

Can open educational resources (OERs) address problems of affordable access to post-school education and training?

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What are open education resources (OER)?

Any educational resources openly available under a copyright license that permits educators and students to use, modify, re-use and share them without being required to pay royalties or licence fees.

- Includes courses, course materials, textbooks, selected readings, videos, animation, multimedia, simulations, podcasts, lecture notes, diagrams, infographics etc. designed for teaching & learning
- A key element of many open learning initiatives
- Growing international trend free sharing of knowledge and peer collaboration



"Many of the advancements in virtual reality tools will come about through collaboration between developers and designers using the programmes"

"Everyone's at a point where they're very generous. Everyone's caught up in the excitement of it, and wants to help, and share, and learn from each other... Nobody fully knows what VR can do, so everyone is figuring it out together."

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- Open licensing is based on copyright; designed to protect copyright holders' rights
- Easy photocopying, effortless reproduction, even plagiarism of digitised material: the best way to protect an author's intellectual property may be to share it freely and publically under an open licence ensuring content is attributed to its original author when shared
- Authors don't give away ownership of their copyright to a publisher, so they retain the basic right to be acknowledged as author. Instead they give away the right to re-use, revise, remix, re-purpose or redistribute their work

Economic dimension:

- No legal restrictions means users don't have to pay royalties or licence fees
- Also no costly, time-consuming search for copyright holders and procuring permission to re-use materials

- Adapt, modify or edit to reflect own teaching style, teaching approach, specific intention, local culture or interests of the learners
- Enhance or update by incorporating new material
- Translate make accessible to other language groups
- Repurpose for a different learning context
- Combine with other OER to assemble lessons & courses
- Reformat for use on different digital platforms or devices

How can OER address PSET problems of access, quality & affordability?

- More practical and productive to use or rework existing material from all over the globe rather than wasting time "reinventing the wheel"
- Many different educators can develop & improve an OER over time. Pooling talents can improve and update resources, incl. assessment tools
- Improved quality not a given, but in general, free sharing, peer collaboration, public scrutiny and the desire to uphold an author's / institution's reputation will enhance resources
- Many institutions find OERs make the excellence of their work more widely known, and sharing tends to spur educators to strive for ever-higher quality

The DHET's plans for OER in SA PSET

- White Paper for Post-School Education & Training, Ch. 7
- Open Learning Policy Framework; A National Open Learning System to host OER
- Develop programmes, courses and themes across PSET sectors, all as OER
- Establish a national OER repository for PSET
- Advocacy and communication strategy, incl. OER
- Publish Knowledge Series and case studies, incl. OER focus
- Evolve workable, sustainable model/s of OER development
- Develop networks: of materials developers, providers, technology-supported learner support centres.
- Develop a national OER policy, encourage institutions to develop their own policies
- Capacity-building programmes





SYSTEMIC BARRIERS WITHIN THE TVET SECTOR LIMITING THE IMPLEMENTATION OF OPEN LEARNING APPROACHES

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DEFINING OPEN LEARNING

Open learning is an approach which combines the principles of learner centeredness, lifelong learning, flexibility of learning provision, the removal of barriers to access learning, the recognition for credit of prior learning experience, the provision of learner support, the construction of learning programmes in the expectation that learners can succeed, and the maintenance of rigorous quality assurance over the design of learning materials and support systems."

Department of Education, 1995: White Paper on Education and Training

Department of Higher Education and Training, 2013: White Paper for Post-School Education and Training



MOTIVATORS FOR TVET COLLEGES TO IMPLEMENT OPEN LEARNING APPROACHES

- To increase access and enrolment
- To cater for students that are working, are geographically challenged or who cannot attend classes during normal hours due to other social responsibilities
- To create learning opportunities for those wanting and needing new skills to stay abreast with new technologies in the workplace



CONSTRAINTS:

- POLICY ENVIRONMENT: There is a need to create a legislative and policy environment to support and embed open learning approaches in the current education and training system.
- FUNDING: There is a need for increased levels of investment in lecturer development and funding for physical resources including technology infrastructure to support the implementation of open learning approaches.
- ICT FOR LEARNING & TEACHING: The high cost of bandwidth also presents a significant challenge. These challenges further amplified by a lack of understanding of the value of using ICT on the part of management, lecturers and students, and a lack of ICT skills and access to ICT outside college campuses.



CONSTRAINTS:

- NATIONAL EXAMINATIONS: The prerequisite entrance requirements to examinations should be reviewed to accommodate open learning approaches and in specific, more flexible modes of delivery.
- LEARNING MATERIALS: A key challenge faced by the sector is the requirement to provide full-time students with textbooks for all the subjects that they register for. There is also a limited supply of appropriately contextualised resources available to lecturers to enhance teaching.



PROPOSED IMPLEMENTATION MODELS

- CREATE AN ENABLING ENVIRONMENT: Develop a national policy on open learning approaches and implementation strategies. Develop an appropriately nuanced funding system for the provision of various teaching modalities.
- DEVELOP INSTITUTIONAL CAPACITY TO DELIVER, ADMINISTER AND MANAGE OPEN LEARNING PROGRAMMES: A programme management team to manage the offering of the programme through reviewing the curriculum, updating resources and assessment plans and monitoring and evaluating the programme.

Subject matter experts and instructional designers to translate course content into self-directed learning materials. ICT technical team to assist academic staff and students with ICT-related matters, so that the lack of technology does not form a barrier to learning.

PROPOSED IMPLEMENTATION MODELS

- **DEVELOP QUALITY LEARNING MATERIALS:** Develop technical experts such as **instructional designers**, **media experts and materials development experts. Invest** in support mechanisms and infrastructure to develop learning materials. Provide **support for the production and sharing** of learning materials as Open Educational Resources (OER).
- Develop sophisticated networks and advanced security systems capable of running and sustaining learner, learning and content management platforms. Provide sustainable access to bandwidth.

■ INVEST IN TECHNOLOGY INFRASTRUCTURE AND CONNECTIVITY:

Provide access to **affordable end-user devices** such as laptops and tablets for lecturers and students.

