Characteristics of a Virtual Learning Environment used in the postgraduate course: E-learning

Evaluative Case Study
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1 Introduction

In this case study I try to research how teachers use Moodle (Wiki Task 1: Examples of VLEs; Moodle) in the Postgraduate course E-learning. These results will be compared with literature review and with the outcome of interviews taken from first and second year students. The results will show what the learners and teachers expect from the VLE in the postgraduate course. With these results we can improve our VLE which we use for the postgraduate course E-learning.

1.1 Background

Together with 2 colleagues, we started a postgraduate course to improve the e-learning competences for teachers, trainers, IT-staff, ... The postgraduate course exist of 4 modules. The first module is a pedagogical module where students learn about the different learning theories. The second module is a technical module; in this module student learn to build a VLE. The third module is a communication module, here the students learn to implement e-learning in their organisation and deal with possible resistance. The last module is a project module in which the students prove that they have acquired all the needed e-learning competences. The postgraduate is a blended learning course, which means that there is a combination of different learning environments (Graham, C.R. 2005). In each module there are five face-to-face session supported by and VLE.

1.2 Why Moodle?

Our postgraduate course E-learning is also started to disseminate project results. When I was a student at the initial teacher training, I got a great chance to make a special thesis. My thesis promoter Valère Awouters offered me a project to open the content of the university college for employers in the neighbourhood. The main goal was to develop demand-oriented e-learning courses. The VLE has to be an open source or else the project wouldn’t have any chance to pass the first round. Together with Ruben Jans, we started to experiment with different kind of servers. We chose for Moodle because we had support of their large community. And the other main reason was the scientific partner in the project. The Open University Nederland used Moodle for their courses and they were satisfied with it. The choice was not from a great scientific research. This case study makes it possible to consider if Moodle is the appropriate VLE. More info about evaluating open source software and thus also VLE’s can be found in Wiki Task 1: Types and Characteristics of VLEs: Business Readiness Rating for Open Source

1.3 From project to postgraduate

Our learning environment was chosen but we didn’t have content yet. We organised several meetings with 5 lecturers in the university college to open their content for employers in the workplace. We developed an e-learning course, which was tested by the lecturers and their students. The results learned us that every e-learning course is different. For the e-learning course Spanish we used a lot of multimedia but for the accountancy course we mainly used Excel files with Visual Basic code.

Lecturers were surprised about the e-learning course we build for them. They adopted the e-course in their regular course. They hadn’t any idea that e-learning could work for their course. This realised us that the teachers’ e-learning competences are weak and that they need a course to learn about e-learning. Teachers have basic ICT-skills, but they don’t have the didactic knowledge and skills to incorporate ICT in their practice (Becker H.J., Rawitz, J.L. & Wong Y.T. 1999).
Characteristics of a VLE

In this section I will summarise, the literacy study I did concerning characteristics of a VLE. All the resources will be in the ‘Bibliography’ or ‘References’ of this case study.

A VLE is designed to act as a focus for students’ learning activities and their management and facilitation, along with the provision of content and resources required to help make the activities successful. In the past a VLE was used only as a repository where students could download their learning materials (Stiles, M.J. 2000).

Teacher with less experience about VLE’s thought that with a press on a button existing teaching materials would be adapted to digital material (D’Haese, I., Valcke, M. 2005). Too much time is spent on technical course when implementing VLE’s instead of training teachers to design their course suitable for a VLE. The introduction of a VLE has led to higher reflection about the educational aspects about the use of it. Anyway lecturers and students have a wide choice of extra possibilities by means of VLE, which can help break the sometimes very rusted routines in education.

Whether a classroom is on ground or online, for the learning environment to be stimulating, reinforcing, easy to access, relevant, interactive, challenging, participatory, rewarding and supportive, it should be provide input, elicit responses, and offer assessment and feedback (Delich, P., et al. 2007). In an online learning environment, these elements are even more critical because learners are working outside of the usual classroom social environment.

The characteristics of a VLE can be divided in three main categories: communication, e-learning and administration (D’Haese, I., Valcke, M. 2005). Although I think a fourth category seems necessary. The fourth category ‘Miscellaneous’ will cover course information (e.g.: Assessment Guidance, Module Aims, Module Outline,...). In the area of communication the following elements can be found: announcements, e-mail, discussion, file exchange, chat, whiteboard. The majority of these elements are asynchronous and thus time- and place independently. The synchronous tools like chat and whiteboard are tools that aren’t used much in a VLE. Most students already chat with tools outside the VLE. The e-learning category should enable learning and reflection. But communication tools could also enable learning as Salmon (2002) mentioned. E-learning includes interactive online test, upload zone for tasks, portfolio, resources, project zone, e-portfolio, student follow-up system, ... The combination of e-learning tools and communication tools makes learning happen. When a student uploads his task and nobody is reviewing it nor commenting it than the VLE is just a drop box. The last category administration includes enrolment of students, making courses available for teachers and students, statistics, intranet for the staff,...
3 Teachers’ view on the VLE

As earlier mentioned in this part I’m going to explain what we as teachers expect from the VLE. Together with my colleagues we had several discussions on the implementation of the VLE. It seems obvious that these results we be divided in the three main categories.

3.1 Communication

Literature suggested that the combination of e-learning tools and communication tools is essential for online-learning. We use e-tivities to make this happen. E-tivities is a framework for enhancing active and participative online learning by individuals and groups (Salmon, 2002). They’re motivating, engaging and purposeful; based on interaction between learners, students, participants, mainly through written message contributions; designed and led by an e-moderator; asynchronous; cheap and easy to run. They key feature of a e-tivities include: a small piece of information, stimulus or challenge (the ‘spark’); online activity, which includes individuals participants posting a contribution; an interactive or participative element, such as responding to the posting of others; summary, feedback or critique from an e-moderator (the ‘plenary’); all the instructions to take part are available in one online message (the ‘invitation’).

The role of the e-moderator can be found in Wiki Task 1: How Teachers and Learners Makes Use of VLEs.

E-tivities give us possibilities to work with a forum and to lead it. I previous attempts with forums we encountered the problem that the students activity wasn’t that what we expected from it. With these e-tivities we have more control on the forum. In the forum we want students to reflect on tools and discuss with each other. Each of our students has specific competences and we want them to share these via the forum. An e-tivity exists of 3 parts. The e-moderator should define a purpose, a task and an interaction. To motivate students in sending messages on the forum this could be a first e-tivity. Purpose: send a first message; Task: write something about your self (interests, hobby, work,...); Interaction: go back to the forum and check it on a daily base. The second e-tivity for stage 1 can be: Purpose: Practice to send messages; Task: write in 1 or 2 sentences what you see around you; Interaction: search for common things in other forum posts. More examples of e-tivities for each stage in the 5-stage framework can be found in Wiki Task 1: How Teachers and Learners Makes Use of VLEs.

We make use a built-in e-mail system. The main reason is that students use their professional mail address, they can’t be found in the database. When students mail with the built-in system they automatically mail to their professional address.

3.2 E-Learning

The e-portfolio is the most used ‘e-learning’ tool in the postgraduate. When a student starts with his career in our university, he starts with making his portfolio. In his portfolio following elements need to be included: personal information; this is me; my expectations and learning goals; my learning process; balance. Personal information includes the contact information: name, (mail) address, ... ‘This is me’ is the same as a curriculum vitae. In the expectations and learning goals a student formulates what he wants to learn or achieve at the end of the course. In the learning process the students should do a self-assessment and reflection. Balance is a section in which the student can prove which learning goals he achieved.

When a student can’t come to a face-to-face session the session will be recorded and streamed via the VLE. This makes it possible for absent student to catch up with discussion in the classroom. If the student wants to re-open the discussion he could use the forum.
As described in section 2: Characteristic of a VLE, the forum has a double function. One is to provide students with general information and the second is to share ideas, create knowledge.

All the learning materials like PowerPoint presentations, link to e-books, interesting webpages, additional information are available in the VLE.

3.3 Administration

The first step towards learning is ‘Access and motivation’ (Salmon G. 2002). Individual access and the induction of participants into online learning are essential prerequisites for online conference participating. Students need to have access to the system and should feel welcome and need to be encouraged to post on the forum. When they are facing problems with getting in the system or with finding their way in it, the chance exist that these students will drop out. This makes the administration of a VLE very important.

We used an open source VLE because we can enroll students and we are responsible their access to the system. Another advantage is that we are the helpdesk if a student has problems. The helpdesk from the university is not efficient. When bachelor students have problems with their mail or VLE they have to wait for until someone is fixing the problem and in most cases this takes to much time.

3.4 Miscellaneous

We have decided to provide students with module info: aims, outline, assessment both online as offline. For us it’s important to make students aware what we expect from them, they can advise the documents anywhere, anytime.

In our VLE we can extract statistics from every student. This enables us to have a view on the online activities of a student. We don’t use it as a control mechanism but in case of complaints by students we can use this and the assessment guide to justify their score.

4 Students’ view on the VLE

The expectations of the students were measured via interviews. Before the interview took place an examination of the results from a previous case study, Ruben Jans did concerning the surplus value of using Moodle in the postgraduate course E-learning, was done.

I use the interview method to gather information by providing information inside a students’ head, it makes me possible to measure what he knows, what he likes or dislikes and what he thinks (Cohen, L. et al. 2001). The second purpose why I use this method is to go deeper into the results from Rubens’ questionnaire (Kerlinger, F.N. 1970).

I used a half-structured interview with in-depth techniques. This makes it possible to control the validity of what the interviewee said and to receive a lot of information in a short time (Baarda, D.B. 2007). This means I asked one question: ‘How do you use the VLE and what do you expect from it to support your learning?’ Beside this question I wrote down topics I would like to talk about. These topics were chosen on the basis of results from Rubens’ case study.

The results of these interviews will be structured in the subcategories, like in section 3. This makes concluding easier.
4.1 Communication

From Rubens’ results becomes clear that 65.2% are satisfied and 26.1% are very satisfied about the forum. But it’s not clear about what they are satisfied, is it because technology is working appropriately or because of the layout? During the interviews it became clear that they were satisfied about the readiness of technology, they didn’t face any problems. But the students expect more guidance during the online discussion. They expect an e-moderator to give summary and to encourage all of them to publish. Although students indicate that online discussion a rather intensive occupation is, a large appreciation for the forum becomes clear from their responses. Students refer to direct relevance for their organization. They say that they will study/read more to be able to take part in the discussions.

Besides the online communication, they felt a great need for more face-to-face discussion. It’s less demanding and response is quicker.

Because students were not always able to visit the face-to-face session we recorded them and streamed them on the VLE. Students were very happy with it, via this channel they were able to catch up with ongoing discussion that maybe didn’t came it online.

4.2 E-Learning

E-portfolio, 26.1% were not satisfied about the portfolio. 17.4% were very satisfied and 56.5% were satisfied. Students had a different idea of the purpose of the e-portfolio. For a group of students it’s meant to be a repository of evidence and for the other group it was a place to put in their expectation and their reflections. This had especially to do with how they used the e-portfolio in their education. Students were satisfied about the tasks they had to make. Especially because the task they made in the course could be used in their organization. Some students indicated that they want more feedback on their tasks. They were not sure if the work done was good enough.

4.3 Administration

As this section is more on the background, students hadn’t any comments on this.

4.4 Miscellaneous

Students were satisfied that the module information could be downloaded, but this wasn’t really necessary for them because they also received a study guide on paper.

5 Conclusion

It seems that students who are filling in questionnaires have a need to express more than they can. During the interview it went clear that their answers to question need some consideration or just need to be clarified. This has exhorted me to reconsider the questions of the inquiry. Apparently some questions were ambiguous. I think that Ruben made wrong conclusions when he was examining the results. Of course when interviewing, you should be able to check if answers are valid, but with in-depth interview this is easier (Baarda, D.B. 2007).

A forum can be used very widely and with good coaching it will be appreciated by the users. Making a forum available will not automatically result in student activity. It’s important for that reason that students get clear directives of what the teachers is exactly expecting from them. If a chance occurs to have a face-to-face discussion with students, than you should use that chance and not move it to the online forum just to have online discussion.
6 References


7 Bibliography


