

23 Moodle Virtual Learning Environment (VLE) - Teachers' Experiences After the First Academic Year at the Oulu University of Applied Sciences

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23.1 Abstract

Blended learning, online teaching and - learning have increased rapidly in Oulu University of Applied Sciences (OUAS). Education technology solutions and pedagogic models of the online teaching have been consequentially developed. During the last few years attention has been paid to the choice of learning management systems (LMS) and to the cutting of overlapping systems. In the concentrating on one supported LMS the objective has been clear and high-quality solution which is seen as a clarity to the teachers and students.

In the fall of 2016 a Moodle learning environment was bought into use from a new service supplier. The new learning environment has been one whole school year in use. Teachers' opinions about Moodle and online teaching experiences were collected in a survey conducted in December 2017. From the point of view of the development work, the objective is to solve some technical challenges but especially the focus of the developing is on the pedagogical knowledge. One special subject of development will be utilizing of the learning analytics.

The objective of the survey was to explore how Moodle is used and especially what resources are used. The survey also gives information about the teachers' cooperative working with the course bases, use of different activities and the parallel use of different cloud services. The survey also clarified what kind of good experiences the teachers have from the use of the Moodle. At the same time problem sections and challenges were clarified. There also was an opportunity to give the free feedback.

The survey gave guidelines to the development work: how pedagogic developing can be supported near the teachers and students. Some results are gone through also with the service provider in whom the objective is a solution which functions technically irreproachable. Later the charting will be carried out for students as well.

Keywords: learning management system, virtual learning environment, education technology, e-learning, blended learning, technology-enhanced learning, online learning environment, online learning, online teaching

23.2 Introduction

The survey identified the teachers' experiences about Moodle LMS. The survey was answered by 100 teachers. In OUAS there are 350 teachers, so the response rate was about 30%. Next will be presented questions and responses charts. Open responses are classified.

23.3 Results of survey

23.3.1 Number of Moodle courses

Teachers were asked how many Moodle courses they have. Half of the teachers (46%) have over ten course bases. If there are lot of parallels course copies (the same course) it takes a

lot of storage capacity. There is a problem with increasing disk capacity because one user is allocated a certain amount of storage space. This can not be exceeded.

Some teachers use same course base with groups and it helps for example material updating. As a result, we instructed the teachers to remove old training courses and move to use groups. That's why:

- teacher in a course can have several classes at a same time (teacher don't need parallel course bases to every class or group)
- teacher can share a course with other teachers and no need to see the students from colleagues' classes
- teacher want to allocate a particular activity, resource or topic section to just one class or set of users and teacher don't want others to see it. [1]

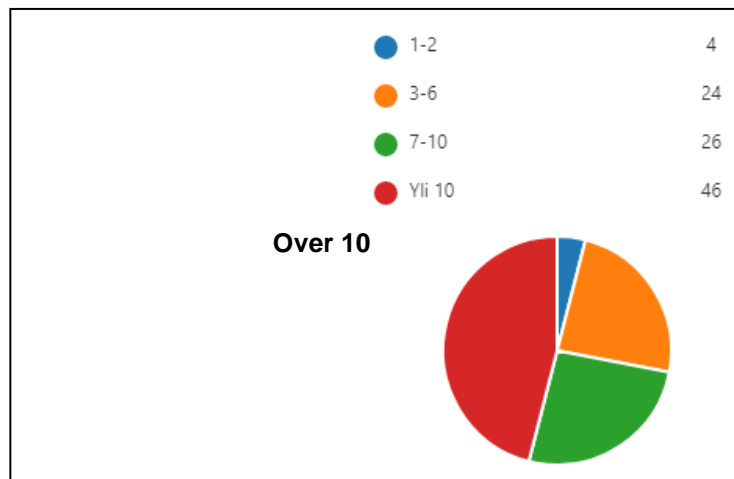


Figure 1: How many Moodle courses do you have?

23.3.2 Common courses with other teachers

One important goal in OUAS is co-operation with teachers. So, we asked do teachers have common courses with other teacher. The result was consistent with the goal. Almost all teachers have common courses at Moodle.



Figure 2: Do you have common courses with other teachers?

23.3.3 Cloud services and Moodle

Users have been guided to make link between Moodle and Office 365 (O365) cloud service, but most have not linked O365 service to Moodle. This makes possible to keep files in the cloud and the materials used in Moodle are links to the cloud service. If contents are in cloud, materials are much easier to update. This saves also storage capacity on the Moodle server.



Figure 3: Linking Office 365 cloud service to Moodle

Teachers download content and material to Moodle. As mentioned above this take a lot of storage capacity. If teachers have multiple course platforms and parallel course copies they have to download same file several times. As a result, we instructed the teachers to use O365 cloud and with videos for example YouTube channels.

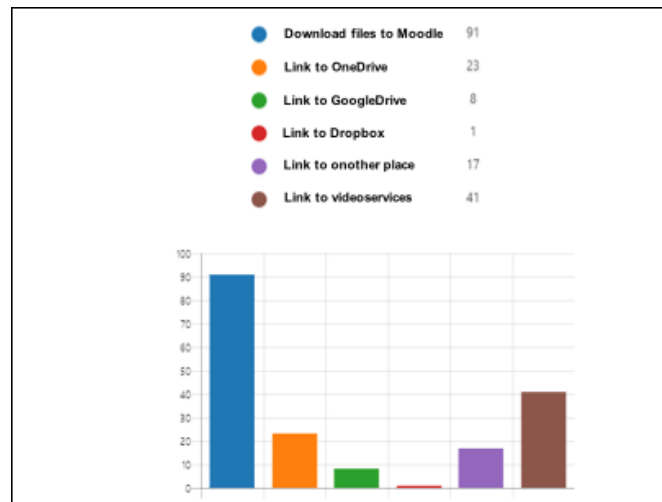


Figure 4: How do you link materials to Moodle?

23.3.4 Moodle activities

An activity is a general name for a group of features in a Moodle course. Usually an activity is something that a student will do that interacts with other students and or the teacher. [2]

The survey was clear that *assignment*, *quiz*, *forum*, *lesson*, *feedback* and *group choice* are the activities used most by teachers. Over half of the respondents were in use forum (58%) and assignment (87%).

Forum area activity is commonly used to create interactive activities. The assignment with the activity collects student returns to one place. Activities can also return group tasks. The role of assignment activity in interaction is usually between a teacher and a student.

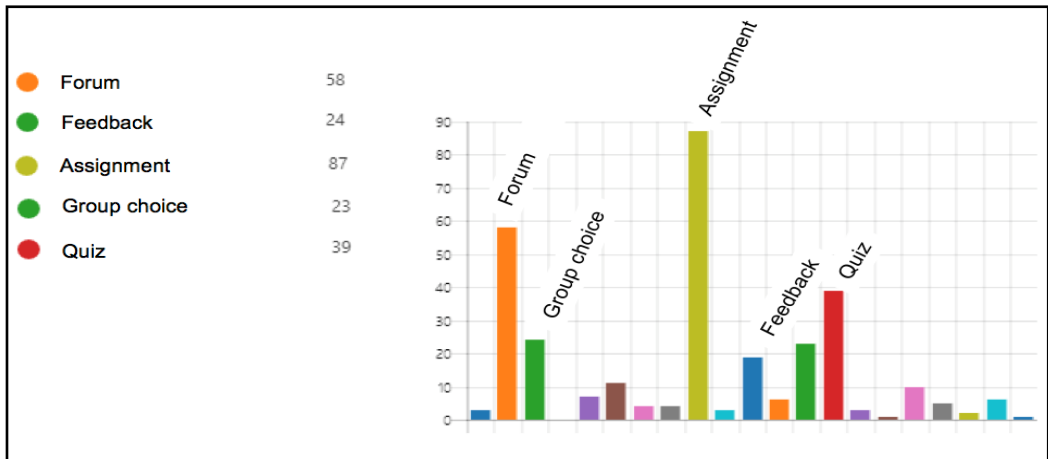


Figure 5: What activities are used in Moodle?

Based on the most used activities, it can be noticed that cognitive depth and social breadth of learning are in the middle of the graph. These are right trends if we are looking for our organizations pedagogical goals.

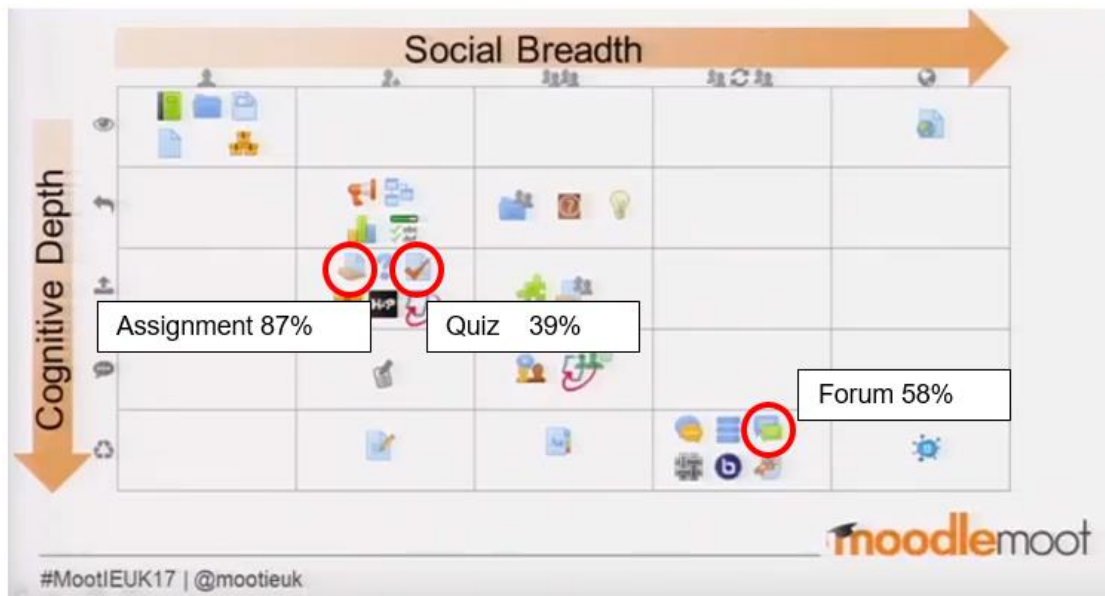


Figure 6: How do you generally do files with Moodle (Learning Analytics through Machine Learning: Project Inspire | Gavin Henrick at #MootIEUK17) [3]

23.3.5 Open questions: Good experiences

Teachers have lot of good experiences about using Moodle. Some respondents compared the environmental features of the previous products and considered the new solution more versatile, easy to use, clearer, more visual and stylish. Learning material is easy to share and update. The Collaborate Video Conferencing Tool received good feedback. Quiz and Assignment activities get good feedback and tools to informing students. Teachers also like Moodle’s Gradebook, because they don’t need excel worksheets for assignments any more. IT-support works and eCampus-team’s trainings and workshops were specifically mentioned.

23.3.6 Open questions: development needs

Development needs were also found. The system (Moodle) is sometimes slow which causes problems. File management should be easier and Quiz activity is good but making questions takes time.

23.4 Conclusions

The survey showed development needs and strengths that should be further developed. Teachers are doing cooperate and they use Moodle's activities versatile. OUAS IT-support and good instructions was seen important as well as eCampus-team's pedagogical trainings and workshops. Technical problems and challenges need to be resolved with cooperate the service provider. This work has already begun and also workshops with teachers, where contents has been downloaded to cloud services. Unnecessary and overlapping course platforms have been removed.

23.5 References

[1] Moodle Community, "Moodle Docs," 24 8 2017. [Online]. Available: <https://docs.moodle.org/33/en/Groups>.

[2] Moodle Community, "Moodle Docs," 27 1 2018. [Online]. Available: <https://docs.moodle.org/34/en/Activities>

[3] G. Henrick, "Learning Analytics through Machine Learning," 5 11 2017. [Online]. Available: <https://www.youtube.com/watch?v=-PPp1LdE5c>.