

Design and Improvement of e-Portfolio Construction Guidelines for Adult Learners

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Abstract: In recent years, many higher institutions use ePortfolio to encourage learners to reflect their learning and lead to achievement of their learning goal. However, it is difficult for adult learner to use ePortfolio because they do not have ePortfolio system, learning deliverables, and do not know how to learn. In this research, we designed a guideline for adult learners to use ePortfolio with existing services. The guideline consists of 3 steps; collection, selection, reflection. As a next step, we will ask ePortfolio professionals expert review and adult learners to compose ePortfolio with improved guideline.

Keywords: ePortfolio, adult learner, lifelong study, instructional design

1. Introduction

ePortfolio (electronic Portfolio) is a tool for digitally recording and reflecting students' learning deliverables such as reports and notes. In educational institutions such as university, ePortfolio is rapidly being introduced as a quality assurance tool in education. In educational institutions, students can record their learning activities in classes and record them in the ePortfolio system, and teachers can evaluate their students based on the ePortfolio system. This makes ePortfolio an effective tool not only for learning and evaluation in educational institutions but also as a support tool for establishing learning goals and achieving them in lifelong learning.

However, after graduating from school, there are no lessons and no assignments, so it is necessary for learners to select learning deliverables and record them to the ePortfolio system by themselves. In schools, records (artifacts) in the ePortfolio system are automatically generated, so students do not need to record their learning deliverables to the ePortfolio system by themselves. In fact, it takes a good deal of time and effort to record learning deliverables to the ePortfolio system. Therefore, even if learners try to use ePortfolio, they quickly become frustrated with recording the learning deliverables, and cannot even reach the preliminary objectives of using ePortfolio. In other words, adults have the following difficulties in using ePortfolio:

1. In school education, the school prepares the ePortfolio system, whereas there is no ePortfolio system for adults that they can use throughout their lives.
2. Students are instructed by the teacher on what to record and how to reflect, whereas there are no such classes for adults. They need to record their learning.
3. Students can construct an ePortfolio because of their teacher's instructions, but adults do not know how to learn using ePortfolio.

On the other hand, people in business gain much learning in daily life. People learn through completing difficult tasks, improving human relationships, doing volunteer work, attending lectures, reading books, having new experiences while traveling, finding new discoveries at museums, and getting information from movies and other sources. They post their learning to social media sites such as Facebook, or tell their friends by email or chat. Furthermore, there will be learning acquired in communication with people through social media, email, and chatrooms. Although they are recorded as data, though they are not reflected upon.

2. Supporting Adults to Learn with ePortfolio

2.1 The Object of This Research

In this research, we propose methods and procedures for adults to learn using ePortfolio. Table 1 explains the problems in using ePortfolio, as explained in Introduction, and shows how to solve these problems according to our research.

Table 1

Problems Experienced by Adult Learners in Using ePortfolio, With Solutions

Problems	Solution in this research
Adults do not have an ePortfolio system	Use existing services such as Evernote
Adults do not have learning deliverables	Naturally generated records such as posts on social media, mail / chat interactions, digitized memos, etc.
Adults do not know how to learn	Propose procedure based on the ePortfolio cycle

2.2 Methods

The basic methods are as follows: First we make a prototype of the guidelines. Second, we ask expert reviewers to check the guidelines. Third, we categorize and analyze the ePortfolio constructed by collaborators, and have the experts review the portfolio itself as well as the results of the demonstration experiment. Then we interview the collaborators. Finally, based on the results, we modify the guidelines and repeat the same experiments.

2.2.1. Phase 1: Design Guidelines for Adult Learners to Use ePortfolio with Existing Services.

The basic steps to use ePortfolio consists of 3 steps; collection, selection, and reflection (Barrett, 2010). Collection means gathering information, selection means extracting specific information to use for reflection from collected information, and reflection means using extracted information to reflect what they learned from them and find suggestions for the next learning. In phase 1, we propose what adult have to do for each three steps (Table 2 and Figure 1). As a preparation, learners need to decide learning goal such as “Improve English skills” and decide the tag which represents learning goal such as “Improving English listening skills” and “Academic English skill”.

Table 2

Steps for using ePortfolio

STEP 1: Collection
<ul style="list-style-type: none">Decide on tools with which to collect information. We suggest services that show information as cards and which allow users to add tags for each card; Evernote, Simplenote, and others are excellent tools.Use the tools to collect useful information on social media (Facebook, Twitter, LINE), email, and chat. You can record not only what you learned but also the insights of other learners.Add tags to the collected information. You can put several tags on each piece of information, such as “English listening skills” and “Academic English skill”.
STEP 2: Selection
<ul style="list-style-type: none">Check the collected information based on each tag, select information that is closely related to your selected goal and can add new tag such as “Improve English listening skills” if necessary.
STEP 3: Reflection
<ul style="list-style-type: none">Combine information that is closely related to your selected goal into one block “Reflection”.Check “Reflection” and examine how much you are achieving the goal, what is still missing, and what to do in the future.As a result of this reflection, if your goal is still being achieved, attach a new tag such as “progress”. Example: “Improve English listening skills_progress”If your goal has been fully achieved, add a letter indicating to the tag to indicate completion. Example: “Improve English listening skills_finished”

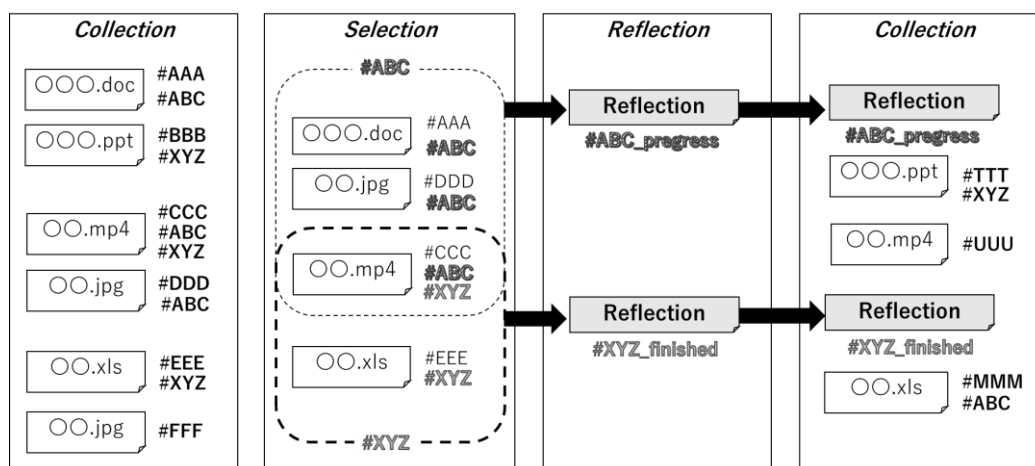


Figure 1. An image of steps for using ePortfolio

2.3 Phase 2: Expert Review by ePortfolio Professionals and Improve Guidelines

As a phase 2, we ask ePortfolio experts to check whether adult learners can compose ePortfolio with this guidelines. Experts are required to use "Rubric for measuring ePortfolio literacy" (Jenson & Treuer, 2014) as a standard. This rubric consists of five skills; Collecting, Self-Regulating, Reflecting, Integrating, Collaborating. Experts need to check whether adult learners can satisfy level 3 (Proficient) of rubric (maximum level 4) in three skills (Collecting, Self-Regulating, Reflecting) and ask how to improve if not. The remaining two skills (Self-Regulating and Integrating) will not be covered in this study, but will be undertaken after Phase 3 is complete.

2.4 Phase 3: Practicing Guidelines in an Actual Social Context and Identifying Problems

In this phase, we will conduct a demonstration experiment by asking collaborators to construct an ePortfolio. The procedure of the demonstration experiment and analysis will be as follows:

1. Five adult learners (research collaborators) will construct ePortfolios according to the guidelines for one month. They can ask us any questions about the guidelines at any time.
2. We will categorize and analyze the contents of the constructed ePortfolio and classify artifacts in each step for each collaborator. We will quantify how much the artifacts and tags are organized in each step. After the classification, we will check artifacts along with their tags to check the progress of the artifacts in each step.
3. ePortfolio experts will evaluate the constructed five ePortfolios using the rubric for measuring ePortfolio literacy. At the same time, collaborators will evaluate whether constructing the ePortfolio according to the guidelines is contributing to their own leaning or improving their skills. Based on these results, we will present a proposal for improving the guidelines.

3. Conclusion and Future study

In this research, we made prototype of guideline for adult learners to learn using ePortfolio. This research is ongoing and we are improving the guideline so far and we will conduct remaining phases, phase 2 and phase 3, in the future. Furthermore, we will introduce two skills (Integrating, Collaborating) which we did not included in this research.

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