



CURRICULUM DESIGN AND DELIVERY IN THE CHANGING TIMES OF SOUTH AFRICAN HIGHER EDUCATION SYSTEM: CHALLENGES AND PROSPECTS

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Abstract

The purpose of this paper is to discuss the design and delivery strategies adopted by institutions of higher education in the challenging times looking mainly at the opportunities and potential challenges posed by utilisation of technology as a mode of curriculum delivery for face-to-face and online learning and assessments. Curriculum change emerged as key focus in restructuring the educational system and strong emphasis was placed on its implementation. Curriculum is a complex and contested terrain that is variously described based on disparate philosophical lenses through which it is viewed. When the word curriculum is used it is generally understood as applying to school education that is to the prescribed learning programmes of schools or more broadly to the learning opportunities provided to school learners, rather than to higher education. The paper argues that inadequate training regarding curriculum implementation, lack of guidelines for the implementation of curriculum changes and the complexity of managing the new and the old curriculum simultaneously. However, despite the increasing pressure upon academics to interrogate their own systems and disciplinary structures that chiefly focus on a traditional mode of specialised knowledge production, there is limited evidence of significantly changed understanding of curriculum practices. Although, South Africa has unique political, economic, social and cultural needs due to its history to provide justification for curriculum transformation, it still has to deal with fundamental psychosocial, identity and pedagogical issues. The paper concludes that technology can be utilized to improve teaching and learning and help our students be successful.

Keywords: *Curriculum Design, Delivery in The Changing Times, Challenges, Prospects*

1. INTRODUCTION

Many changes especially in the education system were introduced when the ANC-led government came into power in 1994 (Teferra & Altbach, 2004). Curriculum change emerged as key focus in restructuring the educational system and strong emphasis was placed on its implementation. People in leadership in schools were expected to play a pivotal role to ensuring its effective implementation. Curriculum changes are intended to improve the quality of education for the benefit of learners and teachers (Beauchamp, 1977). However, the curriculum changes that have happened over the years in South African education system do not seem to achieve its intended goals. As technology has rooted its way into our day to day existence, education has been changed. Long gone are the times of thumbing through an Encyclopaedia (Ball, 2003). With information at the tips of our fingers, learning is now boundless. Though there is, of course, the argument that technology has adversely influenced students' learning schedules, due to digital distractions and the impact on their attention spans. Improving education is a huge issue for our society. Test scores, perceived performance against different nations, and different elements have pushed education to the bleeding edge of national legislative issues, directly behind healthcare reform (Turnbull, 2000). Technology can be utilized to improve teaching and learning and help our students be successful.

2. THE CONCEPTIONS OF CURRICULUM

Curriculum can be understood as a process of selecting courses of study or content (Wood & Davis, 1978). In this sense, a curriculum also either describes or prescribes the content and goals of

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formal instruction but lays the means of instruction out of the foreground of focus. Although this use of the curriculum appears similar to the above-mentioned definition. Curriculum can be seen as a means of achieving specific educational goals and objectives. In this sense, a curriculum can be regarded as a checklist of desired outcomes. In the curriculum development process, generally speaking, the objectives are clear and specific in behavioral and observable terms. The emphasis on objectives is the characterization of an objectives curriculum model. In this sense, the focus is on products or ends, and is also teacher-orientated or administrative-oriented. If it is the latter, curriculum is set by politicians without consulting teachers and very few of the teachers feel any sense of “ownership” for the material they are compelled to teach. A curriculum can be seen as a plan, or a sort of blueprint for systematically implementing educational activities. This sense of the term combines content with instructional methods and hence has a wider scope than the former two curricular paradigms because of the inclusion of methods. In this vein, Tom (1984) canvasses curriculum as “a plan for teaching or instruction”. Similarly, Pratt (1994) conceives it as “a plan for a sustained process of teaching and learning” with a specific focus on content and the process of teaching and learning. What is worth noting is that this view of curriculum is not pragmatically equated with methods themselves in action. Pratt (1994) further explains that curriculum refers to plans for instructional acts, not the acts of instruction themselves”. According to this view, curricula can be likened to construction blueprints. As a blueprint is not a building per se, a curriculum is not actual teaching or learning.

Curriculum has to do with the answers to such commonplace questions as “What can and should be taught to whom, when, and how?” (Eisner & Vallance, 1974). As Begg (2005: 6) puts it, curriculum is all planning for the classroom. There are several ways that curriculum can be understood: one approach interprets curriculum primarily in terms of political power (e.g., curriculum as a fact, as practice, or as social conflict, in Goodson, 1995), while a second analyses the nature of what is taught (e.g., curriculum as race, gender, aesthetic, institutionalized, or poststructuralist texts, in Pinar, Reynolds, Slattery, & Taubman, 1995). American Educational Research Association’s Encyclopedia of Educational Research defines curriculum as “all the experiences that a learner has under the guidance of the school” (Kearney & Cook, 1961). Barrow and Milburn (1990) echo this by describing a curriculum as “all the experiences that a child has in school”. Thus, the subject matter provided for students, the actions of teachers (attitudes and motivations) in the classroom, the actions of students (reactions, attitudes, and motivation) and the instructional materials can all be understood as facets of the experiential curriculum.

A curriculum in higher education, according to Le Grange (2006: 189), refers to what knowledge is included or excluded in university learning/teaching courses. The Council on Higher Education (2004:93) posits that the concept ‘teaching/learning’ encompasses the activities of teaching and learning in the classrooms of Higher Education Institutions (HEIs) in South Africa. It also encompasses policies, strategies, plans and infrastructure both at the higher education system level, and at institutional level, to support these activities. Curriculum is, or should be, one of the key major concepts in the language of higher education (Barnett & Coate, 2005). Through curricula, ideas of higher education are put into action. Through curricula, too, values, beliefs, and principles in relation to learning, understanding, knowledge, disciplines, individuality and society are realised. Further, curricula are changing. However, at a local level, when a new course is being designed, there is evidence to suggest that discussion is limited both to academic matters which topics are to be included and what approach is to be taken and to technical matters, such as credit weightings, assessment approaches, the integration of any work-based learning elements, and more occasionally, pedagogical matters as to whether a curriculum might be shaped more around problem-based learning.



3. RESULTS AND DISCUSSION

Nature of Curriculum in Higher Education

An important curriculum project might be to reclaim African knowledge that African traditions and cultures should occupy a central place in what is learned in universities (Teferra, 2004). Such a project might be necessary as Africa has a long academic history and boasts the oldest existing university, Egypt's Al-Azhar, which is the only African university still organised according to its original Islamic model. According to Teferra & Altbach (2004:23) all other African universities have adopted a Western model of academic organisation. African universities have been shaped by colonialism and organised according to European models or as Teferra & Altbach (2004:23) put it: Higher education in Africa is an artefact of colonial policies. Colonial education policies had the following effects on African higher education: there was limited access (colonial authorities feared widespread access to higher education); the language of instruction was the language of the coloniser; academic freedom and institutional autonomy were limited; and the curriculum was limited (colonisers supported disciplines such as law that would assist with colonial administration) (for a detailed discussion see Teferra & Altbach 2004:23). Not all of this may be relevant to South Africa. However, the point is that curricula in South African universities remain largely organised according to Western academic models. In arguing for the centrality of African interests in curricula does not mean that curricula should exclusively include African concerns (Turnbull, 2000). A curriculum is designed to ensure that knowledge is conveyed in a systematic and planned way so as to impart an amalgam of knowledge and skills that are determined to be appropriate and necessary to the society and the time.

The Opportunities and Challenges of Use of Technology as a Mode of Curriculum Delivery for Face-To-Face and Online

While everyone would love to see smaller schools and class sizes, technology cannot do that physically. Technology can be a "force multiplier" for the teacher. Through the use of learning management systems (LMS) students can access online resources to get assistance on demand beyond the physical reach of their teacher (Teferra & Altbach, 2004). Technology can also extend education in another way. Education does not stop towards the finish of the school day. Students can access teachers, resources, and assignments via the web whenever and wherever they have an internet connection (Turnbull, 2000). For students who need to spend more time practicing a concept, online exercises and curriculum can also help them work at their own pace and still keep up with their peers.

Parental contribution is another factor impacting student accomplishment that can expand with technology (Makgoba & Seepe, 2004). Most guardians nowadays have extremely bustling schedules. In turn, they may not have time to assist their child with homework at home or come to class for conferences (Turnbull, 2000). Parents may be able to meet with teachers via web conferencing or other online collaboration tools. Additionally, they can check their child's attendance, assignments, and grades through online frameworks. They can likewise converse with their children from work via email, texting, instant messaging, and video calling.

Technology-based projects can also inspire students to think and collaborate as opposed to memorizing, whether they're using the web for research or to correspond with other students or experts who are not physically present (Ball, 2003). These projects likewise help them learn technology skills they will need to succeed in the modern workforce. Though technology itself can be expensive, it can also help schools save money. Virtual field trips, electronic documents, email instead of printed memos, virtual labs, electronic textbooks, and the thousands of free online resources help schools save cash and still give students amazing educational experiences (Makgoba & Seepe, 2004). Teachers can also utilize technology to discover resources and go to virtual expert improvement courses and conferences. They can likewise make personal learning networks (PLN) with Ning, Twitter, and different resources to discover and share thoughts and resources, and get support from their colleagues (Ball, 2003).

1. Digital Simulations and Models

Digital simulations and models can help teachers more tangibly and clearly explain difficult concepts and can help students who are visual or tactile learners better understand the concepts.

2. You Can Now Finish a Degree Online

For those that work all day and can't go to class in person, online education has been a stunning arrangement (Teferra & Altbach, 2004). From the ivy leagues to junior college, many different types of institutions offer online courses, certifications, and degrees.

3. Improved Communication

Ineffective correspondence among teachers and students can be a hindrance to learning and education (Turnbull, 2000). Technology can change the classroom into a network where teachers post assignments progressively, and students can ask questions more easily of teachers and of their peers and reference a structured record of past discussions.

4. Advanced Research, Quick Information, and eBooks

Cloud storage and smart search engines have made research a great deal less demanding for students nowadays. Gone are the days when they needed to flip through heaps of books to locate a specific reference (Makgoba & Seepe, 2004). Since a considerable measure of time is spared amid research, and since it is easier to access a wider array of sources, students can consolidate a ton of information and knowledge in their projects. Results can be compared worldwide more efficiently, allowing for faster progress in advanced research. From a practical perspective, eBooks also save students money and the burden of hauling around a pile of books for one class curriculum. Since the vast majority of students have a tablet they can bring everywhere, digital course material and books are convenient (Turnbull, 2000). eBooks are regularly acquired at a marked down rate compared to conventional soft cover books. This makes them more affordable for students as well.

5. Effective Assessments

Technology not only allows teachers to prepare practice exercises in a productive manner, it also allows them to better measure the advancement of their students (Ball, 2003). There is programming accessible with which teachers can give or get assessments of their students continuously. Digital assessments allow teachers to check in on progress regularly. They then have the ability to keep records up to date more easily and accurately (Makgoba & Seepe, 2004). They can tell teachers not only whether the student got a question right, but also how much time was spent on the question. These assessments give teachers a much clearer picture as to their students' advancement. From there, they can intervene in a timelier, effective manner (Turnbull, 2000). They may also be able to analyse trends across the class, and more easily compare test results with other classrooms and schools.

6. Learning at One's Own Pace

Obviously, self-guided learning is another enormous advantage that students appreciate with the rise of technology in the education industry (Makgoba & Seepe, 2004). Despite the fact that there are some quick students who are fit for adjusting to new concepts quickly, there are others who must set aside considerable time to assimilate a thought (Turnbull, 2000). Such students are blessed with the possibility of technology being a piece of their learning; now they can keep pace with their peers by using guided exercises and online curriculum to take on new concepts at their own pace, and to practice again later, at home.



7. Fun Learning

The utilization of technology has made learning significantly more fun than any other time in recent memory. Students are getting engaged in a diverse array of learning tasks that improve their retention of new concepts (Ball, 2003). For example, there is an incredible breadth of education applications that allow students to learn various concepts in a playful, interactive manner. Students that may struggle to understand a certain subject can search for a tutorial video online. Videos or live streaming content can offer an alternate approach to a thought and better understanding of a concept or subject (Makgoba & Seepe, 2004). These videos can allow an interesting and interactive approach to learning that might be more easily digested.

8. Online Group Collaboration

The idea of group study has been improved in the digital world. Presently, students do not have to get together physically; there are many ways to collaborate online (Teferra & Altbach, 2004). They can share files and notes, work together on documents, instant message or email. They can even use video conferencing to discuss projects face to face.

9. Open Education

We have access to information like never before. In this innovative and revolutionized world, there are various free resources available to learners whether they are articles written by individuals, micro-learning courses from experts, or archives made available by prestigious colleges (Ball, 2003). Regardless of your location or budget, if you have internet access, the universe of the web will undoubtedly have the means to answer your question. Technology can give teachers and students remarkable resources. They have access to new opportunities for learning approaches to work together and to set aside additional cash (Turnbull, 2000). Technology is not just a powerful thing for education it is a superpower.

Challenges of Delivering Curriculum through Technology

The section describes barriers that relate specifically to teachers, their beliefs, and their knowledge. These issues are, by their nature, personal and thus vary greatly from teacher to teacher even within the same environment (Teferra & Altbach, 2004). Consequently, it is difficult to address these issues broadly. However, the is attempt to provide an overview of common frameworks, provide examples of the research being done using these frameworks as guides, and discuss implications with regard to literacy technology (Makgoba & Seepe, 2004). First, it discusses educators' attitudes and beliefs, referred to as second-order barriers (Ertmer, 1999). If teachers do not expect new technology to be useful or do not think they have the required experience to use such technologies, they are more likely to persist using more traditional methods. Closely related to the attitudes and beliefs, teacher resistance may present a barrier to technology integration.

1. Teacher Attitudes and Beliefs

Teacher's attitudes and beliefs are crucial factors in determining the role and effectiveness of technology in classrooms (Turnbull, 2000). Attitudes and beliefs about both educational technology and pedagogy in general will ultimately influence how teachers implement technology. The promotion of positive attitudes can optimize technology use (Makgoba & Seepe, 2004). Now that technology is being widely used in some schools, perhaps the most important question is how to best implement technology, rather than whether technology will be used (Keengwe, Onchwari, & Wachira, 2008).

2. Confidence in skills and knowledge

Given the abundance of available educational technology, it is essential that teachers feel comfortable and confident about their ability to use them effectively (Lowther, Inan, Strahl, &

Ross, 2008). Many current teachers grew up without access to technologies like the personal computer and the internet, but students today are raised in an environment saturated by computer technology (Ertmer, 1999). These digital natives can intimidate teachers, especially teachers with little technological experience. If teachers feel they do not have the necessary competencies when using technology, they may feel less in control of the class, use less technology, and be unlikely to explore new possibilities that utilize technology when designing their classes (Hughes, 2005; Rakes & Casey, 2002). By sticking to traditional teaching methods, teachers who are less fluent with technology maintain a feeling of control in the classroom and will not have to prepare to face the challenges of instructing digital natives in a digital environment.

3. Teacher Resistance to Technology in the Classroom

Browsing online teacher forums makes it clear that implementing new technologies into lesson plans can be a difficult task (Ertmer et al., 2012). Perhaps the most common reason mentioned by teachers for not actively integrating new technologies is that many teachers are satisfied with their current lesson plans. A teacher's desire for their students to learn effectively drives classroom instruction, and if current lesson plans meet the needs of students, there is very little motivation for the teacher to alter them (Makgoba & Seepe, 2004). Educators spend countless hours creating lesson plans that will hold attention and make learning exciting. Revising lesson plans means several hours of additional work for the teacher, which is problematic given an already demanding schedule.

4. Teacher Skills and Knowledge

Pedagogical content knowledge (PCK) has long been discussed as crucial for effective teaching (Shulman, 1986). Effective educators must not only be domain experts, but also understand how to flexibly use the affordances of different pedagogies for particular content topics. With the advent of numerous novel technologies over the past decades, educators have an abundance of technologies to leverage to make their teaching more effective (Teferra & Altbach, 2004). Although the potential benefits are clear, the sheer number of possible combinations of technologies and pedagogies for different tasks and students is overwhelming. The TPACK framework expands on the focus of PCK to also include technology as a knowledge domain (Mishra & Koehler, 2006). TPACK focuses on technology, pedagogy, and content knowledge individually, and also on their interactive combinations; this leads to a sum of seven types of knowledge that TPACK supporters argue are crucial for ideal integration: content knowledge, pedagogical knowledge, technological knowledge, pedagogical content knowledge, technological content knowledge, technological pedagogical knowledge, and technological pedagogical content knowledge.

5. Institutional autonomy

While there is no question on the idea of universities enjoying self-regulation on matters such as curriculum, there might be a danger when curriculum becomes a private domain, that is, when self-regulation in practice means that individual lecturers alone determine what is taught in the courses or modules they present (Turnbull, 2000). If increased and broadened participation, as stated in Education White Paper 3, is central to the transformation of the South African higher education system and its institutions, then curricula of institutions should be particularly sensitive to the needs of black, women and disabled students (Ball, 2003). Although there has been an increase in access to students, at most institutions it is questionable whether access has shifted beyond formal access to include epistemological access. Morrow (2007:2) argue that formal access concerns providing access to institutions of learning and depends on factors such as admission rules and personal finances; whereas epistemological access is access to knowledge, that is, access to the knowledge that universities distribute.



6. Public Accountability

The reference is made to curriculum under public accountability in Education White Paper 3, which specifically stated that higher education curricula should be responsive to national and regional contexts (Makgoba & Seepe, 2004). This experience will broaden the view by speaking of responsiveness to the African context. The number of international students at South African universities has increased significantly over the past few years. An even more fundamental question is whether the curricula of South African universities reflect the context in which they are located (Teferra & Altbach, 2004). However, it does not suggest that curricula of South African universities should narrowly reflect mainly local content. It goes without saying. The challenge is how to develop and design curricula that are locally and regionally relevant when Western epistemologies continue to dominate and power relations are unequal (Makgoba & Seepe, 2004). A stepping stone for meeting this challenge might lie in work that have been explored in detail elsewhere.

7. A Programme-based Approach to Curriculum

Teaching programmes have always existed in universities. However, one outcome of the developments in higher education policy in the late 1990s was the reconfiguration of teaching programmes at all South African universities, in terms of both organisational and design features (Teferra & Altbach, 2004). Several universities have changed their organisational structures to create larger units such as schools and colleges, resulting in the abandoning of traditional academic departments organised along disciplinary lines (Turnbull, 2000). Traditional heads or chairpersons of departments have made way for school and/or programme directors. In many instances these larger structures are organised around programmes and not disciplines. Furthermore, in terms of programme design there has been a shift in the sense that academic disciplines do not necessarily inform the goals and visions of programmes, but outcomes some generic to all teaching programmes in South Africa and some specific to particular programmes (Ball, 2003). These outcomes are linked to the needs of both global and South African societies. The approach to curriculum design is a design down deliver up one, where modules that are traditionally organised around disciplines now have to be redesigned in service of the vision and outcomes of a programme. This is at least how it works in theory the extent to which these changes are reflected in practice vary depending on the institution.

4. CONCLUSION

Curriculum is a complex and contested terrain that is variously described based on disparate philosophical lenses through which it is viewed. When the word curriculum is used it is generally understood as applying to school education, that is to the prescribed learning programmes of schools or more broadly to the learning opportunities provided to school learners, rather than to higher education. Ironically, the term was first used in relation to higher education rather than school education. Instead of regarding curricula narrowly as formalized classroom content or prescriptive learning objectives, it may be useful to think of them more holistically as programs for experiences.

Challenges facing higher education academics are the recent institutional mergers and the restructuring of higher education that included the reclassification of some institutions. The shifts in institutional and departmental cultures that have occurred as a result of these institutional changes suggest that the academic identities of educators are being challenged and that they are having to consider new ways of working. All of these changes suggest that for institutions to meet societal, economic, cultural, technological and intellectual needs, curricula ought to be designed to encourage learners to be problem-solvers, critical thinkers and creative decision-makers.

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