

**Regional OER Guidelines**

*Botswana*

The purpose of these Guidelines are to provide direction in the use of Open Educational Resources, to increase access to and support quality teaching and learning among students and teachers in the different Regions of the school education system in Botswana. The Guidelines outline key issues and make suggestions for integrating OER into teaching and learning across the education system.

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**Regional OER Guidelines**

MINISTRY OF EDUCATION AND SKILLS DEVELOPMENT

REGIONAL CENTERS IN BOTSWANA

***Draft***

# OVERALL OBJECTIVE OF THE GUIDELINES

The purpose of these Guidelines are to provide direction in the use of ***Open Educational Resources*** (hereinafter referred to as ***OER***), to increase access to and support quality teaching and learning among students and teachers in the different Regions of the school education system in Botswana. The Guidelines outline key issues and make suggestions for integrating OER into teaching and learning across the education system.

# INTRODUCTION

**What are OER**

OER are defined as,

"*teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions*" (UNESCO, 2012).

Available Free Online content (Print, Multimedia)

Links, sites eg *Wikipedia[[1]](#footnote-1), Khan Academy[[2]](#footnote-2),* and many others throughout the globe.

Integration of OER to supplement the textbooks would result in enhancing the quality and equity of education while contributing to the reduction of certain associated costs of the teaching-learning process. Primarily to supplement prescribed printed textbooks which are largely subsidized by the government, mindful of cost of electronic gadgets and human resource- training of teachers in the use of these gadgets.

Users will access their information at their own time and place. It encourages a shift from teacher centered approaches to learner centered discovery learning and research. As psychologists say learners retain information more when they see and do rather than being told and thus this will be a recipe for improved performance. OER could enhance a culture of excellence if an enquiry mind is established in an institution. Students enjoy playing or using electronic equipment that will enhance learning. This is noticeable in the way our children learn from interaction with online resources such as Youtube. They learn new skills like how to play a musical instrument, songs and even sing word to word some of the songs. This is one way in which utilization of such resources as OER can contribute to changing the teaching and learning environment for better student performance

Education is about providing learners with equal opportunities for learning and growth and requires a lot of collaboration and collective effort from all stakeholders to ensure success. This requires wide and affordable access to a lot of resources by both teachers and students through open and free sharing of available resources. OER provide us with an opportunity to facilitate and promote this spirit of sharing among educators, schools, teachers and students at a local, regional and even international level. At a local level, there are a lot of individual, institutional and even regional initiatives that, if were to be shared with others would benefit more the teaching and learning process for better students performance.

As Government and other stakeholders in the education space continue to invest in the rollout of ICT infrastructure to the schools through the Thutonet initiative, OER facilitate utilization of these resources to realize immediate benefits. Additionally they will assist the Curriculum eContent team to fastrack content development as many OER can be remixed, reused and redistributed for free.

Key advantages of integrating OER in to teaching and learning in Botswana are:

* Facilitating access to available free online resources to supplement available teaching and learning resources towards improved student performance
* Promote a spirit of information and knowledge sharing among teachers and students in the schools system in Botswana
* Reducing barriers to education, including access, cost, language and format;
* Transforming teaching and learning by enabling innovative pedagogical practices;
* Facilitating inclusive education for learners with varying abilities;
* Expanding outreach to disadvantaged and marginalized communities;
* assist in facilitation of teaching and learning for out - school groups
* Private institutions will also benefit by availing necessary materials to their learners through the same mode hence reducing cost for government in taking staff for full time training.
* Learning pace will be increased as the teachers will not the only source of what should be learned and when.
* Increasing the need for parents’ involvement in learners work, which is critical as it will create a digital society
* Encouraging individualized learning
* Facilitating incorporation of current worldwide trends in education thereby ensuring a global competiveness

# GUIDELINES

* 1. In recognition of the potential of OER to widen access to education at all levels, the Regional Centres (RCs) and the Schools shall promote and foster adoption of OER to supplement textbooks in teaching and learning.
  2. The Regional Centres (RCs) shall be committed to the philosophy of OER in raising awareness, building capacity and developing positive attitudes in teachers and learners for effective creation integration and sharing of OER with a view of enhancing quality and equity in education.
  3. OER shall be used by teachers and learners in the production of supplementary educational materials, in the two national languages (English and Setswana) in line with the national school curriculum requirements.
  4. Teachers and learners shall be encouraged to use and develop OER under the legal framework of open licensing of the *Creative Commons[[3]](#footnote-3)* which facilitates the reuse, revision, remixing, redistribution and retention (*Five ‘R’s*) of educational materials.
  5. The RC shall be responsible for establishing and maintaining a Regional OER repository; establishing quality assurance mechanisms such as peer review or user ratings; capacity building among teachers in OER development; and ensuring open licensing of educational materials that are developed.
  6. The existing enabling environments for ICT including infrastructure, internet connectivity, and emerging technologies such as mobile technology shall be fully utilized to facilitate access to and redistribution of openly-licensed teaching and learning resources.

# SPECIFIC OBJECTIVES

* 1. To take measures for raising awareness, building capacities and developing positive attitudes towards the concepts and practices related to OER among all educational institutions.
  2. To prepare manuals for OER use, creation, integration and licensing at school level.
  3. To establish an OER repository containing openly licensed materials created by teachers and learners.

## To ensure full utilisation of available new technologies infrastructure, hardware, software, internet connectivity for effective OER creation/integration at school level.

* 1. To ensure that the Guidelines are implemented and monitored by the RC to make informed decisions regarding the use of OER according to changing requirements of the school education system and international developments in the field.
  2. To ensure that regional centers are engaged in robust stakeholder mobilization for purposes of internet connectivity in their areas
  3. To work towards developing twenty first century skills and the knowledge economy
  4. To encourage adoption of Competency framework for teachers (UNESCO) on the use of ICT in teaching and learning

# EXPECTED OUTPUTS

* 1. The development of supplementary educational material, especially in the two national languages (English and Setswana), through the reuse and repurposing of available OER;
  2. Commitment of the RC towards making available selected educational materials as OER through the ministry web portal for the greater good of the schools;
  3. Provision of physical, human, financial and other relevant resources necessary for the implementation of the OER Guidelines;
  4. Provision of training, recognition and potential incentives to teachers and learners who are actively demonstrating adoption of OER at school level;
  5. Guidelines statements at the RC level on copyright aligned with their commitment to OER adaptation and implementation at school level.

# SCOPE

## These Guidelines shall apply to all general public schools in the regions – Primary, Secondary and Tertiary, under the RC and MoESD in Botswana.

# RESPONSIBILITY

The RC shall ensure compliance of these Guidelines under the guidance of the MoESD, Botswana.

# IMPLEMENTATION OF THE GUIDELINES

The implementation of these Guidelines within the public school sector shall be undertaken in the following ways:

## All educational institutions of the general school education system – Primary and Secondary under the RC and MoESD in Botswana shall comply with the respective OER guidelines and procedures;

* 1. The RC, under the guidance of the MoESD, shall facilitate the implementation of the OER Guidelines by working closely with individual institutions;

* 1. The MoESD shall be the absolute owner of the copyright of any supplementary educational material/content created by individuals and will make them available as OER in accordance with the respective OER guidelines of each RC;
  2. The MoESD and RC will adopt a **Creative Commons Attribution-Share Alike 4.0 International (CC-BY-SA 4.0) license**[[4]](#footnote-4)**.** (note: the final license is to be decided by the Policymakers during adoption)

The license declaration on OER created by MoESD and RCs will be as follows:

© 20XX The Ministry of Education and Skills Development. Except where otherwise noted, this work is licensed under the terms of the Creative Commons Attribution-Share Alike 4.0 International (CC BY-SA 4.0). To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/> or send a letter to Creative Commons, 444, Castro Street, Suite 900, Mountain View, California, 94041, USA

It is the responsibility of individual authors of the content to comply with 8.4 when revising or remixing existing OER to ensure that the MoESD/RC Policies on OER are not violated.

# USEFUL LINKS

TED  
TED believes passionately that ideas have the power to change attitudes, lives, and ultimately, the world. This underlying philosophy is the driving force behind all of TED's endeavors, including the TED Conferences, TEDx, TED Books, the TED Fellows Program, and the TED Open Translation Project. The site covers a range of subjects.  
 <http://ed.ted.com/>  
  
Khan Academy  
Is a not-for-profit with the goal of changing education for the better by providing a free world-class education for anyone anywhere. It covers Math and Sciences.  
<https://www.khanacademy.org/about>  
  
CK-12,  
CK-12 Foundation is a non-profit that creates and aggregates high quality curated STEM content. The site covers Math, Earth Science, Life Science, Physical Science,  Biology,  Chemistry, Physics, Engineering, Technology, Astronomy, English, History and Health:.  
<http://www.ck12.org/student/>  
  
OER Commons  
OER Commons, a project created by ISKME cover a wide range of subjects. Except where otherwise noted, content on this site is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License.  
<https://www.oercommons.org/>  
  
Edutopia  
Is a place where students and parents, teachers and administrators, policy makers and the people they serve are all empowered to change education for the better; a place where schools provide rigorous project-based learning, social-emotional learning, and access to new technology.  
<http://www.edutopia.org/>  
  
Molecular Bench  
Molecular Workbench (MW) is powerful, award-winning software that provides visual, interactive computational experiments for teaching and learning science.  
<http://mw.concord.org/nextgen/>  
  
The Royal Society of Chemistry  
The Royal Society of Chemistry is the world's leading chemistry community, advancing excellence in the chemical sciences.  
<http://www.rsc.org/resources-tools/>  
  
The Institute of Physics  
The Institute of Physics is a leading scientific society. We are a charitable organisation with a worldwide membership of more than 50,000, working together to advance physics education, research and application.  
<http://www.iop.org/education/index.html>  
  
Curiki  
A community for teaching or studying: Create, share, and explore high quality K-12 content.  
<http://www.curriki.org/>  
  
Common Sense Education  
Common Sense is dedicated to helping kids thrive in a world of media and technology. They empower parents, teachers, and policymakers by providing unbiased information, trusted advice, and innovative tools to help them harness the power of media and technology as a positive force in all kids’ lives.  
<https://www.commonsensemedia.org/educators>

# EFFECTIVE DATE

To be decided.

1. <https://en.wikipedia.org/wiki/Main_Page> [↑](#footnote-ref-1)
2. <https://www.khanacademy.org/> [↑](#footnote-ref-2)
3. <https://creativecommons.org/> [↑](#footnote-ref-3)
4. http://creativecommons.org/licenses/by-sa/4.0/ [↑](#footnote-ref-4)