

Towards sustainable open educational practices: The NWU OER Fellows as a Case Study

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ABSTRACT

In order to create an enabling environment for widespread uptake of open educational resources (OERs) at a South African university, it was decided to establish an OER Fellowship Programme. This programme was designed to empower lecturers in order to adapt or create OERs for their classrooms and do research about the process. For the sake of effective implementation and learning with OERs, this paper proposes that lecturers should become self-directed in terms of the learning of aspects required for successful open education. Under this OER Fellowship programme pedagogical and technical support was provided to the fellows to facilitate the process creation, adoption and adaption of OERs. The Fellowship programme also involved a research component which involved fellows researching an aspect of their choice regarding the development process or use of OERs. This research involved qualitative collection of data based on reflections by the OER Fellows as well as the facilitators of the programme. The study also provides insight into the overall process of envisioning, designing and executing the Fellowship along with the challenges encountered. The pedagogical aspects and shifts resulting by use of OERs and open pedagogy within the unique South African context will also be reported on. Finally, the affordances and future prospects of such an incentive-driven fellowship for OERs and its implications is discussed.

INTRODUCTION

In the last decade and a half open educational resources (OERs) have been increasingly used across the world. Several projects from leading universities, such as the MIT OpenCourseWare, paved the way for global movement towards the use, adoption and creation of OERs. Within this paper the UNESCO (2019:5) definition for OERs is used “learning, teaching and research materials in any format and medium that reside in the public domain or are under copyright that have been released under an open license, that permit no-cost access, re-use, re-purpose, adaptation and redistribution by others”. For this research, the focus is on the creation and/or adaptation of OERs within a South African higher education institution. In this regard, the OER Fellowship, discussed in this paper, relates to one step in a wider institutional process of promoting OERs and their use within the university. This paper is also addressing the gap in the scholarship in terms of lecturer perspectives on OER use in contrast to student views (McBride & Abramovich, 2022).

As OERs can be shared legally and freely with anyone, they cut down cost of learning resources drastically. This is one of the most appealing aspects of OERs. In light of the Covid-19 pandemic, the shift to online teaching-learning has been rapid and OERs have been called to attention as cost effective options to cater to this need. But OERs, if

used with suitable pedagogical practices, can lead to learners being more active in the learning process, as well as co-creating knowledge. These practices have been collectively termed as Open Educational Practices (OEPs). OEPs are defined as a “wide range of individual and collective practices inherent in conceptualising, creating, adapting, curating and sharing OER” by Wolfenden and Adinolfi (2019). OEPs are essentially dependent on the concept of OERs with their licensing conditions for reuse, revise, remix, redistribute and retain. In a way, OEPs operationalise the core ideas of OERs in teaching-learning contexts. In alignment with OEPs, the concept of self-directed learning (SDL) is seen as especially relevant in the online learning environments and given the digital nature of most OERs is significant in this context.

THEORETICAL FRAMEWORK

This research is underpinned by communal constructivism as a learning theory. Furthermore, this study also relates to the scholarship on OERs, OEPs and SDL. The use of OERs is relevant within the South African university context due to the advantages of OERs in terms of cost (Ikahihifo et al., 2017; McBride & Abramovich, 2022; Miao, Mishra & McGreal, 2016) and localisation (Wolfenden & Adinolfi, 2019). This research links up with international research on institutional OER-initiatives (Hollister & Patton, 2021; Schleicher, Barnes & Joslin, 2020; Hollister & Patton, 2021) and even work done in South Africa (De HArt, Chetty & Archer, 2015).

Within this context, the learning theory of communal constructivism provides a framework within which learning is considered a social creation process with a strong emphasis on building content for the wider community. In this regard, Holmes et al. (2001:1) describe communal constructivism as: “an approach to learning in which students not only construct their own knowledge (constructivism) as a result of interacting with their environment (social constructivism) but are also actively engaged in the process of constructing knowledge *for* their learning community” [emphasis in the original].

Importantly, De los Arcos et al. (2016:24) state that “OER foster independent and personalized learning by engaging students in choosing what they learn and how they learn, and teachers in customizing content to learner needs”. As noted earlier, the Fellowship reported on in this paper was underpinned by aiming at making university lecturers self-directed in their adoption of OEPs and embracing OERs. The concept of SDL originates from the work of Knowles (1975:18) who defines this concept as “a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies and evaluating learning outcomes”. In this regard, it was essential to foster the fellows self-directedness in terms of OERs and OEPs.

CONTEXT OF THE PROJECT

One of the major challenges identified in the use and adoption of OERs and OEPs has been a lack of support at institutional level in the form of affirmative practices. The OER Fellows Programme or OER Fellowship was conceptualised to meet this challenge by providing an enabling environment and incentives to the lecturers to create

and use OERs. The idea of incentivising the creation of OERs is not new and has been done successfully elsewhere (cf. Katz, 2018). The OER Fellowship was aimed at stimulating research and advocacy around the use and creation of OERs at a South African university. The rationale for this project was to support the use and creation of OER at the university and also to create a network of scholars working in the area. Another rationale of the project was to acknowledge the OER work that was already done at the university. And finally, the project also facilitated initiating and supporting research of the OERs by the fellows within the framework of SDL. The facilitators for the Fellowship also acted in a broker (Baas et al., 2022) capacity as they had to negotiate projects from different disciplines and with different types of OERs.

The OER Fellowship has both developmental and research aspects. The developmental aspects of the OER Fellowship project result in creation of OERs by researchers (creation of content for supporting lecturers to understand and create OERs), fellows/lecturers (creation/adaptation of OERs for their modules) and finally the students of the fellows/lectures (creation of OERs in some modules). The lecturer and student components have SDL elements in the development process. The research component of the project again has two categories: the research done by the researchers on the project as a whole and research done by the fellows on OERs that they developed. As a result, the OER Fellowship had multiple research and development objectives pertaining to OERs, OEPs and SDL.

The OER Fellowship included several mechanisms for supporting the fellows. This included grants for OER development (adaptation, text editing and/or research expenses) and attending conferences, opportunities to attend workshops related to OERs, open licensing and open pedagogy, support and workshops on how to research OERs. The fellows from the university staff were selected on the basis of their project proposals as single applicants or groups. The OER Fellowship was provided under the criteria that the fellows commit themselves to: (1) following the training as set out for this fellowship, (2) creating an OER, (3) conducting research and (4) making the OER available under a Creative Commons Licence.

A total of eleven fellowships were awarded with faculties from diverse disciplines applying for the programme. Out of these seven were awarded to individuals and four groups and one pair. Seven of the projects were with a student focus while the remaining five were with teacher focus. Figure 1 describes the awarded projects.

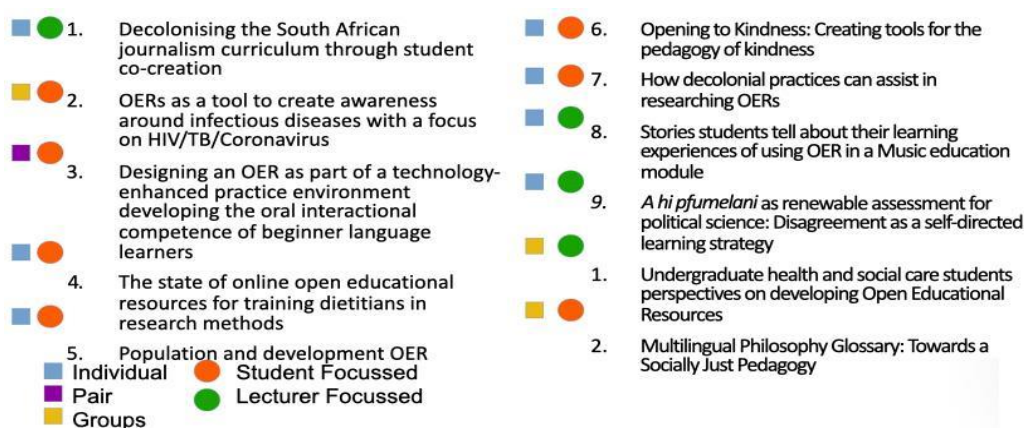


Figure 1: The projects that were awarded the OER Fellowship with the detail of the fellows and the focus.

The OER Fellowship was initiated in April-May 2021, with the webinars and workshops for the fellows starting in June 2021, which culminated in a book with chapters detailing OER research done by the fellows by. The workshops were aimed at introducing the fellows to basic aspects of these themes, and also to nuances of some deeper features and their implications. For example, the different types of Creative Commons licences and their implications. The Fellowship involved a number of webinars and workshops presented by university staff as well as national and international experts working on OER, topics in this context included:

- Introduction to open educational resources and open pedagogy
- Adaptation and localisation of open educational resources
- Analysing open practices from a social justice perspective
- Open licensing webinar: “Grappling with Open”
- Ubuntu, Student Advocacy and Professional Development: Becoming an Open Education Influencer (BOEI)
- Open textbooks as OER
- Open source authoring tools to create open educational resources
- OER and quality frameworks related to the UNESCO OER recommendation
- Introduction to Open Educational Resources Research using the COUPE (cost, outcomes, use, perceptions, and engagement) Framework
- Researching open educational resources and open pedagogy

The fellows presented their progress and results in a special colloquium held in December 2021. The colloquium was an opportunity for them to showcase the positives of their work and the challenges they faced. The nature and the type of the OERs that were created was varied both in terms of content as well as the modalities. One of the projects related to journalism was a renewable assessment in the form of an open textbook. This project included student agency and contribution as the core. Another project was in the form of a software application which allowed recording of audio for learning language. Yet another project on music education created a website with resources to create songs in different languages. One project involved creation of a multilingual glossary on philosophy. Thus, we see that the projects had different approaches to idea OERs and OEPs, some had student agency at the core while others were heavily teacher oriented.

METHODOLOGY

This paper presents qualitative research done within an interpretivist paradigm. This basic qualitative study involved both lecturers who were part of the OER Fellowship as well as the facilitators of the programme.

For this research, purposive sampling (Cohen et al. 2018) was employed as specific individuals who are knowledgeable through their participation with the Fellowship were targeted. From the 16 potential fellows only 8

consented to take part in the research and provide feedback by means of the open-ended questionnaires. In addition, 3 facilitators' reflections were also considered.

The implementation of the project with the fellows was done in an online mode due to Covid-19 restrictions and in this regard, this opened up possibilities in making use of many international experts, but also limited peer interaction throughout the process.

DATA COLLECTION AND ANALYSIS

For this research, qualitative data were collected from lecturers who created or adapted OERs and employed OEPs that foster SDL. Consequently, the fellows' perceptions around OERs, OEPs and SDL were explored by means of open-ended questionnaires as well as recorded observations by the facilitators. The data analysis of this data involved inductive qualitative data analysis (Creswell & Creswell 2018:33) of the open-ended questionnaires and reflections. In this process codes were identified, and themes derived.

For the sake of the trustworthiness of the data analysis, the authors took credibility, transferability, dependability, and confirmability (Lincoln & Guba 1986) into consideration. In this regard, the credibility of the data analysis was addressed by means of thorough and ongoing engagement within the Fellowship and the participants. Furthermore, cross-checking of the recorded researcher reflections and requested participant inputs through open-ended questionnaires was done. In terms of transferability thick, descriptive data were used for this paper. Finally, dependability and confirmability were ensured by means of an audit trail (Lincoln & Guba 1986).

It was essential throughout the process to ensure ethical conduct and adherence to national and institution-specific research ethics policies. Ethics clearance and gatekeeper permission from the institution were obtained before the research started. The researchers also made sure that potential participants were well informed, participation was regarded as being voluntary, and only participants who were willing to take part and provide written informed consent were included.

FINDINGS

From the inductive data analysis of participant feedback and facilitator reflections, a number of central themes were evident.

Fellow agency and self-directedness

As the Fellowship progressed, an increased sense of agency and self-directedness in terms of using OERs and enacting OEPs were observed. The participants of this research also noted how they were able to set clear goals for themselves. Moreover, despite some challenges the participants were able to find resources in the OER creation/adaptation processes. Another aspect which was essential and prominent under this theme was peer interaction and engagement.

However, the level of collaboration differed between projects depending on the number of staff involved. It was observed that OERs projects conducted in groups often showed a lot of progress and success early on, while projects done individually sometimes encountered challenges or did not start up at all. The need for support from line managers and colleagues from other campuses (as this institution is a multi-campus university) was also essential. In this regard, the interdependence of OER developers and colleagues is essential.

Effective strategies for OER fellowships

From the participant experiences and facilitator observations of the Fellowship, a number of relevant processes were identified which could also be of value to future similar interventions. In this regard, the following aspects were relevant:

- A needs analysis of different participants and projects should be done prior to the commencement of a fellowship as needs vary a lot.
- Check-ins with participants should be done on an ongoing basis.
- Workshops and webinars by experts provide an in-depth perspective on OERs and OEPs.
- Where possible and appropriate workshops and webinars should be recorded to allow for flexible attendance and future reference.
- Individual project engagements allow for a differentiated approach to creating, adopting and adapting OERs.
- Clear targets and deadlines should be set.
- Incentivising OER creation/adaptation supports interest in OERs.

These strategies worked well with this particular cohort and this university, but it is recommended that approaches be adapted to the needs and contexts of different institutions.

OERs and student agency

In a number of the projects, where students were involved in the creation of OERs, elements of fostering student agency observed. This aspect ties in with the concept of renewable assignments which relates to “assignments which both support an individual student’s learning and result in new or improved open educational resources that provide a lasting benefit to the broader community of learners” (Wiley & Hilton, 2018:137).

The participants indicated that they offered students opportunities to become co-creators of learning content through them contributing to an open textbook or through opportunities for them to create learning artefacts. These activities also provided opportunities for critical thinking and interrogation of traditional classroom roles. Possibilities around the decolonisation of the curriculum (cf. Olivier, 2020) were also evident.

Affordances of OERs and OEPs

A number of significant affordances of OEPs were identified. In this regard, the importance and the possibilities around localisation of OERs were clear. This is in line with the increased need for multilingual and appropriate content within South African higher education. In terms of localisation, aspects of both adaptation of content and language were evident. A substantial amount of the grant funding was allocated specifically to the translation of content. Consequently, this is an important aspect to consider in multilingual open education contexts.

The participants also noted the advantage of OERs in terms of costs. However, the long-term cost advantages of the Fellowship's OER activities can only be gauged over a longer period of time.

Finally, the participants also noted how the Fellowship supported lecturer agency within the learning space. In this regard, lecturers can take the initiative to become self-directed in terms of their own OEPs.

Sustainability of OEPs after the Fellowship

The participants were clear that the Fellowship has had a lasting effect on their views and practices regarding resources and learning. One participant indicated a commitment to creating OERs with students in future. While others have indicated that they would continue using and sharing OERs after the Fellowship was complete. This finding would also have to be explored in future and more longitudinal investigations. However, throughout the institution and especially among the fellows and their immediate colleagues awareness has been raised about OERs.

DISCUSSION

Some findings from reflections of the researchers indicate that the creation/adaptation of OER and OEP require cultivating specific skills and knowledge. These skills include:

- Knowledge about open licensing
- Information literacy and metaliteracy
- Time planning
- Communication and peer organisation skills
- Project management
- Basic digital literacy and web design skills
- Other technical and programming skills

It was evident that not all lecturers felt comfortable incorporating students' voices in learning content. However, there were some projects in which this was attempted and this led to effective support of student agency in the process.

In terms of SDL, the advantages of a differentiated approach to the facilitation of the Fellowship were clear. However,

such facilitation is very labour intensive and complex. Furthermore, some projects may require discipline-specific and even platform- or technology-specific support.

Enabling, supportive and incentivised environments at institutional level are needed for use, adaption and creation of OERs by the teachers (Baijnath, 2018; Souter et al., 2014). Without such environments and support the use of OERs will be limited. The OER Fellows project presented here was designed to provide such a supportive environment to the fellows.

RECOMMENDATIONS

A number of practical recommendations, which could be useful for future similar interventions, can be made based on this research. It was evident that incentivising OERs and OEPs can act as a motivating factor. In this regard, clear guidelines should be provided on how funds could be spent. In most cases, not a lot of funds are needed to get something started. However, paying for services such as graphic design, translation and text editing as well as other expenses such as software licences and online hosting contributed to effective OER creation and sharing. In addition, covering research expenses can also be an incentive.

It is imperative that preparations are done sufficiently prior to starting with a fellowship programme and ultimately fellows commencing with their projects. Firstly, buy-in from university management and potential fellows' line managers is essential. It is advised that the screening process of fellows also cover potential fellows' skills in terms of OER creation. This will inform what would be needed within the training sessions, but also eliminate any unfounded expectations.

The practicalities around OER adaptation and/or development also implies some specific considerations. In most cases it would be more appropriate if projects are done in groups. However, in this project individual applications were also allowed. The potential of boundary crossing (McBride & Abramovich, 2022) due to collaboration within groups working on OERs should not be underestimated. The process also needs sufficient time and in this case we aimed for a period of between 12 and 18 months.

Researching OERs and OEPs, as part of the process, was quite positive, but this implies varying needs and may result in research focus conflicts on the side of participants. Consequently, support regarding educational research and research ethics issues must be provided.

Conclusion

This paper has reflected on the nature of an OER fellowship at a South African university and how this has contributed to sustainable OEPs at this institution. From the analysis of participant feedback and facilitator reflections, it was clear that this initiative supported lecturer agency and self-directedness in terms of using OERs and moving towards OEPs. Certain effective strategies were also observed. Furthermore, the potential for supporting student agency through creating opportunities for them to contribute to OER development through OEPs was clear. The affordances of OERs

and OEPs in terms of localisation and cost were prominent. Finally, there is the potential for some sustainability of OEPs as participants have embraced openness and have infused OEPs within their assessments and practices.

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