BOOK REVIEW

Radical Solutions for Education in Africa: Open Education and Self-directed Learning in the Continent

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The discourse of educational philosophy has gradually shifted over years from pedagogy to andragogy to heutagogy. In pedagogy, what is learnt, and how, is both determined and directed by the teacher; in andragogy, it is determined by the teacher and directed by the learner; in heutagogy, both determination and direction shift to the learner (Blashke,Kenyon & Hase, 2014)[i]. *Radical solutions for education in Africa: Open education and self-directed learning in the continent*, edited by Daniel Burgos and Jako Oliver explores the concept of self-directed learning (SDL) within the context of open education. It foregrounds open education as the preferred approach to addressing educational challenges in Africa, using technology and open education resources (OER). It also explores possibilities of enhancing SDL from different angles, such as through online learning environments, the use of Open Education Resources (OER), and professional and vocational education.

Published in 2021 by Springer, the theme of the book centers around key tenets of SDL, which are in line with the heutagogical approach to education. The argument of the publication is that SDL tenets empower the learner and bring about the transformative character of education, if well-contextualised. At the core of SDL is that learning is learner centered where the learner takes responsibility for the learning, directs and paces the learning, and in the process acquires life-long learning skills. These learner- centered aspects are portrayed as the key ingredients of SDL.

Summary of the Book

The book consists of 14 chapters that were written by experts from higher education institutions in various African countries, Spain, and the United Arab Emirates. To this extent, it would be safe to conclude that an objective view of the role of SDL in education, particularly in Africa is presented. Although there are a few chapters where authors do not bring out the SDL theme explicitly, generally, the theme runs through most of the book chapters.

The book starts by contextualising open education and self-directed learning in the African context. It highlights access issues relating to online learning in Africa and the nature of educational resources in this context. It alludes to the challenges that are faced in the continent in terms of access to technology, especially the internet. It also cites issues relating to the general shortage of textbooks and class sizes, which have a negative impact on learning. The limitations of access to technology, electricity, learning

materials and sound teaching pose challenges to epistemic access in Africa and, therefore, warrant attention by governments and international development agencies.

An important message that comes through the book is that SDL is an essential twenty-first-century skill and is relevant for learners at the schooling as well as at post-schooling levels. The book also reveals that at these levels of education, positive teaching approaches, like collaborative learning, and project and problem-based learning go a long way in supporting SDL. The book indicates that research on SDL within the African context is on the increase and most of it is carried out in the teacher education field, using lecturers as research subjects. This research is, however, concentrated in a few countries on the continent, like South Africa, Ethiopia, Ghana, Nigeria and Namibia.

In their analysis of educational access in Africa, the authors project ICT as a key enabler for both access and quality of education, including development of SDL skills. Like in other parts of the world, the book alludes to the obvious educational benefits that are associated with the availability of technology in Africa. Education will draw on the affordances of technology to enrich teaching and learning processes through enhancing access, virtual communication with peers and teachers and, in the process, learners pick relevant technological skills needed in knowledge-driven economies. In addition to drawing on the affordances of technologies, the book portrays OER quite positively. Given the paucity of teaching and learning resources, as highlighted above, the book depicts OER as an important aspect of educational access in Africa. Addressing the shortcomings relating to the availability of reliable internet connectivity and electricity supply should be at the fore of African governments' agendas if access to sound quality education is to be achieved.

A relatively new concept the book gives is the select, organise, associate, and regulate (SOAR) pedagogical approach. The argument advanced is that SOAR is an efficient instructional method that fosters students' self-regulated learning, and hence empowers students to be lifelong learners. This is particularly true when mobile learning is used to support the SOAR pedagogical approach. Based on studies that were conducted in Sudan, the book argues that integration of mobile learning SOAR (M-SOAR) promotes SDL amongst learners. However, it recommends that more research in other contexts needs to be conducted to confirm this finding. Effective pedagogical approaches such as M-SOAR are well placed as suitable methods for fostering students' SRL skills.

The book also explores how online learning and support foster the development of SDL. Mentoring and coaching online are considered as two related but separate concepts. However, the author does not proceed to give the distinction between the two terms, at least as used in the book. An interesting message given in the book relating to online learning is that there are inherent power differences between mentees and potential mentors, which have potential to act as a barrier to establishing a positive relationship that promotes the development SDL. In addition, unclear expectations, shortage of mentors as well as absence of a culture of mentorship were also identified as possible challenges in effective online learning that promotes SDL skills.

The book explores the all-important theme of openness of education as a way of enhancing access to education, promoting SDL and contributing to sustainable livelihoods. The development of SDL in Adult, Professional and Vocational Education in Africa is also explored within this context. In this regard, the book makes an argument that supports entrenching SDL through open learning. It emphasises the openness of education as a key enabler for achieving Sustainable Development Goals

(SDGs), and therefore seeks to unearth both enabling and constraining factors for Open Education, Open Teaching and Open Learning. The argument of the book is that "...openness gives students a chance to learn in a self-directed manner, … The adoption of open schooling can assist African educational institutions to contain infrastructural challenges that are threatening course content delivery", (p. 112). Within the same vein of openness, the book makes a case for using open science (OS) principles to address barriers to conducting high quality, rigorous and impactful scientific research by ensuring that the data, methods and opportunities for collaboration are open to all. The main principles of OS are summarised in the book as Open data, Open analysis, Open materials, and Open access. An important strand of the argument presented in the book is that lack of openness is one of the major limitations of educational access and quality in Africa.

Another important theme that is dealt with in the book is traditional African education and how it relates to SDL. The book makes the point that SDL is inherent in traditional African forms of education. SDL, by its nature involves working collaboratively for the good of society and for the individual recipient of education, which is arguably typical of traditional African education. The book avers that the advent of Western education trivialised, if not killed these forms of education. The argument in the book portrays the Western education system adopted in Africa as being weak, fragile and less resilient, as was demonstrated during the COVID-19 period. The point is that an education system that is underpinned by SDL is more resilient to pandemics and other natural and social crises than systems where learning is driven by parties other than learners.

The key question one would ask is what teachers in Africa generally think about SDL and how they seek to promote it in their work. Based on the limited research that was conducted amongst educators from selected African states, the book concludes that:

- OER use was shown to be limited, and open education practices were not widely adopted;
- Educators prioritised the development of students' independence and responsibility over competencies that support the development of SDL. While educators support the goals of SDL, they do not actively develop students' competencies to achieve this; and
- There is great focus on teacher-driven and designed assessments that do not typically include students' voices or choices. Assessment designs do not widely adopt open education practices towards democratising education and assessment.

The research findings reported above show that there is limited understanding of SDL as a concept amongst educators in Africa and that approaches to enhancing it amongst learners are flawed.

The book concludes by highlighting examples of instances where OER and open education practices are being implemented. The idea is to demonstrate the value of open practices in promoting educational access and SDL skills. The first such case is the Moroccan OEP initiative that was aimed at creating a virtual laboratory that holds virtual experiments in physics courses taught in the first year of a bachelor's degree. The resources in the repository are OER that can be used by learners outside the conventional laboratory and even away from the campus environment. The second case is a study that was conducted to find out the levels of SDL skills of upper secondary school students in Mauritius. Self-discipline, self-motivation, self-management and collaboration were used as the main constructs for collecting data from students. The book draws on findings of the study and gives useful

hints on measures that should be taken to improve SDL amongst young learners. Such measures include encouraging learners to set learning goals, plan their learning schedules, devote more time to their studies, and manage how to avoid distractions. The third and last case is a study on how university academics were trained and supported to integrate OER in their online courses. Like the Mauritius case highlighted above, this study reveals some of the ways in which adoption of OER can be entrenched amongst educators. In all the three instances reported in the last three chapters of the book, it is clear that there is need to deliberately adopt specific strategies that are targeted at educators to motivate the adoption of open practices and SDL in Africa.

Merits and Limitations

The organisation of the book is logical and useful. The book is nearly 300 pages long and is made up of 14 chapters. It is very unlikely that each reader will go through all the 14 chapters in order to understand the concept of SDL, its value in empowering learners and how it can be promoted. Readers are likely to dip in and out, selecting only a few chapters that may be of interest to them. The contents page at the beginning of the publication, which also shows the names of the authors, may be useful for purposes of choosing chapters to read. Also, the abstracts that are given at the beginning of each chapter will give readers an idea of whether what they want to read is in line with their needs, without going through the whole chapter.

Furthermore, the first chapters of the book articulate the concept of SDL, which is expanded as the book unfolds to relate it to the African context and to how it can be promoted in higher education, professional and vocational education, at the schooling level and through adopting open education practices. Through this approach, a cogent argument that is in support of open education practices, including OER, is sustained. However, because SDL is explored from various angles of analysis throughout the book, a concluding chapter which pulls together the main strands in the book and suggests a way forward would have been a useful addition.

A sound analysis of the value of providing different forms of educational access in the African context, using technology and open education practices is given. Access is a topical aspect of education in Africa, so is the mainstreaming of technology. The book portrays OER quite positively, as an important aspect of educational access in Africa. This is good. It also rightly highlights the importance of OER format and the need to train teachers to adapt and create OER.

Another strength of the book is that it draws on a wide range of authors with experience in research to enrich the argument on SDL as a preferred pedagogical approach in contexts like Africa, where access and quality are still issues in education. This rich variety of perspectives makes the publication appealing to academics, educationists, policy makers and researchers in different parts of the world.

A publication of this nature should be premised on sound research in order to make the argument objective and convincing enough. All the chapters in the book outline the methodology that the authors used to collect the information that informed chapter arguments. Thus, a scientific approach was adopted in putting together the book chapters.

The book deals with current debates in education, particularly within the African context. Use of technology, use of open education principles, including OER, are debates that awaken the interests of researchers and education practitioners alike, as we seek the best ways of universalising education at

an affordable cost. The use of OER has not been without challenges even in developed contexts where these resources have been extensively used for years. The call to contextualise such innovations through research-informed policy is probably the greatest contribution this book makes to the African reader.

One of the book's weaknesses relates to the title — *Radical solutions for education in Africa: Open education and self-directed learning in the continent.* This title suggests a publication that really deals with "radical solutions" to the challenges of educational provision in Africa. It is hard to imagine that use of technology and Open Education Resources would actually provide the implied radical solutions to the education dilemmas of Africa. Whilst these innovations have potential to improve education, in themselves they are far from providing solutions to education systems in the continent.

The book argues that in sub-Saharan Africa the educational benefits of ICT provision are expressed as generalities and that there is widespread lack of a clear vision of the educational benefits of using ICT. However, this is a generalisation as there are sectors of African societies that know the benefits of technology in education and have been using it even long before the Covid pandemic. In countries like South Africa and Mauritius for instance, there are many schools and universities that have used ICT for quite some time, and have great appreciation of the value of using such technology in education. Extensive research has also been carried out at some of these institutions (e.g., University of Cape Town) on how to improve learning gains through technology. In fact, there is a trend in sub-Saharan Africa where the digital divide is quite apparent within countries, between the more affluent sectors of the society and the less privileged ones. In the former sectors, there is prevalent use of ICT at home and at school whilst in the latter there is very little or no exposure to such technology. In the book under review, it is worthwhile highlighting such nuances, which point at worrying inequalities that have profound implications on educational development in Africa.

The book projects OER as an important strategy for providing resources to African learners where there is general scarcity of teaching and learning resources. Whilst this argument is correct, it should also point out the downside of OER. These resources can only be as good as their users — how well they are integrated in the learning by designers and how well users are able to distinguish between good and bad quality OER. Caution has to be given that if they are not appropriately used, OER will not yield desired improvements in education. It is also important to make the point that whilst they are desirable, OER are not a panacea for solving educational problems in Africa, neither are open education practices.

Conclusion

It is my view that the book makes a sound argument about developments that need to happen to leverage education and what needs to preoccupy the minds of educationists, policy makers and researchers in Africa. In this regard, I hasten to mention that the book only scratches the surface regarding approaches and tools that work to transform education in this context. This review strongly recommends that research that is more targeted at specific aspects dealt with in the book should be conducted in order to establish their efficacy in bringing about educational transformation in the different contexts in Africa. Such research should inform practice in education and, as much as possible, should also involve educational practitioners.

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[i] Blashke, L.M., Kenyon, C. & Hase, S. (2014). *Experiences in self-determined learning*. Amazon.