2   Students in search of (open) educational resources: the benefits to the learning process

Robert Schuwer
Fontys University of Applied Sciences

Marjon Baas
Saxion University of Applied Sciences and ICLON, Leiden University

Aukje de Ruijter
ISO, Dutch National Student Association

Introduction

In most studies, the reuse of open educational resources (OER) is considered from the perspective of the lecturer. This is understandable, because it is usually the lecturer who decides which compulsory and recommended literature is needed on a degree programme to achieve the required learning outcomes. However, some students may require additional resources; for extra practice, because they are interested in a different viewpoint, or because they are given more ownership of their learning and therefore need to find their own relevant resources. We therefore need to consider reuse from the student's perspective too. How do students search for additional educational resources? How do they decide which ones to use?

In a study on the use of OER by students who were registered on a degree programme, 30% said that their use of OER influenced their decision to choose a particular course in the degree programme (de los Arcos et al., 2015). Videos and open textbooks were the most commonly used form of OER by these students. The study results were based on 2,132 respondents, 31% of whom were aged 19–24, and 61% of whom were from the UK or the US. In the Netherlands, an unpublished survey was carried out in 2013[2]. This survey consisted of closed multiple-choice questions and yielded a useful response of 162 students (53% from universities of applied sciences (hbo), 44% from research universities (wo) and 3% from other forms of higher education). The most cited reasons for searching for educational resources in addition to, or instead of, the recommended educational resources were: clarification of the course material (64%), the quick and 24/7 availability of digital educational resources (51%), and to save time (for example by searching for a summary of the course material).

Although these results give a general idea of the behaviour of students when it comes to the reuse of OER, we need to find out more about the current generation of students. We therefore organised a focus group on this topic in November 2020 for members of the ISO, Dutch National Student Association. A total of 40 higher education students participated in two parallel groups in which they discussed their behaviour and opinions on issues such as how much use they actually make of OER, how easy they are to find, and the quality of the resources that they do find. The students were first presented with a number of statements in Mentimeter. Their

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2 There is a blog describing this research: https://www.robertschuwer.nl/?p=672

responses were then explored in more depth in discussions in which they had the opportunity to explain or comment on their answers.

We first collected background information on the type of higher education (hbo or wo), the phase (Bachelor's or Master's) and the type of degree programme (arts, science, or social science). Table 1 shows the distribution of students by higher education type and phase.

Phase→ HE type↓	Bachelor's	Master's	Both	Neither	Left blank
hbo	12				1
wo	8	9	1	1	1
left blank	1				6

Table 1 Distribution by HE type and phase (N=40)

Of the 40 students, 35 indicated the type of degree programme: 2 were arts students, 15 were science students and 16 were social science students, while two students were unsure and filled in two different types.
In this article, we present the results of the focus groups. Please note that we did not use the term 'open educational resources' in the focus groups, but terms such as 'freely available alternative educational resources'. The reason for this is that participants in earlier studies often had their own ideas of what OER are, and these were not consistent with the definition of the term as applied in the study. We therefore did not check that the sources that students referred to really are OER according to the definition provided in the introduction to this theme edition.

Do students search for alternative educational resources?

Two statements were used to identify whether the compulsory and recommended literature provided by the lecturer meets students' needs, or whether students also use alternative educational resources:

- Statement 1: The educational resources on the compulsory and recommended literature lists are sufficient.
- Statement 2: I use other educational resources that I find on the internet, in addition to those on the compulsory and recommended literature lists.

The results (Figures 1 and 2) show that most students always or almost always find the educational resources on the literature list to be sufficient (68.6%), while approximately a quarter of the students (28.6%) sometimes finds them to be sufficient, and sometimes not. Even so, almost all students regularly or always look for extra resources on the internet. The most commonly used alternative educational resources are papers and YouTube videos. Summaries and specific websites (such as Wolfram for science degree programmes) are also regularly mentioned. As well as searching the internet themselves, students also use resources that are passed on by other students and they share the resources that they find with others. This is less common if the subject matter is highly specific.
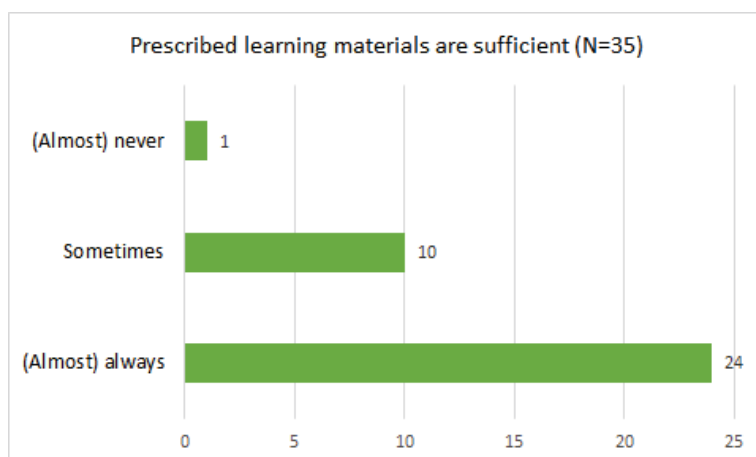
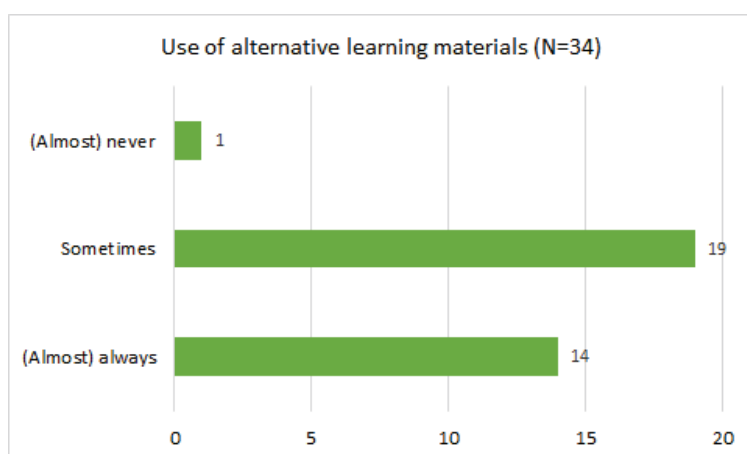Figure 1: Prescribed educational resources

Figure 2: Use of alternative educational resources

The main reasons for looking for alternative educational resources are:
- a clearer explanation in alternative resources;
- a preference for video rather than text;
- that it is more efficient to use summaries;
- that it is a course requirement, for example to write an essay or for a research assignment;
- that Google is a good place to find code examples for programming assignments.

"You are given practice exercises, but if you get stuck on an exercise that you really should be able to do, it is nice to be able to find an explanation on the internet" (wo, science student)

Most students are not prepared to pay for a resource that is not included on the literature list. However, if they do find an interesting resource that they need to pay for, they will look for alternatives, for example by contacting the library or exploring illegal means. Only a few students said that they were willing to pay for extra educational resources – usually summaries that cost a few euros but save a lot of time.

"It's pretty much impossible to pay for everything. I need to write so many essays for which I need extra information, my bank account can't handle it." (hbo, social science student)

We also asked the students how their lecturers reacted when they told them about alternative resources. Most students said that their lecturers responded positively; for example, one student said that her lecturer was enthusiastic about her alternative resource and even told other students about it. There was also a lecturer who encouraged students to share content that they found with other students. On the other hand, one lecturer was not pleased with a student who had found a solution to an exercise using a method from an alternative resource.

How do students evaluate the quality of educational resources?

A total of 34 students responded to the statement 'I find it difficult to evaluate the quality of alternative resources that I find on the internet'. Half of these students said that they never or almost never found it difficult, while the other half said that they sometimes found it difficult. Why then do some students have so little difficulty with this? Many students said that they had taken courses in their first year (and sometimes at secondary school) on assessing the quality of sources. Although such courses focus mainly on searching for and evaluating academic articles, students seem to apply the skills that they learn on these courses to other types of sources.

When evaluating the quality, students pay attention to various features, such as the source (is it from a good university), the number of citations (in the case of a paper), the accuracy of the content (applying triangulation by examining several sources to verify findings) and previous use by other students (or forwarded by them). One science student said that they were usually able to determine the quality of a source after it had been used. If a source that they used for an assignment resulted in the answer given by the lecturer, then it was a good source. The fact that this could only be determined afterwards was not seen as a problem. However, some students said that they found it more difficult to evaluate the quality of a source if they were less familiar with the subject, for example at the start of their degree programme. Random sources found using Google were also considered to be more difficult to evaluate.

In evaluating the quality of a resource, students also apply criteria that are specific to the type of educational resource. For example, you can reread a text, but you would rather watch a video just once. In the case of a video, therefore, the criterion is applied that it must be immediately clear what the video is about, and what form the information takes. If they want to find out more about the quality of a resource, students ask each other where to find good resources, or they ask the lecturer to check the source if they are uncertain of its quality.

"I am more likely to use a source if I see more nuance in the text rather than hard and fast facts" (wo, social science student)

Do students have preferences concerning the language of educational resources?

There are many more OER available in English than in Dutch. We were therefore interested to find out whether the language of an educational resource meant that it was more or less likely to be reused by students. A total of 34 students answered the question: 'What is your preferred language for educational resources (written or spoken)?' As it turned out, opinion was divided on this (Figure 3). While 9 students had no specific preference, 13 students said that they preferred Dutch-language resources, while 8 students actually preferred English-language resources. Only 4 students had a very clear preference for one or the other.
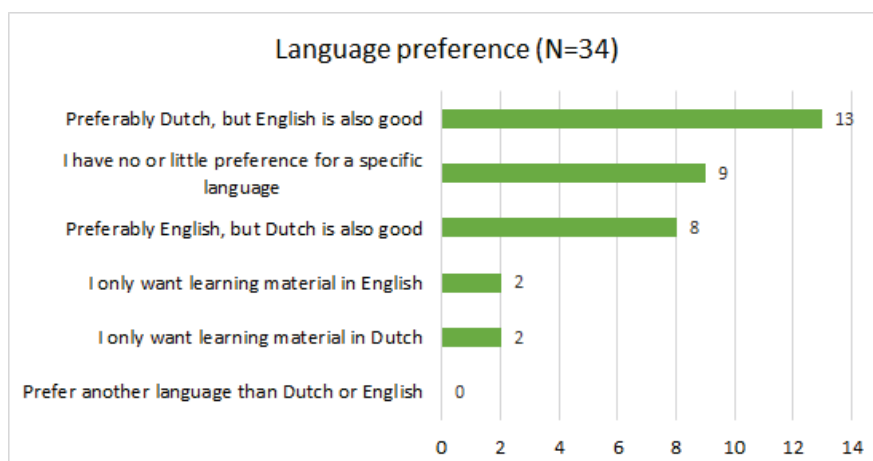
Figure 3: Language preference for educational resources

Consistency in the terminology between the recommended literature and the extra resources was the main reason that most students gave for not having a clear preference. Some students said that their programme was more focused on the Netherlands (e.g. teacher training programmes) and that there was therefore a preference for Dutch resources, but that they also needed to use English-language resources for writing essays. One science student (wo) said that the degree programme needed to be consistent with the future work environment and that this should determine the language of the educational resources. For him, knowledge of terms in Dutch and English is important to be taken seriously in the field.

Does the preference therefore depend on the type of degree programme? Of the students who indicated whether they are hbo or wo students (n = 27), 5 of the 10 students who preferred to use Dutch-language resources were hbo students and 5 were wo students.

> "The best resources to use to write a paper are in English, even if the authors are Dutch" (hbo, social science student)

Conclusions

The main reason why students search for alternative educational resources is to support their learning process. They feel competent about searching for extra educational resources, mainly because they have taken courses in information skills. Furthermore, searching for alternative resources to supplement the recommended literature is often an inherent part of their degree programme. It is striking that most students indicated that they did not find it difficult to evaluate the quality of the resources that they found. After all, in surveys conducted among lecturers, they say that the difficulty that they have with evaluating the quality of educational resources is an obstacle to reuse. One possible explanation is that lecturers and students apply different criteria to evaluate quality. Students also seem to be less worried about resources turning out to be of poorer quality than they first thought; something that lecturers need to be more careful about.

We should note that this small study is not representative of the entire student population. However, the results present sufficient arguments for examining the behaviour of students further when it comes to the reuse of educational resources. This will make it easier to answer questions about differences between Bachelor's and Master's students, between degree programmes, or between hbo and wo students. Once answers to such questions have been

found, we will be in a better position to determine whether students require support and how best to provide this.

References

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