

Project Title: Evaluating the level 1 Engineering:
Tutors' shared resources

Keywords: **Evaluation, shared resources, associate
lecturers, tuition.**

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Report submission date: 31 October 2019

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Executive Summary

Reusability is a key concept for educators. For many of the associate lectures at the Open University, the group tuition policy has resulted in repetition of tutorial structure and delivery with ALs across clusters giving similar tutorials on the same topics at similar times. Some of the current literature around developing open educational resources has been highlighting flexible and pragmatic principles for content development for reuse which have helped to inform our evaluation of a shared set of resources delivered through and across the level 1 engineering tutors. Designed and maintained by the ALs themselves these resources are shared using a blog platform within the current Moodle VLE structure. Guidance around the resource asks contributors and users to highlight clear learning outcomes and reusable resources which be used in a way that address their own learner's needs, and then generalised to be hypothetical cases of reuse by others.

These reusable resources also offer the opportunity for (re)users to contribute to the metadata, for instance, by cataloguing the variety of real cases in which context can be wrapped around pre-existing resources, or can be versioned for particular groups of learners as well as following principles for accessibility which can be useful for designing resources that can be reused by users with different needs.

During this evaluation of these level 1 engineering tutors shared resources, 83% of respondents had heard of the Tutor Shared Resources website, and 77% of these had visited the site and 93% had found the site easy to navigate. Issues around the design and use of the site were also highlighted.

Aims and scope of the project

Following a highly interactive tutor debrief after the first presentation of a brand new engineering module T192, we asked the Associate Lecturers (ALs) to vote on what changes they would like to see in the support around teaching this innovative module. The overwhelming response was that they needed an area where they could access and share resources to help ensure students received the most appropriate tutorials possible.

After asking for volunteers and sourcing finance to support the endeavour, Cheng Lee and John Bromley started the process of investigating all the available VLE-supported options and then creating both a Level 1 engineering tutor shared resource site and detailing a procedure for its use.

The level 1 engineering tutor shared resources site

<https://learn2.open.ac.uk/course/view.php?id=206224>

is a unique approach to sharing resources as it allows the sharing of tuition resources, not just across a presentation and module but across all presentations and modules within level 1 engineering. The materials are posted and maintained by the contributors themselves, using a set of guidelines developed by the ALs that built the site.

The site has been live since August 2017, with tuition materials and ideas shared across T192 (32 posts, 573 visits), T193 (20 posts, 396 visits), T194 (11 posts, 296 visits) and

T176 (8 posts, 90 visits)¹. The T198 workplace learning module was also added later in the project. But has it been a success in terms of availability, access and usefulness to ALs? As we approached the completion of the suite of new engineering modules at level 2, it was suggested that a similar resource could be made available for ALs across those modules; namely T271, T272, T276. Before embarking on this, it was decided it would be useful to evaluate the strengths and weaknesses of this shared resource approach for ALs. This is what we proposed to do within this project, with the original architects of the project evaluating the quantitative and qualitative evidence available around its use. The key objectives were:

- **Quantitative evaluation of data around the use and relevance of shared tutor resources site**
- **Qualitative review of AL views on the effectiveness of approach and materials on shared tutor resources site**
- **Creation of a template for set up of future shared tutor resources site**

¹ Data collected in May 2019 at start of project

Activities

After discussion amongst the team of two ALs, and two staff tutors, it was decided that we would take a two-part approach to the collection and evaluation of the resources. The evaluation started by looking at the number, frequency and style of postings, downloads and comments; arranging by theme, module and associate lecturer. Once this had been completed, a brief set of survey questions was designed to enable us to create an online survey. Our original design had aimed to post questions as threads on the fora of the appropriate tutor websites (i.e. T192/3/4/8 and T176) but we felt that a more honest and effective review could be created by using an online survey to collect people's thoughts and ideas as well as collating numerical data.

The survey questions were developed from the initial review of posts following a review of the literature around resource sharing in education. Questions sought to explore the accessibility, availability, presentation (i.e. the format in which the materials are shared), and usefulness of materials and the platform itself. Additional space was given for any general feedback on the resource sharing platform to allow unexpected findings to be drawn out. Responses from ALs that have both used or not used the shared resources were then collated and analysed both quantitatively and qualitatively (seeking to draw out themes from responses). We hoped that this design would allow us to summarise the effectiveness of the shared resource platform for associate lecturers on across level 1 engineering and to take forward any recommendations to the level 2 engineering site.

The two associate lecturers, John Bromley and Cheng Lee, worked with the project leaders to decide on the approach to take in terms of collecting and evaluating the data on usage and working through the written comments. After starting with a quick evaluation of the current usage of the site, brief survey questions were then developed and refined by the project team. The survey, which was developed from these questions, was sent to participants later than the original dates in late April, after completing the applications to the Staff Survey Project Panel and HREC research panel. The survey ran for three weeks from 2 – 23 July 2019 using the JISC online survey tool. Reminders to complete the survey were also added to the participating tutor fora with the support of module team chairs.

The initial plan had been to use the outcomes from the evaluation to prompt the creation of a level 2 tutors' shared resources site for the next presentation of T271 in October 2019. However, events around the production of the new level 2 engineering module, T272 Core Engineering B resulted in a request of the creation of the new site in May. This delayed the survey but allowed us to try using the original site as a template for the new version.

In total, 110 ALs were sent the JISC survey questions and 64 responded (58%) within the time frame. The questions included yes/no responses, numerical data collection on downloads and sharing and free box entries around reflection on use and helpfulness. The guidance sheet that we made available to participants is available in Appendix A

Findings

The project aimed to evaluate the existing resource site in terms of its usefulness, availability and accessibility for ALs. The anticipated impacts were the potential improvement of the current site and the development of a new site for Level 2 Engineering

modules, which were to be informed by AL feedback. In addition, it was hoped that if the findings suggested that the current arrangement has been useful for ALs, it would be possible to share the outputs to inform the development of a resource site for other departments or schools. In order to achieve this, it was hoped that a template could be developed to support the use of this approach elsewhere.

For ALs, the intended impacts of the project were to be improved peer learning and sharing of resources whilst for students, it was hoped the impacts will be a greater consistency of AL support across modules and between presentations.

Outcomes from the project were to be shared across the tutor forums of each of the modules participating, and across level 2 engineering modules and within the School of Engineering and Innovation; they could also be extended across STEM as well. Finally, it has been agreed that a SHARE First Friday session, led by the ALs working on the project, might also be offered in March 2020 and a poster presentation submitted for eSTEEeM 2020.

Data gathered during the evaluation suggests that the site is being used and that tutors appreciate the materials, however there are improvements that could be made to increase the visibility, usability and confidence in the resources available. Usability issues can be addressed, however quality issues are more challenging due to lack of resources.

The response rate to the survey was 58%, giving a reasonable degree of confidence that the findings are representative of the view of the level 1 engineering tutors as a group.

Positive outcomes

83% of respondents had at least heard of the Tutor Shared Resources website, and of these, 77% had gone on to visit the site.

The vast majority of tutors (93%) found the site easy to navigate and 77% of those searching for specific content were able to find it. As this is lower than the 93% who said they found the site easy to navigate, it would suggest that certain content that ALs are searching for is not available on the site. Further comments gave clarification on this, with some (3/10) noting that they weren't expecting to find what they were looking for as it was a very specific thing or they were "only browsing, not searching for content". Others (2/10) noted that not all topics were covered that they were looking for. Other responses (2/10) highlighted further challenges with finding material such as the contents of a presentation not being clear without looking at all the slides, or the material not being organised in same order as course material.

Further comments related more specifically to the quality of the material which was judged good or excellent by 88% of respondents with the remaining 11.6% finding it satisfactory. Around 90% of respondents had used between 1 and 5 downloaded resources in their own teaching, with a further 10% using between 6 and 10, in their tutorials

All of those who contributed content were encouraged by the feedback they received from other tutors after viewing and/or downloading their work. One respondent stated

‘...I received feedback from tutors that had read and liked my material, which was encouraging and also positive feedback from tutors that had used my material. These were useful in that they inspired me to contribute more of my material and to also encourage others by leaving constructive comments for them.’

Less positive outcomes

Despite promotion at different times and via different AL communication channels, 33% of respondents had not visited the site either because they chose not to or because they ‘had not heard of it’.

Although the numbers of searchers was relatively high, only 37% contributed any content and of those, feedback was only received for 40% of the posts.

Some tutors commented that they had forgotten the TSR site was there, as the link to it was not part of the Tutorhome pages or module pages that they frequently visit as part of their regular working patterns. This was summed up by one comment that said

‘...it needs to be more in my face’.

Some perceived search and use problems were as follows:

- Not being able to gauge, in many cases, whether tutorial material was relevant without downloading and opening the file(s).
- No systematic organisation of content for a module. For example, by tutorial type (online or face to face), by topic, by range of weeks.
- No validation of tutorial content by the module team was a concern for some tutors.
- Some of the tutorial material is out of date. For example, this could relate to introductory tutorials where the method of assessment has changed since they were created, or when deadline dates are not the same from one presentation to the next.
- Not being alerted to the presence of new content in the TSR, in a similar fashion to email notifications when registered on a forum.

Conclusions

The TSR has been used by the majority of tutors and provided them with good quality tutorial resources, saving them effort and time and promoting a better student experience. However, it appears to be underutilised, and the following key reasons are suggested:

- The links to it are not obvious enough for most tutors, so they are not reminded to visit the site on a regular basis.
- There are no automatic mechanisms to notify that new content has been contributed. As contributions may naturally be infrequent, depending on the maturity of the module, tutors may be reluctant to revisit the TSR site if they suspect that nothing will have changed.
- There are no automatic mechanisms to notify that feedback has been given. It is suggested that the impact of this is quite large in terms of encouraging feedback, encouraging usage of content, encouraging contributors and promoting quality improvements.
- Both automatic notification mechanisms described above are available in forums where tutorial resources are also often shared on an ad-hoc basis.

Some perceived problems with usage indicate that advice in the TSR around how to search effectively and contribute effectively are not explained well enough, or perhaps, the advice is not being read at all.

It is suggested that some perceived problems with timeliness or relevance of the resources is due partly to the message of 'maintained by tutors for tutors' not getting across and partly due to the lack of an effective feedback and update mechanism, as described earlier.

Since the creation of the new engineering level 2 site had begun in conjunction with the evaluation project, some attempts were made to act on those points discussed above where possible. One respondent had stated

'...Its easy to forget that the TSR is there, and also I don't really have time to check the site for new content, so ideally what I would like is to be able to subscribe to the TSR for email notifications when content is uploaded, just like in a forum.'

LDS (Learner and Discovery Services) were approached regarding improvements in notifications to ALs; especially those that had uploaded or shared material. However, at this stage of the report, the response is not optimistic:

'Unfortunately there isn't currently a notification system set up for blogs. You can subscribe to the blog feeds using RSS or Atom, but that isn't as straight-forward as the e-mail notifications/digests you receive with the forum subscription...'

To date, the level 2 engineering site has only been shared with the T272 tutors, for use during their 2019D presentation. The next stage is to hold a hard launch for the site across the other modules including T271 in November 2019 and T276 in February 2020. The findings summarised in this report will also be shared with the tutors who were sent the survey initially. However, based on the outcomes above the team are seriously considering whether the site could be re-housed on a VLE site that better meets its needs.

Impact

Sharing resources amongst educators is not a new or radical idea; it is common within the primary and secondary levels of education. Many ALs also share resources within modules, amongst themselves and across a presentation. But this system is often limited to a particular module or even cluster and has the disadvantage of dropping out of sight as the end of module forums are archived annually. The tutor sharing resources described above have several unique aspects that make them more useful than simply posting slides in tutor forums.

Allowing ALs within modules across a whole level of a qualification to see what has been used before and what might be used later can help them locate their teaching in a better-informed space. This is particularly useful in scaffolded subjects such as mathematics.

The shared tutor resources are also built, maintained and updated by the very ALs that use the resource, allowing for a free movement and discussion of ideas and reducing the need for module teams to be involved in this process. This makes the shared resources site attractive within a qualification but also sounds a note of caution among the ALs about the provenance and suitability of the sources.

There is clearly more work to be done in finding a medium for the delivery of this tutor shared resource site; one that can allow ALs to subscribe to it for maximum interaction. But overall it is clear that the present system is meeting a need that was identified within the AL community.

‘...Encouraging. Some of the posters commented that they were going to use some of my content in their tutorials and other explained what they liked about it.’

List of deliverables:

Level 2 engineering: Tutors’ shared resources site:

<https://learn2.open.ac.uk/course/view.php?id=208077>

Figures and tables

- 1 The tutors' shared resources (TSR) <https://learn2.open.ac.uk/course/view.php?id=206224> has now been operational for around two years. Have you viewed the website?

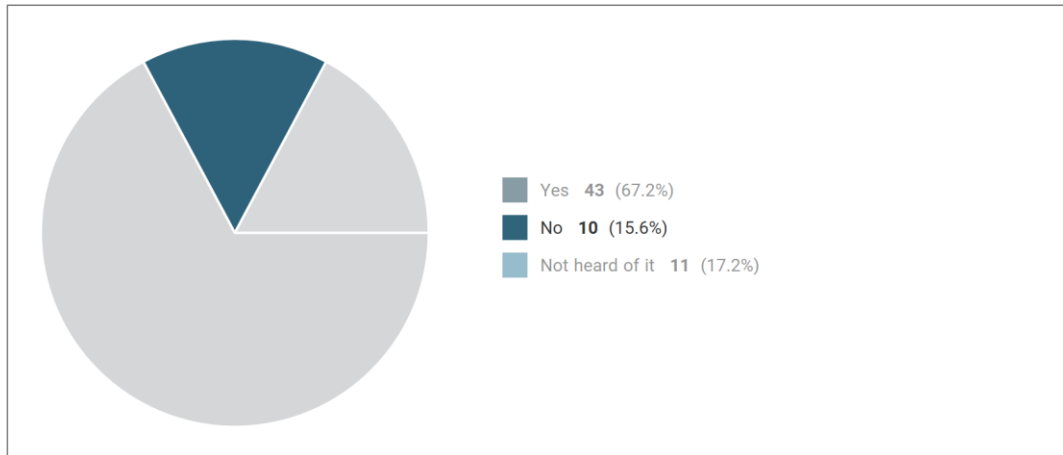


Figure 1 Ease of access of the tutor resource site

- 1.a Did you find the TSR site easy to navigate?

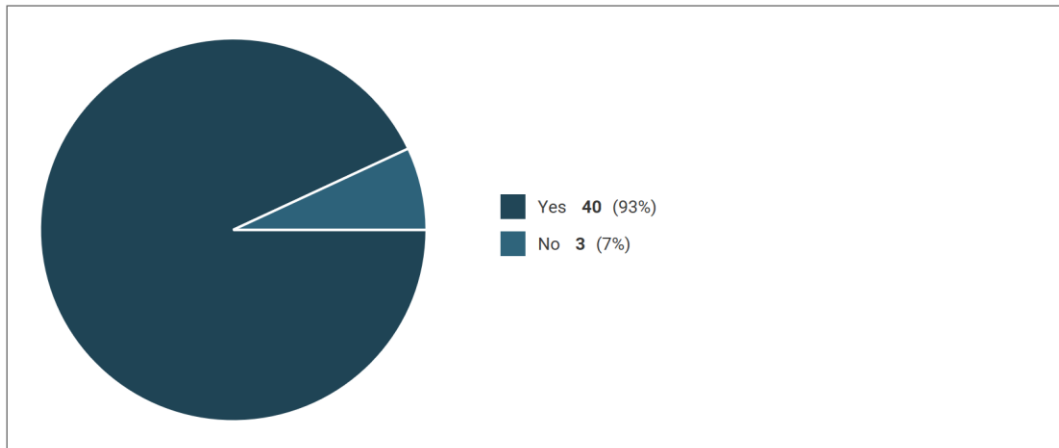


Figure 2 Ease of navigation of tutor resources site

Approximately how many times in total, as a searcher for content or as a contributor of content, have you visited the TSR website? Please select one of the following:

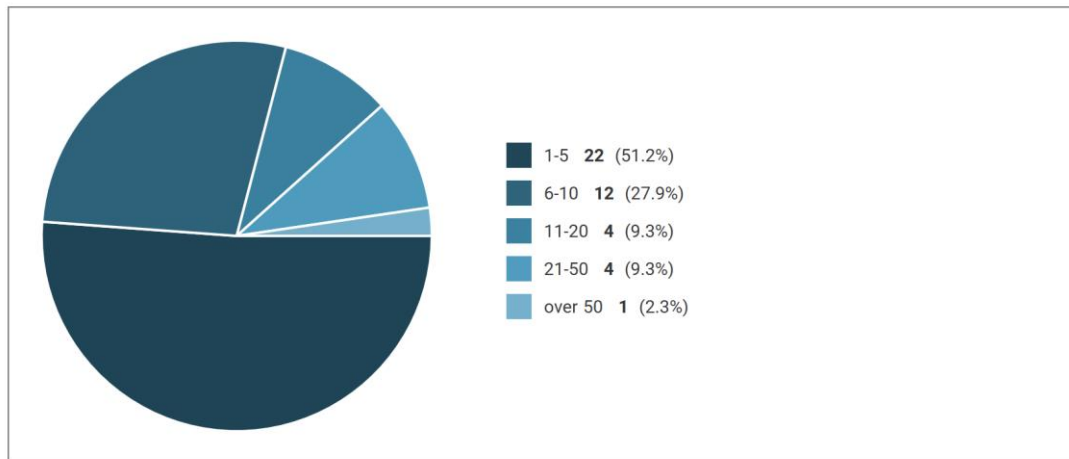


Figure 3 Number of visits to tutor resources site by frequency

Approximately how many files have you downloaded from the TSR website?

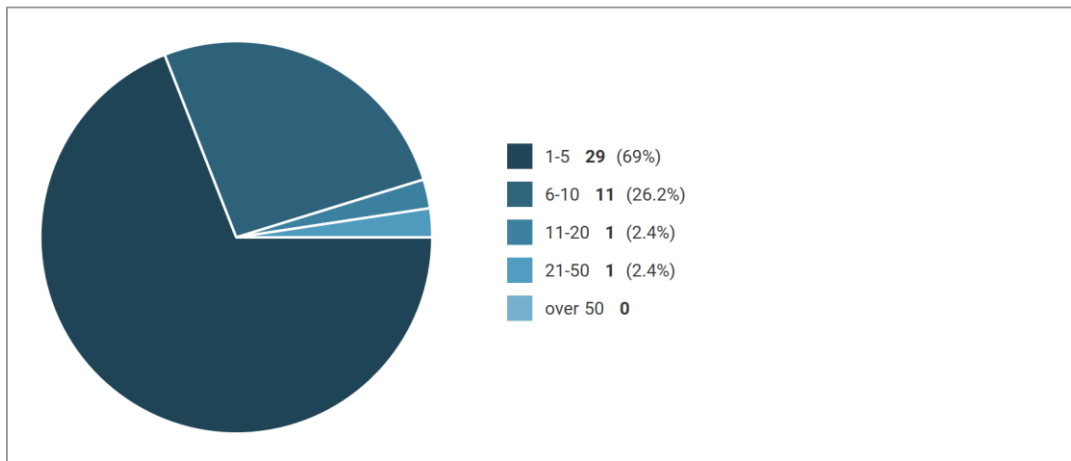


Figure 4 Number of downloads from the tutor resources site by frequency

Please indicate your general perception of the overall quality of the teaching resources available on the TSR site by clicking on one of the following.

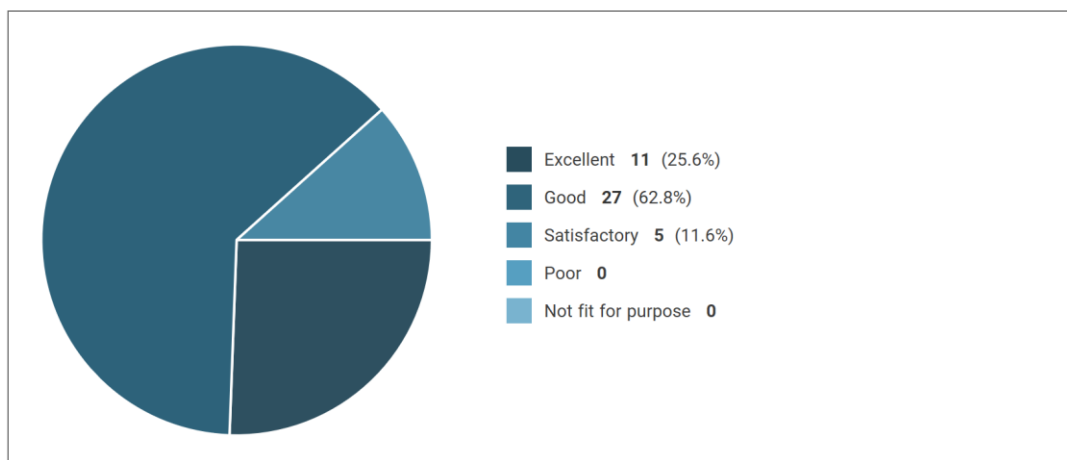


Figure 5 Overall perception of the tutor resources site by frequency

References

Hertz, Mary Beth (2012) Six Tips for Teachers: How to Maximise Shared Resources, <https://www.edutopia.org/blog/maximizing-teacher-use-shared-resources-mary-beth-hertz>

Open University (2019), Teachers sharing resource online, <https://www.open.edu/openlearn/education/teachers-sharing-resources-online/content-section-0?active-tab=description-tab>, (accessed 9 May 2019)

Okada, A., Mikroyannidis, A., Meister, I. and Little, S. (2012) “Colearning” – collaborative networks for creating, sharing and reusing OER through social media’ in *Innovation and Impact – Openly Collaborating to Enhance Education*, 16–18 April 2012, Cambridge, UK available online at <http://oro.open.ac.uk/33750/2/59B2E252.pdf> (accessed 21 September 2019)

Teaching ideas

<https://www.teachingideas.co.uk/>.

University approval processes

- *SSPP – Approval from the Staff Survey Project Panel was obtained according to the Open University’s code of practice and procedures before embarking on this project. **Application number 162***
- *Ethical review – An ethical review was obtained according to the Open University’s code of practice and procedures before embarking on this project. **Reference number HREC/3267***

Appendix A

Evaluating Shared Tutor Resources

Research study participant information sheet: May 2019

The Research Team:

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Introduction

We are asking Associate Lectures within the School of Engineering and Innovation in STEM to complete a survey questionnaire and your participation would be greatly appreciated. This survey will help us to explore perceptions and opinions of the current Level 1 Engineering tutors shared resources platform and any potential future platforms that may be developed, allowing us to make changes and develop AL resources in response to AL opinion and need.

Before you decide whether or not to take part, it is important for you to understand why the research is being done, what it will involve, and how your data will be recorded and used, so please take time to read through the following information.

Please note, choosing to either take part or not take part in this study will have no impact on your relationship with the Open University.

What is the aim of this research?

This survey is part of an evaluation of the Level 1 tutor shared resources platform. The evaluation aims to provide evidence to be used in the refinement of the current platform and development of further platforms at other levels.

What is involved?

This is a short survey, taking around 10 minutes to complete. Please complete the survey in one go as the software will not save your answers until you click on the 'Finish' button.

It is up to you to decide whether or not to take part. If you do decide to take part in the survey, please download and save this information sheet.

We will be conducting the survey between May 2019 and July 2019.

Is it confidential?

Yes. The survey does not require any identifying information and no personal data will be obtained from you, meaning that all answers are anonymous. No personal information will be collected or stored by the research team. We will write reports about the study but no individual will be identifiable from the published results of the research.

How will the data I provide be used?

We will keep the anonymous data until January 2021.

We will share the general findings from the project with Open University staff so that it can influence the way they design resource sharing platforms.

Additional information

We have sought and received permission within the Open University to carry out this research:

- OU Human Research Ethics Committee reference: HREC/3267
- OU Staff Survey Projects Panel reference: SSPP/162

The research adheres to the OU's Staff, Workers and Applicants Privacy Policy on use of data, available here <http://www.open.ac.uk/foi/main/policies-and-procedures/ict-information-and-records>

Thank you very much for taking time to read this information sheet.