



UNIVERSITY TEACHER SKILLS AND ATTITUDES TO CREATE AND USE OER

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Summary

What is the attitude of university teachers towards OER, their use and creation? What are the skills of university teachers to create and use OER? And how OER transform higher education curriculum? These are the main research questions of this research. In order to answer the research questions, the theory analysis, semi-structured interview, and design-based research were used. The preliminary results of research findings that focus from insights for expert interviews and teacher viewpoints are discussed in the paper.

Introduction

Open education resources are not a new phenomenon; however, it is still indolently used in higher education curriculum. Research (Allen, & Seaman, 2014; Guo, Zhang, Bonk, & Li, 2015) shows that teachers lack time, skills, attitudes and incentives are the main obstacles for OER creation and use.

*“Opening up education requires a change in attitudes and mindset”
(Ossiannilsson, Altinay, & Altinay, 2016; p.159).*

The importance of high quality OER development for educational institutions could be seen as a tool for marketing institution and its courses (Comiskey, McCartan, & Nicholl, 2013). However, the use of OERs in university curriculum may also contribute to the reflection of educators (Elf et al., 2015) and sharing of their practices. Allen and Seaman (2014) research revealed that although university teachers indicate OER discoverability and evaluation and the main barriers while searching for and selecting OER, the discoverability rate of OER compared to traditional resources was very similar.

Guo, Zhang, Bonk, and Li (2015) indicate 5 groups of OER development and usage barriers, stressed by university teachers from China – (a) content, (b) experience, (c) institutional, (d) interface, and (e) habit (of online learning). Their (Guo, Zhang, Bonk, & Li, 2015) research stressed the lack of time and skills, as well as incentives to develop OER, and teacher viewpoint were among the significant obstacles for OER development.

So, what is the attitude of university teachers towards OER, their use and creation? What are the skills of university teachers to create and use OER? And how OER transform higher education curriculum? These are the main research questions of this research.

Research methodology

Qualitative research is based on induction and description of results, and its purpose is to study and understand complex phenomena with their own characteristics, and to present various meanings and attitudes about the investigated phenomenon from the perspective of participants (Merriam, 2002; Creswell, 2007; 2009; Flick, 2009, Žydžiūnaitė & Sabaliauskas, 2017). The lack of research on the identification of the skills and attitudes of university teachers regarding the use of OER, on the needs for the change of high education curriculum towards open online learning and the use of OER, and focus on responding to the learning needs of digital and network society, has led to the selection of a qualitative research paradigm that helps to understand human experience and to reveal the subjective meaning and interpretation of instances of individual experiences without isolating them from the context. In order to answer the research questions, the theory analysis and design-based research were used.

Data collection and research participants

During the first research stage a semi-structured expert interviews with three open-ended questions (about the characteristics of open online learning curriculum, its change and impact on learning process, and finally on OER impact for open online learning curriculum in HE) were used for collecting data from education experts and indicating the main areas of concern and deeper analysis to focus on in further research. The interviews were recorded with the permission of participants; and essential aspects of the interview or further questions were noted in the researcher's diary. At this stage of the research, the questions for experts were constructed on the basis of theoretical findings and orientated towards research questions.

In this study, the selection of interviewees was used to select those who are most familiar with the research problem and can provide detailed information on needs for the change of open online learning in high education, considering skills, needed for OER creation and use, and integration into the university curriculum. The target selection of interviewees was based on the criteria:

- international expert in open and online learning;
- having at least 10-year expertise, implementing open and online learning in higher education.

The researchers interviewed 13 international experts, based on the fact that such an interview would help to obtain enough meaningful information for research, which would help ensure data saturation. The study involved 7 women and 6 men aged 25-60, with experience in the open online learning from 10 to 18 years, from 8 countries, ranging from policy level experts up to practical application teachers and researchers in universities and companies.

Based on the interview findings, a design-based research was prepared. It was started with the state of art survey, which included an ATOER scale (developed, tested and validated by Mishra, Sharma, Sharma, Singh, and Thakur (2016)) for assessing the attitude of Lithuanian teachers towards OER. This teacher attitude survey was one of the initial design-based research steps, and it was followed by OER creation (using slidewiki tool) and integration into curriculum, all taking place and under suggested scenario, then curriculum testing and analysis of the findings. The survey including ATOER scale was used twice: first, with teachers having little experience in creating OER, and repeated with the same teachers after they've used slidewiki tool for OER creation. The next steps of design-based research are planned to be followed by teacher focus group discussions, student surveys, and teacher interviews on their experiences in creating and sharing OER, integrated into curriculum.

This initial state of art survey of design-based research was performed with 30 Lithuanian teachers (15 university teachers and 15 VET teachers) who filled in the survey after participation in the trainings on how to create OER using slidewiki tool in April 2018. From April 2018 to August 2018 the teachers created OER and integrated them into curriculum using provided scenario. The second survey on teacher attitude and skills was launched in September 2018, it included the same ATOER scale to indicate if there were any changes in teacher attitude towards OER, sharing and adaptation. Teachers are testing the curriculum (with integrated OER) from September 2018 to January 2019.

Data analysis

Qualitative data of the semi-structured interview were analysed through thematic analysis, based on the steps documented by Braun and Clark (2006; 2013) and provided with guidance in applying the six-phased method (Nowell et al., 2017): (a) Familiarizing with data; (b) Generating Initial Codes; (c) Searching for Themes; (d) Reviewing Themes; (e) Defining and Naming Themes; (f) Producing the Report.

Certain preliminary broad theme nodes were provided to describe the phenomenon of research, however, the data was essentially processed on the basis of the inductive research logic, since the underlying themes and subthemes were formed directly from the results of the empirical data. In other words, the empirical data were specified and supplemented with preliminary nodes of the themes, discovering themes from the data itself.

The study was initially guided by the principle of volunteering (Allmark, 2002; Flick, 2009; Smith et al., 2012), an email agreement was received from the participants to participate in the interview. The investigation was confidential (no one except the researcher cannot use information provided) and anonymous – without disclosing the identity of the participants in the investigation (Allmark, 2002; Creswell, 2007; 2009; Flick, 2009; Smith et al., 2012).

The initial teacher survey data were summarized and analysed using MS Excel to indicate state of art of teacher approach to OER, noting the tendencies and comparing the differences of VET and university teacher approaches. The data analysis of this survey is going to be followed by statistical analysis in the second round, when the second survey results are available. The

data from the second teacher survey will be analysed and used to indicate the change in teacher approach and skills for OER creation, after the experience of OER creation and integration into curriculum. The analysis will take place from the end of September to October 2018. The initial findings will be presented in research workshop.

Research findings

The thematic analysis of semi-structured interviews revealed that universities are changing and they need to change – “universities have to adopt to processes like accreditation” (I7) and recognition of open content (I8); “from educational perspective we need to be open to the source of changes that are going on” (I8); “universities are not organized around the needs of students” (I9). Experts stressed that “every change has to come from inside the educators” (I12) and the change in curriculum is important, necessary (I7) and going on (I3, I5). It was pointed that teachers and the curriculum they deliver need to change to adopt to learner needs and other processes, driven by technologies and openness (I5, I9, I11, I12, I13).

“As sharing is one of the key features of the digital society, the role of OER is increasing. It is important not to repeat and not to ‘rediscover the bike’, but to use what has been found and has already been done” (I1)

“Do not design new Simon. If you know exactly that the Simon already exists, just use this Simon, and say thank you to the person that you can use this...” (I5).

OER impact was noted to be important (I3, I4, I7, I8, I11), but still not sufficient (I3, I4, I5, I9, I11, I12), or “even very very little” (I9) – “OER is slowly arriving” (I5), but it has still not reached the mainstream (I5, I10). Experts also mentioned that there are existing forces that want to prevent from this change (I8, I2) that OER are bringing. Raising teacher awareness on OER (I10) and transforming their “way of thinking” (I11) was emphasized. The insights of different teacher patterns of using educational materials (I2, I8, I9) and attitudes towards OER (I2, I10) were also underlined by experts, leading to thorough research in the topic.

Initial Lithuanian teacher survey revealed that most teachers, selected for OER creation and development had a positive attitude towards OER and sharing, noticing that VET teachers had more positive attitude than university teachers. It was revealed that 80 % of the teachers thought that It was a pleasure if someone adopted or adapted their educational resources and most of them (73%) agreed that sharing enhances their personal and organizational reputation. Also, it was positively assessed that sharing of educational resources increased teacher profile amongst peers and others, and that OER increased the network and sphere of influence, promoted collaboration, and sharing OER encouraged others of doing so (70% of teachers agreed with all statements). However, it was controversially assessed by university and VET teachers a responsibility of a teacher to share all their created educational resources – although generally half of the teachers agreed and the other half was not sure or disagreed, making separate analysis of university and VET teacher responses it was found that more of university teachers disagreed (47%) in sharing all their created resources than agreed (40%),

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while 60% of VET teachers were tend to agree (and only 13% to disagree) that it was their responsibility to share all created educational resources.

Initial Lithuanian teacher also survey revealed that many teachers (37%) are not sure of what impact OER creation had upon their recognition at global level, however the other (60%) tended to think positively. Research also showed that 33% of the teachers were not aware of what were their feelings, if someone used their OER, leading to the assumption that they had not shared OER previously. The 33% of teachers were also not sure, if creation of OER is driven by student academic requirements, and generally 43% tended to agree and 23% to disagree. However, when analysing VET and university teacher opinions separately, it was noted that 40% of university teachers disagreed (40% were undecided), while 67% of VET teachers agreed (27% were undecided) that they adopted OER as this fulfilled academic requirements of their students. Some of the summarized insights and other ideas, revealing teacher attitude towards OER are presented in Figure 1.

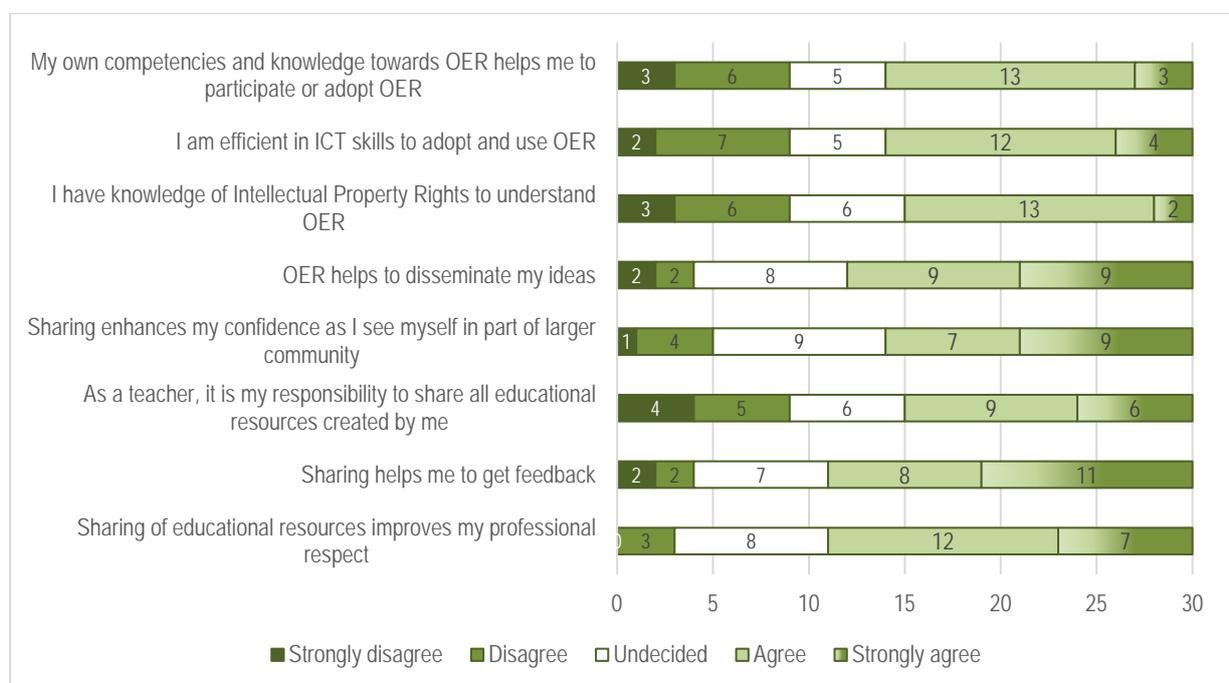


Figure 2. Attitude to OER creation and use by Lithuanian teachers

The theoretical considerations of the paper and further empirical research will be complemented in the further stages of a four-year research project “Open Online Learning for Digital and Networked Society (3.3-LMT-K-712-01-0189)”. Project is funded by the European Social Fund according to the activity “Improvement of researchers” qualification by implementing world-class R&D projects’ of Measure No. 09.3.3-LMT-K-712.

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