Chapter 7
Sustainable Learning Through Curriculum Integration and Responsive Teaching

Christine A. Osae

Akilah Institute, Davis College, Rwanda

ABSTRACT

One of the principal challenges the education system faces presently is the discrepancy between what is learnt in class and the reality outside class. Due to the constant changes and rapid transformation in the world today, most students are undoubtedly training for jobs that may not exist when they finally graduate. How can educators prepare students for such a diverse and dynamic world? What does it take to produce highly innovative graduates that creatively apply outside-the-box solutions (locally rooted and globally scalable) to the world's most pressing issues? This chapter recommends an approach to education that focuses on learning as a process that creates both lifelong and life-wide learners as opposed to rote learners whose success is dependent on their ability to regurgitate content. The chapter demonstrates how Davis College and Akilah promotes sustainable learning through integration and responsive teaching and how the faculty development process plays a key role in this.

INTRODUCTION

The rapid changes in the world occasioned by technological advancements, globalization, pandemics, diversity and knowledge explosion constantly render fixed curricula and traditional pedagogical practices obsolete (Dar-es-Salaam-Declaration, 2010 & Hoff, 2009). How can educators prepare students for such a diverse and dynamic world? What does it take to produce highly innovative graduates that creatively apply outside-the-box solutions (locally rooted and globally scalable) to the world's most pressing issues, and agile leaders able to reconfigure their skills to match the complexity of imminent challenges?

The answer to these questions is an approach to education that focuses on learning as both a lifelong (sustainable) and life-wide (comprehensive) process. An approach that results in highly skilled critical thinkers and problem solvers able to navigate the intricacies of rapid and unpredictable change,

as manifested in new careers, new technologies or even cultural shifts (Berman and Graham, 2018). In order to create mental conditions and processes students need to continue learning and to acclimate to new situations, it is imperative that the focus in education shifts from fixed knowledge imparted in course silos to learning processes and capabilities applicable across curricula (Blasé, Van-Dyke, Fixsen & Bailey, 2012; Berman and Graham, 2018). This can be accomplished through curriculum integration (CI). The all-inclusive approach to learning through curriculum integration (CI) affords learners the opportunity to integrate new learning experiences with previous learning, leading to an in-depth and broader understanding of concepts (Bacon, 2018).

However, without proper implementation through learner-centered teaching and learning practices that respond to learners' individual needs, as well as a well-trained faculty to enact the theory in practice, the integrated curriculum becomes an abstract concept. Learner-centered strategies guided by the principles of responsive teaching and learning (RTL) are germane to the enactment of the integrated curriculum (Colley, 2018). Based on the cognitive science of how students learn, responsive teaching blends planning and teaching by pivoting and adapting instruction to student's needs (Fletcher-Wood, 2018). It (RTL) is an effective way to align the potential discrepancies that may arise in the enactment of the integrated curriculum vis-à-vis students' needs by guiding the pivoting of instructional practices to suit the needs of individual learners while informing further curriculum modification. This chapter demonstrates how Davis College and Akilah promotes sustainable learning through integration and responsive teaching and how the faculty development process plays a key role in this.

What is Sustainable Learning and How is it Enhanced Through CI?

When students walk into a class on the first day of school, a teacher can potentially predict their achievement at the end of the class, week, trimester, perhaps even the end of their diploma/degree. But far hazier is pin-pointing what or where they might be 5 or 30 years after. When they come upon the realities that life inevitably throws upon them, are they able to keep afloat? The answer to this question has been discussed by Dr. Eric Mazur (Formerly a Havard professor) and David Hestenes (Arizona State University), whose students had registered top marks and who received outstanding teacher evaluation results year after year, only to discover that no actual learning was taking place. Instead, students were only regurgitating physics laws and solving problems by rote, unable to apply these laws in real-world scenarios. After a semester of learning physics, students could only solve textbook-style problems but could not explain concepts beyond formulas, much less apply them to real-world scenarios. For example, students could not useNewton's Third Law to explain the force exerted in a collision between a heavy truck and a light car (Dreifus, 2007). Put otherwise, knowing the definition of a verb is inconsequential if you cannot conjugate it in different contexts.

One of the fervent goals of education, toward which all learning and teaching activities should be geared, is to ignite an ardent desire for truth and its application in different contexts (Bacon, 2018). To ignite this passion, some educators integrate fun activities into their lessons and invite learners to connect classroom content to real-world experiences. It is this connection of dots, back and forth, across disciplines that keeps the learner's curiosity engaged. Germane to keeping this momentum, is teaching students how to learn in varied contexts. This lifelong pursuit for knowledge cultivates an innovative mindset in a learner. Beane (2005) describes this as the ability to think critically, synthesize and evaluate information and apply knowledge meaningfully in varied contexts. This capability is all that is left

19 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/sustainable-learning-through-curriculum-integration-and-responsive-teaching/287277

Related Content

Nurturing Curiosity Learning Through STEM in Physical Education in Zimbabwe
Thembelihle Gondoand Jenet Jean Mudekunye (2020). *International Journal of Technology-Enabled Student Support Services (pp. 20-30).*
www.irma-international.org/article/nurturing-curiosity-learning-through-stem-in-physical-education-in-zimbabwe/270261

Investigating the Effects of Gamification and Ludicization on Learning Achievement and Motivation: An Empirical Study Employing Kahoot! and Habitica
Qi Zhang (2023). *International Journal of Technology-Enhanced Education (pp. 1-19).*
www.irma-international.org/article/investigating-the-effects-of-gamification-and-ludicization-on-learning-achievement-and-motivation/326127

Antecedents of Instructor Intention to Continue Using E-Learning Systems in Higher Learning Institutions in Tanzania: The Influence of System Quality and Service Quality
Deogratius Mathew Lashayoand Julius Raphael Athman Mhina (2021). *International Journal of Technology-Enabled Student Support Services (pp. 1-16).*
www.irma-international.org/article/antecedents-of-instructor-intention-to-continue-using-e-learning-systems-in-higher-learning-institutions-in-tanzania/308461

Emergency Remote Teaching in Language Education: Opportunities and Challenges
Nurdan Atamturk (2023). *Mobile and Sensor-Based Technologies in Higher Education (pp. 111-132).*
www.irma-international.org/chapter/emergency-remote-teaching-in-language-education/314903

Digital Play and Legos as Rehearsal for Writing
(2018). *Digital Initiatives for Literacy Development in Elementary Classrooms: Emerging Research and Opportunities (pp. 110-128).*
www.irma-international.org/chapter/digital-play-and-legos-as-rehearsal-for-writing/188081