The importance of using electronic portfolios in teachers work

Arlinda Beka, Drilon Gllareva
University of Pristina, Republic of Kosovo

corresponding e-mail: arlinda.beka@gmail.com
postal address: University of Prishtina, Rrustem Statovci 31/20, 10000 Prishtina, Kosovo

The assessment of students is one of the most sensitive issues in teacher’s work. Based on practice, teachers use different forms of the assessment in student knowledge and skills. Among them is through their evaluation of portfolios.

Electronic portfolios same as portfolios in general, qualifies as an instrument which serves to document the student’s work including knowledge and their practical skills, which have achieved over a period of time in the various subjects.

This paper analyses the importance of e-portfolios in the evaluation process of the teacher’s assessment work with students during the teaching and learning process. Also it presents the way of organizing portfolios and portfolio transition from printed to electronic portfolio.

This paper research was done using the quantitative methodology. Questionnaires were drafted through which in order to collect different opinions from teachers about the importance of e-portfolios. Research was conducted with 20 teachers in three elementary and middle schools of Prishtina. The data outcome from this research will serve as a best practice for other teachers who have not yet begun the implementation of E-portfolios of their students, Faculty of Education as pre-service teacher training institution and Ministry of Education so they can address the importance and benefits of using the e-portfolios.

Keywords: E-portfolios, teaching, assessment


Introduction

Using of e-portfolios or digital portfolios, same as general portfolios has become a very useful tool in now days at different kind of works and everyday life. E-portfolios have developed from paper-based portfolios and are being increasingly used internationally throughout the education system for students at primary, secondary and tertiary levels; as well as for teachers. Within education they are used as tools for learning, assessment and professional development. They can also be used for interviews, employment and career development beyond the education setting (Pickard, 2015).

Technology is among the most important tools in the development of modern societies. The use of technology is one of the necessary skills that individual must have. This has become inseparable part of our everyday life. With introducing of new era of technology like smart phones, tablets and other digital media, our lives, our communication and networking with one another have changed dramatically (Beka, 2014b). There for the
transition from portfolios to e-portfolios or digital portfolios is considered a normal development.

Different scholars have been defining the e-portfolios in different ways. The term "e-portfolio" is most common, but terms such as Digital Portfolios or Personal Learning Portfolio (PLP) are also used. There is no one absolutely correct model, approach, or definition of an e-portfolio. The definitions and descriptions above provide guidance to the typical range of digital portfolio functions and use (Munro, 2011).

Mainly the definition of e-portfolios is related to the usage and purpose. According to McAlpine (2005), there are features that e-portfolios share: an organized collection, comprised of digitized artifacts, seeking to provide an authentic record, related to an individual's status, particularly associated with learning, although may cover other areas. Another definition is the one established by the (US) National Learning Infrastructure Initiative 2003: "a collection of authentic and diverse evidence, drawn from a larger archive representing what a person or organization has learned over time on which the person or organization has reflected, and designed for presentation to one or more audiences for a particular rhetorical purpose" (Barret, 2005).

The (US) Northwest Evaluation Association offers a similar definition: A purposeful collection of student work that illustrates efforts, progress, and achievement in one or more areas [over time]. The collection must include: student participation in selecting contents, the criteria for selection, the criteria for judging merit, and evidence of student self-reflection) (Barret, 2005).

In Barrett’s definition: an electronic portfolio uses electronic technologies as the container, allowing students/teachers to collect and organize portfolio artifacts in many media types (audio, video, graphics, text); and using hypertext links to organize the material, connecting evidence to appropriate outcomes, goals or standards (Barret, 2005).

For years schools have kept samples of children’s (often best) work in a folder and this was often referred to as a portfolio. Other schools encouraged children to build-up, working, and maintain their own paper portfolio. An approach such as this encouraged students to become more engaged, reflective and responsible for their own learning. Done well over a period of time, it also resulted in students growing to view the teacher as more collegial than authoritative or didactic. Digital portfolios have evolved from this type of (paper) portfolio. Despite (frequent) comments that e-portfolios are similar to paper portfolios with a change of media, they are in fact quite different (conceptually and technically) and have a large number of distinguishing properties and associated advantages (Munro, 2011).

Now day’s e-portfolios are widely used in teacher’s work both for students’ assessment and for their own personal development. As we explore portfolios in education, it is natural to focus on uses and experiences of portfolios as a means of student assessment and portfolios that capture the learning process (Barret, 2005).

Barret (2003) goes further and provides a wider perspective on understanding portfolios. He gives additional description on e-portfolios by other authors, explaining: "...In their synthesis of "Portfolio research: A slim collection" Herman and Winters (1994) note the following: Well-designed portfolios represent important, contextualized learning that requires complex thinking and expressive skills. Traditional tests have been criticized as being insensitive to local curriculum and instruction, and assessing not only student achievement but aptitude. Portfolios are being hailed as vehicles that provide a more equitable and sensitive portrait of what students know and are able to do. Portfolios encourage teachers and schools to focus on important student outcomes, provide parents and the community with credible evidence of student achievement, and inform policy and practice at every level of the educational system".

These authors go on to discuss the lack of empirical evidence to support these claims. Joanne Carney (2001) noted in the literature review for her dissertation that the research literature on portfolios has not changed much in the seven years since Herman and
Winters published their article. Collections of writing are considered here as a special case of a class of new performance assessments known as "portfolio assessments". Although models of portfolio assessment differ, it is common practice that students’ classroom work and their reflections on that work are assembled as evidence of growth and achievement. The goal is to produce richer and more valid assessments of students’ competencies than are possible from traditional testing. However, little is known regarding the capacity of portfolio assessments to support judgments that are valid for large-scale [assessment] purposes (Barret, 2005). Regarding the usage of portfolios for the assessment and evaluation of students work McAlpine (2005) lists several benefits that are provided by using portfolios:

- Increasing the validity of the assessment, increasing the accessibility of the assessment by allowing recording forms,
- Increasing the reliability of verification, improving the assessment process, speeding up the appeals process.

While everyone is aware of the rapid evolution of technology, not everyone is aware of the new and different ways in which people are using the technologies in teaching, learning, and communication; and the emerging pivotal role of the digital portfolio in a learner’s education and life. An important role in teacher education in Kosovo or any other country is developing the key competencies for the teacher educators and student teachers (Beka, 2015). Many efforts are done through the Ministry of Education and its partner to enhance the usage of technologies in teaching and learning. Developing ICT competencies for on service and pre service teacher has been set up as a goal in education strategies of MEST.

Certainly the developments in technology have influenced the education field as well, particularly in teaching and learning. Easy access to information which is available in modern world is a privilege that past societies lacked. Today with the technology development and globalization impact people from all over the world have access to information almost in real time (Beka, 2014b).

For better understanding it is also necessary to think of the use of an e-portfolio as an approach, or method, or support structure to teaching and learning (Crow, 2011).

The use of digital media enables students to record and collect digitized artifacts including text, audio, video, and multimedia that represents their ideas, learning experiences, expressions and reflections - here the e-portfolio is somewhat like a digital briefcase. The global contemporary developments have influenced our country as well. Kosovo even though a small and developing country has been influenced by new trends of social media. Having a quite young population with average age of 28 Kosovo’s population is very active in social networks and usage of new media for work, study or just for fun. This is true particularly for the urban areas. Students are using social media to share and exchange information among themselves as well as to stay connected (Beka, 2014b). Since they are using technology and social media, they should be encouraged to use their skill in preparing their e-portfolios which will them to improving the quality of their professional development. Beside the usage of social media the use of portfolios is becoming more and more attractive and required in teaching and learning, career development or business development. Our education institutions are seeing the benefits of e-portfolios in students’ assessment and teachers’ professional development. Our educational system has had to deal with survival, recovery, preparation of plans and programs, professional training of teachers, preparation and implementation of the reformed literature. This was a matter of very broad and deep change to face, in order to reform the education system in Kosovo (Beka, 2014a).

But despite these changes in curriculum, education in Kosovo continues to be challenged as teachers are not prepared for implementation of this curriculum. Changes are mainly partial and as such they lead to incomplete implementation of the curriculum in schools. A difficult challenge to overcome on the implementation of the curriculum remains the
methodology of teachers’ work in classrooms (Beka, 2013). Most sensitive part of the implementation of the curriculum is the use of ICT, not only to present various topics, but also to make the evaluation of the student’s portfolios. Teachers should be prepared to use the benefits of technology enabling the students to use the digital platforms for their professional development.

Youth’s education consists in their professional preparation which they gain in pre-university education and in the higher education. Internship is considered a crucial part of studies for every young man and woman. This strengthens even more their professionalism and makes them more competent in a given fields. Internships are not important to students only. Internships are important to University and to the Labor market. Interaction between the University and Labor market should be closed and tight one. They should be partners that assist and supplement one-another in developing and improving quality of work in preparing the youth for the labor market (Beka and Nikoçevoiq, 2012b). An important role in professional education of youth, evaluation and assessment of their achievement can be done through the use of e-portfolios. This can be true also for the assessment of internships and evaluation of student’s professional practice. There for the Faculty of Education, together with other faculties of the University of Prishtina are considering new methodologies of improving student’s assessment and their evaluation, during their studies and their internships.

"The University of Prishtina and its Faculties have started to encourage further development of procedures and skills to prepare students for internship and strengthening their connection with employers through the University Career Development Center (CDC) which is considered a bridge between students and the labor market (Beka and Nikoçevoiq, 2012a). As part of this new procedure is the usage of student’s e-portfolios as a tool during their internship and for their future potential employment. However the power of the e-portfolio comes from the underlying support structure and process - the interaction between students, peers and teachers as the specific views evolve and the student’s learning is created, shaped, expressed, and owned.

E-portfolios, same as portfolios in general, demonstrate knowledge, skills, and aptitudes in three broad areas: Professional knowledge - referring to the type of knowledge a teacher is expected to know about subject matter, child development, learner psychology, cultural understanding, curriculum documents and education systems, and professional understandings behind different approaches to teaching. Professional practice - referring to personal experience of different practices associated with teaching such as planning, assessing learning, analysis of teaching experiences, creating productive and safe learning environments and the ability to create meaningful connections to within schools, community and home. Professional commitment - referring to the professional attitude of teaching as a life-long career with ongoing connections to professional groups and organizations to develop teaching ability, sustained and worthwhile connections with peers and community members, and ongoing practice of teaching as an ethical practice (Stanford and Hopper, 2010).

A key advantage of using an e-portfolio as an ongoing, accessible record of professional development activities controlled by the teacher, is the potential for demonstrating growth over time (Barret, 2000). Beside the advantages for supporting the process of professional learning and growth, using an e-portfolio system for learning, self-assessment and reflection, and for interaction with other teachers can be expected to enhance the quality of teaching, and consequently, to impact the learning and learning achievements of students. At the same time, issues regarding some technical and pedagogical aspects of using e-portfolios in teacher professional development are still unresolved. Therefore, introducing an e-portfolio component into a program for professional development can significantly strengthen its potential for a positive impact on teachers’ competencies; professional growth and teaching practice, but also can pose difficulties in terms of technical implementation and pedagogical integration. In the case of the program for teacher professional development Intel Teach-Advanced Online, the initial design
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The recent development of the program is focused on providing an open source solution and aims to organize the professional development process through a Moodle-based online platform integrating an e-portfolio system. The implementation of this goal however is related to various obstacles, questions and expectations (Todorova, Arati and Osburg, 2010).

The purpose of creating a Portfolio is to collect student's work. These works could demonstrate student's effort, progress, and learning. Besides student's work, its creation also includes self-reflection writing, content planning and design of assessment rubrics. Portfolios can be used for many different purposes, especially as an assessment tool for student's learning. Portfolio assessment was to utilize portfolio as an evaluation tool to inspect the progress and outcome of student learning. The data in a portfolio, collected and organized by the learner, was requested by the teacher according to the teaching objectives and syllabus. Lee (2001) argued that portfolio assessment changes the traditional concept of teaching where the class teaching uses student-centered approach. Student portfolio, designed and created by the learner, collects information on certain topics, which demonstrates the learning process and outcomes of the learner. It also serves as a tool for teacher to assess student’s learning process and outcomes (Chi-Cheng Chang, 2010). Some easy to achieve school-wide objectives in implementing e-portfolios with students:

- To establish student-led communication among students, staff and parents
- To establish a school-wide PD programme for staff
- To establish student reflection as learning practice at all levels
- To improve staff and student information technology skills
- To increase parental involvement and have well supported home learning
- To create an archive of student work artifacts and reflections
- To improve learning effectiveness and management (Munro, 2011).

With all those different objectives of the usage of portfolios we can see that e-portfolios support or can be used in different kind of teaching and learning methodologies. One of the ways that a teacher can get to know his/her students is by involving them into different activities in the classroom by incorporating the cooperative learning approach. Cooperative learning has been used in schools around the world for several decades. The methods of cooperative learning have proved valuable for several reasons. Cooperative learning allows students to learn actively, even in large classes. Learning experts tell us that in order to learn, students must act and communicate. But in classes of 60 or more, the amount of time any one student can talk is very limited. Cooperative learning techniques allow every student in the class to participate for much of the time, but they organize the activity of many students at once so that the activity will be productive and not chaotic (Beka, 2014c). In a situation like this usage of portfolio will help the teacher to better and faster get to know his/her students through their portfolios.

There is a pedagogical aspect of using portfolios as well. Munro has explained those pedagogical benefits by putting together opinion of different author on the topic: "Traditional linear, teacher directed approaches to learning don’t fit well with student owned and directed learning. A learner-centric interactive approach highlights constructivism and connectivism as more relevant. Some specific pedagogic benefits of e-portfolios have been identified as:

- Authentic learning, where learning is more meaningful when it is linked to real world experiences (Buzzetto-Moore, 2008)
- Experiential learning, where ‘learning is by doing’ rather than through telling
- Competency-based education, where instruction is outcomes-based using electronic portfolios as part of student learning outcomes-based performance assessment where assessment may include higher order skills (Cooper and Love, 2007).

- Lifelong learning, where learning is directed by the individual and guided by the individual's interests (Venezky and Öney, 2004).

The students’ e-portfolios allow a way of mapping progress, counseling where appropriate, and celebrating those that exceed expectations, as well as noting where the program connects or does not connect to professional standards for qualification in the teaching profession. In this way the e-portfolios creates insight on "learning how to teach," creating a self-renewing program (Stanford and Hopper, 2010).

In our teacher education program the e-portfolios was used for students to systematically collect evidence on how learning experiences (assignments, task, related life experiences, field experiences) shaped their 'becoming' as teachers, enabling them to begin the task of recognizing and shaping their identity as 'teacher'. For each piece of evidence, students were asked to reflect on why the particular piece of evidence or artifact was chosen, what they have learned from including and reflecting on the artifact, and how the artifact contributes to their understanding of teaching and learning as they continue to shape their teaching identity (Stanford and Hopper, 2010).

While we use e-portfolios it’s important to ensure consistency of e-portfolios across the school allowing for flexibility in individual classrooms, ensure analysis in learning stories is succinct, with a link to fuller version if required, interoperability with Classroom Manager: we need key assessment to be viewable in our e-portfolios, parent buy in, understanding and being active partners in their child’s learning (Munro, 2011).

On the other hand, the e-portfolios are great for archiving, hyper-linking to evidence, meta cognition, storytelling about the learning journey, publishing, collaborating, online conversations, online feedback, anywhere anytime access, interaction between peers, teachers and parents.

**Research outcomes**

This paper research was done using the quantitative methodology. Questionnaires were drafted through which in order to collect different opinions from teachers about the importance of the portfolios, particularly the e-portfolios. Research was conducted with 20 teachers in three elementary and middle schools of Prishtina. Selection of teachers is done randomly and it involved teachers from different subjects (Figure 1). 28.89% have been teaching elementary grades 1-5, and 70.99% were teaching different subjects of lower secondary classes.

Through this research it was found that teachers in schools of Prishtina, have begun to apply the portfolios as a means in which they follow the continuous education of children. About 95% (Figure 2) of them practice the portfolios consistently. This rate implies that the teachers have come to realize the importance of portfolios in their work with children. Only 5% of them do not practice or lack of knowledge about the portfolio.

However, during the research it was noted that electronic portfolios are used less than portfolios. Only 18% of teachers (Figure 3) have been able to apply the collection of students’ works using technology. This means that to this group of teachers and their students using of technology is not a problem. 25% of teachers use two types: portfolios and e-portfolios. This can be considered as a process of transition from working with portfolios to digital ones. While, on the other hand, 55% of teachers continue to work only with portfolios.
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**Figure 1. Surveyed Teachers Covered the Following Teaching Subjects**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes 1-5</td>
<td>28.89%</td>
</tr>
<tr>
<td>Albanian language and literature</td>
<td>11.11%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>6.67%</td>
</tr>
<tr>
<td>Civic education</td>
<td>8.89%</td>
</tr>
<tr>
<td>ICT</td>
<td>4.44%</td>
</tr>
<tr>
<td>Physics</td>
<td>7%</td>
</tr>
<tr>
<td>Geography</td>
<td>9%</td>
</tr>
<tr>
<td>History</td>
<td>4.44%</td>
</tr>
<tr>
<td>Chemistry</td>
<td>2%</td>
</tr>
<tr>
<td>Career Education</td>
<td>2.22%</td>
</tr>
<tr>
<td>English language</td>
<td>7%</td>
</tr>
<tr>
<td>German language</td>
<td>4%</td>
</tr>
<tr>
<td>Musical education</td>
<td>2%</td>
</tr>
<tr>
<td>Turkish Language and Literature</td>
<td>2.22%</td>
</tr>
</tbody>
</table>

**Figure 2. The Surveyed Teachers' Response to the Question: Are You Applying Your Portfolio While With Students?**

- Yes: 95%
- No: 3%
- Not stated: 2%
Although a significant percentage of teachers continue to use portfolios, and not e-portfolios, their reflections on the effect of portfolios is very positive. They see this instrument as a good way of raising the quality of their work. About 55% have confirmed this. About 40% of other teachers see only certain cases improve the quality of teaching, learning and assessment. And these percentages of teachers are those who also practice portfolio of electronic portfolios. Application of these two types of portfolios complicates the work of teachers and students and can directly influence the de-motivation of learning to use the technology for professional development.
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About 77.50% of teachers, who apply assessing students through portfolios, see as very important and useful way continuous assessment through portfolios. Formative assessments are considered the most suitable to measure the gradual development of students. It gives them the opportunity to make self-evaluation of the work that they do, to create a plan of their professional development and to invest more efforts in the areas where they are not satisfied with their work.

The whole focus of researchers in the field of education lies in the fact to facilitate the work of teachers. Therefore the application of methodologies of teaching, learning or assessment, should have the same purpose.
Although the application of new methodologies not always is greeted with enthusiasm by teachers, research outcomes, can be a way for them to be convinced of the importance and efficiency of usage of the new methodologies.

It is very encouraging to teachers who apply the use of electronic portfolios, to notice that their job is easier, more manageable and more efficient. This is testified by statements of 87% of teachers, who support the use of electronic portfolios.

**Conclusion**

Based on this research, it was concluded that teachers have begun to apply formative assessment, by using portfolios and electronic portfolios. Although the percentage of teachers is not very high, the fact that they have started to apply portfolio assessment form is very encouraging.

It was also noticed, reluctance on the part of teachers who are not ready to make bigger steps, willing to use technology in the teaching process. As a compromise, these teachers have started to use both portfolios and electronic portfolios. Using both forms simultaneously, it can be more difficult to manage. Since the concentration and energy of teachers will be divided in two. Therefore, this causes even more trouble and problems at work.

It’s encouraging the evaluation results of teachers related to the benefits of electronic portfolios. They are aware that it helps them in their continuous teacher professional development, as they are starting to deal with problems from different points of view. In order to ask students to work based on technology, they had initially to develop their professional skills on using the technology. There are also positive reflections on improving the quality of students’ work. Through this type of work, with e-portfolios, they achieve to develop a professional working plan, reflect about their work, develop more skills in the use of technology for professional development and have a clear review of their work.

Finally, Faculty of Education of the University of Prishtina, need to incorporate into their curricula, e-portfolios, in order to prepare future teachers with professional competence so they can be more creative and productive at work.

**Recommendations**

Based on research results our recommendations are:

- Promoting the use of electronic portfolios
- Helping teachers to organize their work, using technology for facilitating the process of collecting tasks/projects and improves the time management since it takes less time for teacher to do students assessment.
- Sharing of experiences between teachers, in order to reflect the result of the application of electronic portfolios to teachers who are not willing to rely completely on digital work but continue using portfolios.
- Undertaking more research regarding the outcome of the work of teachers who use the portfolio. Publication of these data will be the opportunity to influence and encourage, other teachers, who continue to apply summative assessment.
- Presenting the benefits of application electronic portfolios
- Practicing the usage of electronic portfolios should be introduced as part of the Faculty of Education curriculum, so pre service students will have the necessary knowledge and experience in how to prepare and managed electronic portfolios. This will help them to be competent to assist their future students.
References


