VYTAUTAS MAGNUS UNIVERSITY

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TEACHER PRACTICES IN USING LEARNING ANALYTICS TO ENHANCE LEARNING IN BLENDED ONLINE STUDIES

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Research background

Researchers seem to agree that educational technologies serve just as a tool through which learning and teaching happens.

While higher education institutions are exploring innovative ways to enhance and facilitate learning experiences of students so to improve the overall quality of studies, TEL becomes inevitable.

HEIs encourage teachers to develop blended online courses in virtual learning environments, to use new tools and solutions, allowing to monitor and enhance students' learning.

Therefore, the research is needed to observe if and how these practices are successful, and what factors impact teaching and learning success.

This question appears to be even more relevant in the recent situation worldwide.

The Benefits of Blended Online Learning

- It changed the traditional teacher-centred approach, with a more learner-centred practices, and learner engaged activities in teaching and learning.
- Teaching/learning processes have become more personalized and flexible.
- It has granted access to massive amounts of study materials at any given time.
- Learning environments, with the help of learning analytics, can produce a lot of data about learners and contexts where learning occurs.

This research aims to

describe teachers' practices at Vytautas Magnus University (Lithuania) in adopting technology enhanced learning through the development of blended online studies, and using virtual learning environment tools such as learning analytics (LA) to increase learners' engagement and enhance the learning/teaching processes.

Context of the research

- Research represents the case of Vytautas Magnus University (Lithuania);

- VMU allows different types of instruction: traditional face-to-face classrooms, blended, and online learning;

- VMU promotes TEL in the study process and encourage teachers to be innovative;

- Invests in support systems and trainings for teachers;

- Offers a wide selection of diverse courses on Moodle in different study fields;

- Introduced digital badges both for students (learning achievements) and teachers (professional achievements or development).

University has integrated a virtual learning environment (Moodle) in 2009 and been using it since.
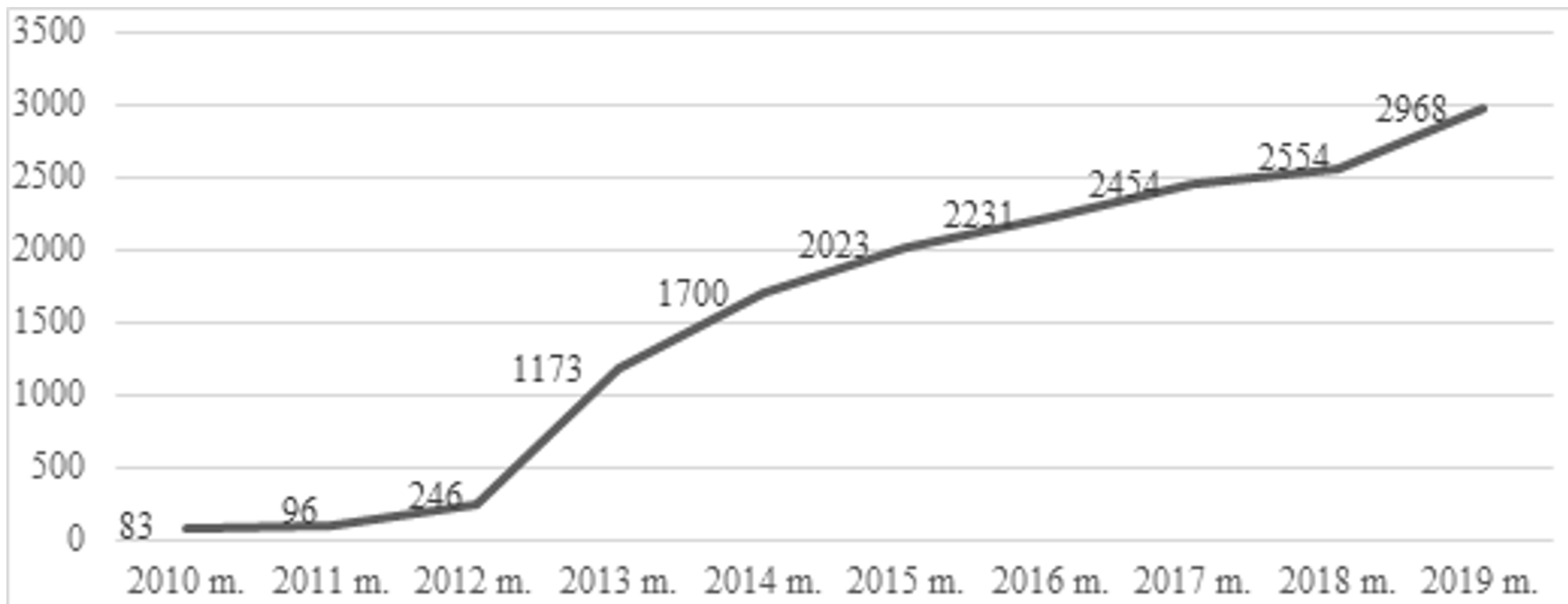
3 levels of study course preparation for the online learning platform:

1st level. Teacher has to register the course in the online platform and upload approximately 20-49% of the curriculum.

2nd level (blended courses). Teacher has to upload approximately 50-90% of the study content and choose study activities that would not require face-to-face interaction all the time.

3rd level (online courses). 91 - 100% of the study content has to be uploaded and the whole course curriculum has to be designed and delivered online (interactions, learning assignments, mid-term and final exams).

Methodology

Research participants. 25 interviews from university teachers, delivering blended and/or online courses in Moodle.
The age of interviewees varied from 29 to 63, with the online teaching experience varying from 2 to 15 years.
Data collection. Semi-structured interviews were used to collect data, following the set of topics as interview guidelines.
Data analysis. Qualitative content analysis was chosen to analyse interviews and present research findings.

Research question

What are teachers' practices of using LA to engage students into blended online courses?

Importance of being open to changes - designing of the curriculum is not a static process.

Changes that are induced by the urge in response to specific learning activity

"*I created a blog, where I asked students to upload their analysis of different articles in the media, discussing the same topics from the perspective of the state, the resident, or the business. But this blog failed, as **it got absolutely formal** and did not evolve into some format that could stay by itself. As **my initial idea** was that we could have **a place to upload news**. <...> but **they did what I asked them to do and that's it**.*" (I01)

Timely changes related to the improvement of activities

"<...> if I feel that there are some difficulties in my course, that tasks are too difficult, there's too many of them and so **bigger part of students do not deliver** them, <...> that there's a significant **delays** <...>, I make a decision to make changes, either **by shifting individual activities into group work**, or by simply **ignoring** them." (I22)

Revising curriculum each semester based on learners' level of knowledge, preparation and relevance of topics
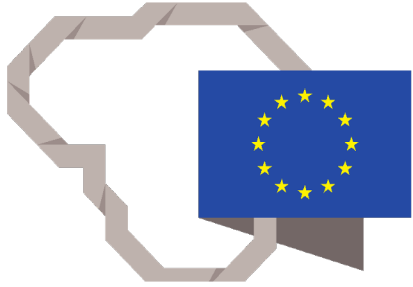
"it is impossible to teach the same material each semester, this is not English language, history, or philosophy. I always observe if we are in time with the themes, if there is any delay, what students understand and what not" (I13).

Conclusions (I)

- The university is trying to ensure transition from traditional face-to-face teaching/learning organization to a more modern and flexible teaching/learning in a virtual learning environment.
- The integration of Moodle has increased the accessibility of education and mobility of teachers and students.

Conclusions (II)

- The application of LA tools to monitor learners' engagement has facilitated teaching and learning processes and enabled teachers to quickly interact and intervene into learning processes whenever needed.
- Teachers report that they make changes in curriculum design and pedagogical approaches that would correspond to actual learners' needs and to make learning more personalized.

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