# Creating OER for teacher education

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# **Creating OER for Teacher Education**

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## **Abstract**

This paper focuses on documenting the process of OER creation with the notion of pre-service teachers as OER developers which includes identifying a framework to guide the participating lecturer and students in creating OER, educating participants about OER, creating OER and feedback, publishing OER and challenges faced in creating OER. A group of 30 pre-service English language teachers embarked on creating their first OER for teaching and learning. Two projects were carried out emphasising on writing skills and popular culture. The first project, a collection of writing games, was created by adapting existing games to revolve around a chosen popular song. The second project, a collaborative short story writing, was created through an online collaborative tool. This paper only discusses the first project which has been published online. The paper also highlights the lessons learned from the first project. These lessons are to be included as the guiding principles in working towards publishing the second project.

Keywords: English language, content creation, teacher education, materials development

## Introduction

Teaching staff in UMS have been using OER in teaching and learning. However, the concept of OER is still new to the undergraduate students. In an effort to promote OER to the preservice teachers, two projects were introduced and conducted to create OER for teacher education. This paper aims to describe the process undertaken to create OER from educating the preservice teachers to publishing the OER. The study also aims to identify challenges faced by the preservice teachers in creating OER.

The creation of OER in this project utilised the Design Thinking approach proposed by IDEO (2012). IDEO proposes five main stages involved in the process of designing. These process are:

Discovery Students understand the needs of a specific group of people. Various means are used to gather information about the needs. These means include interview, observation, note taking or site visit to know more the problems and how the people are affected by the problems.

 Interpretation The information gathered in the Discovery stage is transformed into meaningful insights and themes which show actionable opportunities. Students make sense of the information and ask 'How might we' and 'What if we'.

#### Ideation

Generate ideas through brainstorming. during brainstorming, come up with many ideas. Then, select all the most promising idea. Describe how the idea will work to solve the problem.

- Experimentation Students build prototype representing the idea. The prototype
  is shared with others to obtain feedback. Feedback can come from the same
  group of people they meet in the Discovery stage. Engage in conversation with
  them to get their response to the prototype. Evaluate the relevance of the
  feedback and integrate related feedback in improvising the prototype.
- Evolution Track impact made by your idea. Document any changes made to refine the idea or prototype. Engage with others to build partnership. Share your success and challenges with others who are keen to make changes.

This study also employed principles suggested by Masuhara and Tomlinson (2004) to use three major categories of adapting materials, namely plus, minus and zero. Plus category consists of addition and expansion. Minus category consist of deletion, subtraction and reduction. Zero category consists of modification, replacement, reorganisation, resequencing and conversion.

# **Participants and Context**

The project involved a group of 30 preservice teachers who majored in Teaching English as a Second Language Education. They were enrolled in a course entitled 'Teaching Writing Skills'. One of the learning outcomes of the course was to enable the design of learning materials for teaching writing. As part of their coursework, they were required to develop materials to learn writing skills. They were required to design games or adapt existing games to help secondary school students to learn writing skills using a popular song. This coursework was conducted as a group work.

Discussion with the preservice teachers found that they had limited or no prior knowledge about OER. While many of them had not heard of term OER before, they were aware of the concept of free resources available online. Upon understanding the concept of OER, they showed willingness to contribute their work as part of the OER. They were unsure of the impact that could be made through creating OER. They were motivated to create OER as they were aware that more teachers and students would be able to access and use their OER.

## **Project Design and Method**

At the initial stage of the project, preservice teachers were informed about the concept of OER, the benefits of contributing to OER and Creative commons. Then, they started creating OER by adapting learning activities to teach writing skills using a popular song in order to make the OER more relevant and current. The preservice teachers employed the strategies suggested by IDEO (2012) and Masuhara and Tomlinson (2004) to create new games or adapt existing games. Then, they presented their work using presentation tool such as PowerPoint slides to obtain feedback from their peers and lecturer. Feedback given revolved around the issues of practicality, suitability and creativity of the activities.

The lecturer also provided feedback on the use of images to avoid copyright issues. They were given time to improve their OER which included the games and presentation slides. Then, they submitted their final OER to the lecturer. The lecturer conducted a final checking on the OER submitted to avoid errors in language and to remove any copyrighted materials undetected in the earlier presentation stage. Finally, the slides were uploaded and shared in a presentation sharing site.

Focus group interviews and reflection sessions were conducted with the preservice teachers after publishing their work online. The questions for focus group interviews were related their the process of creating OER. The reflection sessions allowed them to reflect on the challenges faced in creating the OER. Data gathered were transcribed and coded to obtain codes, groups and finally themes.

## **Findings**

#### How did the preservice teachers create OER using Design Thinking?

During the discovery stage, the most common strategy used by the students was reflection. Only some of the preservice teachers had experience teaching in a school. Therefore, they reflected on their experience of teaching in a primary school. Other preservice teachers only reflected on the problems they faced when they were learning writing skills in school.

During the interpretation stage, the preservice teachers looked for games that could help to solve the problems identified. The most common strategy used was reviewing and evaluating existing games to identify ways to improve the games. They were more keen to adapt from existing games than to create new games. Only a handful of them asked the 'how might we' and 'what if' questions.

During the Ideation stage, the preservice teachers had brainstorming and discussion session to generate ideas and narrow the ideas. Ideas formed were discussed with the lecturer to obtain feedback.

During the experimentation stage, the preservice teachers prepared the games, including presentation slides, handouts and rewards. They demonstrated the games by playing it with their peers. Bothe the lecturer and their peers provided feedback and ways to improve the games. The slides and handout prepared were checked to avoid copyrighted content. Finally, the slides were published online.

As part of the evolution stage, the preservice teachers shared and promoted their games to other preservice and inservice teachers. Lecturers of the faculty have also promoted the games to other lecturers.

## What are the challenges faced in creating OER?

This section details the challenges faced by the preservice teachers in creating OER. Two major challenges were identified in creating and adapting learning activities. Firstly, some preservice teachers faced problems in language clarity. They were not able to write clear instructions. In some of the activities, the sequence was not appropriately arranged and clearly described. Apart from writing instructions, they also made language errors such as grammar, spelling, capitalization, and punctuation. In addition, they also used informal language such as short forms and internet slang in writing instructions.

Secondly, the preservice teachers included copyrighted content in the slides created such as images, background images, animated images even though they had been informed to use only images which are copyright-free. Some of them could not grasp the concept of copyright-free content thus did not take steps to avoid copyright content. They also commented that they could not comprehend the Creative Commons licenses, thus not able to differentiate which content could be used. In addition, they commented that they did not know which source and how copyright-free images could be obtained.

## **Lessons Learned**

Three aspects need to be taken into consideration in future projects. Firstly, the preservice teachers' understanding of issues related to OER especially about copyright, Creative Commons and open source need to be strengthen. They need to be informed about these aspects in order for them to evaluate and make decision on whether the content can be used. A list of websites containing copyright-free content should be provided to the students.

Secondly, peer evaluation and feedback is important in refining the OER created. Peers are able to provide useful feedback because they are directly involved with the target group. In this project, their peers were articulate and critical in providing feedback related to pedagogical issues which helped the preservice teachers to refine and improvise their games.

Finally, a peer evaluation guideline should be provided to the preservice teachers to help them frame their feedback. Relevant questions and aspects could help them to be critical and concise in providing feedback.

## Conclusion

This paper has given an account of two main issues in creating OER for teacher education, namely the process of OER creation using Design Thinking and the challenges faced. It is shown that the preservice teachers employed different strategies to accomplish each stage of the OER creation. In term of challenges, they faced problems in using the appropriate language in the OER created and also in avoiding copyrighted content in their work. In general, it seems that with more guidance and assistance provided, preservice teachers are able to create OER for teacher education. Further work need to be done to examine the impact made by the OER.

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