists the mentee by example; demonstrates the behaviours of the profession; demonstrates tasks; sets and maintains standards; integrates theory and practice for mentee.

Facilitator: Provides opportunities to perform the task/job; allows mentee to "develop their sense of self"; provides guidelines and offers support.

Assessor: Provides criteria-based grades/marks on mentees performance; and makes informed decision on progress.

Collaborator: Uses a team like approach; provides a safe environment for the mentee; shares and reflects with mentees; gives assistance to mentees; identifies needs with the mentee.

Friend: Acts as a critical friend; provides companionship or camaraderie; encourages the mentee to try new tasks or challenges; provides advice about weaknesses in a constructive manner.

Trainer or Teacher: Provides specific instructions about performing task; teaches basic skills; provides resources; uses explicit teaching to pass on skills and knowledge.

Protector: Looks after the mentee; raises mentees profile with others; shields the mentee from unpleasant situations; defends mentees actions.

Colleague: Treats the mentee as one who is already part of the profession; advocates for the mentee in the organisation.

Evaluator: Appraises the mentees progress; provides feedback; engages in mutual evaluation with mentee and

Communicator: Shares professional knowledge and skills; provides a variety of communication methods; provides feedback on progress to further develop learning.

The multiple roles that can be assumed by a mentor, as shown above suggest that the work of a mentor is complex and multi-faceted.

7. The teaching practice e-portfolio

The increased integration of technology into the teacher preparation curriculum has influenced the rise of the electronic portfolio format (Wray, 2007). These electronic portfolios, or e-portfolios, are regarded by Wray (2007) as being similar in many ways to the paper and pencil format portfolios in that the contents are similar (e.g. lesson plans, student teacher's work samples, assessment tools), and that they are aligned with purpose (e.g. growth and development, standards driven, certification), and also that the artifacts included in the portfolio represent a variety of experiences over time (e.g. fieldwork, coursework, workshops). EPortfolios are different to traditional, paper-based portfolios in that particular uses thereof may include a range of affordances: ePortfolios can be more easily shared, stored and updated; they include a range of multimedia (embedded in text or hyperlinked); they can provide opportunities for reflective practices; they provide a potential for collaborative learning; and they can promote immediate feedback (Pallitt, Strydom & Ivala, 2015).

The Joint Information Systems Committee (JISC) (2008) identifies the following as the major purposes that e-portfolios might serve across a lifetime of learning: Application – providing evidence in support of an application for a job or for admission to further study; Transition – providing a richer and more immediate picture of learners' achievements and needs as they progress to a new environment, and supporting them through the process of transition; Learning, teaching and assessment – supporting the process of learning through reflection, discussion and formative assessment, and providing evidence for summative assessment; Personal development planning (PDP) and continuing professional development (CPD) – supporting and evidencing the pursuit and achievement of personal or professional competences. Teacher education programmes in many parts of the world make use of electronic portfolios, or e-portfolios. While both paper-based and e-portfolios are defined by a common concern for the importance of reflective commentary within a collection of teachers' work, the latter makes available opportunities to

present materials using digital media, such as audio recordings, graphics, hypermedia programs, database, spreadsheet, video, and word processing software (Trent, & Shroff, 2013).

Teaching practicum is a multidimensional activity involving student teachers, mentor teachers, university supervisors, school administrators, and learners. It entails many different considerations such as lesson plans, observation reports, visits of mentors, visits of supervisors etc. There are several advantages for using ePortfolios in teacher education programmes. These advantages are enhanced lifelong learning, reflective teaching skills, increased pedagogical and technical content knowledge, values, beliefs, and positive attitudes, amongst others (van Wyk, 2017). E-portfolios are used in teacher education programmes as empowerment tools and also as reflection tools. Lim, Lee, & Jia, (2016) argue that pre-service teachers are the ones that benefit the most from the use of e-portfolios as their reflective competencies are being developed. Reflection is a key aspect of a teacher's professional development and an important means for student teachers by which to integrate theory and practice. It remains a crucial part of the repertoire of a good teacher, and student teachers can develop this skill by consistently reflecting on their teaching practice sessions before, during and after they plan, develop and present evidence for the ePortfolio (van Wyk, 2017).Teacher educators have been using reflective practices (i.e. reflection) to help student/pre-service teachers to think about what happened, why it happened, and what they could have done to improve their teaching (Zhu, 2011). Reflection is further seen as the crucial component of teaching portfolios, transforming them from mere containers of information into powerful means of learning and assessment. Van Wyk (2017) argues that when compiling evidence in their e-portfolios, student teachers first reflect and then make informed decisions about what they want to include as quality evidence in their e-portfolios.

E-portfolios have the potential of building the capacity of pre-service teacher students for reflection, the challenges faced by various stakeholders and suggestions of how these challenges may be addressed. It then aims to provide a holistic approach for the sustainable use of e-portfolios in pre-service teacher education programmes (Lim, Lee, & Jia, 2016).

8. Conclusion

Findings from the analysis of literature and trends in mentoring, self-directed professional development and the use of eportfolios provided above reveal that ePortfolios may be used for alternative assessment, enhancing authentic, self-directed professional learning and promoting student self-reflection. Good quality mentoring and the use of e-portfolios are essential processes in the acquisition of self-directed professional learning skills for student teachers

E-portfolios may be used to support self-directed professional development of student teachers as the offer several advantages over traditional paper-and-pencil portfolios. Some of the identified advantages include the ubiquitous portfolio access, the ability to include multimedia and facilitated overviews of personal development.

In their endeavour to implement e-portfolios, institutions need to address issues specific to technology training and support needed by faculty and students, clarifying the portfolio's purpose, and student mentoring and support required during the portfolio development process.

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