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Key words: eportfolio, Mahara, aims and outcomes, learning, student teacher training programme.

Abstract: Portfolio, as a tool of professional autonomous development, plays an important role in the college training of not only student teachers, but also other future professionals. Based on the principles of social constructivism and reflective approach applied in student teacher training programmes, it represents a unique collection evidencing the process and outcomes of learning. Moreover, it may also provide wide opportunities to form and evaluate components facilitating students' professional development for tutors (university teachers), involved in teacher training programmes. To integrate it meaningfully and appropriately into the curriculum of English Language Teacher Education study programme (including bachelor degree – English for Education) of the University of Pardubice (Department of English and American Studies), the eportfolio format, namely Mahara, was selected as it reflects in its technological perspective the above mentioned theoretical framework enriched with a technological dimension. As the process of eportfolio integration is gradual and longitudinal and has not started in the full extent yet, in the paper, only the initial phases of the process are described and further implications suggested. The paper focuses on the analysis and evaluation of the formal curriculum of the programme (aims and expected outcomes of the selected subjects from all the disciplines; approaches, methods and techniques used to support autonomous learning and self-reflective processes in those subjects and disciplines) and suggests possible ways of integrating Mahara into the curriculum.

Introduction

The integration of (e)portfolio into education and its advantages for autonomous and self-regulated learning has been widely discussed for many years not only in the context of the Czech Republic, but also abroad (e.g. Píšová 2007, Lukášová et al. 2014). In general, portfolio is a collection of works and materials of the particular person, which are selected, shared and reflected according to the external criteria of the educational institution and internal criteria of that individual, and which can be used for various purposes, e.g. for documenting learning of the individual and their professional development, to demonstrate their level of proficiency in the specific area, to represent achievements and outcomes of the individual in that area, and so on.

Theoretical framework

Since the paper focuses on disseminating eportfolio in the context of pre-service teacher education, hereinafter the meaning and function of eportfolio is discussed in relation to learning and teaching processes in that context of education only.

Currently, the most influential trend in teacher education is the constructivist concept (Spilková 2007, 10, see also Dysthe and Engelsen 2011, 65). Based on that concept, the learner, student teacher, is perceived as an active constructor of their conception of teaching (Spilková 2007, 11), or their professional self (see e.g. Korthagen et al. 2006 and Korthagen et al. 2013) in the process of becoming the teacher. Experiencing various pedagogical situations and interacting with other participants of educational communication, the student teacher may explore, discover and construct new concepts based on their own activity and thus deconstruct their intuitive, naive and implicit pre-concepts they have about teaching to explicit, theoretically sensitive, and rational reconstruction of those concepts (Spilková 2007, 12).

The process of deconstructing through experiencing may be supported by reflective strategies, as some authors claim (e.g. Strudler and Wetzels 2011-12). In the reflection process, the experiences are analysed, discussed and linked with theory “to help investigate the gestalts that student teachers have developed in experiences earlier in their lives“ (Korthagen and Wubbels 2001, p. 45). The reflective model (see also Schön’s reflective practitioner, 1983, or the science-based practitioner) and linking theory to practice, so called realistic approach (Korthagen et al. 2001), (see also Pišová et al. 2013) represent other significant attitudes applied nowadays in teacher education.

As the underlying principles of portfolio philosophy “are often related to a constructivist approach to knowledge and learning” focusing “on the student teachers’ learning process and knowledge production” (Butler 2006, in Granberg 2010, 310), such a learner-centred pedagogical device can and has been used not only in teacher education for decades. Depending on the purposes for which portfolio is used in education, we can identify different types of portfolios. In general, we can distinguish between process (learning) and product (assessment) oriented portfolios, whose functions can be also combined for different reasons in teacher education. In the paper, we refer to the Granberg’s typology (2010) and complement it with the definitions provided by Pišová (2007) to comprehensibly synthesize the discussion of the pedagogies reflected in teacher education with portfolio role and functions (cf. Lukášová et al. 2014), and the student teacher and the teacher educator’s roles in the process of learning encouraged by the concept of portfolio. Based on that, portfolios can be categorised into three types:

1. process, reflective and learning oriented portfolios that help student teachers reflect on their learning; such portfolios document cognitive changes of the student teacher with the support of the formative assessment usually provided by the teacher educator and/or student teacher peers;
2. credential/accountability portfolios also help to document the changes in learning and may be used for summative assessment of the student teacher, thus may be referred to as product or assessment portfolios;
3. marketing portfolios/showcases, or product/summative/assessment portfolios used for representing professional strengths, attained goals, etc. of the student teacher. (Granberg 2010, 310 and Pišová 2007, 42)

Different portfolios can be used for multiple reasons in education and thus their meaningful integrating into teacher education programmes may be quite complex, complicated and long-term. Regardless of that, there are many advantages why to employ the portfolio concept in teacher education. One of them may lie in fact that it might help synthesize student teacher’s knowledge in individual professional disciplines. The synthesis, linking of content may prevent student teacher’s fragmentation in knowledge, which according

to Píšová (2007, 49) still represents a big problem in the teacher education programmes in the context of the Czech Republic. Student teacher's content acquisition documented in portfolio is also perceived, e.g. by Shulman (1998, 31-32) as its distinctive advantage because it may contribute to student teacher's development of knowledge base of teaching, namely their pedagogical content knowledge (Shulman 1987, 8-9). Moreover, in Píšová's opinion (2007, 49), portfolio may act as a link of not only content and pedagogy, but also of theory and practice, and especially may support linking of teacher educators representing the individual content components of pre-service teacher education. Next reason why to use portfolio in the context of teacher education is explicitly expressed by Korthagen et al. (2006, 1036), who say that "learning about teaching is enhanced when the teaching and learning approaches advocated in the program are modelled by the teacher educators in their own practice". Because portfolio "is widely acknowledged...as an educational concept [that] covers a wide array of learning and assessment tools and practises" (Dysthe and Engelsen 2011, 63), it may represent a challenge for teacher educators because it offers conditions for them to take professional risks and think beyond their held pedagogical boundaries in different situations to develop new approaches, which is an essential part of teachers' professional development (Korthagen et al. 2006, 1036). Therefore, the portfolio concept may bring contemporary pedagogical beliefs and assumptions discussed in the paper to life.

Due to its wide possibilities, pedagogical and ideological reasons it is necessary at first "to define what kind of portfolio should be used before the implementation process is initiated" (Granberg 2010, 311) and "what, why and how' questions need to be answered" in the process of planning (ibid.). Concerning the format, the teacher educators may choose from paper or electronic portfolios. If the programme had already worked with the paper format of portfolio, the moment of introducing eportfolio may be seen as a chance to reflect and revise the portfolio concept experience. Strudler and Wetzel (2011-12, 164-165) summarize factors that teacher education programmes should consider when integrating the electronic portfolio into their curriculum as follows:

1. clear vision or purpose for eportfolio implementation
2. the clarity of guidelines
3. the faculty feedback on student teachers' portfolios
4. the amount of time and effort involved to manage the electronic portfolio process

The process of implementing eportfolio into teacher education may and will affect all participants of learning/teaching processes since "a common understanding of the purpose and design of e-portfolios needs to be established" (Granberg 2010, 311).

Aims and research questions

The aim of the study is to identify how eportfolio can be integrated in pre-service teacher education courses of the particular study programme(s). The questions arising from the study are as follows:

1. Is the role and functions of eportfolio in agreement with pre-service teacher education aims and outcomes?
2. How to describe and communicate the design of eportfolio to teacher educators to support understanding and integrating eportfolio into their courses?

Methods

Research methods used, such as group discussions, interviews and content analysis of programme syllabi were designed mainly as qualitative to provide a deep and holistic view of the role and functions of eportfolio in the teacher education programmes and its perception and understanding of the teacher educators. However, to ease comprehension of the context which the eportfolio is employed in, descriptive, quantitative data were also collected, namely in the process of analysing content. 41 compulsory subject syllabi divided into communicative, linguistic, literature and culture, and profession modules oriented in the bachelor English for Education programme were analysed.

To identify the role of portfolio in the teacher education programmes, it was necessary to investigate at the context in which the portfolio is (to) be used. At first, the content, aims and expected outcomes of the selected subjects from all the disciplines were discussed and analysed from the perspective of the theoretical framework described above, i.e. subject matter of the individual courses and their interrelation; approaches, methods and techniques used to support autonomous learning and self-reflective processes in those subjects and disciplines, learning through reflection, feedback, and assessment in those subjects and disciplines. Explicit (direct reference) and implicit (content reference) formulations of the links relating content and theory-practice link of individual disciplines were analysed in the categories of aims, outcomes, feedback and assessment within individual modules and between them. Second, different types of portfolio in the selected courses of teacher education were identified and their functions were described.

Next, understanding of the teacher educators' portfolio concept was discussed. Finally, based on the outcomes of content analysis and interviews with teacher educators, possible ways of redefining the portfolio concept and ways of eportfolio integration in the teacher education programmes of the institution were proposed and communicated to teacher educators.

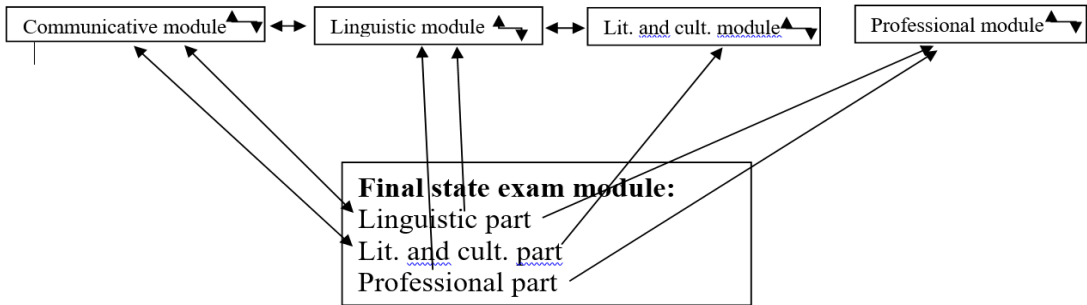
Results

The history of teacher education is relatively long in the Department of English and American studies and can be traced back to 1992, when the English language teaching programme, Fast-track educating teachers of English was established (Bitljanová, et al. 2003) and the concept of portfolio has been playing

an important role in English language teacher education in the institution for more than 14 years. Fast-track was transformed into a five-year master study programme, later due to the impact of European Union legislation (the Bologna process), teacher education was structured into two study programmes, a bachelor programme, English for Education and a master programme, English Language Teacher Education. In that period, the aims, content and structure of teacher education have been changed and keep changing significantly depending on the policy and context changes in pre-service teacher education (e.g. the accreditation process at present), Therefore, the urge to reflect these changes in pre-service teacher education in this institution resulted in the revision of the study programmes and we decided to start using eportfolio as a pedagogical device that might be a tool for performing those changes in practice. For these reasons, it was necessary to evaluate the quality of the present teacher education programmes and suggest possible ways of its redesign.

Content analysis of the selected courses syllabi (aims, outcomes, reflection, feedback, assessment within individual modules and between them)

PICTURE 1. LINKING OF CONTENT



Legend:

The lines indicate where the information about linking is given and whether the linking between modules is mutual (↔) or not (→). The linking within the module (a subject linked to another subject of the module) is designed as arrows within the frame (↕).

Based on the evident, explicitly made cross-references in the syllabi we found out that the content of subjects within and between individual modules is interrelated with other modules both explicitly and implicitly (i.e. through using English as a communication tool in almost all subjects and during the final state exam in some disciplines). The links within and between content oriented disciplines (communicative, linguistic, literature and culture) are explicitly and openly declared and as such may help students become aware of their relation and mutual dependence, however, the links to profession oriented disciplines are mainly implicit, they are made in the profession oriented syllabi only, except for the linguistic module. That might imply that students tend to apply mainly analytical approach in their professional development and their ability to synthesize the knowledge of all the individual disciplines may lag behind.

Portfolio types and understanding of the teacher educators' portfolio concept

Concerning feedback and assessment, it must be admitted that ongoing feedback and assessment criteria supporting formative assessment are not mentioned neither clearly defined in the course syllabi and (self)reflective strategies are explicitly formulated in the profession oriented subjects only (see Table 1).

1. PORTFOLIO TYPES				
Module	Reflection	Feedback	Assesment	Portfolio design
Communicative	---	---	summative	collection of materials
Linguistic	---	---	summative	---
Literature and culture	---	---	summative	collection of materials
Professional	yes	---	formative, summative	multipurpose
Final state exam	yes	---	summative	product oriented, summative, linking theory and practice

Source: Own

In content oriented disciplines, only a product oriented type of portfolio is used, being only a sum of materials submitted for the purposes of final, summative assessment. Nevertheless, group discussions and interviews revealed that teacher educators provide reflective feedback in their lessons, e.g. in the courses of cultural studies. As “feedback has the most critical influence on students learning” (Hattie and Timperley 2007 in Granberg 2010, 311) and may support the development of awareness of student teacher’s cognitive learning processes in wider context, we can believe that such feedback, may, implicitly, form knowledge base of teaching in student teachers.

The courses of profession oriented disciplines were the only ones, where multipurpose portfolio design is used, supporting the development of the professional self through formative assessment, ongoing feedback and also used for summative assessment, e.g. final state exam, PRX3.

Describing and communicating the design of eportfolio to teacher educators to support understanding and integrating eportfolio into their courses

Eportfolio is “interpreted and socially constructed by teacher teams”, Granberg (2010 311) claims. Without identifying the team vision, attitude and opinions, it would not be possible to (re)define the purpose of portfolio in teacher education programme. For these purposes, team discussions of portfolio understanding and vision were arranged and portfolio concept and vision were discussed. Based on the results of those discussions and the analysis and evaluation of the portfolio concept in the courses, we decided to integrate an eportfolio Mahara into teacher education as it reflects all the underlying pedagogies discussed in the paper and adds a technological/digital dimension to pre-service teacher education. To support its meaningful integration, it was necessary to identify and describe a new eportfolio concept and

communicate the vision and o purpose for eportfolio implementation to teacher educators. For these purposes, a methodology on the implementation of eportfolo Mahara to study programmes in the Department of English and American Studies of the Faculty of Arts and Philosophy, University of Pardubice was created. The methodology is communicated to teacher educators as a guideline in form of the document, which summarizes and describes the concept of eportfolio evolved as team effort, namely its functions in teacher education programmes:

- *to prevent fragmentation and strengthen integration of individual pre-service teacher education components*

- *to support autonomous learning of student teachers*

- *to develop technological competence of student teachers*

and accents the principle of learner-centeredness in that vision (describes eportfolio functions from the perspective of abilities student teachers are supposed to acquire, e.g. self-reflective strategies, identification of their strengths, cooperating with peers).

It was also agreed that in order to integrate eportfolio to teacher education meaningfully and appropriately, it is also necessary to provide support to teacher educators, especially in terms of their technological competence (e.g. in form of trainings in technological and pedagogical aspects of eportfolio, institutional coordinator for both student teachers and teacher educators) to prevent forming negative attitudes toward eportfolio.

Conclusion

To integrate the multipurpose eportfolio to teacher education, it is necessary to do that systematically, provide purposeful and clear guidelines in terms of technology and pedagogies to all participants of English language teacher education, technological and pedagogical support for both teacher educators and student teachers. The content analysis results may contribute to revise aims of teacher education courses and standardize teacher education. Nonetheless, the group discussions and interviews revealed that there are certain concerns related with the process of integration (it affects all participants, concerns about technological aspects, pedagogies, it might increase communication with students, time and effort needed, etc.). The process of integration has just started and we will see what results that implementation will bring not only to student teachers but also to teacher educators, whether they will be able to change their own practice.

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