

How Directing Formal Students to Institutionally-Delivered OER Supports their Success

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Abstract: The OpenLearn platform was launched in 2006 with the aim of delivering excerpts of the Open University's (UK) (OU) curriculum as open educational resources (OER). Now reaching over 9m learners a year, the platform delivers free courses, educational interactives, videos and articles across a broad range of subjects reflecting what is delivered formally to students and through topical, engaging content. The OU is the UK's largest university for undergraduate education with around 170,000 enrolled students primarily engaged in online, distance education.

Whilst previous studies on OpenLearn had revealed the demographics of learners using the platform (Law et al., 2013; Perryman et al., 2013; Law & Jelfs, 2016), platform-derived analytics showed that a high proportion of OU students were also using OpenLearn, despite it not performing any formally directed role in the delivery of undergraduate and postgraduate degrees.

This paper discusses research undertaken with OU students in 2017 to examine their experience and motivations for using OpenLearn and the potential impact on their learning. Surveys were issued to 10,000 students with the resulting data informing university strategy around the function of OER as a means to motivate, prepare and retain students.

Data showed that students are using OpenLearn for module choice, as a taster of OU study before signing up, for study preparedness, time-management planning, confidence-building, assessment support and professional development. In addition, OU students who use OpenLearn are more likely to be retained and to progress to their next course.

This paper will also discuss recommendations and actions taken from this research that were realised in 2018 and early results from this, ostensibly the impact of a project to integrate OER into the student induction process.

The data revealed in this paper will be of interest to the wider academic community, HE policy-makers, those involved in delivering non-accredited learning and in the impact of OER.

Keywords: OER, open educational resources, higher education, policy, retention, MOOCs, distance learning, online learning.

Introduction

The Open Educational Resources (OER) movement over the past ten years has described many benefits of releasing learning for free, including business remunerations to institutions as well as a means to altruistically reach underserved groups. Through its mission to provide OER at scale, OpenLearn was launched in 2006 by the Open University (OU) (UK), and while not a unique presence on the global stage in providing free adult learning content, it was the only site of its kind based in the UK. Other OER sites, such as the Saylor Foundation platform and free course materials issued through OpenCourseWare (Massachusetts Institute of Technology's [MIT] free course extract website) were



established in the early to mid-2000s as non-profit-making entities with a mission to provide free learning under a Creative Commons licence. Like MIT's OpenCourseWare, OpenLearn helped to lift the lid on formal university teaching material, giving learners a taster of study and access to content they might not otherwise have been able to afford to use.

When OpenLearn was launched as the result of a two-year project funded by the William and Flora Hewlett Foundation, the OU attempted to release approximately 5% of its taught courses as OER. The university continued to undertake this activity after funding ended in 2008 as it complemented the OU's Royal Charter, which states that it should "promote the educational well-being of the community generally" (The Open University, 1969, p. iv) and was already doing this in part through its broadcast relationship with the British Broadcasting Corporation (BBC).

The number of learners using OpenLearn grows each year, with over 9m learners visiting the platform between August 2018 and July 2019. It now supports almost a thousand free courses and tens of thousands of educational interactives (short online activities), articles and videos, derived from formal module learning material or developed with faculties reflecting the taught curriculum and current research outputs.

Much work has been undertaken by the author from 2013 onwards, to refine the OER offering on OpenLearn to more effectively impact learner satisfaction, skills development and social need (Law & Perryman, 2015; Law & Jelfs, 2016; and Law, 2016). This refinement has the dual function of also delivering a business impact to the university through the recruitment of new students (Perryman et al., 2013; Law, 2015; and Law & Perryman, 2017).

Previous OpenLearn Research

With a significant hike in university fees in England in 2010 (Browne, 2010) the Higher Education Academy predicted in 2012 that higher fees may lead to a negative impact on retention (Thomas, 2012). In 2016, Law and Jelfs (2016) embarked on a study to investigate the impact of the use of OER by the University's student body and whether OER had a role in formal student retention. The study provided empirical data to support Thomas' suggestion revealing results of a survey of formal OU students' motivations for using OpenLearn. Of the 1,127 student respondents from those who had used OpenLearn, 48% declared increased confidence in their studies as a result of using the platform. Qualitative data provided an enriched understanding of, and concurrence with, that which had been gleaned from the general OpenLearn platform surveys. It revealed that OpenLearn provides formal students with the opportunity:

- To help choose the right module through the provision of module excerpts (particularly important in light of raised tuition fees).
- To improve confidence and re-assure they have the ability to study at HE level.
- To see what study at the OU is like before making a commitment.
- To use OpenLearn materials as an additional resource for study.
- To provide references for key topic areas.

However, the study also revealed:

- A dissatisfaction with website usability.

- A lack of connection with the University's online prospectus, i.e., links from module descriptions to adapted samples of the content on OpenLearn.
- A desire to see more study-support content.
- A desire for OU-branded recognition of study undertaken on OpenLearn, i.e., certificates.

Critically, data also showed that OU students using OpenLearn were 5% more likely to pass their current module and progress to their next one, than those who did not.

By comparing data collected from OpenLearn surveys issued in 2013 and 2015, Law (2015) reports an increase in positive perception of the impact of OER on learners' studies. The author revealed that over a two-year period, formal learners (all students, not just OU students) using OpenLearn, had reported:

- Increased participation in class discussions,
- Increased satisfaction with the learning experience,
- Improvement in grades,
- Increased independence and self-reliance,
- Increased experimentation with new ways of learning,
- Increased enthusiasm for future study, and
- New interest in a wider range of subjects.

The possible interpretations for this data are:

- That formal learners overall may be becoming more skilled at self-directed learning with OER.
- The increased cost of paid-for higher education may be leading formal students to more determinedly seek out support for their studies, to increase their chances of success.
- Educators may be getting more skilled at using OER in their teaching and/or directing learners to OER for self-study. (Law, 2015, p. 303)

These two studies – OpenLearn surveys in 2013 and 2015 and the OU student survey – led to a large body of development work undertaken in 2015-16 which led to the complete redesign and relaunch of the platform in January 2017.

Learners declared that it was not easy to find study skills and careers-related content and so, along with a full relaunch, two new sections were introduced to specifically support OU students: *Skills for study* and *Skills for work*, a curation of existing and newly-commissioned content.

Disabled learners (through the main OpenLearn surveys) had also identified a need for alternative formats for OpenLearn courses to enable offline study. These were developed for all free courses in 2016.

Recognition for study was introduced through the issuing of free *Statements of participation* on all OpenLearn courses (a free, OU-branded PDF) and digital badges were piloted and became a business-as-usual approach to commissioning bespoke high-impact introductory and professional development-related courses (Law, 2015).

In addition, the layout of OpenLearn courses was redesigned to mimic that of the formal student VLE in order to provide a more seamless online learning experience for students moving between their formal module website (VLE) and OpenLearn (Figure 1).

The screenshot shows the OpenLearn website interface. At the top, there is a navigation bar with 'Home', 'Latest', 'Free courses', 'Subjects', 'Skills', and 'TV & Radio'. A search bar is located on the right. Below the navigation bar, there are tabs for 'Science, Maths & Technology', 'Featured content', 'Free courses', and 'All content'. The main content area is divided into a left sidebar and a main content area. The sidebar contains a 'Course content' section with a list of topics, including 'Week 4' and '4.2 Averages'. The main content area features a course card for 'Basic science: understanding numbers' with a progress bar at 13%. Below this, there are week navigation buttons for 'WEEK 1', 'WEEK 2', 'WEEK 3', and 'WEEK 4'. The 'WEEK 4' button is highlighted. Below the week navigation, there is a section for '4.2 Averages' containing a bar chart showing average rainfall (mm) by month. The bar chart shows rainfall values for each month: JAN (140), FEB (110), MAR (100), APR (80), MAY (70), JUN (80), JUL (85), AUG (100), SEP (105), OCT (140), NOV (135), and DEC (130). Below the bar chart, there is a caption and a paragraph explaining the concept of averages.

OpenLearn Free learning from The Open University

Search for free courses, interactives, videos and more!

Home | Latest | Free courses | **Subjects** | Skills | TV & Radio | My OpenLearn Profile

Science, Maths & Technology | Featured content | Free courses | All content

Basic science: understanding numbers
This course has now been added to your OpenLearn Profile. There you can track your progress and find your statement of participation. 13%

WEEK 1 | WEEK 2 | WEEK 3 | **WEEK 4**

4.2 Averages

Figure 6 An example of a bar chart showing average rainfall

Many numbers presented in the media are averages, commonly used in statements like 'the average temperature rise due to climate change since 1880 was 0.8 °C', or 'rainfall was 40% above average for June'. But what does 'average rainfall', or 'average temperature', actually mean?

The word 'average' is often used to mean 'ordinary', 'typical' or 'normal'. This is fine in everyday contexts, but, in scientific contexts, average also has a mathematical meaning. It is used to report the typical value within a set of data, sometimes with an associated range indicating the spread of the data. This makes averages useful when presenting data because, instead of describing each value in the dataset, you can present just one value which approximates your whole set.

Figure 1. Example of a course layout on OpenLearn.

Following this drive to understand learners' and students' motivations for using OpenLearn, the subsequent relaunch of the platform and complete redevelopment of functionality to better serve their needs, further work was undertaken in 2017 to examine the impact of this work on the OU student body, and is discussed below.

Methods

In 2017, a mixed method survey was issued to OU students across undergraduate and postgraduate qualifications to learn about their usage of OpenLearn, their motivations for use and perceived outcomes and issues with the platform's provision. The study complied with the Human Research Ethics Committee (HREC) guidelines and was led by the university's central statistics team for sampling. The survey was sent to 9,485 undergraduate students, returning 939 responses (a 10% response rate).

Key findings from this student survey concurred with previous data in terms of students' motivations for using OpenLearn to augment their studies. In addition, the following was found:

- Promotional activity by Academic Services (the university's student support body) has been successful in raising awareness of OpenLearn (Table 1).
- Students are increasingly using OpenLearn for module choice.
- OpenLearn is increasingly providing more confidence in students' formal studies.
- Students feel increasingly better prepared to study after using OpenLearn.

Table 1. Response to the question 'Are you aware of, or have you ever visited, OpenLearn the OU's free learning website?' comparing the 2015 student survey with the 2017 student survey.

	Yes
2015	48% (n = 468)
2017	61% (n = 551)

Tables 2-5 shows comparisons between the 2015 and 2017 surveys and focus on data gathered around awareness of, and motivations to use, the platform overall. It reveals little change in the types of content being used by students, i.e., mostly courses, that an increasing number were using the platform for module choice, and that proportionately more were feeling more confident and better prepared for their studies having used OpenLearn.

Table 2. What did you look at on OpenLearn? (Respondents could select more than one answer.)

	2015	2017
One or more free courses	72%	72%
Video or audio content	23%	24%
Interactive game	9%	7%
Article or reference material	30%	23%
OU on TV / Radio	[Not asked]	6%
Other	7%	7%

Table 3. Did you use OpenLearn as a taster for OU study or to help with module choice? (2015)

Did you use a free course on OpenLearn to prepare for OU study or to help with module choice? (2017)

	Yes
2015	31% (n = 145)
2017	47% (n = 211)

Table 4. Has using these free learning materials given you more confidence in your studies?

	Yes
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2015	46% (n = 216)
2017	60% (n = 266)

Table 5. Did anything on OpenLearn help you feel better prepared to study? (2015)

Do you feel better prepared for study with the OU because you used OpenLearn? (2017)

	Yes
2015	42% (n = 197)
2017	53% (n = 252)

The following comments given by students to explain their answers to the above, illustrate these findings.

To improve confidence and/or re-assure they have the ability to study in HE / preparedness

As I had been out of formal education for over 20 years I used OpenLearn to test if I was capable of doing OU study ... I then went on to sign up for a degree course.

I am starting level 3 in October so feel I need to be more prepared.

Completed the open maths course to help me brush up prior to starting module.

I was unsure whether I would be able to study at degree level as it had been so long since I left formal education ... I have used Open Learn courses as a taster and before signing up for each module.

Preparation for content, time management and discipline.

To see what study at the OU is like before making a commitment

OpenLearn gives a good overview of what to expect from the full course model

This open learn course I'm undertaking at the moment will give me a better understanding of the course I am undertaking in October this year.

I completed the excerpts from level 2 French that I accessed through the website, to check that my level was compatible with its demands.

To help choose the right module through the provision of taster courses

It was interested to use free course to help my module that I chose.

I was not sure if I would like the subject and the OpenLearn course made the decision easier, have discovered lots of other course I have enjoyed since.

To use OpenLearn materials used as additional resource for study

Skills for study. I also sent the URL to work colleagues recommending the site.

In 2017, an additional question was asked about whether students' value free OU certificates and badges that are provided; this question was not asked in 2015. There was an equal split of responses Y/N to this question; a range of comments were given to "Please tell us why":

It provides evidence to employers that you are able to study independently.

I have put it with my other certificates that make up my study qualifications and show I have continued to learn on CV.

I value the free certificates as they are from a reputable university and they are free of charge. Being on an extremely tight personal budget this is very much appreciated.

I know that some of the courses on OpenLearn can be over 15 hours which makes for a valuable certificate. ... This could be part of a discussion at an interview.

Employers value them so it helped me with employment

No good for employment so not really worthwhile. Like a gold star sticker.

I'm not sure what I would use them for or whether they would be recognised as significant by anyone.

They are not formal qualifications. E-qualifications are useless to an employer.

Proportionately more students felt better prepared for study with the OU because of using OpenLearn. This positive change may be attributable to the complete change in design, easier access to free courses and improvements to course navigation.

Impact on Formal Studies: 2017

The OU Student Survey and Statistics Team undertook a follow-up analysis of those students who had answered that they had used OpenLearn, as they did in 2017. Students identified as having used OpenLearn were evaluated to determine (as in the 2015 study, by extracting the module results for these students) whether there was an association between their reported experience of OpenLearn and whether they achieved a pass for the module they were studying at the time they were surveyed.

Results again show a positive difference in the success achieved by people who were aware of OpenLearn compared to those who were not. Of all the students surveyed, who had passed their module, 60% had used OpenLearn. Of all the students surveyed who progressed to their next module, 61% had used OpenLearn.

Follow-up Survey 2017

A follow-up survey was issued to those students who had said that they would be willing to participate in additional research and who had declared that they were aware of OpenLearn. This was to learn more of students' use of free certificates and badges particularly given the desire (across formal students and informal learners) in 2015 to see OpenLearn learning achievements recognised by the OU.

The survey was sent to 159 undergraduate students in November 2017. There were 51 complete responses out of 61 responses in total (32% response rate). Results are given in Tables 6 and 7. Whilst actual numbers of responses are low, qualitative data concurs with that given in the initial 2017 survey in terms of the value of OpenLearn to students overall.

Table 6. Will you be showing your certificate or digital badge that you earned on OpenLearn to an employer or prospective employer?

	Yes	No	Undecided
2017	48% (n = 25)	29% (n = 15)	23% (n = 12)

Optional comments given in response to "Please explain your answer":

It shows that I have taken time out of my personal life to enhance my knowledge which I think can only benefit any application.

I will show this as proof of self-development and improvement. This will also show my ability to manage my time around other commitments while developing myself.

My employer is always interested in achievements internal and external.

Table 7. Will you include your certificate or digital badge as part of your ongoing CV?

	Yes	No	Undecided
2017	69% (n = 36)	12% (n = 6)	19% (n = 10)

Optional comments given in response to “Please explain your answer” include:

It will enhance my career prospects.

Being able to show that you enjoy learning for the sake of learning is a good point. Studying any subject shows the skill of time management.

Opportunities for Improvement

In terms of areas for improvement comments showed that there was little/no dissatisfaction with:

- website navigation since the site had been redesigned,
- provision for disabled learners, and
- recognition for study (the site now offers free statements of participation and digital badges on courses).

Key areas of improvement remained:

- needing better links from the university’s central student home and online prospectus web pages to OpenLearn, and
- wanting more free courses in every topic/ covering all modules (there are still gaps).

Students also noted a dissatisfaction with the lack of mobile optimisation of the site.

Summary of Impact on OU Students Using OpenLearn

In summary, the 2017 data from both the main and follow-up surveys have provided these additional insights:

- certificates can be valuable to students who are using OpenLearn OER for career enhancement,
- students want to have more materials earlier, options to study OU courses in between modules and to prepare for studying,
- the majority of students surveyed in 2017 who passed their module and who progressed to their next module had used OpenLearn, and
- students value the opportunity to get a feel for online learning and time management via OpenLearn.

Outcomes and Recommendations from the Study

Table 8 shows some of the recommendations and outcomes that emerged from the study and their status at time of writing.

Table 8. Recommendations, Outcomes and their Status Emerging from OpenLearn Student Study

	Recommendation	Outcome	Status
1	Development of an OpenLearn-based undergraduate induction course	In February 2018, a pilot to deliver a generic OU undergraduate induction course was delivered on OpenLearn; the course issued an OU digital badge on completion. Following evaluation, the pilot was considered successful given the overwhelming support by tutors and by students.	In September 2018 a full OU induction course was delivered on OpenLearn and promoted to new undergraduate students (see Figure 2). Data shows that there were 13,905 enrolments in the 18/19 academic year, with over 5,000 badges issued. Ninety three percent of students who completed the OpenLearn course were still enrolled on their module after the 50% fee liability point, compared to 85.7% of those who did not engage at all with the induction course. Further, during the same period, 6,000 informal learners had seen the course on OpenLearn and clicked-through to the main OU website to find out more about becoming an OU student, i.e., the course itself is acting as a recruitment mechanism for the OU.
2	Non-formal learning achievements gained on OpenLearn should be recognised on the formal student record	While successfully issuing digital badges and Statements of participations on OpenLearn courses, it remained the case that OU students could not demonstrate extra curricula, OU-endorsed and assessed learning achieved on OpenLearn to employers that was aligned with their formal studies. These achievements could not be viewed by their tutors, other students, faculty nor administrative staff in a single, central and meaningful repository. Hence, an IT project to link the non-formal OpenLearn record with the formal OU student record was instigated.	The project successfully delivered a link for OU students between their OpenLearn achievements and their formal student record in June 2019. Students are now able to share their achievements (formal and non-formal) prior to graduation to support their employment goals, an important development for part-time, distance learning students. Tutors and faculty staff are also now able to see their students' badged OpenLearn achievements, particularly the completion of the OU's OpenLearn induction course, with the potential to flag the importance of non-completion to at-risk students.
3	Mobile optimisation of OpenLearn must be a development priority	The OpenLearn platform had been relaunched in desktop-view only mode in 2017, leaving the experience poor on mobile devices. Hence, a mobile responsive design was scoped to cater for all devices, not just desktop computers.	Mobile optimisation of OpenLearn is almost entirely complete at time of writing. This is an important development for website discovery given that from July 2018, Google's search engine began to rank websites according to their mobile loading speed.
5	Modules that do not have an associated OpenLearn course are developed	The OpenLearn team continues to work with faculties to encourage the development of an OER for OpenLearn for every module.	A more streamlined resourcing approach to developing OpenLearn courses was introduced in 2017-18 and is depleting the backlog of courses.

Course content

Session 1

- Introduction
- About this course
- 1 How do you feel about starting your studies?**
- 2 What will OU study be like?
- 3 What does it mean to be an OU student?
- 4 How will I find time to study?
- 5 Student discounts and software
- 6 Summary of Session 1
- Acknowledgements

About this free course

- 12 hours study
- 1** Level 1: Introductory
- Full course description

Being an OU student

This free course is available to start right now. Review the full **course description** and key learning outcomes and enrol if you want a free statement of participation.

Enrol now **See more free courses >**

SESSION 1 SESSION 2 SESSION 3 SESSION 4 SESSION 5 SESSION 6

1 How do you feel about starting your studies?

You may be feeling a mixture of excitement and nerves about starting your studies. Perhaps you're looking forward to learning new things and the opportunities this will open up for you. You might also be feeling nervous about returning to study after a long break, finding the time to study or how you'll learn at a distance. This video introduces some the benefits of study and what you can expect on the road ahead.

Figure 2. Session 1 of *Being an OU student*, the undergraduate induction course on OpenLearn.

Conclusions

This study has in part, helped to dispel an institutional myth that OU students do not have the time nor desire to engage with the OU's informal OER provision. It has shown the variety of ways in which formal students are using the OpenLearn platform, their motivations and ongoing issues with this engagement. More needs to be done to communicate to staff the positive impact of informal learning on the student journey and the lack of signposting therein.

The study and associated developments demonstrate that distance learning institutions delivering induction could benefit from using an open learning experience that serves to improve retention by setting expectations, captures the flavour of online study and introduces the many aspects of self-directed learning. It also highlights that doing this via OER showcases the approach taken by the institution and can therefore in itself, support the business of the university by attracting new learners.

More work is needed to evaluate the ongoing motivation of, and impact to, formal students of using OER as technology develops. However, the study clearly demonstrates the broader benefits of delivering undergraduate induction through OER that extend beyond outreach or attracting new learners.

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