USES OF ELECTRONIC PORTFOLIOS TO FOSTER REFLECTIVE AND OTHER SELF-DEVELOPMENT SKILLS IN PRE-SERVICE TEACHER EDUCATION

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ABSTRACT

Developing portfolios to enhance reflection and lifelong learning in the pre-service teacher education is not new. However, the teaching and learning process underwent some changes over the decades due to the increased influence of multimedia technology. This shift further expanded the boundaries of better teaching practices and subsequently, influenced the emergence of the electronic portfolio or e-portfolio. Despite being widely popular in some digitally rich settings at present, e-portfolio use is still new in many contexts. Therefore, comprehensive and contextually relevant studies on this phenomenon are of high value in those teaching contexts. This study examines how practitioners and graduates use and value e-portfolios to enhance reflective and other self-development skills such as critical-thinking, meta-cognitive and lifelong skills. To investigate multiple perspectives on this phenomenon, the study primarily relied on online interviews. For a more robust analysis, pieces of evidence of student-teacher interactions on different e-portfolio platforms were interpreted. Both data sets provided a broad understanding of practitioners' views, pedagogic approach and the issues related to EP implementation as well as graduates' responses on the sustainability and impact of EP on their professional development. The findings show e-portfolios can be a 'powerful tool' in pre-service teacher development in terms of promoting reflectivity, showcasing learning accomplishments and building sustainable relationships within and beyond the communities of practice. The study ends with a brief presentation of the prime affordances, the contextual challenges and the strategies beneficial for earnest practitioners who envision e-portfolio based learning in teacher education.

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CHAPTER ONE – INTRODUCTION

1.1 Background and aims

With continuous technological innovations, e-portfolios gained much acceptance in the field of higher education (Hartnell-Young, 2007; Pengrum & Oakley, 2017) across many contexts, which made researchers and practitioners explore e-portfolios (open source and commercial) in terms of its potential impact, use and implementation. However, despite successful results, questions still may arise, why e-portfolios in teacher education? How is it so different from traditional paper ones? Cambridge's (2008) apt response makes us re-consider the possibilities of EPs from a new set of perspectives; he takes e-portfolios as 'a genre and a set of practices supported by a set of technologies'. This assertion implies EPs have the potential to bring considerable changes in general areas of teacher education programmes such as planning goals, professional development and assessment. And these aspects give us insights into the other particulars such as the nature of the learning process. This, in many ways, is influenced by the teachers and trainees' readiness, their approach, the ways to avail the key features of the EP tool and the ability to document its impact on student-teacher development. The progress, therefore is not evaluated only in terms of the product, but the core skills involved in the process to produce it, such as, 'networking', 'dialogues', 'reflection', 'self-evaluation' and 'continuous support' that contribute to trainee development (Bhattyacharya & Hartnett, 2007).

Studies examined the key aspects related to EP use in teacher education such as student reactions, impact on learner development, change in assessment techniques, and other affordances (Borko et al., 2008; Tang & Lim, 2012; Hughes & Purnell, 2008; Pengrum & Oakley, 2017; Yancey, 2009; Pecheone et al., 2005; Boulton & Hramiak, 2012; Zeichner & Wray, 2001; Hooton, 2013). However, except for a few case studies reported in Hartnell-Young (2007) and JISC (2003); no evidence was found in the literature on examining multiple perspectives on e-portfolio uses in pre-service teacher education (PSTE). The study, therefore, is an attempt to fill this gap by digging deeper into the teacher educators' and graduates' views and investigating their experiences of using EPs in promoting reflective and other self-development skills.

1.2 Motivation for the study

Every project has its roots in a 'personal questioning derived from reflections prompted by reading or observations' (Gaudet and Robert, 2018: 21) and the overall procedures are shaped

by the researcher's past experiences (Creswell, 2003). Similarly, I have become interested in the area of technology integration in teacher education ever since I stepped into my teaching career four years ago. This interest basically stemmed from my MA practicum experience at the Dhaka University (DU), where paper-portfolios are constructed with insufficient integration of technology in both learning and practice. I ultimately realised that the entire practicum experience fell short of promoting the professional skills I needed in my novice teaching days i.e. reflective practice, self-evaluation and sufficient technical competence. As the emphasis was on the summative score with less scope for engaging with the process, the programme did not meet the long-term goals for student-teacher professional development.

My motivation and curiosity to explore the area increased over time, especially after attending my MA courses at the University of Warwick. I began to observe how effectively technology was being incorporated into the learning and teaching of the modules. The Moodle discussions, blogging and wikis experience from the ICT in ELT module, the extended learning opportunities derived from the TED mentoring programme and the theoretical insights on teacher education inspired me to explore the potential of a non-threatening online learning space that could support teacher reflection and multimodal presentation of artefacts.

I captured a few voices of trainers and graduates of Dhaka University via informal conversations with a view to, a) expose a vivid picture of the context discussed above, and b) support and shape the outcomes of this project. For instance, graduate Pimi thinks constructing portfolios was a '*trouble rather than something helpful*' and Alayna considers the reason could be that they were '*more worried about our marks than our development that's why we didn't realize its importance*'. They both mentioned that they should get '*more opportunities*' to '*appreciate the purposes of the practicum*' and engage intuitively with the process where the '*emphasis would be on the progress within the process*'. On the other hand, trainers confirm that considering the current nature and objectives of the programme, MA students are not, in the strict sense, '*expected*' or '*instructed*' to engage in continuous reflection.

It appears that there is a difference of opinions between the staff and the graduates regarding the key aims and purposes of paper-portfolio construction in the practicum. However, both groups welcomed the idea of developing e-portfolios and believed it would be 'a way forward' for a few reasons including, 'the increased chances of student-interaction' and

'improved technical competence'. They expect this change will bring the sound balance of theory and practice and leading to a more transparent and systematic management of the student portfolios. The views, therefore, justifies the plan to conduct a comprehensive analysis of the widespread use of e-portfolios and explore the possibilities of initiating digital portfolio platforms at DU and other related contexts.

1.3 Research questions

With an aim to explore multiple perspectives on the uses of e-portfolios in PSTE, the study mainly examines the following questions:

i.   How are e-portfolios used to encourage reflection and self-development in PSTE?

ii.   How teacher educators and graduates evaluate the role and impact of e-portfolio-based learning in PSTE?

CHAPTER TWO – LITERATURE REVIEW

This chapter elaborates on the major terms and concepts related to the use, development and implementation of e-portfolios (EP) and its role in enhancing teacher reflection and other professional development skills in PSTE. The overall discussion will further assist in evaluating the findings of the study.

2.1 Development of e-portfolios

Portfolios have a strong history in teacher education (Strudler & Wedzel, 2005); the learning process underwent some major changes over time to meet the requirements of curricula and institutions and one such is the diffusion of web-based sites (Heinrich et al., 2007; Woodward and Nanlohy, 2008). Clarke and Eynon (2009) cite Yancey who terms EPs as 'a leading element' in a "tectonic shift" in education (para. 1) providing a link for individual and community learning. This strong claim comes as the outcome of the decade-long widespread use of this digital tool in higher education and beyond which has transformed our perspectives of learning technologies. With the proliferation of learning management systems (LMSs) in the recent decade, the tendency to shift to digital formats, emphasizing the collaborative form of learning become widespread (Kahn, 2014). Boulton (2014) and Mason et al. (2004) recognise the shift from static paper folders to online interactive sites. They highlight different characteristics of e-portfolios including its function as a tool for professional development and assessment. The 'hypertext environment' or 'live document' (Oner & Adadan, 2011: 479) gives e-portfolios an 'interactive character' which brings different other kinds of collaborative exchanges to the forefront. Barrett (2005:2) thinks showcasing artefacts in EPs takes the form of 'digital storytelling' which further leads learners to the process of 'deep learning'. Kenny (2015) investigates the impacts of e-portfolios on student learning and finds that, as opposed to paper-portfolios, there has been a noticeable improvement in student motivation, engagement and the degree of ownership. EPs provide greater and more sophisticated look into the accomplishments due to its variety of representational techniques (Woodward & Nanlohy, 2004). Their functioning as an 'artefact that represents pre-service teachers' work' (Evans & Powell, 2007:203) have made it a common means of observing student-teacher growth (Wray, 2007) with the purposes mainly related to 'developmental', 'presentation' and 'assessment' (Mason et al., 2004:717). The key aim involves developing student-teachers as capable individuals who can develop themselves

in terms of different professional skills such as, reflective practice, technical competence and lifelong learning.

Over the years, all forms of EP platforms, open source and commercial, had been refined and developed as process portfolios to respond to student needs for example, personal growth, identity development and self-regulated learning (Stefani et al 2007; Abrami et al 2008). From a holistic perspective, the interactive elements as well as the potential learning outcomes associated with EPs add value to teacher development (Hartnell-Young, 2007). However, debates exist that despite widespread recognition as a 'core assessment strategy' within the scopes of education, they can eventually become 'overused' and subsequently, may not be of significant value to learning (Woodward & Nanlohy, 2004:168). Barrett (2005: 10) argues that EP based learning and assessment should demonstrate the balance between the positivist and the constructivist paradigm. In other words, the teaching framework should be congruent with the system to support both functions of 'portfolio as test' and 'portfolio as story', indicating the balance of continuous learning and professional development. Besides these two functions, e-portfolios also function as tool for professional development and constructivist or deep learning (Ibid.).

2.2 E-portfolios: definition, types and process

Chaudhuri & Cabau (2017:4) define e-portfolios as 'a purposeful collection of student work that exhibits students' efforts, progress and achievements in one or more areas. Lorenzo & Ittelson (2005:2) consider EPs as 'digitized', illustrative collection of students' work which can include audio, 'text-based graphic', video, screencasts stored online. The two main elements in constructing portfolios are selecting and showcasing work and carrying out reflection (Heinrich et al. 2007). It has been widely claimed as an effective tool to promote teacher reflection (Oner & Adadan, 2011; Borko et al., 1997) due to several affordances they offer in terms of learning process and assessment. They function both as a reflective record and chronological archive of student evidence (Van de Schaaf et al., 2016), which is both 'owned and operated' by the learner (Stefani et al. 2007: 41).

Designing and composing an e-portfolio require learners to fully engage in the process and continue reflecting on received information within the online space (Butler, 2006 in Van de Schaaf et al., 2016). The basic stages involved in EP development include 'filing, learning, assessment and employment' and specifies EP structure in terms of organization, description and representation (Baume et al. (2003:9). The interactive tasks designed in EPs broadly

require identification of the gaps in learning, critical awareness regarding teaching practice and synthesis of the past records (Heinrich et al., 2008). The technology options furthermore, facilitate the process which ultimately stimulate self-regulated learning (Heinrich et al., 2007; MacDonald et al., 2004), build a synergy between critical awareness, reflection, sustainability and sense of ownership (Hughes, 2008).

Figure 1: A screenshot of an e-portfolio (linked with Moodle) dashboard page.

The above instance gives a preliminary idea of the basic options that e-portfolio platforms generally display. Referring to the framework of EP components in Hartnell-Young (2007), Barrett (2010) distinguishes two main types of e-portfolios: showcase, the organised representation of students' work, and workspace portfolios which are similar to reflective journals where learners document their growth and reflect on them as they progress. She further highlights how tools such as *Blogger*, *WordPress*, and *Google Sites* etc. function as a combination of both forms. These tools also give a context or a social space for interactions which eventually trigger critical reflection. Yancey (2015:189) argues that for reflection to happen, it needs 'the context of others for the making of meaning', an interactive environment that gives rise to spontaneous interactions while functioning as 'a site of identity building' for the trainees (Schrand et al., 2018:2). Hughes (2008: 437) exemplifies the iterative process involved in the use of PebblePad indicating how the representational frameworks along with the interactive blogging facilities support a 'rhizomatic' type of learning. The list below gives an overview of the most common e-portfolio tools used in teacher education:

Figure 2: The list of commonly used tools and their features.

E-portfolio tools	
PebblePad **www.pebblepad.co.uk**	Portfolio and personal learning platform Features: Storing files (Cloud storage applications integrated). Collating and sharing evidences in shareable formats. Multimodal representation. User defined criteria. In-built frameworks (i.e. PebblePad Blog).
Mahara **www.mahara.org**	Open source software (Personal Learning Environment). *Features:* Working with artefacts. Personalization (i.e. hyperlinks, multimedia) Files repository. Journal/ Blogs. Resume builder etc.
WordPress.org **www.wordpress.org** **Portfolium WordPress**	Free web tool. *Features:* Feedback, support through blogging. Customization (Multimedia, hyperlinks). Storing and showcasing work records. Web-based presentation and discussion.
Blogger (Google's Blogspot service) **www.blogspot.com**	Free web tool *Features:* Journals/Blogs. Personalising features (Multimedia, hyperlinks, themes). Storing and showcasing work records. Web-based presentation and discussion.
Weebly **www.weebly.com**	Free website and online portfolio design tool. *Features* Journal and blog. Flexible options for customization. showcasing artefacts.

The free source tools above promise useful features to compile works, ranging from first drafts to the final, assembling, customising and commenting on other's posts according to the set criteria (Oakley et al. 2013). All these platforms include 'blogs' and 'wikis', key features that ensure the space for reflective practice and experiential learning (Brown, 2011).

2.3 Aspects associated with e-portfolio-based learning in PSTE

a) Learning process

For long, one purpose of using portfolios is to involve trainees in a 'systematic inquiry' of their teaching practice and growth (Zeichner & Wray, 2001); the basis of this approach emanates from the constructivist learning principles to enhance deep, reflective learning. As the approach is student-led, the goal is not limited only to building repositories of well-refined works but to develop core competencies such as, self-regulative and reflective skills, leading to efficiency (Abrami et al. 2008; Boulton (2014). Barrett (2011) and Parkes et al. (2013) prioritize the cyclic process of reflection and learning that students undergo while collating works on e-portfolios. For instance, Barrett (2011) connects this continuous learning

process with two key theoretical frameworks, Gibbs' (1988) reflective cycle (i.e. description, feeling, evaluation, analysis, conclusion and action plan) and Kolb's (1976) experiential learning model. Continuous interaction and reflection remain the key components at all stages of these models. They acquire a considerable level of autonomy and critical awareness by undertaking such a phase-by-phase interactive journey (Hughes, 2013). Hughes (2008) values this transition from the isolated, linear form of learning to interactive learning experience which further assists them in constructing shared understanding. Likewise, interactivity is recognised as the central element to e-portfolio-based learning in JISC's (2008:9) recent publication. It is considered to have 'enormous potential' in opening new opportunities for student-teachers' professional development (Gergen, 1999 in Brown, 2011) as well. Stefani et al. (2007) demonstrate the key types of e-portfolio contents that support the stages of the Kolb's and Gibb's learning model:

Image 1: Types of EP content. Taken from Stefani et al. (2007:50)

Table 3.1 Type of e-portfolio content

Content	Explanation
Coursework	This could range from short assignments, information relating to assignments, to extensive projects. The formats could include text, video, audio and multimedia.
Assessments	Could include formative feedback through to summative assessments.
Pieces of work relating to life-long learning	This may include CVs, job applications, course presentations, 'artefacts' of students' choice.
Reflections on achievements, goals, outcomes	For example, students' self-assessments of skills development, ideas on improving on current attainment.
Transcripts, records of achievement	This may mean for the students a mapping of course results and courses completed
Evidence of competencies, learning outcomes achieved	Could relate to work-based learning, and supervisors' reports.
Planning and reflection	Relating to personal development planning, space for a learning journal or diary.
Self and peer feedback information	May relate to project work, peer and group learning, shared space in the portfolio.

The nature of the mentioned tasks is mainly reflective and process-based. The multimodality feature remains the key tool for formatting and designing the artefacts. The interactional tasks further provide the scope to customise students' assignments and tasks by working on peer comments makes the overall journey more independent, deep and meaningful as opposed to traditional paper portfolios (Blair & Takayoshi, 1997).

b) Teacher reflection and reflective tasks in e-portfolios

Despite being an 'unexplored feature' (Hooton, 2013:17) of teacher education programmes, it is widely agreed that critical reflection or reflectivity and reflective practice (RP) are of significant value in teacher development (Oakley et al., 2013; Oner & Adadan, 2011; Farrell, 2012; Mann & Walsh, 2017) and is seen as the 'gateway' to deep, purposeful learning (Yancey, 2009). Reflection is a 'sophisticated' process demanding 'sophisticated educative support' (Bolton, 2014: 5), without which, it can be challenging to explore its effects on teachers' learning and practices (Rodgers, 2002). In light of Dewey's (1944) contributions to reflective practice, Rodgers illustrates four key criteria that characterise reflection (2012: 845). He clarifies that reflection is a 'meaning-making process' that allows learners to shift from one experience to the other with a mature level of understanding of ideas. The continuous progression involves exploration which 'needs to happen in a community, in interaction with others' where the emphasis is chiefly on the 'personal and intellectual growth' of individuals. The results of engaging in such kind of 'evidence-based' reflective process, Farrell (2012: 14) confirms, can indicate positive sides of current practices which are not predetermined rather based on the analysis of 'concrete evidence' (14). This view again reflects Dewey's (1933: 87 in Farrell, 2012) idea that teacher growth generates from 'reconstruction of experience'.

Student-teachers complete various forms of written reflection tasks such as, writing comments on posts, personal reflections and sharing teaching incidents; the actions help them reflect critically on 'essential questions of what, when, how, and why' of teaching and development (Zubizerrata, 2009: 24). However, reflection in whatever form it may be can often be challenging to accomplish in isolation. Even most teachers do not necessarily reflect on actions in a deliberate manner, even in the conditioned or structured environment (Moon, 2013). Again, any reflective task, Hobbs (2007) writes, in certain ways, remains a part of student assignments or programme evaluation. Students can find reflective tasks as something 'imposed' worth 'no real meaning for themselves' (Hobbs, 2007: 412). Hobbs questions the authenticity of such reflections which are often deliberate and forceful. Macfarlane and Gourlay (2009, in Bolton, 2014) go even deeper and compare mandated reflective tasks with 'television reality shows'; students are asked to disclose their personal emotions, self-doubts and weaknesses and explain how they found solutions, which can affect student thinking and can lead to 'fictional conformism' (Bolton, 2014: 177). However, Hughes (2008: 201) challenges this view; she argues that trainees' reflections on the EP sites are more natural and

spontaneous as they emerge from the rich source of information, mainly 'subjective narratives' or 'stories.

Moon (2013:169) highlights a few conditions that should be considered to ensure successful reflective learning: such as time and space; strategies for guiding reflection; an emotionally conducive environment and facilitating learners in learning to reflect. In the case of e-portfolios, Hooton (2013:22) thinks that providing the 'spark' or 'stimulus' in her designed tasks could be a way to challenge their thinking and facilitate reflection. The online environment (i.e. blog on PebblePad) functions as a 'supportive' platform for her trainees to negotiate and involve in the meaning-making process. To transform experiential knowledge into formal learning (Hartnell-Young, 2006) or in other words, to enhance connections between theory and practice, it is crucial for teacher educators to generate opportunities for critical reflection through scaffolding such as, designing a series of stimulating questions to perceive how trainees evaluate their own teaching experiences (Orland & Barak, 2007). The environment needs to be flexible and non-threatening for trainees to 'enjoy' getting involved in authentic reflective dialogues with 'trusted, confidential, supportive others' who help them see through different lenses (Bolton, 2014:67). Especially, during the initial days, such orientation remains critical to help them grasp the purpose and learning outcomes and be involved in an exploratory process built on shared knowledge and community needs (Sivan, 2013:119).

c) Dialogic communication and community building

Brown (2000, in Hughes, 2008: 437) maintains e-portfolio systems build a 'learning ecology' that is supported by 'dialogue with learners about their experiences'. The social interaction, the sharing of experiences on EP discussion forums and the blogs convert the space into a vibrant community wherein the members share common concerns related to teaching practice. It favours the concept of Community of practice (CoP) which Wenger (1998) explains, is about engaging in an active system where users disseminate common knowledge, develop professional identities along with a sense of belonging to a teaching community. Trainees get engaged in continuous exploration where 'the conversation between the practitioner and the setting provides the data which then may lead to alternative meanings, further reframing, and plans for further actions' (Clarke, 1995: 245). Boulton and Hramiak's (2012: 505) findings on the potential of web-blogs as 'reflective communities of learning' to support PGCE level student teachers at Sheffield Hallam University and Nottingham

University, UK highlight, online blogging experiences in e-portfolios enable trainee teachers to 'open their reflection to their peers and tutor and experience greater sharing'. Tang & Lam's (2012) study on online learning communities in e-portfolio platform WordPress concludes that, not only technical competence but commitment and support from the community members make the process sustainable.

Figure 3: A screenshot of an e-portfolio community.

Technically, e-portfolio learning is primarily about people rather than technology. The communication and presentation of products remain the key stages within the virtual community. Ehiyazaryan-White (2012:175) conceptualises the significance of dialogic communication in EP communities by referring to Salmon's (2012) five-stage model for collaborative online learning and Preece's (2000) notion of community as a 'process.' At developmental stages, it remains essential to motivate student-teachers to 'socialize online' to gain the advantages of collaborative knowledge construction (ibid.). Again, the importance of having peers as a 'source of feedback' has been advocated by many researchers (Sadler, 2010 in Yang et al. 2016). Peer feedback plays a key role in productive learning, enriches their knowledge base and teaches them to become self-regulated (Ibid.). Trainees, in EP discussion forums and posts, adopt 'interchangeable roles' of "supportive fellow student" who are ready to (Jones & Lea, 2008 in Ehiyazaryan-White, 2012:175).

As previously discussed, the learner-centred paradigm of the EPs requires both trainers and trainees to embrace new roles in achieving the pre-determined goals under a 'socially-

mediated' process (Velikova, 2013: 203; Preece, 2000). Rather than being strictly evaluative, trainers should adopt the position of a collaborator and a moderator whose active presence are likely to facilitate the development process (Elbow and Belanoff, 1997; Murphy, 1997; Preece, 2000). Barnett (2017:133) terms the idea of embracing new and challenging roles as 'pedagogical bungee jumping' because the trainee teacher or student should always be prepared to take risks, even 'amid uncertainty' (in Hughes, 2011:58). These risks could mean exposing oneself to a new range of technologies, pedagogical approach, and to the discussions of critical incidents. Hughes assures that the integrated learning experiences are formed through 'dialogic and collaborative framework' of e-portfolios which build student-teachers into confident individuals (2010:299). Hooton (2013: 29) concludes that e-portfolio based learning help trainees to 'recognise patterns and making connections to previously unrelated areas' of experience. They are encouraged to make direct connections between each submission in the portfolio and the intended learning goals (Abrami & Barrett, 2005) which, not only assist in developing new knowledge based on the past experiences but also serve to generate 'learning in and of itself' (McDonald et al., 2004: 53).

d) Assessment and Evaluation

EPs are holistic in nature; they favour both formative and summative form of assessment methods (Stiggins, 2002). The evaluation techniques allow adequate opportunities for personal reflection and development based on frequent exchanges of feedback and ideas (Yang et al., 2016; Lorenzo & Ittelson, 2005). This process can also be considered as a specific form of authentic or performance assessment that attempts to measure higher order thinking skills including the ability to communicate clearly, to make judgments, and to demonstrate specific competencies (Miller and Legg, 1993). Performance assessment supports mentorship or guidance and focuses more on performance as opposed to the final product. In e-portfolio based learning, providing timely help to students in reflection and setting a 'collegial environment' is 'critical' to reap the benefits from the process (Pecheone et al., 2005: 167). Grading reflective posts, therefore, is deemed to be a challenging and prolonged endeavour which requires trainers to defy strict objective evaluation techniques and focus on constructive feedback comments.

Baume et al. (2003) specify that it is fundamental for trainees to be aware if they are 'marked' for their produced works while trainers should have clear thoughts on what and how they will be assessing (in JISC, 2008). Otherwise, it may have the consequence of 'killing off

the spontaneity and individuality' of the reflective tasks (Beveridge, 1997 in Bolton, 2014: 178). However, it should be worth considering that monitoring and grading personal reflections may not create the same impact on learners' progress. Mann and Walsh (2017) further clarify that in either case, tensions still prevail in assessing works that are normally focused on trainees' gradual growth. To further this, Hodgson (2017) argues that grades can easily specify student achievements with reference to the 'holistic criteria', but it often does not interpret the student's cognitive knowledge. Hobbs (2007) suggests reflections should not be assessed at the initial stages because trainees need enough flexibility to grow confidence and awareness in 'a non-threatening' environment. Pecheone et al. (2005:166) likewise, question the 'reliability' of the representative work on portfolios saying, they often fail to provide the true picture if the trainees are aware that 'they will be evaluated on the basis of these artefacts'. This dilemma or divergence of opinions makes the assessment process a crucial point of concern in e-portfolio-based learning (Barrett, 2004). Yancey (2015) and Bhattacharya and Hartnett (2007) respond to this debate by suggesting the use of 'scoring guides' or rubrics with appropriate guidelines on what and how the skills should be assessed. However, the scoring guides and patterned reflective questions can make the learning process stricter and decrease the chances of conversations (Yancey, 2015.). In such case, allowing trainees to develop their own self-evaluation criteria can be an effective step, Bolton (2014) suggests.

2.4 Initiation of e-portfolios in teacher education programmes

Technological shifts in higher education are a sophisticated process which may take a considerable amount of time to be implemented depending on a number of initiatives (Strudler & Wetzel, 2005). With specific goals and purposes, the transition from paper-based to electronic alternatives should be slow and without complexities; the process should be in line with the previously established learning principles and frameworks (Woodward & Nanlohy, 2004). Also important is to 'sell the vision' (Strudler & Wetzel, 2005:421) or in other words, to communicate the innovative ideas and the scope of the project to other stakeholders to establish the vision by 'spreading the enthusiasm'. Furthermore, issues related to leadership, proper allocation of technical resources, and the involvement of faculty for more productivity and lastly, given the availability of a variety of tools, it is critical to employ one particular tool for the purpose (Strudler & Wetzel, 2005; Borko et al. 2008). And these distinct features are relevant to every teaching context and should be addressed while incorporating e-portfolio in teacher education (Wray, 2007). However, when initiating an e-

portfolio project, it is crucial to be aware of any issues or changes regarding pedagogy, platform and assessment, therefore, it is wise to investigate the relevant literature even after the initiation of the EP project (Stefani et al. 2007).

CHAPTER THREE - METHODOLOGY

This chapter describes the methods used to explore the use of e-portfolios to promote reflection and self-development in PSTE. The section begins with a brief description of the research context and targeted participants followed by the sub-sections on the research design and rationale, data collection procedures, and ethical considerations.

3.1 Research context and sampling

I collected data from four different contexts to interpret the widespread implementation of EPs in PSTE. It enabled me to compare the cases as well as create the possibility of identifying and analysing the common issues. Another purpose was to co-relate teacher educator experiences with trainee responses to determine the impact of e-portfolio-based programmes on their professional development. The interviewed practitioners have experiences in managing e-portfolio platforms or sites with pre-service teachers in different programmes for instance, PGCE and postgraduate programmes in English language teaching.

Figure 4: Participants and their contexts.

Participants	Number of participants	Contexts
Teacher educators	Seven	-UK (4) -USA (1) -Hong Kong (1) -Bulgaria (1)
Graduates	Four	-UK (1) -Hong Kong (3)

The graduates, on the other hand, have either recently completed their degree from institutions where they developed e-portfolios as part of professional training, or new teachers with a few years teaching experience and currently abroad pursuing higher studies. One participant's account was slightly different but interesting as she had experiences of using EP both as a trainee and trainer.

In qualitative studies, the sample selection profoundly impacts the overall quality of the research being carried out (Coyne, 1997) because as Denzin (1989) confirms, all samplings are "theoretically informed" (as cited in Marshall & Rossman, 2011: 104) and the research questions provide the focus of the sample selection (Marshall & Rossman, 2011). Similarly, for this study, the target population is teacher educators of new contexts, who envision incorporating e-portfolios in teacher education programmes to enhance reflectivity through a concrete framework of learning. The sample group represents their in-depth knowledge, research and training experience. Hence, despite geographical and time issues, the interviews were set up with a belief that the chosen participants are capable of providing a great deal of information on the practicalities associated with e-portfolios.

Purposeful sampling technique was employed to select the trainer and graduate participants. This sampling procedure, which is similar to selective sampling (Coyne, 1997), allows researchers to select 'information-rich' cases to make the most fruitful use of the resources available (Patton, 2002). The researcher decides on the relevant information that needs to be collected and searches for appropriate samples that are convenient to interview and are willing to provide information based on their knowledge-base and experiences. In this study, the selected teacher trainers, for this study, were believed to be the 'information rich cases' (Patton, 2002: 58), capable of disseminating crucial information regarding e-portfolio use in PSTE. It is worth noting that, only after a careful study of the targeted participants' research on e-portfolios and analysis of their relevance to the research purpose, the final selection remained precise and consistent with the research questions. To be clear, the research questions mentioned in chapter one, demand a broader picture of e-portfolio uses to be drawn from the voices of teacher educators and graduates to look at the possibilities for future implementation.

3.2 Research design and rationale

The research design involves an inductive analysis of the data collected in accordance with the research questions. Patton (1987) defines inductive analysis in the qualitative study as the strategy to decide on the patterns, themes and categories that emerge from the data analysis rather than relying on pre-decided categories. The purpose of the inductive approach is to interpret and explain a 'localized reality' and based on this new meaning, a new or similar situation or process will be investigated (Gaudet & Robert, 2018). In other words, newly developed constructs provide the basis of the understanding of a specific case. (Patton, 1990). This approach legitimizes the research focus of this study which aims

to examine the possibilities of implementing e-portfolios in teacher training by gathering various representations of e-portfolio use building an evidence-based rationale for future implementation.

The research inquiry is based on the constructivist paradigm, which considers researchers as the 'orchestrator and facilitators of the inquiry process' (Guba & Lincoln, 1994: 114). The goal of such positions in research is to mainly rely on the views and situations that are being investigated (Creswell, 2013). The aim of such research is to rely on the participants' views and the contexts they work in (Crotty, 1998). The basic premise of the constructivist paradigm is that all claims and arguments are 'dependent for their form and content on the individual persons or groups holding the constructions' (Guba & Lincoln, 1994: 110; Schwandt, 2001). It assumes multiple realities emerging from the local facts which are mainly the products of human thinking and experiences. And to bring out the best of it, the inquirers tend to rely on open-ended questions (Crotty, 1998). Creswell (2003) further suggests:

> Researchers recognize that their own background shapes their interpretation, and they "position themselves" in the research to acknowledge how their interpretation flows from their own personal, cultural, and historical experiences. (p. 9).

The definition above places crucial importance on the role of the researcher who acknowledges the data with reference to their own background experiences.

3.3 Data types and collection procedures

The study relies primarily on interviews as it seeks to investigate multiple perspectives on the phenomenon, or in other words, how practitioners and graduates value and use e-portfolios as a form of teacher development. Due to geographical distance, the meetings were set up using *Skype* and *Zoom*. Interviews are a popular form of qualitative data collection because of the opportunity to go beyond factual information and explore the individual's practices, values, rationales as well as representations (Gaudet & Robert, 2018). The in-depth inquiry often leads targeted participants to contribute to an emerging or evolving set of ideas. Interviews are different from other methods in qualitative studies because they are specifically designed for a certain group of participants and provide flexibility to explore participants' responses in-depth and carry out validation through probing (Keats, 2000). Therefore, the strategy adds detailed meaning to the inquiries of the researcher (Patton, 1987) which help them recognize the research focus from different perspectives. According to Patton's (2002), the 'general

interview guide approach' was followed to explore participant views. Marshall and Rossman explain this approach:

> 'The researcher explores a few general topics to help uncover participant's views but otherwise, respects the way the participant frames and structures the responses' (2011: 144).

Researchers need to make sure they develop a common interview guide or 'shortlists major topics or themes' so that the same information is extracted from all interviewees (Patton, 2002; Mishler, 1986). The guide provides enough flexibility to the researcher to 'explore, probe and ask questions' to enlighten the topic researched. The approach further requires researchers to give an impression that the informants' perspectives are of crucial importance (Marshall & Rossman, 2011). The flexibility gives the scope to the interviewee to 'shape and control the substance of his or her story' and eventually all probes emerge from their "wording" (Gaudet & Robert, 2018: 98). It also gives them the chance to decide on their "field of expression" (Ibid.) which also indicates that the ideas are co-constructed by both the researcher and the interviewee. Although it may seem quite easy to probe and get insights into the interviewee's lived experiences, it is understandable that the 'interview enacts its own context' (Mann, 2010: 9).

The other source of information used to support the interview findings was the pieces of e-portfolio evidence of trainer-student interactions. They further provided a comprehensive understanding of the nature of collaboration, formative feedback and assessment commonly occurring on the used platforms. Since the focus of this study is to explore the uses of e-portfolios in ensuring reflective learning and development, I planned to look at some concrete pieces of evidence of student-teacher interactions, their reflective posts, and comments on the digital environment with a plant to support the interview data and thereby strengthened the overall analysis (Keats, 2000).

Two sets of broadly framed questions specific to a number of key topics or themes (Appendix-E and F) were designed to conduct the interviews. They further conform to the reliability issues as the same set of topics were explored with each participant. The research questions influenced the selected topics that were explored; in case of the teacher trainers, the purpose of using the guided questions was to 'research on their opinions' (Gaudet & Robert, 2018: 97), instead of relying exclusively on the designed questions. As it can be challenging to meticulously maintain different angles of the interview process, Patton suggests they 'go with the flow' (1987: 110) and follow-up with additional shot questions or keywords.

Despite being well-prepared and confident about the topics and the questions, the actual interview experience will always be something different (Gillham, 2000). For me, trailing the questions beforehand gave me a type of 'early feedback' which helped re-evaluate my stance and approach (Keats, 2000). The process re-shaped my research focus and questions. The trial interviews were conducted with two participants from two different contexts: the UK and Hong Kong. The interview recordings were helpful to revise the questions and figure out the areas I required to add details or make improvements in. I later realised the guide was not used properly while conversing:

```
Reflexive memo – 1 (Pilot Interview)
The conversation didn't cover all the areas as planned – because of my nervousness.
Also, my attention was shifted from the trainer to the other person (the student)
who unexpectedly joined the conversation. I had to plan questions immediately for
him and that's how I got slightly deviated from my planned questions. It was,
however, a different experience to have a new participant joining the talk. It
turned out to be small focus group discussion. I also realised that some of my
questions were repetitive as the interviewee automatically, at certain points,
touched on those topics. I guess I wasn't a good listener this time!!
```

While piloting, I realised that listenership in interviews is key, otherwise, exploring the deeper and more complex side of the interviewer's experiences may be a challenge (Mann, 2016). In one of my other interviews, the participant frequently referred to issues related to institutional and collegial support, which made her quite sensitive at one point:

```
Reflexive memo – 2 (Interview with N)
We started well. She was very flexible. The conversation eventually moved towards
this issue of 'institutional support' which influenced me to minimize my role of
an observer and try extending support by sharing my own personal experiences
related to institutional issues. This created an a more flexible interactional
space which eventually helped me get deeper insights into the challenges one may
might face with e-portfolio implementation or technical constraints (tool
upgradation), in her case? But overall, it was a good chat… get ready for the next
one.
```

Another key aspect of interviewing remains in the act of probing. Gillham (2000) suggests the importance of probing or 'repeating the key phrase or word' to help the participant reflect and build on what they said earlier. This gives them a fresher look into their values and opinions, which can be profoundly beneficial for the interviewer to get genuine data. After I had reflected on my pilot interview experience, I realised that 'the richness of an interview is heavily dependent on probes or follow-up questions' (Marshall & Rossman, 2011: 144). I

couldn't gather enough in-depth data because I wasn't successful enough in eliciting the respondents.

All interviews including the pilot ones were both audio-taped and videotaped each time using three different devices (i.e. mobile recorder, digital recorder, Zoom recording option) to conform to the issues of reliability (Keats, 2000). Since the central aim of qualitative inquiry, at some points, was to emphasize 'the depth and detail' of the information provided by the participants (Patton, 1997: 48), it was necessary re-arrange and sometimes alter the question patterns and wordings where appropriate and include few personal examples along the way (Rudestam & Newton, 2001). For instance:

```
Reflexive memo (interviews)
With Jerry, it all started with the institutional constraints she encountered- how
the staff can be convinced? What were the major obstacles? How was the platform
launched? Then it was about her previous experiences. So, I made some changes in
the questions, instead of asking a general one on the importance of promoting
reflection in teacher development programmes, I thought of asking something more
specific to the technology options she was talking about – as she thinks technical
features helped trainees to be reflective, how would she then emphasize the
importance of supporting reflection through such functionalities?
```

From the epistemological point of view of the constructivist paradigm, it seemed appropriate to modify and re-arrange the questions to sustain the flexibility and open interactive connection with Jerry to let information emerge as the conversation progresses (Guba & Lincoln, 1998).

3.4 Approach to Data Analysis

Qualitative analysis involves the search for systematic statements exposing relationships and the underlying themes (Marshall & Rossman, 2011). For a comprehensive analysis, it is essential to remain focused and decisive about the vital segments in the interview data (Patton, 1997) because intensive data analysis only commences when all data have been collected and transcribed accordingly (Flick, 2013). Producing transcripts, hence, is one of the most important analytic stages since it gives chances to be critical on aspects like participants' 'stance, positioning and identities' (Mann, 2016:200). The process allows researchers to reflect and thereby, notice the minute details about the issues covered in the interview. The interviews were transcribed using the Google document's 'voice typing', a very convenient feature to operate. Audacity and MP3cut tools were used to listen and select

the exact parts of the data I wanted to transcribe. After listening to the audio recordings and finalizing the crucial segments that required transcription, the study proceeded towards the coding and categorization process.

An 'inductive thematic analysis' was carried out to identify the patterns, categories and themes (Patton, 1987; Braun & Clarke, 2006: 12) that emerged out of the data. Inductive thematic analysis within the constructivist framework attempts to speculate 'the socio-cultural contexts, and structural conditions, that enable the individual accounts that are provided' (Braun & Clarke, 2006: 14). The process is mainly data-driven which help the research questions to continuously evolve through the coding process (Ibid.).

Prior to the actual coding and categorization process, the interview transcripts were read several times along with the audio recordings to identify the recurring patterns and to better understand the perspectives and the contexts of the informants. Hand-written memos and jotted notes beside margins helped me re-organise my thoughts and proceed to the final analysis as well as keep the informants' essence intact in the narratives. Qualitative data analysis software *NVivo* 10 was employed to conduct the final coding and categorising process. Coding is a process of categorising the interview text to build a framework of thematic ideas (Gibbs, 2007) and a code is a 'researcher-generated construct' which help attribute the interpreted data for later stages of categorisation and theme identification (Saldana, 2013:3). As I had to code a good amount of data (i.e. 11 interviews), it was challenging to reduce the overlaps found within the pieces of data:

```
Reflexive memo: Coding
There were certain statements that exposed more than one information at the
same time which made it difficult classify it under one code, similarly, there
were several codes which could be arranged in more than one theme. I took a
while to understand the difference between 'descriptive' and 'analytic' codes.
Ways of expression, of course varied, which took me longer to understand the
underlying message of some statements and relate it with the other ones. The
process is rewarding, nevertheless. The strict selection process helped
overcome the overlaps, though.
```

3.5 Ethics

Ethical considerations in qualitative research are not limited to collecting informed consent (Marshall & Rossman, 2011). It is not a "once-and-for-all" matter but an aspect which needs conscious attention throughout the research process (Cohen et al. 2018). In other words, the

ethical reasoning must move beyond the procedural bindings to the issues related to relationships, trust, sympathy, sensitivity, privacy and reciprocity. Rossman & Marshall (2011) further highlight the importance of unravelling the research focus and the aims to the potential participants in making participants understand what is required of them. Since the interviews were conducted online, to ensure trust and data confidentiality, it was necessary to clearly explain how the data and the evidence will be used. The other fundamentals for getting consent in face-to-face research to apply to online interviews (James & Busher, 2010). For instance, the basic purposes and focus of the study were clearly communicated to all participants before and at the outset of the interviews. To ensure anonymity, pseudonyms were given to each of the participants, as stated in the consent form. Since all communication was online, building a good rapport with my participants was one of my major concerns during the interviews; I was aware that developing a comfortable and trusted relationship was crucial for them to share views clearly (Keats, 2000).

CHAPTER FOUR - DATA ANALYSIS

The chapter highlights the key findings on EP based learning in PSTE. Seven themes identified as the final and the most promising ones in response to the above research questions will be elaborated on in the following section. To demonstrate the connections, I will analyse the themes with reference to relevant instances mainly from the interview transcripts and from the online evidence, in some cases. The first five themes (see below) respond to the first question, while the rest two respond to the second.

Figure 5: Research questions, themes and codes. Map created using www.creatly.com

RESEARCH QUESTIONS, THEMES AND CODES

Use of e-portfolios to foster reflection and other self-development skills in pre-service teacher education

Codes

Theme 01
Functionalities of the platforms used

Options to personalise using multimedia
Feedback can be read and given anytime
Extended learning opportunities
pastoral care on the platform
Built-in blogging features for discussions

Research question 01
How are e-portfolios used to encourage reflection and self-development in pre-service teacher education?

Theme 02
Approaches to Learning

Empowering' students by giving them 'voices'
Process based learning
Being critical and autonomous about their practic
Giving the ownership.
Critical incident sharing.

Theme 03
Building learning communities

Dialogue is 'key to reflection'
open space for discussion
Problem solving through frequent
online interactions
Peer-learning
Building knowledge and sharing experiences
together

Theme 04
Nature of reflection

Relevance of reflection in teacher education
Thinking is not reflection – reflecting is difficult.
Guided tasks to 'teach' and 'encourage' reflection
Supporting a continuous cycle of reflection

Theme 05
Feedback on e-portfolios

Continuous support possible
Not too frequent but occasional feedback
Balance of process and assessment
To Grade or not to grade reflections
Easy trace of trainee's growth

Research Questions

Research question 02
How teacher educators and graduates evaluate the role and and impact of e-portfolios in PSTE?

Theme 06
Affordances

Life-long learning (chances to revisit)
Sustainability
Folder of evidences for future professional development
Encourages community based practices
Building autonomous reflective practitioners

Theme 07
Challenges

Time can be a challenge
Convincing colleagues and sometimes students
Providing constant technical support
Staff's lack of technical knowledge

4.1 Key Findings

Prior to reporting the findings on the functionalities of the digital portfolios used by the educators, I will briefly describe their initial aims and contexts. It was worth learning their values and how they recognise the role of EP use in the existing pre-service education programmes. For most of them, the notable functionalities of the platforms used such as *WordPress, Mahara* or *PebblePad* worked as a foundation for their primary aims and objectives. Their detailed accounts of the practical uses of the functionalities corresponding to the underlying objectives of introducing digital platforms in their programmes.

Emisa (E) envisioned her trainees would get two-way support from the WordPress e-portfolio platform, a) the scope of developing individualised e-portfolios to showcase artefacts and b) engage in a growing 'community' where they can build 'knowledge' and develop 'identities' with help from their 'peers' and 'mentors':

Extract: 1

```
14    E: (…) okay, so they need somebody to talk to, they need somebody to give them input.
15       They need to re-think their teaching method and the strategies as well. So that's
16       why from then on, I was thinking of, like meeting them more often, like every one
17       week they will come back to the university and then we talk, alright. So I
18       incorporate something called 'mentorship programme' to complement the paper
19       portfolio. So the mentors talk to them about their problems and they also discuss
20       with them about lesson planning etc. but then it is time-consuming' (…)
```

Extract: 2

```
23    E:    In that case, I thought why don't we simply talk on the platform. right, online,
24          so they don't need to come back. So, I incorporate e-portfolio and this
25          mentorship together. So, this e-portfolio is not simply a display of artefacts.
26          So, its not simply uploading lesson plans, uploading teaching materials or
27          reflections - But it involved discussion. And how the reflection can take place.
```

Emisa acknowledges the benefits of accessibility and online collaboration of her platform (PLATE) and tries to justify (lines 23-24) her decision of initiating it. The platform not only to 'displays' students' works but facilitates the 'mentorship programme' (line 18) for ensuring continuous 'scaffolding' and 'support' for the trainees. It appears that she strongly relies on online 'discussion' or the dialogic aspect of this process, which as she indicates, open avenues for 'reflection.'

Another participant Jerry makes this argument stronger regarding the importance of dialogic communications in her practice. It also shows her strong stance in favour of the principles of critical pedagogy. She also prefers encouraging trainees in exploring multiple identities which Yancey (2015: 301) terms as 'constructive reflection', a process where 'cumulative, multi-voiced' identities are developed among 'composing events'. For Jerry, some of the affordances of EP platforms such as, 'blogging' could be 'amazing' in influencing dialogic learning and identity construction in teacher education:

Extract: 3

```
 5   J:   For me dialogue is a very important part of my pedagogy practice. And umm,
 6   I am very interested in critical pedagogy and in the ways we can construct
 7   some of the para-dynamics. And what struck me that we could use some of these
 8   forms of technology uh, like e- portfolios () What I was very interested in is
 9   the blogging tool (…) What I absolutely fell in love with was the way in which
10   students inhabited the e-portfolio spaces to reflex their multiple identities.
11   And I just thought wow this could be amazing for teacher education. Because
12   this could take away the static linear paper heavy approach. And it could be
13   much more exciting and relevant.
```

Jerry strongly favours the technical side, or what she terms 'the personalisation aspect' of her used platform PebblePad. Another reason behind her e-portfolio initiative is, she projected her students would explore or 'inhabit' (Hughes, 2008) their own 'spaces' within the platform and develop their professional identities. Jerry believes that providing trainees with the scope for identity construction is crucial and e-portfolio spaces can make the process seem more 'relevant' and 'exciting' for the trainees.

Vira's adopted the EPOSTL (European Portfolio of Student Teachers of Language) document to 'enhance' the 'reflective element in teacher education. She believes it is an essential component of teacher development to 'make sense of experience.' Again, Hima's account of undertaking the first stages of reflection process on EP platforms conforms to what Jerry (extract 02) mentioned about providing 'spaces' for reflection. For both, EPs accommodate student-teachers with an open space to reflect, question and clarify the purposes and outcomes of their learning:

Extract: 4

```
11   H:   I came up with something a few years ago; the first thing was digital
12        storage, students will just store things in some kind of online
13        environment, so they can get access to it. And, in addition to store
14        their work, you also need a place for them to reflect on their work on a
15        daily basis and that's the beginning of reflection process – getting
16        students to think about their learning and their growth overtime.
```

Hima uses EPs for two key reasons: to allow students to 'store' and 'showcase' their work and to let them continuously reflect and self-assess their growth. Like others, she believes that the built-in 'blogging' features of tools of EP platforms strongly support these aims.

The above analysis highlights the key reasons for participants' preference for e-portfolio use in teacher education programmes at their institutions. The following section presents the corresponding connection between their initial aims and the major functionalities of the platforms they use at present.

4.1.1 E-portfolios in encouraging student-teacher reflection and self-development

Theme 1: Functionalities of the e-portfolio platforms in use

Among the main functionalities of platforms practitioners use, one aspect that almost all trainers highlighted was the students' ability to personalise work through a variety of web tools and resources. The recurring terms in the conversations were 'hypertext literacy' 'multimodality' 'Microsoft literacy' which according to Beetham & Oliver (2010) are some of the essential terms used in education, directly or indirectly, to forward the concept of digital practices beyond just 'individual discovery' (156):

Extract: 5

```
17   that static products at the end … what really appealed to me was that it was
18   visual, they could use multimedia, they could change the font and the
19   background color. I think the personalization aspect of it was absolutely
20   crucial of it. But in terms of career development, it can be really helpful.
```

Jerry thinks that the aspect of multimodality makes the platforms attractive and different. For instance, it gives students the liberty to actively create and redefine their produced works (lines 17-19). Yang et al. (2016:1279) maintain, student-teachers' 'productive learning' skills and well as subject knowledge can be sharpened through such 'self-managing', 'self-reflective' tasks on e-portfolios.

Emina makes it clearer that the critical engagement with relevant information available in different media promotes reflectivity. She validates her view by explaining how 'empowering' the ability to add multimedia to their reflective stories can be (lines 241-242):

Extract: 6

```
241   Em: (…) Because the technology allows the actual voice to come through in more
242         sort of uhm, the personalised videos you see that have little videos or
243         little audio clips. They are empowering in of themselves because that is
244         you coming through on the page. Even if you are typing, you are still
```

 She makes the idea of empowerment more specific through her personal experience. For her, the process of reflection is not just 'text-based', a simple inclusion of an 'audio' file can be much more 'empowering' as well as 'easier' represent oneself. She favours using the 'store pebble' app which allows trainees to creatively personalise their ways of sharing multimodal 'singing and dancing evidence' with the audience:

Extract: 7

```
 95   Em:  There is even in the portfolio which we now use, store pebble, it's like
 96        an app where they can capture reflections and send them to their
 97        portfolios and stuff. I think multimedia, which not quite, I would not
 98        say new, because it was not used as much as it is now. E-portfolios
 99        allow you to have all singing and dancing evidence of your fitness to
100        practice back in the day.
```

Emina's instance (lines 87-88) in the above extract also implies how technical functionalities generate autonomy among student-teachers. Emina was free to evaluate the nature of the task from a personal stance and take a well-informed decision.

This observation can be further strengthened with Hima's views regarding the second most distinctive feature of digital platforms, blogging or reflective journaling. The function of chronologically archiving entries with active links to different entries (lines 28-31) enable student-teachers to new meaning-making processes (Beetham & Oliver, 2010):

Extract: 8

```
 22   H:  (…)So you have got reflective journal, which I think is best done in a
 23        blog. You can incorporate blogging activities into a variety of
 24        formats(…) I do like Blogger and I do like WordPress. But in some other
 25        commercial e portfolio sites such as Mahara (site she used) has blog
 26        built-in. It has a social network built-in for the group that is
 27        developed and also has a journal or the blog platform. The nice thing
 28        about the way the blog is set up is that you can link to any individual
 29        entry in the blog in your showcase portfolio. Because that's sort of the
 30        (final)level(…)you are really setting up some kind of thematic showcase
 31        which is organised around the set of outcomes, goals.
```

She is confident about her views that the exclusive 'built-in' feature of blogging in most EP platforms complement trainee's continuous thinking and reflection. Furthermore, regarding built-in 'blogging' feature, Emina considers the 'buddy' option of her WordPress platform to be a suitable medium for providing occasional 'pastoral care' (line 105) to trainees. These views conform to Emisa's initial aims (extract 1a) of supporting trainees by giving them a shoulder to cry on:

Extract: 9

```
103   E:  (…) each student can have their own personalised erm teaching portfolio (…) but
104        then WordPress has recently developed something called 'buddy' and that kind of
105        pastoral care can only be offered through talking online – they are able to meet
106        one another. They would discuss more about classroom management, academic issues,
107        the hard times.
```

This view coincides with Emisa's point that trainers often need 'to do relatively light touch' from a pastoral perspective to check any issues the students may have. She believes it is possible to give this democratic space to them through dialogic communications.

Teacher educators indicated that the prime features of the platforms support their initial expectations and aims related to supporting dialogic communication, personalised learning and self-reflection. Despite the user-friendliness of the platforms, the technical expertise remains an important requirement for both trainers and student-teachers to realise the exclusive features of any EP platform.

Theme 2: Approach to learning

Participants had to adopt new pedagogies broadly related to the principles of process approach and collaboration. The key themes addressed during the conversations include the debate between the product and the process, the principles of critical pedagogy, experiential learning, critical incident analyses and the shift in roles of the teacher educators and trainees.

Jerry adopted her teaching approach based on the major principles of 'critical pedagogy'. She believes that the process is essentially 'discursive' and 'critical' as students are given the onus to generate discussions. It is similar to 'democratic exchange' where trainees are expected to exercise their roles as 'agents' who bring 'current' knowledge to the community space:

Extract: 10

```
143   J: (…) It's about talk – when they come back to the university – you give them
144   an hour – just to share – let's talk about behaviour management, let's talk
145   about assessment for learning. But this isn't about us being so expert that we
146   pour stuff into them – we generate this together and I think, that's because
147   at the universities, we are out of practice at that sector. Teachers are the
148   most current, so they are bringing the issues to discuss the practice (…) it's
149   about that democratic exchange in students where you learn from them. Because
150   they are bringing to you the issues from practice that you might not thought
151   about … They learn to be teacher in practice and what we do is scaffold some
152   of the thinking around that.
```

Jerry's detailed account also sheds some light on the changed roles of teacher educators in EP based programme. From one side, the focus is on creating conditions for trainees to be critically engaged with the incidents through dialogic reflection and on the other side, it is about facilitating the process through necessary 'scaffolding' around their teaching plans and materials. According to Jerry, instead of 'pouring stuff' into trainees, the structure of the curriculum should generate 'critical dialogues' on the daily teaching incidents between the experts but 'out of practice' teachers and 'the most current' prospective teachers who serve as the representatives or 'agents of new learning. This practice echoes Freire's (1970: 25) concept of 'empty vessels' and 'problem-posing'. The views further strengthen Tiara's point

that the learning process of e-portfolios 'sustains' not only 'learner development' but also 'teacher development' which she considers 'a lot more useful than essays'.

The aspect of roles was specified by Emisa. The instance below suggests that 'ownership' is about flexibility and the learning process allows students to develop this ownership:

Extract: 11

```
245   Em:  I think with the paper portfolio, if you got to share that with someone,
246        you have got to take it to them and give them a copy as soon as somebody
247        else owns something that's yours. I think that ownership of well yeah, I
248        can share it with you for a certain amount of time and then I can take
249        it back () I think it gives you much more agency from your own
250        perspective from an ownership context. I think, with paper students are
251        so used to work with paper - you finish something and hand it in. There
252        is no feeling of anybody seeing the process I have gone through to get
253        to this point.
```

Emisa gives credit to some specific features of PebblePad that enable trainees to showcase their artefacts to a specific audience, with a purpose for a 'certain amount of time'. The steps build the sense of 'ownership', leading to a deeper involvement with the learning process. The representation becomes characteristically 'empowering' (extract 6) as opposed to paper-based portfolios where trainees are instructed to 'hand in' the end product. This sense of ownership was explained in the previous section, with reference to Hughes (2008).

Nahla, further elaborates on this idea of 'ownership' and flexibility by referring to one of her students who happily shared how 'empowered' she had felt while communicating her ideas to the online groups. This incident was shared in response to the question 'why she thought students' successful involvement in dialogic communications was a 'rewarding experience for her as a 'teacher educator?'

Extract: 12

```
102   N:   This was a very rewarding experience for me as a teacher educator. Definitely.
103   Nu:  Why is that?
104   N:   Well, because, for example, I think I have written about this – I think it is
105        Tendaya (pseudonym), she said, during the interview, 'it does empower you',
106        because when she said, her views have changed, I asked what-what are your views
107        on this? She said, they have changed. I said in what way, I realised if we get to
108        groups with it and make use of it, it does empower you. It's quite liberating
109        because you can communicate with your peers. So, it shows them the chance to
110        learn from one another.
```

Nahla further articulated that, the practice of collaboration and group reflection brought a positive change in the pedagogical principles. The conditions for meaningful communications in groups helped sharpened their values which, is not only a 'liberating' experience for them but possibly could be a 'rewarding' experience for any teacher educator like Nahla.

Furthermore, both Emisa and Jerry encourage 'critical incident sharing'. Through the process, Emina expects her trainees to be more 'critical' (line 70) in presenting their teaching 'stories':

Extract: 13

```
67   E:   Its about awareness. Okay. So, the whole thing is I want them to be a little bit
68        more critical about their teaching awareness. Yeah. They don't simply narrate the
69        story, they have to be more critical by drawing from the theories that they have
70        learned or by drawing on old knowledge they have gained from the other courses.
```

Emisa thinks, due to the 'mentorship programme', trainees get opportunities to gather useful insights from the discussions. The support from the instructors and 'mentors', who assume the role of 'facilitators' or 'administrators' (Tang & Lam, 2012), helps strengthen trainees' knowledge base. Emisa was aware of prospective teachers' capabilities and needs, so she planned to provide useful 'scaffolding' to them by creating favourable conditions for group reflection.

Jerry terms critical incidents as 'dilemmas' which deserve to be shared in an open community where problems could be solved through discussions and all get the chance to learn from each other. Perhaps, since the issues are mainly drawn from trainees' practical teaching experiences which involves many different aspects starting from assessment to challenges, Jerry calls the space to be a 'risky' one:

Extract: 14

```
 99   J: Umm, I have got 10 in my team and if they want to engage in practice, I
100      also need to think of the working load. But then again, we all buy into the
101      pedagogy but what it means is the shift away from end-point assessment to on-
102      going intuitive assessment with self-assessment and peer-assessment much more
103      now. And if all the stuff is there, then we can have a more meaningful
104      discussion somewhere else about your experiences. We call it critical incident
105      sharing. That's where, that's where the dilemmas of practice are discussed. I
106      think that's the safe but also can be a really risky space.
```

The immersion of teachers in such a 'risky space' makes them open to new and different meanings and interpretations of their practices as it involves 'self-assessment'. Such critical incident sharing activities enable 'systematic and focused professional dialogue' (Mann & Walsh, 2017: 189). However, any such 'critical' stance can only be assumed when pre-service teachers are 'encouraged' to 'immerse' in the process rather than just knowing about it (Bolton, 2005).

Vira explains her practised steps of critical incident sharing more specifically. The stages involving personal reflection and critical analysis of their practices lead to reflective discussions where students communicate their thoughts and seek support from the partners:

Extract: 15

```
40   V:    Yeah, just like in the portfolio, they actually develop a kind of step by
41         step framework (.) First, they have to think what's important for them
42         in terms of problem or they have to review (.) to write their own
43         journals and at least once a week, actually to write about what happened
44         in the classroom… So, in this course, we in fact complete the different
45         steps of critical incident sharing, writing, sharing and discussion.
46   N: These are the steps, you mean?
47   V: Uh, there are different steps. Uh, well sharing what's happening in their
48         individual classrooms uh, sharing ideas and experiences and then I give
49         them the framework of what they have to do and they go back to school
50         and think that they have to write about critical incident and then they
51         come back to my classes and discuss them and they actually work in pair
52         and they later share their critical incidents by emails so there is a
53         bit of technology ((laughs)) integrated and then they come back to my
54         lectures and continue discussions in small groups.
```

It is clear that e-portfolios bring some 'explicit adoptions' (Hughes & Purnell, 2008: 145) in pedagogy within the programme. Trainees are given the scope to involve as 'agents' of their own actions and thinking and discover new meanings from the 'real-life tasks' (Barrett, 2005: 21). In simpler terms, the approach to learning, which implicitly supports both Freire's critical pedagogy principles and Kolb's (1984) experiential learning cycle model, allows them to be 'critical', self-aware and 'empowered' individuals.

Theme 3: Building learning communities

Almost all participants emphasized building learning communities on e-portfolio platforms saying, they allow students to grow within a certain environment where frequent peer-tutor communication could lead to problem-solving and knowledge building. For instance, Jerry explains learning communities are built gradually when trainees are allowed to find their own solutions based on 'spontaneous' conversations and become informed decision makers. She further implies that teacher-trainers occasionally play a facilitative role in the EP forums and give them necessary scaffolding. The following incident exemplifies her practice as well as explains how such extended communities support its users:

Extract: 16

```
49   J: We had a student three weeks ago, he got an interview in the 2
50   academy, he contacted me and my colleague and asked help saying, I have an
51   interview tomorrow, can you give me some advice? So, my colleague puts
52   something on Facebook. Within 20 minutes, we've got 16 people offering to
53   help, we got somebody who said yeah, I will have a phone chat with you, we got
54   other people who gave all this good advice. I think it's that, it's that,
55   spontaneity.
```

The above incident also rationalises the significance of letting the trainees stand for themselves. The opportunities for trainees to gather and share reflections are not limited to

time or space. They can extend the scope beyond the learning environment of the programme to other social networks. Jerry thinks, trainees need such open and risk-free space to strengthen their relationships with each other, while teachers often need to take an observer's seat and wait 'when the community comes forward':

Extract: 17

```
61   J: And there are times when I don't answer it and there are times when you
62   think I am gonna sit back now, just watch when the community comes forward
63   because I think you know, as I have said elsewhere - if you make the spaces,
64   they will do it for themselves, you don't need to be there all the time.
65   Sometimes, you need to pop in to structure and confirm something. But I think
66   if they got that relationship with each other which they got from a platform
67   like e-portfolio, they do, and they will continue.
```

A specific account of the strategies she adopts was put forward; it appears that she allows trainees to 'cognitively grow' through interactions and autonomous participation in the environment (Vygotsky, 1978). Such techniques, besides playing a key role in strengthening students' relationships with each other, perhaps, give her opportunities to evaluate her students' learning abilities.

Nahla gives a more specific example of the learning communities in e-portfolios. She prefers not 'answering' immediately but allowing student-teachers to explore the incidents critically and seek responses from peers. She considers this process as 'peer-learning':

Extract: 18

```
98    N:  One other facilities that they had was classroom skills blog. I said to them, in
99         this classroom skills blog, write down any queries you experienced, any of you.
100        For example, one person was worried about a student taking over the whole class,
101        imposing and not giving other the chance to speak. So yeah. What do you do in
102        such case? - so yeah, rather than me answering, I wanted to see if the peers
103        would answer and they did but of course I contributed as well. But most of the
104        time, they were actually helping one another. Which was fantastic, that was peer-
105        learning.
```

She explains how 'peer-learning' happens within the environment through problem-solving activities. She further validates her role as a facilitator who oversees students' on-going interactions and responses to other's problems and occasionally supports them with suggestions.

In the words of Tiara, peer-learning can occur even in the case of learning the 'basic technical skills':

Extract: 19

> Over the years, the ==students sort of supported each other== and got the hang of it and we have also had some really positive feedback from students, you know that, this is something I didn't know how to do. Everything from you know, how to compress images, how to take screenshots and share them very basic technical skills. And we try and ==encourage them to do that collaboratively a==s well.

Both extracts reveal that students' problems and confusions can be solved through frequent interactions which can be further termed as 'peer-learning'. The process strengthens trainees' 'cognitive processes as they make critical judgements' of other's e-portfolios against a set of criteria (Nicole et al., 2014 in Yang et al., 2016).

Graduate Ana found 'peer-learning' 'useful' in terms of building on new ideas from different perspectives; the process eventually made her 'more sensitive' and conscious about her students' reactions as well:

Extract: 20

```
17   A:   I think this is another useful aspect that I can look at my videos as well the
18        other, I mean my peer's videos, actually. They gave me a lot of inspirations as
19        well. I mean it's not very common, like you go to another school but then with
20        this platform I can see what my peers are doing and the interactions with
21        students, I actually learned from them before.
```

Apart from synchronous and asynchronous exchanges on the platforms, she gained practical insights into teaching by watching her 'peers' videos' and reading their reflections. This instance indicates, besides community building, e-portfolios function as a digital media repository which enables Ana to reflect and manage her learning better. She developed as a conscious individual with a refined set of skills and perspectives. Likewise, Emina developed a 'new teacher perspective' (line 53) through the regular interactions in the 'social space':

Extract: 21

```
49   Em:  Jamia (her trainer) was very very good at giving examples and sort of
50        prompt in and being able to talk to other people in the class and
51        everybody had different skills I guess. So being able to sort of pick up
52        what others were doing. So, that's sort of ran all alongside. And as
53        well as being developed from a new teacher perspective you also get a
54        social space where people talk about their work and where they have been
55        in the weekend. We didn't meet up for about half of the year when we
56        were on placement – you don't see these people for like six or seven
57        months, but we probably spoke every other day using the forum.
```

Occasional scaffolding and guidance such as, providing useful 'examples' can benefit trainees in understanding what skills and qualities are desirable. Tiara, on the other hand, was strongly against the idea of sharing templates. For Tiara, portfolios are 'distinctive' to each trainee; they have full ownership of what they do and how they design it.

Educators and trainees explained, the online spaces or communities make student-teachers engage in self-regulative learning. And alongside that, letting students immerse in a cyclic process of description, narration, analysis and exploration can be a way to scaffold dialogic reflection.

Theme 4: Nature of Reflection

Trainer Tiara on reflection:

> I can't think of anything worse than telling people to reflect but standing and watching them ((laughs)). I can't think straight when lots of people are watching me.

Tiara, in the above extract, exemplifies trainees' common reactions on mandated reflective tasks. She came up with such an assertion while explaining the nature of reflective tasks and the evaluation techniques involved. It was, therefore, crucial to explore trainers' adopted strategies to encourage teacher reflection. Despite having dissimilar experiences and opinions regarding scaffolding reflection in pre-service trainees, they exposed identical views on the role and relevance of reflection in the PSTE. Similarly, the graduates shared their stories of reflective practice.

Jerry distinguishes 'head reflection' and 'heart reflection' in terms of trainees' emotional detachment. She explains, merely describing incidents is not necessarily reflection per se. Reflecting can be often difficult to do even at such a mature level:

Extract: 22

```
118    J: For me, what I think, is there's head reflection and heart reflection and I
119    think it's possible for somebody to write a reflective essay without engaging
120    their emotions at all, which isn't really reflection to me…I think reflection
121    is really really hard to do.
```

Considering Jerry's account, it appears that reflection can be 'faked' or 'emotionally detached' (line 120) when trainees realise they will be evaluated based on what they write. There is an apparent dilemma around it that despite every effort to explain the process at the initial stage, there may be possibilities of witnessing some reflections which may not be

authentic, rather formulaic or intentional (Hobbs, 2007). Emina also finds the 'shifts from description into reflection' (lines 46-47) like a 'big jump' even for postgraduate students.

Extract: 23

```
44   Em: Yeah. And its really nice to see what other people say. If you know
45       reflection is not an easy thing to do. You know describing things is
46       easy and actually reflecting on it and that sort of shifts from
47       description into reflection is a big jump even at postgraduate level and
48       sometimes you don't know what reflection looks like.
```

Emina recognises the importance of having an enthusiastic teacher educator to guide the trainees at this stage where they go through a complex and intense phase of learning:

Extract: 24

```
169  Em: (…) Especially in the early days when you are getting in the transition of
170      one thing to another. It had to have somebody passionate driving you.
171      From a student perspective, you got to be able to convince them of the
172      benefit of doing this ongoing reflection. And how we try and kind of
173      sell it here sometimes, if you reflect on critical incidents or you
174      reflect on whatever it is, you will be reflecting on for that particular
175      example.
```

She thinks that any technical barrier can be effectively dealt with if the trainer is 'passionate' and 'believes in the potential of e-portfolios'. She thinks 'students need to know that somebody is looking at it and somebody cares that they are spending time.'

In Nahla's case, she was aware that 'it was not going to be easy' for her MA students to reflect on the e-portfolio tasks. She makes it more specific by indicating that educators need to 'teach' reflection and therefore, a range of different interactive tasks to support the process need to be set. Her designed tasks consisted of five interrelated stages and among them the first three levels, she clarifies, were influenced by the 'models for structuring reflection' or the 5R framework of 'reporting, responding, relating, reasoning and reconstructing' by Bain et al. (2002):

> When I actually made my student teachers aware of the levels, it actually helped them see and yes, there is reflection of reflections (lines 11-13).

Nahla's adopted framework gave her students deeper insights into the intricacies of reflective practice which she terms as, 'reflection of reflections'. To unpack the sophisticated stages of intuitive thinking and to differentiate between thinking' and 'reflection' (line 9), Nahla believes teacher educators should 'devote' more time to encourage 'critical thinking'.

Extract: 25

```
5   N:    I think it's up to the teacher trainer or the teacher educator to provide the
6         ways that reflection can take place. Its very easy for a teacher educator or
7         trainer to say, 'reflect'. But if the teacher or the student teacher doesn't know
8         what reflection entails, they won't be able to do it. Thinking about something is
9         not reflection necessarily. And there are different levels of reflection.
```

The tasks that Nahla designed are mainly about the 'how' and 'why' of their teaching incidents. The complexity level of the tasks rises as the levels go up. One such task is 'dealing with unexpected events' where students reflect on their actions on the platform the Gateway on PebblePad:

Image 02: Reflective task by Nahla.

Dealing with unexpected events

Did you encounter any unexpected events in your own teaching? If yes, please give one example. What happened? How did you deal with it? List alternative ways of dealing with such an event.

Yes, it happened in my TP3 and TP4 where only one student turn up. Initially, i felt awkward as i am not used to this kind of situation and it is hard to implement an activities that i've plan such as group work, pair work, discussion acitivity. However, as a teacher i have to be ready with any circumstances or unexpected events that would happen in my teaching career and this unexpected event during my TP has helped me alot. I need to be flexible in my teaching. So what i did was i asked my peer to be my student so as the real student could work in pair and have an interactions and discussion work. However, if it was a real life situation,they will be no one to asked for accompany to my students, so what i would do alternatively is i would sit with her and have a discussion one-to-one with her in a more friendly environment. Talk to the student as if she/he is a friend, as this will make her/him feel more comfortable in a non-threatening environment.

 The above instance confirms that the set question stimulated the student to think reflectively from the very outset. The response 'I need to be flexible in my teaching' indicates that the student is being critical of the teaching incident as she continues to respond to the question.

Emisa further agrees that it is important to create the necessary conditions for students to carry out the reflection. She does it through guided questions. However, initially she 'teaches' the 'reflective cycle' of 'telling, describing, analysing, reviewing' which is very similar to Nahla's framework:

Extract: 26

```
52   E:    okay, so I give them guided questions actually, I have a worksheet to be included
53         in the appendix. So, I talk about how to reflect, okay. What are the different
54         ways for example, you can start to tell a story, you describe it and you write it
55         and then you analyse it and then you give suggestions and then you review the
56         process the next time you come. So, I teach them about this reflective cycle.
```

Image 03*: Reflective task on Emisa's *WordPress* EP

Cedric's Week 3 reflection–differentiation

November 23, 2015 by Chiu Yeung WONG

What happened This week, the students' behaviour in class seem to have improved, I think, partly because I try to cater for their individual differences by giving some other tasks for underachievers (so that at least they have something to do, rather than doing nothing or being frustrated by the 'impossible task') and also for ... Read more

TP reflection, WONG Chiu Yeung
Chiu Yeung WONG

These kinds of tasks are 'diametric opposite' (Atherton, 2012) to the checklist-based or 'ticking boxes' reflective activities. Vira suggests that trainers 'convince' student-teachers and adopt different ways to introduce reflection to them because reflections at this stage is very much 'context-dependent', therefore there needs to be enough support in such decision-making process towards topics such as 'let's talk about classroom management', 'let's talk about assessment' (Jerry, lines 143-144); this approach reiterates the key tenets of critical pedagogy.

Again, H agrees that trainers should be aware of the current levels of student-teachers and influence students to carry out reflective thinking with the aim to build a stronger, more developed foundation:

Extract: 27

```
81   H:   And having faculty provide the questions to begin with. So, you can say,
82        these are the questions for this week and I want you to reflect on it.
83        The sign of maturity is to build these muscles of reflection as you go
84        through. One of the problems is that many students get into universities
85        or get through universities and enter their masters programmes and they
86        were never asked to reflect. And that's a challenge. Faculties can help
87        build those muscles of reflection by uh, by giving some reflective
88        questions, some prompts. Because we want student teachers to help
89        facilitate this kind of reflections.
```

This view strengthens Emina's stance in extract 24 on having a 'passionate' 'enthusiastic' teacher educator to scaffold the trainees. Emina highlighted that trainers need to 'sell' key affordances of engaging in reflective practice (line 169):

'You got to be able to convince them of the benefit of doing this ongoing reflection' (line 171).

Hima thinks setting up aims before the process allows for better retention and knowledge building among student-teachers. She also encourages some prompts for students to carry out the cycle or reflective thinking. In the excerpt below, she continues with the instance:

Extract: 28

```
50   H:   And, after the learning process, that's when we really start reflecting
51        on what are the changes that happens over time. And there are three
52        questions that we ask in terms of learning, uh, what did I learn? So
53        what? and then now what? Those are simplified questions that we can use
54        to know students' perspectives. And then I added little bit in the
55        double loop learning answering the questions why? Why am I doing this?
56        Why am I learning this? That's the very important of the reflective
57        process.
```

Hima explains the WH questions (what, why, now what, so what?) <mark>(Appendix -)</mark> she outlined for her students to reflect on their growth. The questions are stimulating yet 'simplified' (line 54) for students to revisit their actions.

On a similar note, graduate student Viola had to respond to some guided questions on a weekly basis which made her aware of her continued teaching practice. However, she had confusions while answering those questions because not all of them were necessarily relevant to her experience. However, the flexible options allowed her to delete or modify the question formats while answering:

Extract: 29

```
14   Vio: The lesson planning form would be similar to what we have come across
15        before-like the staging and the materials needed but the reflection
16        form, it would be like guided questions. I found the guided questions to
17        be useful but not in an organised way. Therefore, while I was doing my
18        reflection, I actually deleted some questions. Or just grouped them
19        together (…) I sometimes find it very difficult to fill in those grids
20        because if it didn't happen then you have to leave it blank, and you
21        would not want to leave anything blank. Therefore, I kind of grouped
22        them together and rephrased them a bit and umm, said what I wanted to
23        say, and I thought it was more useful to me – changing formats.
```

As her works were not graded, Viola was free to modify the reflective questions. This may not be the case for others which means, if the portfolio works are graded, students' approach and motivation towards the process can be different. For example, Ana thinks that reflection wasn't forcefully taught to them rather the atmosphere and the structure of the programme played a vital role in her professional development which further led her to become critical about her strengths and weaknesses. When asked, *'whether the process helped her to become a reflective thinker?',* she started off by mentioning how the entire process turned out to be beneficial:

Extract: 30

```
30   A:   that's a very interesting question. We were not taught to be reflective
31        explicitly. I remember it was quite challenging for me to write the reflections.
32        Because I didn't know what to do but gradually, because of the teaching
33        practice, because of the portfolio, we were kind of forced to do it, but I think
34        I developed my skills of reflection.
```

Most trainers indicated that reflection is not essentially autonomous or self-initiated. Besides designing stimulating questions and other reflective tasks, trainers talked about the following

forms of assistance they provide to build the appropriate environment for critical reflection:

a) *frequent workshops on technology options*

b) *discussion forum just to discuss technical issues*

c) *uploading links to useful resources on reflective practice*

d) *sharing samples or templates*

e) *drop-in sessions and tutorials*

f) *quick guides on 'how to use the platform' and a few more.*

At the initial stage, trainees need some guidance and support to start the cyclic process. Reflection should be introduced and encouraged slowly. There should be a minimum level of reflection required at the initial stages so that it does not seem forceful or excessive, increasing the chances of lack of enthusiasm (Hobbs, 2007). There should be 'uncritical acceptance of students' experience' (Atherton, 2012) on the part of the teacher educators so that the trainees are motivated to put more effort into developing themselves professionally.

Theme 5: Feedback on e-portfolios

Emina

> If you are gonna use e-portfolio, you need to take advantage of the developmental nature so that
>   student have the chance to improve based on your feedback (line 189-90).

Assessment and feedback remain the crucial points of concern in e-portfolio-based learning. In Emina's words, in order to utilise the 'developmental nature' of EPs, student-teachers must be exposed to feedback ongoing. All participants concluded that increased accessibility in terms of building connections with trainees, tracing their growth and providing developmental feedback is easily possible on EP platforms. However, the purpose, process and frequency of providing feedback can be different depending on the features of the platform in use and the established aims of the programmes. Participants were found either refuting or endorsing on the common issue of grading or not grading students' reflective posts.

According to Hima, creating a habit of occasionally checking on students' posts on the platform and sharing reflective questions can give a picture of their progress. She refers back to the WH (appendix -) questions she designed to stimulate reflective thinking among students and believes the questions could function as 'lens' (line 80) for the trainers to measure their learning.

Jerry recognises the function of 'personal' and 'shared spaces, and she justifies her practice of checking blogs on a weekly basis. She admits that it is essential that students get a space of their own to interact and discover new perspectives:

Extract: 31

```
160   J: (…) I would look at blogs weekly. It's important to me that-that was their
161   private space with me, but they also had a shared space with each other and we
162   all understood the function of both spaces. So, for some students, that was an
163   important space - I think it's important with reflective writing, if someone
164   makes the effort and make it available digitally, that you give a response and
165   you give a personalised response, and sometimes that might just be a line but,
166   that can be sharing of my practice that are related to or I can give them
167   advice or I can just be giving them, you know support and encouragement so I
168   think it is a change in assessment practices. What it does mean is that you
169   know the students, you know their writing -for me, that feels more authentic –
170   for teacher development – that I am assessing a static product at the end, I
171   am engaging intuitively, ongoing with the person and their development.
```

This approach brings a 'change in the assessment' because trainers are entitled to providing timely assistance to students through regular feedback. In the end, the tutors do not only see the finished product; they evaluate the pieces that evolved over the period. It is not only the trainees who engage themselves in this intuitive journey of reflection and growth, educators also get the opportunity to exchange views with the prospective teachers (lines 169-171).

Nahla thinks interactive and timely feedback is essential for students' self-development. To her, accessibility remains a key issue, giving the scope to trainees to look at the comments and respond accordingly:

Extract: 32

```
151   N: Let's say I am reading one of the critical analyses on the page via the gateway,
152   uh, I could read that and underneath that I could type up my comments and if I click
153   'send' it would automatically go to that person via email. It would also let them see
154   it if they logged in the system. So, it was both. The system allowed you to receive
155   information via email(…) I also told the students to log on to PebblePad at least once
156   everyday, because I said they can then see what anybody has written on the blog, so it
157   gives you a chance to comment, or if you have something to ask, you can then ask, so I
158   said at least once can you, I said 'set yourself a particular time which is easy for
159   you' and everyday go on it and I think it was a novelty for them.
```

Nahla's trainees are encouraged to frequently meet in groups for discussions, which according to her, inspires them to contemplate on their abilities.

Extract: 33

```
82   N:    gateway gave me the opportunity to read students' work and give feedback and the
83         feedback would be - to make the student teacher think. So, (what) is it that,
84         what they have written. Just to make them think further. Yeah, so basically the
85         four portfolio tasks, most of the teachers uploaded all four tasks. Some of the
86         teachers uploaded only three of them.
```

The Gateway is a forum enabled in PebblePad that Nahla uses to deliver feedback. The
interface allows student-teachers to post their completed tasks while tutors are able to post
their comments. Through the Gateway, Nahla could visit the hyperlinks and all other
multimedia that her students embedded in the tasks. The feedback on each of these four tasks
helped students to think ahead in terms of their progress:

Extract: 34

```
106   N:    My initial slight worry was what if the student teachers actually repeat what is
107         discussed in the feedback sessions. Because you know they do their teaching
108         practice and we get together and discuss and we discuss teaching practices in
109         groups. Okay. So, they could just like sort of not reflect but just take away
110         what was discussed. It was completely different from what was discussed during
111         those teaching practice feedback sessions was very very different to the kind of
112         things that they were writing because, it gave them a chance to think further.
```

Nahla initially had some worries that students will not reflect on the developmental feedback
they received during their teaching practice sessions which may influence her to discuss the
same issues again during the later discussion sessions. But, she was later impressed to see
what the discussed topics were different from the ones already covered in previous talks; it
gave her an impression that students actually reflected on the received comments and worked
on their self-development.

In the next extract, Emina is seen particularly valuing tutor's commitment to giving timely
feedback to trainees. She believes it is crucial to meet students' expectations along the way to
keep them motivated. It appears that Nahla's (extract 37) instruction 'set yourself a particular
time which is easy for you' also applies to the tutors themselves:

Extract: 35

```
196   Em:   …it doesn't matter how often you give feedback, because it often depends
197         on the resource you have got as a tutor, but whatever you do commit to,
198         it's really important you do because students will be. because if you
199         say your portfolio will have feedback, they will go on it and seek
200         feedback at that point.
```

Emina also suggests that in the initial days it is necessary for trainers to give frequent
feedback to build students' trust and to encourage them to put in more effort:

Extract: 36

```
203   Em:   I think in the early days of engaging them, it has to be a little bit of
204         feedback, but if they know you've read it then they will be much more
205         inclined to do the next bit. And that's how you kind of win them over.
206         And if they haven't done anything, from a pastoral perspective, that's
207         really important as well its like is everything alright. You only have
208         to do relatively light touch because there might have been personal
209         issues –
```

Emina perhaps came up with the above statement on teachers' approach towards increasing students' motivation, based on her experiences of using and teaching e-portfolios. She makes it clear that not all students may complete the tasks in a timely manner and that is where educators need to extend their support online, perhaps as Emina suggests, through occasional counselling.

The impact of assessment on students' reflections on teacher development is a common concern and therefore, requires further research to understand the relationship more closely (Mann & Walsh, 2017). As reflections are 'personal' in nature, there remains a concern as to whether they should be formally assessed, and if so, then how or at which stage? For instance, Hobbs (2007) argues, reflection should not be assessed at the early stage because trainees need some space to gain confidence and personal strength. This issue was prevalent in the interview conversations and was dealt with mixed opinions. For instance, trainer Vira thinks, '…it wouldn't be fair to grade their first efforts and first attempts at teaching…' because learner development should be the priority at the stage. Emina makes it clearer; she claims, 'the learning probably happens far more throughout the development of the portfolio than the grade because, in the end, the grade is just 'a pass or a fail'.

Moreover, Hima thinks it is sometimes a challenge to grade students' 'personal' reflections and uses the metaphor 'walking on a fine line' to explain the 'dilemma' (line 66).

Extract: 37

```
61   H:    I am a big believer in not grading reflections. But saying uh pass or not
62         yet you know needs improvement you are not there yet, or this is great
63         and not doing letter grades but because its so hard. Reflection should
64         be personal. Its so hard to grade something that is so personal. So how
65         do you get students to, you are sort walking on a fine line too. If they
66         see if these are not graded they won't put effort into it. You want e
67         portfolios to be intrinsically motivating.
```

She thinks, student-teachers should get either a 'pass' or a 'fail' with guided feedback, instead of marks, so that can reflect on their strengths and weaknesses. These views further coincide with Jerry's claim that trainees tend to disregard the grades in the end and see only 'if they have passed'. Similarly, Vira is confident that her students get the chance to develop

a 'sense of ownership' or in other words, a sense of belonging which keeps them engaged in their work and ultimately, not 'miss the grades':

Extract: 38

```
152   V:    But again, for the portfolio its not important for them to have grades. Its
153         something that they feel very closely connected with this product and this sense
154         of ownership of something that they have created and uhm, I have not actually, I
155         don't have that impression that they miss the grades. ((laughs))
```

Nahla's teaching context is similar to that of Vira's in the sense that, the invitation to participate in the e-portfolio based discussion platform is entirely voluntary for the MA students; resultantly, no grades or marks were allocated to their works, but developmental feedback:

Extract: 39

```
59   N:    The evaluation was always formative. There was no summative element in it.
60         Nothing. So, they didn't receive marks. So, I said to them that this is
61         voluntary. If you don't do it, you don't get any feedback. If you do it, you will
62         get feedback and it will help your teaching practice. Out of 21, 18 students
63         engaged, and it was a good number, I think. Among 18 of them, 9 of them wanted to
64         give feedback and you know, were happy to be recorded. Not only that, they wanted
65         their real names to be used.
```

It appears that the idea of not receiving any marks did not quite affect the trainees' involvement in the reflective tasks; rather 'a good number' of trainees were motivating to engage with the process and were 'happy' to share their experiences with the audience.

Conversely, Emisa highlighted that her trainees tend to discuss and solve relevant academic issues (i.e. problems with lesson plans) prior to their online supervisory visits because the evaluation carries 70 percent of their final marks:

Extract: 40

```
110   E:    I guess they talk more about the academic thing is during the supervisory visits.
111         Or before the supervisory visits, they would put down the lesson plans and the
112         other classmates would help them in the lesson plans and give comments. Or the
113         mentors will read and comment in detail in order to get through the supervisory
114         visits. There are two supervisory visits which carry 70% percent of the mark.
```

Likewise, in Tiara's case, the assessment is fully summative with almost 20 to 100 percent marks allocated to e-portfolio development, as a result, as Tiara says, the students 'get very little choice'. Hence, on one side, there are trainers who prefer not grading students' works directly but giving constructive feedback on their works. On the other side, trainers like Emisa and Tiara allow trainees to develop a community of practice, based on graded reflections or tasks. However, they all have agreed on the ground that, scaffolding reflection

remains more important than grades at the early stages of teacher development (Yancey, 2015).

4.1.2 Evaluation of e-portfolios in PSTE

Theme 6: Affordances

Emisa thinks that EP platforms are sustainable in terms of community building. As she runs a 'mentorship programme' on her WordPress platform, the idea of experienced teachers scaffolding new teachers on the platform indicates a form of continuity which is expected to spread beyond the programme. To Emisa, such an extended community can be helpful for building autonomous reflective practitioners who are better at different professional skills.

Extract: 41

```
42   E:   The platform is about sustainability as well. These teachers who are now pre-
43        service teachers, someday will become in-service teachers. So, they will provide
44        new input to the (students) - uh so it's kind of group dynamics for help in this
45        PLATE.

65   E:   You just not only see the reflection. You can also see their comments and their
66        peer's posts, alright. Their responses, their visibility in the blog all means a
67        lot in terms of their ability to reflect.
```

Emisa indicates that seamlessly reviewing students' works on EPs helped her come to a holistic understanding of trainees' growth and development. Likewise, Jerry gives credit to the accessibility options saying the platform gives her some convenient options to stay virtually connected with the trainees:

Extract 42

```
236   J: I would say, why electronic. So, for me, () it would be -
237      the student doesn't have to bring a great paper portfolio into registration,
238      sign it in, I don't have collect it, I don't have to take it home in my car,
239      take it out of my car, mark it, put it back in my car, take it back, its easy
240      I can mark it wherever I am - whatever time suits me. So, that for me is the
241      biggest thing - the ease of access.
```

Getting real-time access to students' posts is one of the 'biggest' functionalities of e-portfolio platforms. Other practitioners including Nahla (extract 32-33) also strongly endorsed this feature, saying it made the tutor comments easily available to the trainees. Besides, they can easily view, edit their saved activities and revisit the completed tasks, anytime. This aspect of restoring positive energy by reviewing one's own works and reflecting on their current practices is also specified by Hima as a 'life-long process':

Extract: 43

```
112   H:     Ideally it becomes a life-long process that when you use it in teacher
113          education, that is something that students want to continue to use as
114          they teach, as they use it as a way to support teaching, just as a way
115          of reflecting as a practitioner and see what's going on in the
116          classroom, but the audience is one, the audience is you and not
117          necessarily anyone else. But it can be used, can be adapted, can be used
118          for potential employment, applications and so on. It's a process of
119          collection, selection and reflection, you know the portfolio process.
```

Abrami & Barrett (2005: 5) consider developing a 'lifelong virtual identity' is similar to creating a 'personal library' which remains essentially ubiquitous. Emina goes further and explains the long-term impact of EP use in terms of the aspect of employability and professional presentation of artefacts to a wider audience:

Extract: 44

```
173   Em:   Later down the line, when you have got interview, or you have one of your
174         placements, you have got recorded examples that you can just pull out
175         (to show) how I did, how I reflected on team work. When you do it you
176         may not see apart from its usefulness at that point of time, you may not
177         see what benefit there is (…)
```

Emina terms the chance to revisit one's work as 'distance travel', an opportunity which makes EPs more sustainable and a source of lifelong learning. Viola admits the impact of EP use in her teacher training programme. She realised that despite the time challenges faced during the practicum, the overall experience helped her reflect better on her teaching practices later:

Extract: 45

```
89    Vio:  Even though I felt miserable when I had to fill in all those forms while
90          I was so busy doing my teaching practicum, I still find that its really
91          useful for me. Because I not only evaluated on the strengths and
92          weaknesses of myself. I also had become more aware of the progress of my
93          students. Because when I reflected on my teaching at the same time I
94          would also write down something about students' responses. I just kept
95          thinking why they were not so involved in this lesson… and I think,
96          reflection is helpful to me.
```

Viola's account is useful and pertinent. It provides an overall evaluation of the long-term impacts of e-portfolio in trainees' professional development while conveying a message to the educators that encouraging reflection at the initial stages should be of a minimum level so that the teachers can flexibly and simultaneously continue their teaching practice and develop e-portfolios. Ana, who used EP is her initial teacher training days, gives a similar opinion that the e-portfolio maintenance impacted her later teaching practice in many ways. Her past experiences increased her self-confidence to carry out further discoveries:

Extract 46

```
58   A:    I was a kind of emotional person - this kind of portfolio tasks gave me mental
59         support because actually reminds me of the passion or the determination I had at
60         that time. It reminded me of the whole process and the effort that I put. It
61         helps to sustain my teaching career. I would say because that was the very
62         beginning when I first stepped into my teaching career. I think these are all
63         the traces and all the records for me help me to go in my journey.
```

The chronological repository allows the users to engage in a lifelong process of reflection and learning. The online communities once built, remain spontaneous through regular posts and comments; the platform remains ubiquitous due to its full accessibility which gives its users a sense of 'immediacy' and ownership as opposed to paper folders where submission marks the end of the process.

Theme 7: Challenges

Almost all seven teacher trainers mentioned staff support and lack of sufficient technical know-how to be the major challenges they had to tackle before and during their use of e-portfolio platforms. Along with that, trainees highlighted time issues as another key obstacle in some cases. Emina understands such an issue can be unfavourable for some educators. She confronted teachers whose scopes to build virtual relationships with trainees were limited due to lack of adequate technical knowledge. However, the issue can be settled if the teacher trainer is 'enthusiastic' enough to believe in the potential outcomes of EPs and takes up the step to motivate student-teachers to embark on the learning process:

Extract: 49

```
221   Em:   Often we have teachers who are very very good at being able to teach
222         students reflection and analysis and the disciplined based content and
223         what's going in the portfolio but they don't have the technical know-how
224         to show students how to download the template or if it doesn't quite do
225         what they should so be mindful of making sure that there's some sort of
226         technical support in getting students off the ground with whatever
227         combination you use because wild horses won't drag them back if
228         technology doesn't work in the first sort of instance.
```

She further warns of the consequences of having insufficient technical knowledge can be difficult to tackle as it can affect the entire initiative, despite having a 'well-structured learning design.' Tiara highlights the importance of choosing 'one technology' in eliminating

the 'teacher-student anxiety' regarding technology use:

Extract:50

I think one of the things that can undermine the deployment of technology is that <mark>teacher-student anxiety</mark> that goes <mark>around, oh it doesn't work, I did this, and it didn't work, so having a shared space and face-to-face opportunity to quell those myths and say</mark>, it does work, and this is how you do it ((laughs)). And that's the beauty actually of sharing a, you know <mark>one technology</mark>.

Technology choice and its implementation remain a major issue for students and teachers accepting or rejecting the e-portfolios (Chaudhuri, 2017). As Tiara explains, bringing student voices into discussion forums provide practical solutions to such issues. It is important to give scope to the staff and students to explore the technology and bring their problems into the community (Ibid.). Nahla, based on her experiences of managing the university staff, explains that due to lack of enthusiasm and keenness regarding new technology, they often take it as a challenging endeavour. Some did not prefer spending time on technology or like it the way Nahla did.

Jerry was critical about the reactions of other teacher educators to innovations. Being the only practitioner who supports innovations is similar to taking risks. She refers to Barnett's (2007) phrase of 'bungee jumping' and explicates that the idea of taking up challenges in terms learning is not only for the trainees, teachers also need to embrace the changes in pedagogy, assessment and most importantly, technology:

Extract: 51

```
297   I think it's a difficult time to be a risk-taking educator. Lots of people
298   will be scared to do that - there are technical reasons to do that but there
299   are job security reasons where somebody would not like to take risks like this
300   - so when Barnett wrote about pedagogic bungee jumping, he talked about
301   students () and in my experience, not just students, teachers and it's the
302   teacher educators that have to come into themselves.
```

Being a 'risk-taking educator' is to be meaningfully involved with the process without setting any interim; it generally happens when trainers 'begin to act when they don't know how they should act' Bolton's 2014: 24). For instance, Vira found it challenging to convince her student- teachers to engage with the EPOSTL framework because the new tasks required much effort from them.

Extract: 52

```
158   V:   Well, first, it is true that it is challenging to get the students involved in
159        the process of developing a portfolio especially during the period when they do
160        not have any experience of teaching and they do not have quite a lot of other
161        things related to the survival in the classroom. So, they have shared actually
162        that they do not have enough time to share, to reflect, and working with their
163        portfolio especially during their teaching practice when they have to think
164        about planning their lessons for tomorrow for example, and then the time-
165        pressure is so uhm, this is one of the challenges, to convince students to make
166        sometime to work on their reflective tasks and the portfolio.
```

As the process was new and required constant help from tutors, Vira had to manage both sides to convince and motivate the pre-service trainees. It appears that managing students to continuously stay involved in the learning community can be an issue in some contexts.

Again, concerns have been voiced regarding the frequent upgradation of e-portfolio platform to the latest versions which often disrupts the usual flow of learning. Sometimes, the institution discontinues using it, which was the case for Jerry, Emina and Nahla. Again, it often becomes a challenge to provide continuous support to the staff and students who surely need to be up-to-date to deal with newer versions:

Extract: 53

```
36   J: institutional decisions around technology will have such an impact on the
37   practises of teachers so what we found was as Pebblepad was developed
38   overtime, my university didn't take on the new version of Pebblepad, so we
39   were left with the older version - quite an old fashion, but it was quite
40   (complicated), but it did the pedagogic job we wanted it to.
```

Extract: 54

```
35   M:   The platform that you are using, I mean Pebblepad, could you please briefly tell
36        me about that? Is it user-friendly?
37   N:   yeah - its' quite a tricky one this one. Because, When I wrote this chapter, at
38        the time the university was using pebblepad, which was its initial format,
39        because there are two versions of pebblepad. The one that I use the project with,
40        this one that I actually wrote the chapter about, is the original form which is
41        very very user-friendly. If I couldn't use the functionality of the platform, I
42        could guess, because of its user-friendliness. I realised it soon that, okay I
43        find it user-friendly, but my teachers might not. So, I decided to provide help
```

For Tiara, the challenge was a different one. Being the administrator of the open source platform Mahara, she could see students' private posts during the assessment phase. However, as the platform is now run by the institution, she no longer has access to students' private posts; she can only see it upon permission from the university. These instances indicate that e-portfolio versions keep evolving and updating and educators need to keep an eye on the changes so that they do not become a challenge to them, but an advantage.

In summary, the findings indicate the aspect of supporting reflection remains central and equally relevant in EP-based learning during the pre-service programmes for trainees to as V

said in her interview, 'make sense of their experience'. To build spontaneous learning communities, teacher educators do not simply use EPs as a convenient medium to transfer knowledge but adopt different strategies to encourage and convince students to get involved in the experiential learning process. Despite some challenges such as frequent upgradation of platforms, time issues and staff support, trainers and trainees positively evaluated the potentials of e-portfolios in pre-service training in terms of, increased accessibility, sustainability, life-long learning and lastly, as an effective means of continuing reflection for self-development.

CHAPTER FIVE - DISCUSSION

In light of what has been discussed in the literature and in the findings section, this chapter will further explore the phenomenon of utilizing electronic portfolios (EPs) in teacher education. The main themes presented in the previous chapter will be discussed in details, with reference to relevant literature.

5.1 Interpretation of the findings

5.1.1 E-portfolios in encouraging student-teacher reflection and other self-development skills

The participants, who are from a variety of contexts, shared diverse experiences of managing EPs in the teaching and learning, giving me the scope to analyse and compare their settings, understanding and appraisals. The major interlinked aspects of e-portfolios and teacher development that came to light during the analysis will also be elaborated on in the following sub-sections.

Features of the platforms

Since e-portfolios strongly emphasise digitisation and presentation of evidence, the 'personalisation aspect' is at the heart of it. For the educators, the primary aim of having an e-portfolio platform was to encourage or 'teach' reflection and other professional competencies that student-teachers required in teaching practice. They mainly focused on ensuring a risk-free, non-threatening space to ensure that they can get to build a 'personal engagement' with the process and most importantly, the functionalities of the platform. The abilities to customise, use hypermedia, archive posts chronologically, add multimodal elements, as Tiara puts it, 'all those design decisions' give a sense of strong authorship, 'empowerment' (Extract 5) and 'identity' and in a way, eliminates the 'anxiety' or 'fear' they may have regarding EP development. Barrett (2010) and Hartnell-Young & Morris (1999) maintained that critical engagement with the various exclusive options of EPs against a set of pre-determined goals can guide trainees towards personal reflection and development of metacognitive skills. Pengrum and Oakley (2017) further mention the importance of trainees' technical competence saying, such expertise can be essential in sharpening their professional identities in this 21st century. As trainers have maintained, this shift from 'text-based' presentation to the multi-modal representation of the 'singing and dancing evidence' (extract 6) might be considered the 'beginning of reflection process' (extract 3).

Now, moving from the personal to the social, the 'blogging' feature of the used EP platforms were highly valued by the participants for their capacity to accommodate, as trainer Tiara terms 'an e-space' where trainees construct and re-construct knowledge from 'actions and reactions of others' (Beetham & Oliver, 2010: 156). The 'shared space' or 'social space' allows student-teachers to involve in a constructivist learning environment where problem-solving and analyses of teaching incidents help trainees reflect more deeply. Participants' voices regarding this built-in feature echo Mann & Walsh's (2017:154) remarks on the affordances of online blogging in terms of constructing knowledge and meaningful communication in a 'risk-free' collaborative environment that allows students to revisit, connect, and synchronise their contributions. The views further coincide with Chuang (2010:212) who thinks blogging in e-portfolios justly respond to 'the need for dialogue and collaboration' which remain a critical aspect for self-reflection.

Approach to learning

The common debate between the product and the process-based learning was a recurring theme in almost all the interviews I had conducted. Graduates and practitioners mainly value the process involved in EP based learning because it encourages trainees to engage in a cyclic process where the focus is more on drafting, customization, reflecting their work as opposed to the linear path where the emphasis is on the end product. Baume et al. (2003) term this process on e-portfolios to be a 'compost heap' which is refined over time by 'addition, reduction and turning over' (as cited in Hughes & Purnell, 2008: 145).

Practitioners follow the principles of critical pedagogy and the constructivist approach to teaching where learners are encouraged to become the 'agents' of information and therefore, solve teaching issues through 'democratic exchanges'. The onus remains on them to attain a set of targets through collaborative learning. This apparent transition of roles has made students more conscious and involved in their representations which trainers Nahla and Emina termed as the 'empowering' and 'liberating' side of the learning process. This freedom ascends to a more mature level with the practice of 'critical incident analyses', which most of the participants encourage in their EP communities by means of problem-based tasks. Although termed as 'risky', most participants encourage this practice to keep trainees fully involved in shared knowledge construction. Hughes (2013:209) describes this idea of 'risk-taking' as 'jumping at the deep end and making their vulnerability a part of their learning experience' which she terms as 'powerful transformational learning through the use of e-

portfolio technologies' (209). To facilitate such 'dialogic practice' (Ibid), Brookfield (2017) shares some of his strategies of handling critical incidents sharing that match with what the other trainers' prefer to adopt in their training.

Building learning communities

The findings under this theme indicate, trainers look forward to building learning communities in e-portfolios based on the understanding that,

1) peer-learning and occasional teacher-support facilitate deeper involvement in the learning process.

2) The extended opportunities are useful means of further discovery and self-development.

Trainees' frequent participation in online communities, as trainers Jerry and Nahla think, increases the scope of 'peer-learning' (extract 19). After a certain time, through occasional 'support' or 'pop-ins' (extract 18) as Jerry put it, trainees learn to 'help one another' and build on each other's experiences which trainers see as something 'amazing' and 'fantastic' (extract 19). Again, such learning communities offer explicit knowledge sharing (Tang & Lim, 2012) within an environment which is all- pervasive and informal (Wenger, 1998). Ana endorses such open and flexible opportunities saying, they helped her construct knowledge from new different 'perspectives' (extract 20). Chaudhuri's (2013) views on the affordances of building CoP justify these reflections very strongly.

Trainers furthermore, believe in extending the learning opportunities by allowing them to grow their 'relationships' and take it beyond the limits of the platform to other social media networks like, Facebook closed groups, Skype or WhatsApp group chats. However, it is worth considering that the quality of interactions often depends on the teacher educator's 'ability to manage complex interactional processes' and help trainees 'correctly' interpret the learning environment (Mann & Walsh, 2017: 203). As it appears, trainees recognise this aspect very well as Nahla (extract 19) clearly says, even during handling incidents related to classroom management, she prefers observing 'if the peers would answer' before she 'contributes' to the community which is similar to facilitating other people's ability to guide and mentor (Allen et al. 1997). Although Mann & Walsh's remark 'taking a back seat' (2017: 165) applies to teachers' spoken reflection, it seems relevant to EP learning environment which is a virtual 'e-space', always vibrant with real-time and asynchronous interactions or as Jerry says, full of 'spontaneity'.

Nature of reflection

Most educators were mindful of the distinctions between the concepts of 'thinking', 'describing' and 'reflecting'on e-portfolio learning. They highlighted that it is usually rare to witness students engaging in deep reflection without proper and timely guidance or assistance and therefore, student-teachers tend to engage in descriptive reflections or as Jerry termed it, 'heads reflections'. Hobbs (2007) clarifies students may not consider the value of 'genuine reflection' and tend to 'fake it' when they realise they will be assessed based on the writings. Tiara explains it nicely by voicing her students' situation, 'I can't think straight when lots of people are watching me'.

Clearly, to support authentic self-reflection, educators are in favour of designing stimulating, problem-based tasks as well as initiating frequent online discussions on forums to provide considerable scope for individual & group reflection on learning. All participants shared instances of designing reflective tasks, including role play cards (Emisa), ''discussion-based' (Nahla) questions, WH and guided questions (Hima, Emisa)and sample tasks (Jerry) (See appendix -) to stimulate student thinking and eventually build awareness regarding their progress. Yancey (2009) and Orland-Barak & Yinon (2007) justify the implication of designing the learning structures that encourage this kind of process. Again, both Nahla and Vira's 'reflective framework' can be supported by Oakley et al. (2014) who valued the idea of using a 'framework' for reflection and that the designed activities should have a 'direct link' to the set of outcomes (39). Chuang's (2008:172) ideas to encourage 'multiple representations of reflective practice' through e-portfolios can be valued as relevant addition to this practice.

Feedback on e-portfolios

Trainers prefer adopting different ways of assessing students' work such as, through providing 'annotated' feedback on draft posts, initiating stimulating questions for online discussions and conducting follow-up meetings allow numerous chances of 'taking advantage of the developmental nature' of EP use. Abrami & Barrett (2005) and M van der Schaaf et al., (2016) support such techniques as they provide trainers with the chance to evaluate the authenticity of trainees' digital work.

Practitioners found that, e-portfolio based learning can often be less impactful or demotivating, at the initial stages of the learning, if proper and timely feedback is not ensured for the trainees. They prefer following different time frames (e.g. once a week) to check

students' completed tasks, written reflections as well as their participation in platform-based blogs and forum. This practice can be further endorsed by what Hobbs (2007) thinks only after they have acquired significant experience with engaging in RP, should any assessment be considered. However, trainers seemed to have different viewpoints regarding the issue of scoring and evaluating students' written reflections or other personal contributions in e-portfolios. Some of them discouraged grading reflections, saying it is truly 'personal' and should be subject to just 'pass' or 'fail', while a few of them think, it is important to keep an eye on how they evaluate themselves, especially at the initial stages. Mann and Walsh (2017) further clarify that in either case, some tensions still prevail in assessing works that are normally focused on trainees' gradual growth. The presence of such a 'dilemma' makes the assessment process a crucial point of concern for it can change the purposes of e-portfolio use (Barrett, 2004). Again, Cleveland (2018) and Wray (2007) provide precise summaries of the potential of rubrics in evaluating students' pieces of evidence on e-portfolios. The views echo trainer Hima's and Tiara's justifications for using a standard rubric or 'marking guide' to decide on students' progress, instead of relying on 'grades'.

Most trainers and graduate participants seemed to have grasped the notion of integrating roles in training as they justified the need of an 'enthusiastic' trainer who can function as a source of motivation by 'giving them advice' and 'support' for them to 'engage intuitively' (extract 23). Trainers need to 'unite and integrate' both their roles as collaborators and evaluators at the same time (Elbow & Belanoff, 997: 29) to give a more 'authentic' experience to the trainees.

5.1.2 Evaluation of e-portfolios in teacher education

Affordances

For most practitioners and graduates, the aspect of lifelong membership or sustainability in terms of the continuous process of professional development and 'distance-travelling'. Both trainers and trainees strongly consider the value of storing works digitally not only for the benefits of employability and future presentations but to nurture their lifelong learning skills through community-based practices. These views are supported by many studies I have read including, Kahn (2014), Abrami & Barrett (2007) and Wray (2007) all confirm that the notable features of e-portfolios involve students into a purposeful lifelong learning scheme. Wray (2007) further remarks, the community support on EPs 'raises the potential of the reliability of the e-portfolios' in terms of 'justifying the selections included in the portfolios'

(42). Besides, 'the ease of access' (extract 41-42) allows trainers to track student-teachers' growth and provide a more 'holistic' review on their performances. Wray (2007: 41) terms this particular benefit as the 'seamless review process'.

Constraints

It seems that, e-portfolios are not without its challenges. For graduates, the main hurdle was to manage time for their regular presence in the blogs as well as to post reflections frequently due to their workload of teaching. Although trainers think portability of e-portfolios has saved much of their time but keeping pace with time can be a challenge for two reasons, one is that they need to remain active and constantly aware of any technical or pastoral support the students may need anytime, and when they had to support other colleagues with limited technical knowledge or as Tiara explained, 'to help them understand the difference between a portfolio and an e-portfolio and not just using it to replicate'. Educators also drew attention to the fact that, since using technology to train and learn may not be equally convenient for all teachers or they may not have much 'enthusiasm' about 'new technology', they had to go extra miles to provide all kinds of support to their colleagues as well as the student-teachers. For many, the idea of being the only 'risk-taking educator' who is keen and positive towards cultural shifts and new approaches in teaching and learning was often less welcomed by the staff. These views are echoed in Kabilan & Khan (2012) who found that changing teachers' and students' mind-sets as well as the insufficient technical competence of teachers were some of the major issues their participants encountered. Trainers' challenging experiences are echoed in Little's (2009) study where he elaborates on three main constraints in promoting 'independent learning', two of them are directly related to teachers: 'teacher doubt' and 'teacher know-how' (224).

The chapter discussed the major themes of the findings with reference to the literature. Based on what has been presented above, it can be understood that, except for a few hindrances, e-portfolios offer a number of creative ways to encourage reflection and self-development in teacher education. The voices from the practitioners as well the literature put forth a clear message: there is no denying that the affordances of technology have widened the avenues for practitioners to engage in collaborative reflection and e-portfolios are one such instance, which, if utilised appropriately with clear purposes, can bring remarkable changes in terms of lifelong learning and professional development in teacher education.

CHAPTER SIX – EVALUATION AND CONCLUSION

This chapter concludes the research by presenting an overall evaluative summary of the project and the implications from the conclusions drawn in chapters four and five. A few suggestions for future research are also discussed in this section.

6.1 Evaluation

Using e-portfolios is not limited to installing the platform and incorporating it into the regular teaching programmes. The success of it mainly depends on the purpose, aims and the projected learning outcomes which need to be comprehensive and well-explained to the staff and students before they are involved in the process. Studies (Evans & Powell, 2007; Zeichner & Wray, 2001) for instance, highlight the possibility of dealing with 'conflicts' in terms of purposes and goals as one the few emerging issues in e-portfolio use in teacher education. Trainers emphasise learning and professional development, whereas student-teachers mainly focus on the 'showcase' aspect of portfolios and how they can create a 'favourable' image to the future employers. These complications are in collision with the main aims of using e-portfolios in trainer development. Again, being too directive or giving trainees the full responsibility of EP construction can often engender negative reactions as well as inauthentic reflections, less engagement or too little teaching evidence (Zeichner & Wray, 2001). It is essential to balance the triad: the continuous practice of reflection, creative showcasing of 'distinctive evidence' as well as the degree of student-teacher agency. Therefore, the educators need to -

- Carefully receive and value the wealth of information (i.e. personal reflections, posts, comments, evidence of teaching practice) the student-teachers are sharing.
- Maintain sound communication with trainees and explain the skills that are desirable for them to acquire and develop throughout the programme.
- Remain technologically up-to-date and keep the trainees well-informed and motivated.
- To determine what is useful and should be harnessed to sustain teacher development and thereby, extend support and feedback.
- And lastly, attempt to establish the value of EPs in their learning journey, through guided and meaningful tasks.

Initially, it may seem discouraging to bring a shift into a context where, perhaps, traditional portfolio system is running successfully, however, with the appropriate realignment of the

framework of the education programme, teaching strategies, proper team support and being persistent about sharing 'one technology' (Tiara) that is user-friendly and reliable, can help overcome major contextual barriers. It mainly involves reconsidering, as Emina said, *'what we can do differently from what we do now and what would be better'*.

Personal reflections

As my study is on reflective and self-development skills, to be honest, in these three months, I, myself had been trying to be self-reflective as much as I could, about the steps I had taken to frame this piece of work. In fact, carrying out this project on digital portfolios has been an invaluable undertaking, mainly because I was able to interact with a diverse group of teacher educators from different parts of the world who not only helped me shape and reshape my focus but also provided insights on the interlinked aspects of educating teachers with technical tools like EPs. I was able to gather some useful data on EPs in TED as well as build some wonderful connections with like-minded colleagues, which I trust will support my further research endeavours:

```
Reflective Memo – 5 June, 2018
12PM

This meeting was really insightful. I am having this sudden
realisation that these two interview conversations are shaping my
thoughts in a whole new way. I thought I would stick to my questions
but then I could not ask all of those – even probe because, during
those moments, I was thinking, probably it was also okay to listen to
what she's trying to say about e-portfolios. After all, these are like
snippets of her practical teaching experiences. It took me a few
minutes to understand her perspective and context in the first place.
Portfolios are a big part of her teaching practice, she likes working
with it, it seemed. Some pieces of information were new to me, like
the education programme she is involved with. Good that she shared two
more contacts.
```

My interview experiences influenced me to reflect on my research actions as well as to question and examine my own professional values and perspectives.

6.2 Limitations

Establishing the first contact with teacher educators was slightly challenging for me at the initial stage. As a result, it was hard to conduct an in-depth interview with a few of them as I was more concerned about the face issues and rapport building. The following memo gives a

hint of this particular challenge:

```
Reflective memo – 16 July, 2018
12:30 PM

This time it seemed different. Unlike others, she seemed a bit
unwilling to share the details of her practices and context with me.
Was I too directive? Or too specific that she was not feeling easy
enough to share the minute details due to privacy issues? But all was
cleared earlier! The information on EPs I received is good enough for
me but, I am thinking why this time I could not build rapport with her
at the initial stage. If there were a smooth connection, I would have
been able to get more information. Oh perhaps, she was trying to be a
bit reserved. Maybe the video meeting was an issue.
```

In addition, not all participants responded to the post-interview emails while two of them discontinued using *PebblePad,* which made it difficult to gather the predicted number of samples. These issues may have slightly affected my initial plan of relating the samples with the participants' opinions to provide a more comprehensive representation of EP-based learning.

6.3 Implications

The following key implications can be drawn from the discussed findings:

- The key functionalities of EPs enrich the learning experience by providing flexible, non-threatening opportunities to reflect and collaborate in the communities as well as to prepare and showcase their most authentic and compelling pieces of work.
- Using EP in teacher education motivates student-teachers to put in more effort and develop their professional skills based on continuous critical reflections and constructive peer and tutor feedback.
- Trainees, as well as educators, can perform their roles better if they support each other within the learning environment and beyond.
- The artefacts stored in EPs contribute to the continuous lifelong learning process; the community once built and sustained in the platform can be taken beyond the institutional programme and be used to interact with other like-minded professionals and continue sharing and resolving teaching incidents through critical reflection.

6.4 Suggestions for future implementations

A general suggestion would be to identify the contextual barriers and take advantage of the potential of e-portfolios in understanding teacher reflection and professional growth (Zeichner & Wray, 2001). The following specific points should also be taken into account:

- It would not be reasonable to assume that all students will have sound access to the internet and devices to use EPs and represent their tasks with different media facilities, therefore, it is suggested that institutions, as well as practitioners, pay utmost attention to these factors before introducing any EP platform to the programme. As Tiara indicated, regular 'drop-ins', 'tutorials' and online 'discussion forums' can remain some practical options to keep trainees motivated.

- In the case of teacher educators, organising regular workshops could be an appropriate starting point where trainers will get chances to resolve their problems in a reciprocal environment and be more confident in handling technology.

- According to the findings, there exists a 'dilemma' regarding assessing student reflections on e-portfolios. As EPs are very much representative of their distinctiveness, it is beneficial to have clear assessment criteria and a set of realistic aims that include a balance of the process & the product and theory & practice. The aims should be clearly explained to the trainees at the outset.

- Not all EP platforms are open source or are easy to operate. Therefore, the stakeholders need to undertake a rigorous research on the basic affordances of the platform educators or institutions select to integrate (a list of commonly used platforms with their main features are presented in chapter-two) into their programmes.

- Developing as a professional requires a lifelong commitment to learning and research (Day, 1999). Through the user learning communities, teachers can perpetuate their reflective practice and maintain professional networks beyond the scope of the development programme.

6.5 Ideas for intended research

With larger size samples, the study can be replicated in other contexts, in which educators are ready to reformulate their programmes to support purposeful interactions and reflectivity among pre-service teachers using digital tools like, e-portfolios. The following research topics emerged from the data can be investigated in the future:

- A critical analysis of teacher-student discourse on the EP communities or discussion forums can be of considerable interest to the practitioners in unpacking the intricacies of e-portfolio based interactions.

- Conducting ethnographic case studies on the aspects of developing life-long learning, improved teaching skills and sustainability of reflective practice can comprise some potential areas of research which can expose educators to the practical sides of EPs as to how novice teachers actually incorporate their learning into classrooms and further engage in sustained professional activities.

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APPENDIX A - APPLICATION FOR ETHICAL APPROVAL

BA/MA/MSc Students

We are committed to ensuring that all research undertaken by our members, staff and students, meets the highest possible ethical standards. You will already have been introduced to research ethics in your research methods modules, but now that you are about to embark on a research project it is essential that you consider very carefully the ethical issues that it might raise and that you discuss these with your supervisor. Please treat this not only as a means of ensuring that your research meets appropriate ethical standards but also as a learning opportunity.

INSTRUCTIONS FOR STUDENTS:

Please complete PART 1 (sections A–F) and email the form to your project supervisor, together with any participant consent forms you plan to use

PART 1 (for completion by student)

A: YOUR DETAILS

Student name:	**Nusrat Gulzar**
University ID number:	1793762
Degree programme:	**MA in ELT (specialism in Teacher Education)**
Provisional project title:	Uses of electronic portfolios to foster reflection and other self-development skills in pre-service teacher education
Supervisor name:	Dr Steve Mann

B: TYPES OF DATA TO BE COLLECTED

Please describe the types of data you plan to collect (e.g. data from questionnaires, interviews, observations, conversations, experiments, media texts, images, websites, social media posts, etc.)
Interviews (in two phases) and analysis of e-portfolio evidence

Are the data in the public domain?	YES/NO

If NO, explain what steps you will take to obtain permissions for data collection and use (from research participants, social media account holders, etc.)

I will collect data in two different stages:

1. I will interview the participants (trainers and trainees) from the UK, USA and Hong Kong. The interview sessions will be online (via skype, Zoom) and will be audio-recorded. The research focus and aims have already been briefly explained to the trainers. I will again clarify those in detail before the interview and seek their permission to record the interview.
2. Participant consent is required to collect the e-portfolio evidence. I will seek their consent by email before the interview.

C: PARTICIPANTS

Please describe the participants in the research (including ages of children or young participants where appropriate). Please specify if any participants are vulnerable (e.g. with a learning disability, in medical care, or in a dependent or unequal relationship; discuss with your supervisor if uncertain):

My participants are:

1. Teacher trainers and pre-service teachers from four different contexts (UK, USA, Hong Kong, Bulgaria)

Please explain what steps you will take to ensure that the fundamental rights and dignity of participants will be respected (e.g. confidentiality, privacy, anonymity, cultural or religious values):

I will inform the participants the purpose of the interview and my research focus. They will also be explained how the interview will be carried out. They will be informed about the recording and transcription process. It will be my full responsibility to ensure my participants hat the data I collect will be used for research purposes only and will be handled with strict confidentiality.

Please indicate whether you have an existing relationship with research participants (e.g. teacher–student, employer–employee), and if so, what implications this may have for them:

I hadn't had any previous contacts with the participants. I am sure there will be no issues because I communicated them for my research purposes only.

D: CONSENT

Will prior informed consent be obtained from participants?	YES

If YES, explain how you will obtain consent, and whether consent will be written or verbal. In NO, give reasons for this:

Yes, the consents will be obtained by:

1. Email.
2. Consent forms which will also be forwarded to them prior to the interview.

Will prior informed consent be obtained from others (e.g. parents/guardians, gatekeepers)?	NO

If YES, explain how you will obtain consent, and whether consent will be written or verbal:
In NO, give reasons for this:

No. The participants are adults (above 18 years old).

Will participants be informed of your status/role as a student researcher?	YES
Will any form of deception be used?	NO

If YES, explain why deception is necessary, and whether and how you will debrief the participants:

Will participants be told that they can withdraw from the study at any time?	YES
Will participants be informed of the use to which data will be put?	YES
Will confidentiality of data be guaranteed?	YES

If YES, what steps will you take to ensure data confidentiality?
If NO, how will you negotiate this with participants before obtaining consent?

The data will be stored in the hard drive of my personal computer and university's online storage system (My Files). Both my computer and the university storage system are well-secured.

Please attach any consent forms you will be using when you email this application to your supervisor

E: SECURITY AND PROTECTION

Describe the nature and degree of any potential risk (physical, or psychological/emotional, such as reference to personally sensitive issues) to participants and what steps will be taken to deal with this:
None.
Describe the nature and degree of any potential risk (physical, psychological, emotional) to you as researcher and what steps will be taken to deal with this:
Not applicable.
Where and how long will data be stored and what measures will be taken to ensure security?
The data will be stored in password protected systems to ensure security.

F: DECLARATION AND SIGNATURE

I confirm that I have read the University Statement of the Ethical Conduct of Research (http://www2.warwick.ac.uk/services/ris/research_integrity/code_of_practice_and_policies/statement_ethical_conduct_research) and the BAAL Recommendations for Good Practice in Applied Linguistics Student Projects (https://baalweb.files.wordpress.com/2017/08/goodpractice_stud.pdf):	
Signature:	**Nusrat Gulzar**
Date:	11-05-2018

PART 2 (for completion by project supervisor)

Supervisor name:	Steve Mann
Student name:	Nusrat Gulzar

Have you discussed the ethical issues relating to this project with the student?	YES
Will the project entail working with children or vulnerable adults?	NO
Will DBS (CRB) checks be needed?	NO
Will the project involve sensitive data that may be stressful for participants?	NO
Will the project entail potential significant risks for participants and/or student?	NO

Please comment on any issues raised above or concerns you may have:	
Signature:	
Date:	15 May 2018
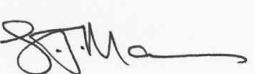
PART 3 (for completion by Course Manager or nominee, or, where relevant, by CAL Student Research Ethics Committee Chair)

Action taken (X)

Approved:	YES
Approved with modifications or conditions noted below:	
Action deferred, with reasons noted below:	

Signature:	AMPinter	*Date:*	16/07/2018

Notes:

APPENDIX – B PARTICIPANT INFORMATION SHEET

Research Project

Uses of electronic portfolios to foster reflection and other self-development skills in pre-service teacher education

Researcher: Nusrat Gulzar

Supervised by: Dr Steve Mann

Aims of the Project:

- To explore the potential of e-portfolios in enhancing reflection and other self-development skills in pre-service teacher education.
- To highlight the good practices taking place at different teaching contexts in terms of e-portfolio use and development.

Participation:

I would very much value your participation in this research project as follows:

Online (Zoom or Skype) Interview – lasting approximately 30-50 minutes.

Your participation in this study is entirely voluntary; you may decline to participate from the very beginning or withdraw at any time; your decision to withdraw or not participate will have no negative consequences for you or your organisation.

Benefits:

- Opportunity to reflect on an area of experience relevant to your professional expertise.
- Will be offered a copy of an interim research report and invited to give comments, if you wish.

Confidentiality:

- All names of people, places and organisations represented in this research will not be entirely subject to anonymity because the video and interview details will be shared on the research website.
- Records of research data will be stored in a secure location and destroyed within 10 years of completion of the research project, if requested

Use of the Data

I would like to use the data as follows:

- For the current research project.
- For development of teaching or training materials.
- For publication in academic or professional journals.

For further information or queries, or for any requests for additional feedback, please contact:

Nusrat Gulzar

Centre for Applied Linguistics, University of Warwick

Email: M.Gulzar@warwick.ac.uk

Phone: +4407443304343

APPENDIX – C Participation and Recording Consent Form

Research Project Title:

E-portfolios as a reflective teaching tool in pre-service teacher education.

Name of Researcher:

Nusrat Gulzar

Supervised by:

Dr Steve Mann

As part of this project I would like to audio record the interview and use it in various ways. Please indicate below what uses of the interview records you are willing to consent to. This is completely up to you. I will only use the records in ways that you agree to.

In any use of these records, personal names will be anonymised.

Please indicate your consent in the table below by circling Yes or No:

	Transcript	Audio Recording
1. My organisation's name can be identified in the thesis.	*Yes / No̶*	
2. The interview can be audio recorded.	*Yes / No̶*	
3. The record of the interview can be studied by the researcher for use in the research project.	*Yes / No̶*	*Yes / No̶*
4. The record of the interview can be used for academic and professional publications.	*Yes / No̶*	*Yes / No̶*
5. Extracts from the interview can be shown/played at meetings of academics and professionals interested in the research topic.	*Yes / No̶*	*Y̶e̶s̶ / No*
6. Extracts from the interview can be shown/played in public presentations to non-specialist groups.	*Yes / No̶*	*Y̶e̶s̶ / No*
7. Extracts from the interview can be shown/played to participants in other	*Yes / No̶*	*Y̶e̶s̶ / No*

studies.		
8. The record of the interview can be made available to other academic researchers.	*Yes / ~~No~~*	*Yes / ~~No~~*

Participant's Declaration:

I confirm that I have read and understood the Information Sheet for the above project and that I agree to take part in the study as described. I confirm that I have had the opportunity to ask any questions that I may have and that I may keep the Information Sheet for my records.

I have read the above descriptions and give my consent for the use of the records as indicated in the table above.

Name of participant _____Helen Barrett_____ (PLEASE PRINT)

Signature of participant_____

Signature of researcher: Nusrat Gulzar

Date: 31 May 2018

APPENDIX D - EXAMPLES OF EMAIL EXCHANGES WITH PARTICIPANTS:

a) Ana

Mon 6/11, 4:11 PM
Gulzar, Nusrat ❯

Inbox

Consent form-Antonia.d...
190 KB

⌄ Show all 16 attachments (6 MB)   Download all   Save all to OneDrive - University of Warwick
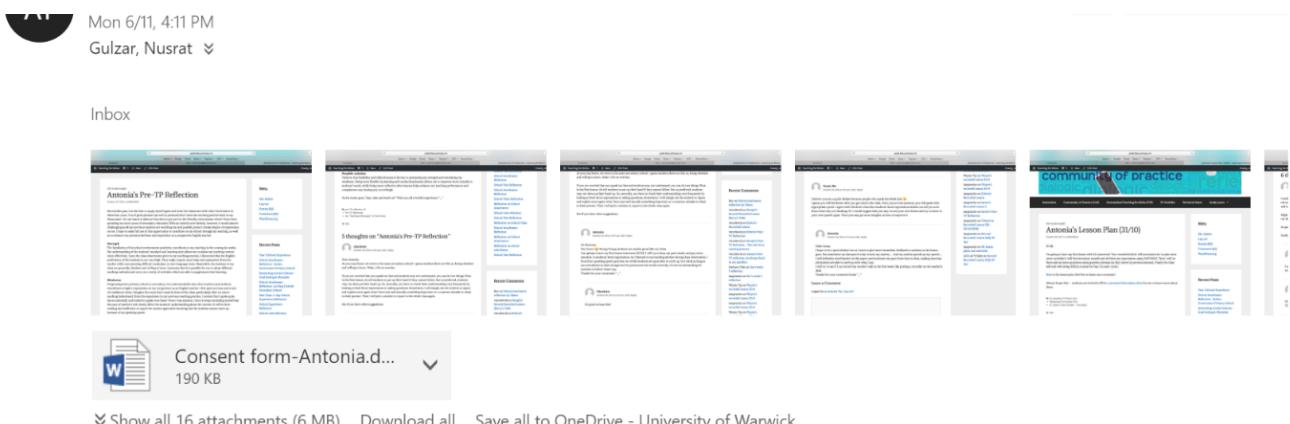
Dear Nusrat,

I enjoyed talking to you about my experience too!

Attached please find the signed consent form and some screenshots of my e-proforlio. Please feel free to tell me if I can help in any area!

b) Hima

Helen Barrett <eportfolios@gmail.com>
Sat 5/19, 1:46 PM
Gulzar, Nusrat ❯   ↩ Reply all | ▾

Hello,

I guess I am available for an online video "conversation" about electronic portfolios. I don't have a lot of luck using Skype (I am a Mac user, and IMHO, Microsoft ruined Skype when they bought it). I have better luck with YouTube Live (or Google Hangouts). Do you want me to be able to share screens, or do you want just a talking head? I would think having examples and key concepts to share would be better than a conversation with talking heads. I did a series of hands-on workshops in Mexico for English Teachers on using Google Apps (now GSuite) for student portfolios to demonstrate English Language proficiency (in lieu of the TESOL): https://sites.google.com/site/eportfoliostec/

I am in the Pacific Time Zone (GMT-8) so we would either need to schedule a morning session (late night for me—preferred) or late afternoon (early morning for me-not preferred). My daughter used to teach in Budapest, so I am used to carrying on conversations with those time differences.

I look forward to receiving your research details.

c) Nahla

APPENDIX- E INTERVIEW GUIDE (TOPICS AND QUESTION PATTERNS)

REVISED INTERVIEW QUESTIONS (FOR TEACHER EDUCATORS)

Themes

- *Teacher educator's experience, views and beliefs regarding e-portfolios and reflection*
- *The actual platform being used – Affordances and results*
- *Trainees' reactions*
- *The process of reflection and collaboration*
- *Assessment and feedback*
- *Challenges and Implications*

Interview Questions	Possible follow-up/ probe questions
TEACHER EDUCATOR'S EXPERIENCES, VIEWS AND BELIEFS REGARDING E-PORTFOLIOS AND REFLECTION	
1. How long have you been working with e-portfolios with pre-service trainees? Could you briefly talk me though your experience?	
2. How would you explain the importance of reflection in teacher education? Can reflection be encouraged through digital portfolios?	
THE ACTUAL PLATFORM BEING USED – AFFORDANCES AND RESULTS	
3. Could you briefly describe the e-portfolio platform that you are using or have used with your trainees?	-How does it promote opportunities for reflective conversations?
4. As a teacher trainer, what aspects of this e-portfolio platform do you like the most and why?	Why would you think it can be a good replacement for paper portfolios?
5. What were the noticeable outcomes of using this digital platform in your training programme?	- Can you briefly share an example or incident?
THE PROCESS OF REFLECTION AND COLLABORATION	
6. Do the tasks demonstrate a range of different contents with in-depth reflection and self-evaluation?	-What type of multimedia do students frequently use and why?

7. How much flexible, do you think are the opportunities for personalization and extended discussions in these tasks?	- How is scaffolding encouraged?

TRAINERS' EXPERIENCES, FEEDBACK AND PROGRESS

8. Can you describe the initial and final reactions of the trainees to the process of e-portfolio maintenance?	How did they react to the technical skill requirements and time-management issues?
9. How did you observe or monitor their interactions?	What specific areas did you focus on? How did you provide formative feedback?

CHALLENGES

10. How have you handled the pedagogical challenges that might have occurred time to time?	Any factors that have negatively or positively affected the success or the outcome?

FURTHER IMPLICATIONS

11. What will be your suggestions for the stakeholders who intend to launch the e-portfolio system into their training programmes?	What do you think about the efficiency of the simpler platforms such as WordPress, Blogger etc. for e-portfolios?
12. How do you think e-portfolio development can be made more effective in promoting reflective practice in pre-service teacher training?	What are the anticipated challenges?

APPENDIX - F INTERVIEW GUIDE (GRADUATES)

Topics to be covered and rough questions:

- Experience of using e-portfolios in teacher training (As trainees)

(How was your experience of using e-portfolios in you pre-service training?)

- The nature of the programme

(How was the programme structured? What was the assessment process?)

- The tasks involved

(Checklist based or tasks involving reflective writing?)

- Skills developed

(Was reflection encouraged? What were the other skills they developed?)

- Impact on teaching practice

(How it the experience helped them become a reflective thinker?)

- Challenges faced

(Any major challenges have you faced during the programme?)

- Affordances

(Key affordances of the platform used?) Were there extended learning opportunities?)

APPENDIX G -INTERVIEW TRANSCRIPT (TEACHER EDUCATOR)

Sample Transcript (Trainer – Vira)

```
1   N: How important is the aspect of reflection? And how as trainers, should we
2       scaffold reflection in pre-service training?
3   V:   I have adopted EPOSTL in order to try to enhance this reflective aspect
4       in teacher education. uhm, I think reflection is central to, well, to
5       teacher education and learning (…) In fact, practice and experience is
6       important in order to become a good language teacher. But reflection is
7       something that will help future teachers, especially in teacher
8       education to make sense of experience. And to use it really effectively
9       in order to grow as good language teachers.
10  N: …in this case, as teacher trainers, how we can encourage this sort of
11      critical awareness for them to see, I mean, because …
12  V: Yeah, in fact, my students also generally think that reflection is and
13      maybe many practising teachers also say this that reflection is not
14      directly relevant to their day to day teaching practice. So they can see
15      the connection between reflection and successful teaching and they are
16      more oriented towards the technical aspects of teaching, rather than the
17      reflective thinking aspect of the process and again, um, I try to show
18      my students, how, through reflection, they can become more self-aware,
19      themselves which will help them to increase their self-knowledge, both
20      as persons and also as teachers … professionals. And then through
21      reflection, to think what's happening in the classroom, uhm, and now,
22      currently I am actively using 'critical incident sharing' yes and
23      discussions so again, through uhm, thinking about their experiences,
24      what happens in their classrooms, in terms of positive experiences and
25      maybe some negative experiences and trying to think about these
26      experiences and how they see themselves in this environment or the
27      overall picture, is important because they can post questions, they can
28      trace and identify problems and they can seek solutions and they can see
29      how they cope and how successful they are and what they still need to -
30      to and uhm, only through this kind of process they can develop
31      professionally and they can improve their practice.
32  S:   So uhm, again, reflection is directly relevant to their practice and its
33      again, up to us, the teacher educators to try to um, to convince
34      students not only by showing them and telling them but also by involving
35      them in different activities through which they can reflect and, they
36      can see how this thoughtful approach to professional development, they
37      can improve.
38  N: I would just like to go back to the concept of critical incident sharing?
39      How has this been exercised in teacher training?
40  V: Yeah, just like in the portfolio, they actually develop a kind of step by
41      step framework (…) First they have to think what's important for them in
42      terms of problem or they have to review (…) to write their own journals
```

```
43      and at least once a week, actually to write about what happened in the
44      classroom (…) So in this course, we in fact complete the different steps
45      of critical incident sharing, writing, sharing and discussion.
46   N: These are the steps, you mean?
47   V: Uh, there are different steps. Uh, well sharing what's happening in their
48      individual classrooms uh, sharing ideas and experiences and then I give
49      them the framework of what they have to do and they go back to school
50      and think that they have to write about critical incident and then they
51      come back to my classes and discuss them and they actually work in pair
52      and they later share their critical incidents by emails so there is a
53      bit of technology (laughs) integrated and then they come back to my
54      lectures and continue discussions in small groups.
```

Nature of tasks

```
56    V:    … it's kind of a step by step tasks and assignments that they are given
57  in order to do this. But in order to this, they know this that these tasks are
58  actually related to their teaching portfolio and later on they will include,
59  umm, this description so this critical incident and evaluations and analysis
60  will be there in their teaching portfolio.
```

Sample Transcript (Trainer – Vira)

```
61   N: You said that there is a particular framework. So, what are the tasks, or
62      exercises under that framework?
63   V: …long-term framework in terms, because the things takes place for three
64      years…there are some activities through they can think about their
65      experiences as learners first and then to relate these experiences with
66      their experiences about teaching, and, uh, so they have to write their
67      first personal statement after these introductory activities, and these
68      personal statements are actually their teaching philosophies of the
69      portfolios.
70   N: their initial understanding?
71   V: Yes, their initial understanding. And uhm, so they also have to write an
72      assignment because the portfolio contains more than uhm, well 190
73      descriptors and teaching competencies and they have to complete to
74      assignment tasks related to these descriptors…descriptors that they
75      select and are personally relevant to them and their views, teaching and
76      their expectations about teaching and skills and knowledge that they
77      want to develop… during the TP, students more closely familiarise with
```

77	want to develop… during the TP, students more closely familiarise with
78	the self-assessment section which they actively use in order to um focus
79	the observations of the lessons at school and to give each other
80	feedback on uhm, the lessons that they have taught and uhm, during the
81	final teaching practice, they work more uhm, consciously on their
82	dossier and all the artefacts that they can include there in terms of
83	not only reflections, self-evaluations and assessment but also on some
84	feedback and recordings of their classrooms and students uhm, feedback
85	from their mentors as well, and from the methodologists from the
86	university. The action research project, this critical incident sharing
87	analysis all these are related to the portfolio especially during the
88	final stage during the students' TP. And uh, again, the students are
89	actually led into working on various activities and tasks that encourage
90	them to reflect uhm on their experiences in teaching, experiences during
91	their input classes in universities during their teacher education and
92	all these activities they uhm, are related to the descriptors in the
93	self-evaluation section and uh in the portfolio.
94	

Purposes

96	
97	V: …yes, I introduced the purposes of this portfolio to them at the beginning of
98	the course that I deliver and uhm, so uhm, I tell them that they are going to
99	work with this portfolio and eh uhm, in fact we will involved in various
100	activities and that they will be guided through the activities and so uh, at the
101	at the end of their training, it was expected that they will have assembled a
102	portfolio of erm, all the things that they have collected throughout these three
103	years in teacher education and also at the end of their uhm, their training,
104	they have to present their teaching portfolios to each other.

Sharing with peers

106	
107	N: TO groups you mean to peers?
108	V: in groups, in groups its not really a big group of students. Well, in fact all the
109	time throughout the year, their work with portfolios and all the tasks, they are
110	sharing uhm, their pieces, no matter if they are pieces of writing or just ideas
111	or experiences or stories of what happened to them so thy are actually supposed
112	to work collaboratively all the time and to give each other feedback.

Meetings with trainers/teachers/educators

114	
115	V: well, during the university-based teacher education course, they are supposed to
116	meet their university lecturer, once a week during their lectures and
117	methodology especially. There is once a week also, they meet uhm, this person
118	informally but for just feedback and consultation and during their teaching
119	practice, depending on which teaching practice they follow, usually they meet
120	their mentor once a week… and during their final week, they teacher together
121	with their mentors… students get feedback and support from them.

122 V: mentors are the teachers of schools… they support students by giving them ideas
123   about their lessons.
124 **Assessment**

125
126 V: yeah, I do not assess the whole portfolio. The rationale, the idea of EPOSTL is not
127   to be used as an external assessment document but rather, to be used as
128   formative assessment but all the assignments that are part of the portfolio,
129   they have been assessed, not all but most of them because they have been part of
130   the courses that uhm, actually the students have completed throughout. Its
131   mainly formative assessment and they don't get grades on their portfolios.
132 N: but they do receive these regular comments?
133 V: Yes.
134 N: what happens when the submit everything?
135 V: These sessions which are organised in the groups, in which there are presentations
136   of portfolios and a kind of review what they have done throughout their years of
137   teacher education and uhm, well, giving kind of uhm, feedback but not feedback
138   in terms of giving them grades, rather verbal feedback on what's in the
139   portfolio…what they liked in terms of uhm, documents and artefacts included in
140   the portfolio and uhm, maybe what else they need to do and which direction they
141   want to go. So, it's all kind of formative feedback that they get. But <u>again</u>
142   all these years they have received a lot of individual feedback on their
143   materials, some of them have been formally assessed and some of them have been
144   graded as well.

145
146   **Grading reflections**

147
148
149 V: I grade their self-assessment of these lessons because it wouldn't be fair to
150   grade their first efforts and their first attempts in teaching - in this sense,
151   they receive some grades. But again, for the portfolio its not important for
152   them to have grades. Its something that they feel very closely connected with
153   this product and this sense of ownership of something that they have created and
154   uhm, I have not actually, I don't have that impression that they miss the
155   grades. ((laughs))
156 **Challenges**

157
158 **V:**   Well, first, it is true that it is challenging to get the students involved in
159   the process of developing a portfolio especially during the period when they do
160   not have any experience of teaching and they do not have quite a lot of other
161   things related to the survival in the classroom. So, they have shared actually
162   that they do not have enough time to share, to reflect, and working with their
163   portfolio especially during their teaching practice when they have to think
164   about planning their lessons for tomorrow for example, and then the time-
165   pressure is so uhm, this is one of the challenges, to convince students to make
166   sometime to work on their reflective tasks and the portfolio.

167
168 **E-portfolios**

169
170 V: I think my next step would to be to try and produce an e-portfolio version of the

168	**E-portfolios**
169	
170	V: I think my next step would to be to try and produce an e-portfolio version of the
171	one that they have been using now. Uhm because I think it will be closer to the
172	students' lives. Because now a days, students, eh, technology is part of their
173	lives, and it would be more natural for them to work with digital portfolios
174	rather than paper portfolios only and uhm, also I know even for portfolios, well
175	V: I think the first advantage is that they can easily use and integrate different
176	media because, uhm, some of my students, they have done some video clips of uhm,
177	their lessons, video recordings, and they can easily upload them to digital
178	platforms by giving links. So, the materials, the artefacts will become easily
179	accessible and I think in this way the portfolio will be more clearly organised.
180	and also, it will be more flexible because with papers, uhm, you are more or
181	less constrained if you want to change things, while with e -portfolios, I guess
182	it will be easier to be more flexible and to be able to develop and change its
183	structure, its organisation depending on how you develop. So, the portfolio will
184	develop together with the owner more easily. Not that it's not possible with
185	paper version but I think it will be better done with a digital portfolio. Also,
186	it will be easier for the students to share their portfolio because with paper

Sample Transcript (Trainer – Vira)

187	one they have to be physically present, more or less, again, in terms of
188	collaboration and feedback, they can be uhm, again more accessible for students
189	to gain feedback… so, there are many advantages, so I am convinced that this is
190	the way forward and this is actually my short term goal as a teacher educator….
191	I don't think I have to change much in the tasks just find a good medium and see
192	how it can be adapted in an e-portfolio.
193	
194	**Suggestion for educators to start encouraging reflection**
195	
196	**V:** Perhaps, the starting point would be if you or someone, they can start doing
197	things by giving them an example of all the benefits of integration of the
198	portfolio and all the reflective tasks and then, uhm collecting students'
199	feedback or presenting different kinds of evidence that this approach is
200	successful and, I think this will be a good way to convince the teacher
201	educators that they have to change their views about their role in the process.
202	

APPENDIX –H INTERVIEW TRANSCRIPT (TEACHER EDUCATOR)

Tiara

Project started six years ago - (5.06).

Challenges

One of the biggest hurdles right at the beginning was   actually helping staff to understand the difference between a portfolio and an e-portfolio (.) and not just using it to replicate. A sort shift away from collecting your BEST pieces of work to display, to something that is more BIOLOGICAL, really, something that evolves and changes and something that is personal to you.

Beginning

At the beginning, they are sort of encouraged to get engaged with an e-portfolio and sort of Play with it. So in the first term, they have actually two terms to do the end product, in the first term we just encourage them to play with it, to try and look at the affordances, explore it, network through it and connect to each other through it.

Privacy issues

The way Mahara works, everything by default is private to YOU, until you share it and that I think, was really quite crucial for students to get their understanding and engagement (.) because I can't think of anything worse than telling people to reflect but standing and watching them ((laughs)). I can't think straight when lots of people are watching me.

Teacher support

The drop-ins were sort of regular events, and then we have a shared uh forum, a shared space within, what is now, the central Mahara, so there is an e-space, a shared e-space for umm, collaboration and for students to ask questions. And then, I make tutorials every year, so they are sort of quick guides and how to use.

Peer-learning

Over the years, the students sort of supported each other and got the hang of it and we have also had some really positive feedback from students, you know that, this is something I didn't know how to do. Everything from you know, how to compress images, how to take screenshots and share them very basic technical skills. And we try and encourage them to do that collaboratively as well.

There are some just in time support materials, there are face- to-face drop-ins in the two terms. The tutors of the modules, each of the tutors, presents and demonstrates the tool at the beginning of the course. And towards the end of the first term, students are asked to share a page or two to create something so that we understand they found it and are getting the hang of it.

Rubrics (12.00)

They get a marking guide so they know upfront what we are looking for.

Sustainability and Support _ affordances (13.00)

I have been amazed actually.. and its increasing, people are more confident now, over the years. (.) it was all new at first. Now we see a lot of use of screen-capture and video – people using their mobile phones to speaking the other language and sort of reflect on it (.) the other sort of really positive aspect of it is, from a staff perspective, when we get together as a staff team to for the marking process (.)is how much information the students have given us about what is useful to their learning

so it really is a sort of process that sustains teaching development as well as sustain learners' development – a lot more useful than essays ((laughs)).

Some use it as a superficial box for ticking exercise but those who are engaged with it well, really changes things for them in terms of their future grades, and their performance not just in that one module, but something that they can take with them.

Sharing one technology – mutual support

I think one of the things that can undermine the deployment of technology is that teacher-student anxiety that goes around, oh it doesn't work, I did this and it didn't work, so having a shared space and face-to-face opportunity to quell those myths and say, it does work and this is how you do it ((laughs)). And that's the beauty actually of sharing a, you know one technology. Whereas if you different tools, it would be quite difficult – from staff and learner's perspective.

Teacher roles

1. I think it's one of these things that takes you back to the basics when there is lot of good deployment of technology. You find a tool and you try it out, you know it does take you back to principles, it makes you think, you know, what am I trying to achieve here, is it just to survive this year and to teach this course? What am I trying people to get engaged with? Especially, taking a team approach to the implementation THAT has been very helpful.
2. Mahara itself as a community, is very vibrant. Lots and lots of changes going around – so yeah, it's been a real opportunity for the staff to think about what the digital and how the digital interacts with their teaching and you know, what works and what does not work.

Student assessment view (36.36)

1. We invented the term 'student assessment view' to describe a set of pages that you are going to submit. When the tool was very new, it was important to distinguish between what you are going to submit from any other pages you may have.
2. To a certain extent, the Students themselves, on certain modules, when the module leader has chosen to incorporate it, get very little choice – the 20 percent of your assessment work come through the completion of an e-portfolio.
3. 20 percent of the module mark – it's summative. And the other course I am doing on teacher development, it's about 100 percent of their mark.

Self-assessment (38). Distinctive evidence.

4. Very much depends on their personal engagement with it. On of things the students said to us, is that is there an example of an e-portfolio that you can show me. And we have always resisted that, because we work on the basis that e-portfolios you use to evidence your language learning, is bit like a CV, it will be distinctive to you and how you set. All those design decisions, about how many pages, what you put where. They have ownership of those decisions.

Personalization in Mahara

5. Students could choose the themes and apply different themes.

… I think it is quite important for them engaging with the spaces

Appendix H – Interview Trancript (Graduate)

Sample Interview Transcript (Graduate – Viola)

```
1   N it will be nice to know about your experience of using electronic portfolio
2       in your pre-service training.
3   Vio I think I have forgotten most of it, but I did lots of portfolios I mean
4       while we were having our teaching practicum, we had reflection forms to
5       fill in for every lesson, we also had to finish the lesson planning
6       procedure for each lesson. But they were not e portfolios, I had got
7       templates and I fad to fill it in, I can't remember whether I had to
8       upload it or not. At the end of the teaching practicum, I had to print
9       it out and compile it into a booklet and submit it to the faculty as
10      reference.
11  N:  Let me go back to where you said you had to fill up some kind of forms.
12      Was it a kind of check list or you had the chances to write something
13      like reflective writing?
14  Vio: The lesson planning form would be similar to what we have come across
15      before-like the staging and the materials needed but the reflection
16      form, it would be like guided questions. I found the guided questions to
17      be useful but not in an organised way. Therefore, while I was doing my
18      reflection, I actually deleted some questions. Or just grouped them
19      together (…) I sometimes find it very difficult to fill in those grids
20      because if it didn't happen then you have to leave it blank, and you
21      would not want to leave anything blank. Therefore, I kind of grouped
22      them together and rephrased them a bit and umm, said what I wanted to
23      say, and I thought it was more useful to me – changing formats.
24  N you could go back and change it?
25  Viola: because I knew it wasn't graded. and I thought ahh, I am going to do it
26      now, if there is any problem then they will let me know and I will
27      figure out if- if they ask me to redo it then I will but-but that
28      moment, I just thought I would do whatever I think is useful.
29  Vio: If it's not useful for me, then I am not going to use that form. Because
30      you know during teaching practicum. Full time teachers usually teach
31      around 20-21-ish lessons per week. I had to teach 16. But then full time
32      teachers had lot of duties. Student teachers like me, we were not free
33      at all because just imagine each week you have to prepare 16 lesson
34      plans and 16 reflections.
35  N:  Too much work.
36  Vio: so we needed to modify the reflection task a bit. We used blogs for but
37      not for reflection though. That was part of a course and the main
38      objective of using that was to practice our language. Because it was
39      French class – a language class. So… it didn't leave me to think much
40      about my learning experience. At that time. But maybe if I look at my
41      blog now, I will have different thoughts. Like ouuhh. At that time I
42      acquired those skills like uh listening skills or reading skills by some
```

40   about my learning experience. At that time. But maybe if I look at my
41   blog now, I will have different thoughts. Like ouuhh. At that time I
42   acquired those skills like uh listening skills or reading skills by some
43   methods something that I wasn't aware of. Because at that time I was
44   focusing on practising our language… at first, I wasn't very confident
45   in using blogs. Because if I really needed to write something…
46 N How these experiences have impacted your professional career?
47 Vio …the portfolio that I used in pre-service training. It was not public. It
48   was not, it was not shared among students.
49 N why not? Was it only shared with your teacher then?
50 Vio: yes, and also other staff of faculty I guess.
51 N: um-hmm.
52 Vio: but then I-I think it might be helpful if we can share it with each
53   other.
54 N: Yeah yeah ok.
55 Vio: so, when I think back now while I was doing my teaching practicum and I
56   was filling all those forms it was really, it took It took a lot of time
57   and I think it would be more helpful if we could share our work at that
58   time with our peers maybe in an informal way. It doesn't have to be a
59   blog, it could be some sort of platform. Or even Moodle because at that
60   time we were already using Moodle. We just uploaded our reflection forms

Sample Interview Transcript (Graduate – Viola)

61   regularly. I think that would have been helpful. During the teaching
62   practicum we were quite lonely. Some students may have the same partners
63   in the same school, but some didn't.
64 N: okay.
65 Vio: like, I remember I was only with one partner. And she was very quiet. She
66   was not open to discussion. Therefore, we didn't have each other a lot
67   during our teaching practicum.
68 N: yeah.
69 Vio: if we had an e platform for us to upload stuff and I could read some of
70   my classmates' experiences. I could learn more… by reading each other's
71   reflections, you kind of compare you experiences. I agree we had Moodle,
72   while I was doing my undergraduate. But we didn't use it for reflection.
73   I think during TP it might be useful to open an online platform for
74   student teachers to host their reflections or lesson plans and everyone
75   gets to see each other's work I think this could be one of the
76   incentives for students to finish their reflection forms. I think if you
77   do your reflection right after the lesson or on the same day, it will be

72		while I was doing my undergraduate. But we didn't use it for reflection.
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74		student teachers to host their reflections or lesson plans and everyone
75		gets to see each other's work I think this could be one of the
76		incentives for students to finish their reflection forms. I think if you
77		do your reflection right after the lesson or on the same day, it will be
78		more accurate because you will still remember most of the things
79		happened in that class.
80	N:	Could you please explain the process of your TP?
81	Vio:	… we had meetings with our mentors, they evaluated our performances. And
82		our professors also observed our lessons. And after the observations and
83		the discussions, we had to write a more detailed reflection. So, the
84		form was different when you have lesson observation by your supervisor.
85		And it was added in the booklet, in the report.
86	N	that's all. These were the questions. Any last thing you would like to add
87		regarding e portfolio development and how important the process of
88		reflection is in this case?
89	Vio:	Even though I felt miserable when I had to fill in all those forms while
90		I was so busy doing my teaching practicum, I still find that its really
91		useful for me. Because I not only evaluated on the strengths and
92		weaknesses of myself. I also had become more aware of the progress of my
93		students. Because when I reflected on my teaching at the same time I
94		would also write down something about students' responses. I just kept
95		thinking why they were not so involved in this lesson… and I think,
96		reflection is helpful to me. It would have been more helpful if I get to
97		share it with others. Even though at that time we were very
98		inexperienced, even though we could not keep some concrete suggestions,
99		we could have just shared, and I think some kind of support from us
100		could have helped our classmates.
101		

[handwritten note on pink sticky note:] Eunice stresses on how her platform is not just a platform to showcase works – it involves 'on-going' discussions – that gear towards solutions

[handwritten label, top right:] Emisa

E ...an I focus on the process rather than the product. So that

N ...eah.

E ...m shifts as well. I mean in terms of the teacher trainer

...the development as a process not simply an output.

N

E ...uestions now. Do you have questions in your mind?

N ...e platform you are using? How long have you been using it?

...platform for teacher education – PLATE? And it also

...other fields?

E ...platform started in 2007. Before 2007, students also

...portfolios. And they burnt a CD ROM of the lessons and

...s part of assessment. To me, I don't think it is an

...them because, they have been to school for a longer period

of time, like 7-8 weeks, okay, so they need somebody to talk to, they need
somebody to give them input. They need to re-think their teaching method and the
strategies as well. So that's why from then on, I was thinking of, like meeting
them more often, like every one week they will come back to the university and
then we talk, alright. So I incorporate something called 'mentorship programme'
to complement the paper portfolio. So the mentors talk to them about their
problems and they also discuss with them about lesson planning etc. but then it
is time-consuming.

N Exactly. It is.

E To come all the way back to the university and then it is also very time-consuming
for the mentor because the mentors are all in-service teachers. They are busy
enough already. In that case, I thought why don't we simply talk on the platform.
right, online, so they don't need to come back. So I incorporate e-portfolio and
this mentorship together. So this e-portfolio is not simply a display of
artefacts. So its not simply uploading lesson plans, uploading teaching materials
or reflections. Not only that okay? But it involved discussion. And how the
reflection can take place. Okay. And also you have got support from in-service
teachers, you have got support from peers. Right. And they talk about problems
and help you to think, to describe, to narrate, to analyse and then work for
solutions. So my platform plate is not just an e-portfolio but it is an e-
portfolio together with a CoP (Community of Practice). So that's the development,
the objective of setting up Plate. In Plate, I have got different components, one
of which is the teaching portfolio, which you are interested in, I started with
English, but I replicate same platform for the Chinese as well. So they are
exactly the same thing, they are not different. The students' work are still
there. This is also one of the characteristics of the platform that they have
life-long membership... the platform is about sustainability as well. These
teachers who are now pre-service teachers, someday will become in-service
teachers.

N Yeah. Exactly.

E So, they will provide new input for the uhh so its kind of group dynamics for help
in this plate. Its not only about presenting...

N its not about presenting, its about going back and forth and reflecting.

E ... This kind of platform will certainly help them, if you have a concept of CoP, its
identity building, its knowledge building as well... So I don't see teacher
training as a product, but as a process.

N What is your idea about reflection? The overall idea about reflection and what sort
of reactions have you seen in your students?

E okay, so I give them guided questions actually, I have a worksheet to be included in
the appendix. So I talk about how to reflect, okay. What are the different ways
for example, you can start to tell a story, you describe it and you write it and
then you analyse it and then you give suggestions and then you review the process
the next time you come. So I teach them about this reflective cycle.

N Alright.

E So to give them an idea of what do you mean by reflection. Of course, different
students will have different degree of reflectivity. One of my students who
studies at Oxford, found in his study that those who have high TP grades, are
more reflective than others. They can describe, analyse better etc. etc. so there
seems to have a correlation. *[handwritten:]* → ? Reflective skill and performance.

N There is a connectivity. I think you have also noticed a gradual development in your
students' work?

[handwritten marginal notes, left side, top to bottom:] CoP main objective : discussions

[handwritten:] Reflection taught

[handwritten:] Reflection introduced.

[handwritten marginal notes, right side:] how it start / Replace paper port / involves discussion / life-long membership / Prod vs Prod / the por / progress

E Yes yes. You just not only see the reflection. You can [...] their peer's posts, alright. <mark>Their responses, their [...] means a lot in terms of their ability to reflect</mark>.

N and also they get the chance to scaffold each other's w[...] same page and the task they are doing is the same.

E Exactly. Its about awareness. Okay. So the whole thing [...] bit more <u>critical</u> about their teaching awareness. Ye[...] rate the story, they have to be more critical by drawing [...] ey have learned or by drawing on old knowledge they hav[...] courses. The good thing is that many of the mentors [...] support programmes. So they have somebody to look up to.

N And I think the mentors who have experienced this platf[...] d of motivation to support their juniors

E Yes. Yes. They are used to it. The other thing that I w[...] <mark>life-long membership</mark> – I think it is important becau[...] sense of ownership to a happy environment. The other [...] they are not alone because often people say is oh <u>tea</u>[...] you are the only one in the classroom to hand in thin[...] you <u>discuss something and people there on the blog, they</u> [...] <u>happened and they know how you go through the difficu</u>[...] have a sense of ownership as well.

N And also the life long membership that you mentioned. It [...] connotative meaning …

E Are you going to start something like that?

N yes – in Bangladesh as I told you we have many different[...] is hard to start with complicated platforms like Pebb[...] begin with some simpler kind of platform…

E <u>start with something simpler then</u>.   – Simpler plat[...]

N yeah. These platforms are quite simpler than the other o[...] they are quite easy to manipulate.

E yes because there are many us<u>es</u> using <u>wordpress</u> and that's why they wont get complicated. And they will have new features from time to time because there are so many users using it now.

N exactly. They can start their own blog sometime later as teachers.

E yes. The next thing you need to think about is whether you want to have one common blog or individual blog ok because wordpress also serves this function okay so you can search it whether you would like to have one blog. For me, <u>I am using one blog</u>.   one class blog she meant.

N Alright. Just one blog collectively for all students and teachers.

E yes. But then, each students can have their own personalised teaching portfolio… but then wordpress has recently developed something called 'buddy'… that kind of <u>pastoral care</u> can only be offered through talking online – they are able to meet one another. They would discuss more about classroom management, academic issues, the hard times

N hmm. Challenges.

E and I guess they talk more about the academic thing is during the supervisory visits. Or before the supervisory visits, they would put down the lesson plans and the other classmates would help them in the lesson plans and <u>give comments</u>. Or the mentors will read and comment in detail in order to get through the supervisory visits. There are two supervisory visits which carry 70% percent of the mark.

N may I know what are the other tasks that they have to complete? Like school visits, class observations?

E in year one they have school visits. They go to primary schools. In year three, they go to secondary school. In year foru, they go for teaching practice. Year five, teaching practice. So they would upload all these reflections, lesson plans, documentations of their teaching practices on this platform. … <u>so I think having the ability to reflect is more important than how you design your so called perfect lesson plans</u>.

S … usually we didn't get much chance to meet our supervisors. Just once or twice.

N Any sort of challenges have you faced when dealing with the platform?

S Time management was the most important part for me.

E I use cue cards with my trainee.

N that's interesting.

E I ask students to play their role well. Of course, I ask the student teachers not to feel offensive. Because I see this as an opportunity for them to practice or even

(handwritten margin notes, left) Critical about own practice.

(handwritten margin notes, bottom left) opportunity to discuss new issues.

(handwritten notes on pink sticky note, top)
– Ownership
– Ability to reflect – more important than showcasing work.
Eunice.

(handwritten on pink sticky note)
Emerging Issues:
① Life-long membership
② Sustainability
③ Identity shaping/building sense of owner
   matter to them.
④ Critical agents of learning.

N   I was really interesting to know, erm, briefly, about you experience of using e-portfolio as a teacher educator, you know, dealing with a sort of platforms and how it helped you to to, build better relationships with your students and everything –

J   For me dialogue is a very important part of my pedagogy practice. And umm, I am very interested in critical pedagogy and in the ways we can destruct some of the para-dynamics and what struck me that we could some of these forms of technology uh, like e- portfolios I mean What I was very interested in is the blogging tool. Obviously if you have read my work I was writing about (…) I think What I absolutely fell in love with Was the was in which students inhabited the eportfolio spaces to reflex their multiple identities. And I just thought wow this could be amazing for teacher education. Because this could take away the static linear paper heavy approach. And it could be much more exciting and relevant. And what I really liked about PeeblePad is that is was owned by the students and they had to give me permission I mean that has changed and evolved overtime and clearly, for purposes of assessment, you have to have that static products at the end … what really appealed to me was that it was visual, they could use multimedia, they could change the font and the background color. I think the personalization aspect of it was absolutely crucial of it. But in terms of career development, it can be really helpful.

J … What was I mainly interested in was the way the teachers could present their multiple identities and that's just not about it being on paper. and that's what really attracted me in the first place and um and as a teacher, I felt I couldn't expect my students to create eportfolio if I didn't have my own and that was really amazing for me as a teacher because that gave me, I took, I took my pedagogy into my space, I tried to test it, expand it and it was really enhancing. That's why I was and still remain convinced that eportfolios are really a powerful tool.

N: Exactly, I mean that's what you have written in one of your papers that I was reading in the morning today that you have talked about the shared space and how this scaffolded reflective practice takes place and they build a kind of relationship to each other and the development continues depending on their interactions, depending on their collaboration … at the same time, it hink what you have said that the ability to personalise, the opportunity to use their creativity, to design and redesign …

J: I mean, what I have found interesting is overtime, because I have been doing this for quite a long time … institutional decisions around technology will have such an impact on the practises of teachers so what we found was as pebblepad was developed overtime, my university didn't take on the new version of pebblepad so we were left with the older version … quite an old fashion, but it was quite (xxx) it did the pedagogic job we wanted it to.

J: But what we did find was that those practices that we developed which was about talking in community, they talked in other spaces. they took facebook, they took to whatsapp, its not just about the space, its about the practice that you develop (16.34 seconds). This was the only space they could come to. This blog, we'd had in this group, in this community, this was the only place where you can come and get all these. CoP

N: its more like an extending learning experience.

J: We had a student three weeks ago, he got an interview in the 2 academy, he contacted me and my colleague and asked help

J Our students, they get lots of feedback ongoing, we have really good employment rates, we have got 96 percent employment rates and that's within 3 months of completing the practice. I think, our approach, our philosophy, our belief, social justice, (xx) that's how I think turn out these really effective teachers that employers really like and keep employing so that you know, instead of matrix, that must say something about the approach we take.

N Process of reflection… all these things are ~~three~~. totally there.

J and then if you get really engaged in portfolio work, although that's ironic, or in paper, there's a shifting pedagogy. You got to want to have an on-going conversation. You got to want to have that assessment for learning philosophy. Because you don't want to submit it at the end and fail a portfolio because what would be the purpose of that.

N yeah.

J It's the end. You know, I always say to my team that don't over assess portfolios, because they are not going to look at the feedback at the end. They are gonna look at the grade. They look if they have passed… they are not going to go back and look at the detailed feedback… the beauty of portfolios is that it supports ongoing intuitive reflective learning. And if you can't harness them, don't use them.

Simpler platforms like blogger (Suggestions)

N Exactly. I mean, that's the perfect message for

J Keep it simple - keep it relevant. Make sure it

N mm-hmm.

J of course, make sure its accessible on mobile pl

N Alright.

J Because of often it looks different on personal university computer. Don't over complicate, be cle Actually, a blog can be a perfect portfolio. So i one page, don't have more than one page. I think t portfolio, is the chronology. The posts are held t see. Whereas in the static portfolio, you can't ne things are posted. So I think its really about functioning and purpose…I think you have to think, is this appropriate… It has to be easy for students. It has to be even easier for the teachers.becuase its not the students, the students will get it. If possible, you know, I have always found, in my groups, there's one, two or three students who get technology like that (shows twisted finger… one suggestion I can make is, ask in your group, 'is this look appropriate?' 'is this something you can develop?' 'can you develop this together?'

J … and I think its really about – simple functions, relevance, ease and you have all the teachers and students who got to share the purpose why I am doing this?

APPENDIX-J NVivo CODING

a) Sources

b) Nodes

APPENDIX- K E-PORTFOLIO EVIDENCE

WordPress e-portfolio platform

a)

b)

c) Trainee's reflective writings on WordPress e-portfolio platforms

2010 Intake English

Antonia's Pre-TP Reflection

October 27, 2013 by s1155002632

Six months pass; it is the time to equip myself again and enter the classroom with what I have learnt in these four years. It is of great pleasure (as well as pressure) that I have the teaching practice back in my Alma mater. On one hand, it takes me less time to get used to the friendly environment where I have been spending my seven years of secondary education. With an entirely new identity, however, it would also be challenging as all my previous teachers are watching me and possibly project certain degree of expectation on me. I hope to make full use of this opportunity to contribute to my school through my teaching, as well as to enhance my personal attribute and experience as a prospective English teacher.

Strength
The familiarity of the school environment positively contributes to my teaching in the coming six weeks. My understanding of the students' standard and learning style allows me to adjust my teaching content more effectively. Upon the class observation prior to my teaching practice, I discovered that the English proficiency of the students is not very high. They might require more help and explanation from the teacher while encountering difficult vocabulary or new language items. Meanwhile, the students in my class are generally obedient and willing to learn. I presume that it is possible for me to adopt different teaching methods and carry out a verity of activities which are able to supplement their learning.

Weakness
Progressing from primary school to secondary, it is understandable that other teachers and students would have a higher expectation on my competence as an English teacher. I feel quite nervous and a lack of confidence when I imagine the scene that I stand in front of the class, particularly after no micro-teaching beforehand. From the experience in my previous teaching practice, I noticed that I spoke quite fast occasionally and tended to speak even faster when I was anxious. I have to keep reminding myself that the pace of teacher's talk closely affect the students' understanding about the content. It will be time-wasting and ineffective to repeat the content again after knowing that the students cannot catch up because of my speaking speed.

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d) Critical incident sharing on PebblePad

Dealing with unexpected events
Did you encounter any unexpected events in your own teaching? If yes, please give one example. What happened? How did you deal with it? List alternative ways of dealing with such an event.

Yes, it happened in my TP3 and TP4 where only one student turn up. Initially, i felt awkward as i am not used to this kind of situation and it is hard to implement an activities that i've plan such as group work, pair work, discussion acitivity. However, as a teacher i have to be ready with any circumstances or unexpected events that would happen in my teaching career and this unexpected event during my TP has helped me alot. I need to be flexible in my teaching. So what i did was i asked my peer to be my student so as the real student could work in pair and have an interactions and discussion work. However, if it was a real life situation,they will be no one to asked for accompany to my students, so what i would do alternatively is i would sit with her and have a discussion one-to-one with her in a more friendly environment. Talk to the student as if she/he is a friend, as this will make her/him feel more comfortable in a non-threatening environment.

e) Tutor comments on critical incidents

Evidence
This was the result of the first activity taking more time than expected

Reflection
How I handled it: I increased the STT of the first activity so that they had enough time discussing the questions. Afterwards I had to shorten the other parts of the lesson to some extent.

Why I handled it that way:
I felt that the students needed more time because there was a lot to say about the questions. They had so much to tell each other and discuss that I didn't want to interrupt them but instead focus on their speaking practice.

If I were to experience the same in the future I would probably leave out another minor part of the lesson so that I would still have the time to do a post listening activity and include some new vocabulary. However, I still think that STT is the most important part of the lesson and thus I could
ask other students to contribute to what the two students are just explaining.

This experience has helped me understand that it is quite difficult to estimate how long an activity will take as you never know how well the students like it and how much they want to discuss. Furthermore I noticed that walking around and monitoring the students while they are discussing is very important since I can guide them if they lost track of the question.

💬 **Comments about this**   **Hide**

Subject: **Re: This experience is a summary of some experience from TP1.** 🔒 💬
Posted by: **Nur Kurtoglu-Hooton** on 09 November 2008 20:04
Dear Verena,

I agree with the comments you have presented in the reflection. Estimating the length of an activity is almost an impossible task if you haven't met the students and don't know how many will turn up to class. As you get to know the students and their pace and interests it does get better.

It's very important that the teacher encourages the students to interact with her/him and one another so as to ensure the use of STT. You did do this quite well. The students were interested in your lesson and were happy to do the activity you set them to do in pairs. It would have been good to encourage other students to comment on what they heard from one another. This would have ensured full attention during the activity rather than concentrating only on what one had to say about themselves and/or their partner.

I'm looking forward to your next TP.

Good luck.

Nur
Edit | Remove
Post Comment

f) Tutor feedback on student actions

Yes I'm afraid this is too broad. You need to be more specific and also find a focus that lends itself to providing evidence from your lessons in the form of transcribed extracts. You can still focus on some aspect of material if you so wish but will need to find evidence from within your lessons to discuss the effectiveness and/or possible impact of the material/s you used. Think for example whether there was anything that the students might have said that you can transcribe as evidence for this.
Hope this helps.

You can write further questions if you have any. Write them into this asset by choosing the comment option at the top of the page.

Best wishes,

Nur

g) Peer comments

h) *PebblePad* interface

i) *PebblePad* Landing page
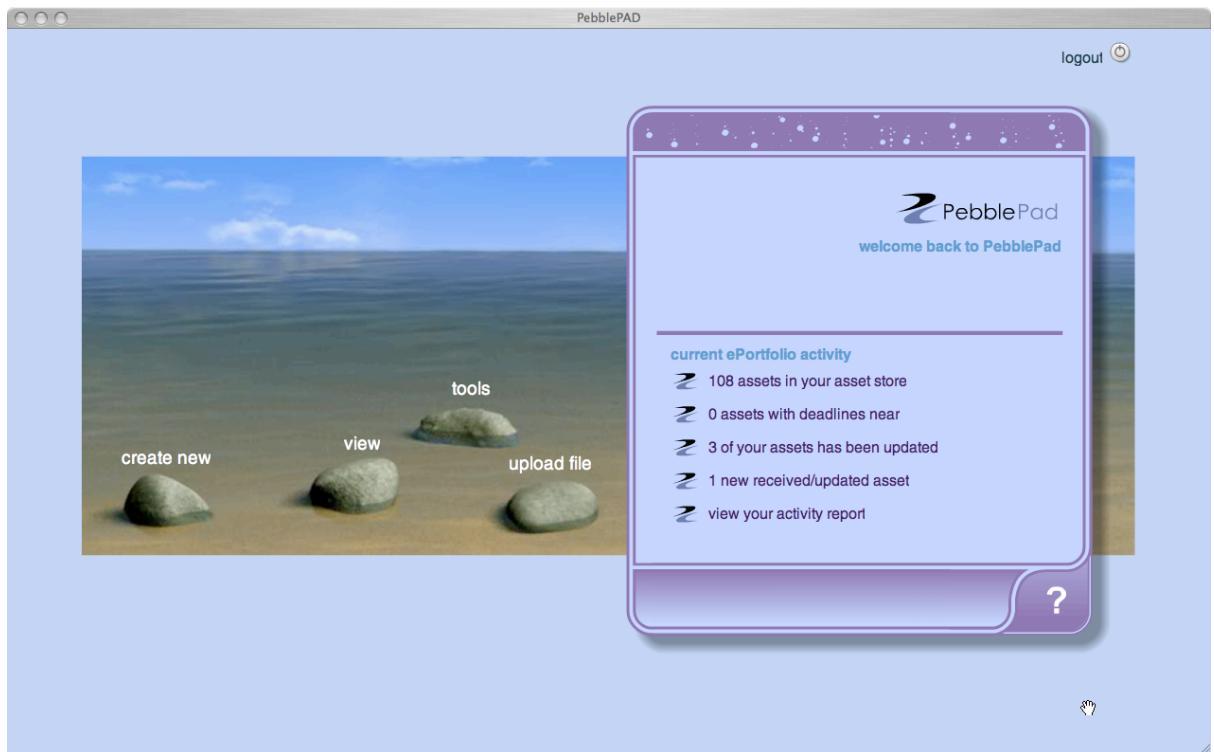
j) Peer comments

4 thoughts on "Zac's week 5 reflection"

Kenny Chan
April 24, 2018 at 4:52 pm | Reply

Hi Zachary,

Your experience is rewarding (but also very hard to deal with)....

At last, how did you solve it? or did your advisory teacher give you some advice on this issue? It seems that the parent is a bit protective in the sense that she thinks that's her son's personal traits and sees no need for making any changes.

Anyway, good luck 🙂 I hope Harvey will behave well next time

Zachary Chin
April 24, 2018 at 7:23 pm | Reply

Hi Kenny! After this incident, I think the first step to solve the problem is to talk to the parent patiently. We need to be very patient and tell them how their children performed in class because usually their children did not communicate much with them about things happened at school. After Harvey's mother knew the issue, I stated my requirement clearly to her, which is to guide him to finish the homework that he did not submit previously to ensure that he is in the same pace with us. Finally, his mother understood what I wanted from Harvey and he actually showed positive attitude in class afterwards. It is a really good sign. I hope you are doing well in your teaching practice! Enjoy!

b) Hima's reflective cycle and WH prompts

Learning/Reflection Cycle