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Think about it! Encouraging reflection through new media.

Is reflection an important part of a learning process? Most practitioners would say it is. An active, self-directed, life-long learner is also the one who reflects upon her or his learning. However, this is not an activity that many find easy to perform. It often does not come "naturally" – it should be encouraged or even taught. Herefore we will focus on harnessing of new media and tools to encourage and support it in the context of adult practitioners learning on-line

Reflection – theoretical basis

Longman's (2003) definition of the verb "to reflect" – "to think carefully" – is not sufficient for educational context. Practically, we do not want the students just to think, but to do it with a goal in mind, be it something as general as planning one's personal development or as specific as finding a solution to a given problem. This task at hand is complex and open, and the end result is not immediately clear. Therefore, for a learner it is complex and significant activity Furthermore, reflection is active and conscious. According to Dewey (1933) it is a "persistent and careful consideration" that "includes a conscious and voluntary effort to establish belief". Similarly, Boud, Keogh and Walker (1985) underline the intention and control of the learner over the process. Reflection is therefore unimportant in an aquisitional approach to teaching. Moon (2001) calls this "surface learning", as opposed to "deep learning" which involves the restructurization of cognitive networks, although it is worth noting that information which was processed semantically (more deeply) is better remembered, so reflection has positive implications even for most basic learning goals (Craik & Lockhart, 1972).

Reflection is commonly related to practice. In the Kolb's (1984) cycle of experiential learning it is a prerequisite for learning, as it allows for turning concrete experience into abstract concepts. Schön, who has explicitly voiced concerns about the state of professional development, has seen reflection as a means of amending that. He introduced the distinction between reflection-in-action and reflection-on-action (Schön,1983). The former happens as the practitioner acts, and is mostly driven by unexpected occurences, which drive the peon to re-evaluate what she is doing. The latter, closer to the traditional, common-sense understanding of "reflection", takes place after certain experience has finished. This distinction has been criticized (e.g. Eraut, 1994), but it stresses the fact that learning is a process which can be evaluated and modified as it happens and that being sensitive to its irregularities can enhance its effectiveness.

Advantages of and barriers to reflection

In the courses delivered for adult learners we focused on reflection for several reasons, some of which were listed by Moon (2001):

- It helps achieve deeper understanding of the subject and domain;
- It facilitates the development of metacognitive skills, which in turn helps future learning.

- It makes learners gain more ownership over their learning and thus enhances motivation;
- It allows for greater personalization of learning and encourages one's own reserach and exploration related to individual practice Supports tackling divergent problems and open questions
- Overall it transforms episodic learning into a process of personal development.

However, reflection is not easy to introduce in formal education.- Some of the obstacles are personal in character, the others stem from the specifics of learning within institution:

- Supremacy of reproduction and absorption of facts over creation and understanding as well as focusing on convergent problems;
- Assessment of learning that does not require deeper understanding of the subject.
- Curriculum and certificate-driven education that is not beneficial for personalization of learning process.

Institutional barriers result in individual problems of the learners. Reflection tends to be emotionally difficult as a deviation from establised learning patterns calling for self-direction. Moreover, learners often expect to gain "standarized knowledge" and definite answers rather that suppositions or open-ended answers as they are used to "objective" presentation of facts and knowledge in the academic context. Personal insight into the matter is not acknowledged.

Reflection in practice - context

Online courses that we provide are targeted at adult practitioners, mostly teachers and educators, and focus on different aspects of e-learning. We believe that such a context makes reflection worthwhile: it is related to practice, is personal and enables almost immediate application of skills. Participants can relate to and build upon their prior experiences. As tasks and assignents are highly practical and focus on action and creation they can observe the differences and pecularities of teaching online, so as to become equally effective in a new working environment.

On the other hand, personal development schema for teachers and educators does not encompass reflective practice. It focuses on cumulation of tangible artifacts rather than subjective expression. That makes reflection a challanging task, even for experienced professionals.

Reflection in practice - tools

Variety of new tools used in a heterogenous learning environment (LMS and blogs as core elements, videoconferencing, social bookmarking, on-line cooperation tools, messengers and e-mail as supportive means) of the courses give additional stimulus for reflection. It enables the participants to feel what their prospective students would experience. Thus they were encouraged to consider advantages, disadvantages and affordances of the tools and relate it to their skills, practice and, very often, prejudice. Reflection was encouraged on two levels:

- short reflective comments about on-going activities ("reflection in action") mostly in a form of individual blog entries;
- reflective assignments in a form of reflective essays and mind-maps (,,reflection on action") that relates to long-term activities and research;

Reflection in practice - conclusion

Introduction of reflective assignments and tasks is believed to support creation of a meaningful and coherent representation of a subject domain, in our case of new learning environments that make use of different media and tools. In order to promote reflection several specific rules were applied:

- Explicit instructions to reflect as well as examples of good practice were given. This was important since participants tended to stop at describing their activities instead of pondering over their feelings or actions;
- Reflection on the final assignment and on the intermediate steps. This helps to "slow down the learning" (Moon, 1999)
- Participants were engaged into meaningful conversations with one another. Event though reflection is essentialy an individual activity, it can be enhanced by confrontation with different ideas.
- Moderating and feedback: In this two basic rules were followed. First, by voicing alternative opinions we tried to make sure students do not settle on most obvious ideas and solutions. Second, summaries were given so as reflection leads to some conclusion after all.
- Different media were used to widen the choice and serve different learning strategies: Blog was the basic tool however mind-mapping tools also enabled for representing relations between chunks of knowledge. Taking advantage of all possibilities was encouraged, as they complement one another.
- Building e-portfolios: These encourage reflection by itself (e.g. on one's strengths and weaknesses) and also help with personal development planning.

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