FACTORS INFLUENCING THE ADOPTION OF FLEXIBLE TEACHING APPROACHES IN TECHNICAL TRAINING INSTITUTIONS IN KENYA

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Abstract
The goal of training in technical training institutions is to produce highly skilled graduates with competencies to handle various challenges in technology oriented fields. The continuing need to improve the quality of education in Technical Vocational Education and Training (TVET) is ever present. This paper highlights the factors influencing the adoption of flexible approaches to teaching in technical training institutions in Kenya. Two specific objectives are addressed here are to establish how the syllabus content influences the adoption of flexible approaches to teaching and evaluate how institutional factors influence the adoption flexible approaches to teaching. The study was guided by a conceptual framework developed by the author. This study was conducted through descriptive research design. Data were collected from seven technical training colleges in Western Kenya. The method of data collection was through open and closed-ended structured questionnaires, and interview schedules. Collected data were coded in SPSS 17.0, and analysed using descriptive statistics. The study established that institutional managers had no authority to develop their own courses that are tailor-made to suit specific needs in the market. The teaching resources that influence the adoption of flexible learning and teaching were also found to be unavailable in classrooms. Most institutions however had put in place strategic objectives to improve the quality of learning and teaching. Outputs from this study are expected to enhance the adoption of flexible learning in technical training institutions. In light of the findings of the study, it was recommended that the government of Kenya should establish a clear policy aimed at greater adaptability to flexibility. Institutions need to be granted authority to develop and reorganise syllabi for provision of industry-specific solutions while being regulated to meet international standards.
Key words: Flexible approach, Institutional factors

Introduction
In Kenya, the government considers investments in TVET a way of reducing unemployment and poverty. It is committed to reforming the sector so as to ensure the programmes offered are relevant, and to ensuring adequate supply of critical skills and competencies for local and global labour markets as identified in the Kenya Vision 2030 (Republic of Kenya, 2007), and Sessional Paper No. 1 of 2005 on Education and Training Policy Framework (Republic of Kenya, 2005).

According to the Ministry of Higher Education science and Technology and the Kenya Institute of Education (MoEST & KIE, 2010), the national TVET strategy underscores the importance of the curriculum in the provision of skilled human resource as a key driver of employment creation and eventual economic take off. The overall thrust of the strategy is to diversify and provide quality and relevant skills. The TVET curriculum is therefore expected to enrich learning experiences, establish a culture of excellence and work ethics, and inculcate diligence, precision, entrepreneurship, innovation, social integration, nationhood, integrity, continued lifelong learning, global competiveness, efficiency, good leadership and governance, equity of training, inclusive curricula, democracy of admission and management training. The TVET strategy paper further goes on to note thus "The recommended strategies provide for a shift from the current rigid, standard based curriculum design to a broad based flexible model to facilitate access to flexible training through different experiences by exploring and providing menu type options to cater for different learning needs of students in accordance to their own individual contexts" (MoEST &

KIE, 2010). However, adopting flexible teaching approaches as envisaged in the strategy paper may remain a challenge.
The Commonwealth of Learning (COL) has been at the forefront in promoting the switch from traditional approaches of teaching to what they call Flexible and Blended (FaB) approaches, especially through targeted workshops in parts of Africa, and through their webpage dubbed the community learning network (CLN).

"COL's Flexible Skills Development initiative continues to help TVET institutions in Africa to extend the reach of their training through flexible approaches to learning" (Commonwealth of Learning, 2012). Institutional visits by COL consultants and staff have been to help partners pursue their strategic objectives and develop new courses. This includes: Staff development in Kenya: training in materials development, learning theory and teaching practical subjects at the Kenya Technical Teachers College, the Coast Institute of Technology and the Mombasa Technical Training Institute (Commonwealth of Learning, 2012). In view of the foregoing, it was necessary to determine the factors influencing the adoption of flexible approaches to teaching in technical training institutions in Kenya.

Statement of the Problem

The Kenya government in 2003 implemented the Free Primary Education (FPE) policy (Republic of Kenya, 2003). Among many others, the following specific targets were set: A primary school Net Enrolment Rate (NER) of 100% by 2015, a completion rate of 100% by 2010, Achievement of a transition rate of 70% from primary to secondary school level, Gender parity at primary and secondary level by 2015, development of a national training strategy by TVET by 2005, and expansion of public universities to have intake capacities of at least 5000 students per year by 2015 (Ministry of Education, 2012; MoEST & KIE, 2010).

As a consequence of implementing FPE, Kenya has witnessed increased enrolments in primary education as well as secondary education (Ministry of Education, 2009). However, every year, thousands of students leave regular formal educational institutions in Kenya, but they cannot progress to higher levels of formal education due to a variety of reasons. Empirical studies indicate declining enrolments in TVET institutions over the years (Simiyu, 2007). While close to 40% of the students fail to transit to secondary level, only about 10% of the students proceed to college level from secondary level. This is despite the fact that the TVET sub-sector offers programmes that give a variety of options to students who exit from most of the levels of education.

In Kenya, the flexible learning approaches have currently been adopted by many learning institutions but still at a low level. However, for most formal training programs, no data was available to show whether such approaches were being used. For this study therefore, the big question was: why aren't flexible approaches to teaching being adopted? It is therefore on the basis of the foregoing, that the current study was designed to determine the factors influencing the adoption of flexible approaches to teaching and learning in technical training institutions in Kenya.

Objectives of the Study

The objectives of this study were to:

i. Establish how the syllabus influences the adoption of flexible approaches to teaching in technical training institutions in Kenya.
ii. Determine how institutional factors' influence the adoption of flexible approaches to teaching in technical training institutions in Kenya.

Conceptual framework

This study was formulated on a conceptual framework based on the research objectives, and the possible best case scenario outcomes in cognizance of the moderating factors. The conceptual framework depicted in Figure 1 was therefore generated by the researcher.

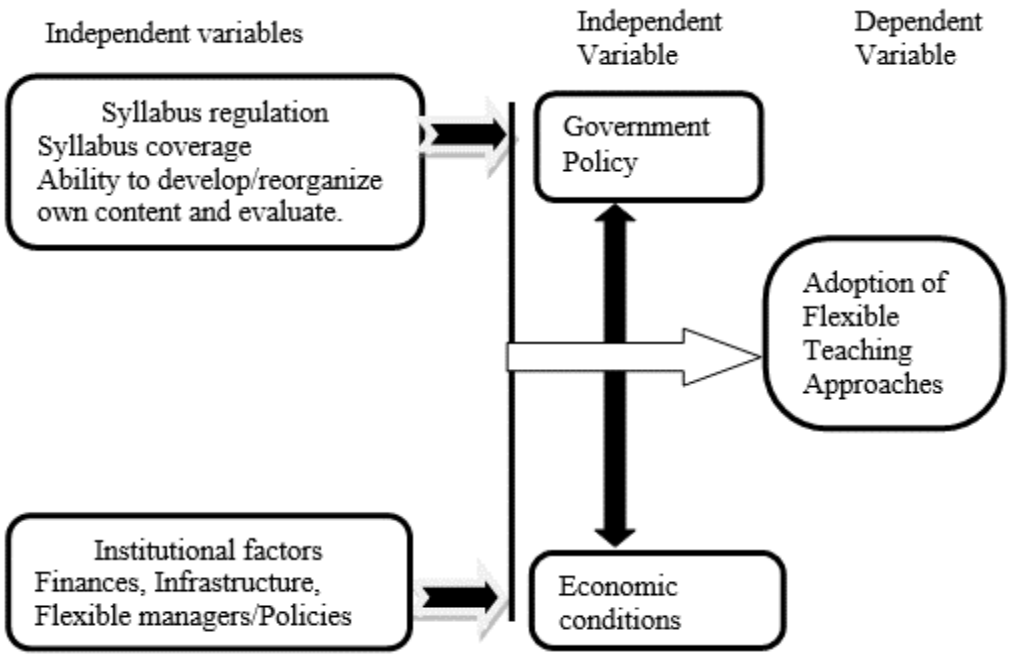

Figure 1: Conceptual Framework of the Study
Source: Author (2015)

Literature Review

In the researchers' view, the three tests for flexibility in learning processes can be exemplified by the following questions. *Can trainees learn from remote locations*? The answer to this is often yes, at least for those courses made available online, with substantial materials on the Web, and an email discussion list. *Can trainees learn at times of their own choosing?* The answer in the Kenyan situation is not quite so clear-cut yet. Harry (2002) asked "why wouldn't we adopt teaching methods which free us the time, place, mode and pace of learning?"

The last test question would be *can trainees learn by a variety of methods?* If a course has been labelled flexible purely because the lecture notes have been made available online, then the answer is clearly no (Shurville, O'Grady, & Mayall, 2008). For a definitive "yes" answer, it is a necessary, but still insufficient requirement that a variety of resources should be provided, such as lecture slides, audio and/or video recordings of past lectures, still images and animations, worked examples, among others. The provision of such resources is clearly invaluable to students. Such resources can often be used for multiple course offerings, thus cost may not be such as to be prohibitive, (Reif, 2013). Even where a variety of resources is provided, such provision may still be insufficient to ensure a variety of learning methods are available. Horton (2000), provides a variety of interactive activities such as drill-and-practice exercises, virtual laboratories, case studies, guided research, and others, all of which can be used in flexible learning approaches.

Literature indicates little agreement about the meaning of flexible learning as a general concept. Flexible learning is commonly used with various other terms including flexible delivery, open learning, resource based learning, distance learning, independent learning and self-managed learning, informal sector courses etc. (Harper et al, 2000). In other words, it is essentially learner centred learning aimed at improving access, giving learners control and choice over what and how they learn, helping them to take responsibility for their learning and providing support appropriate to the individual's needs.

Conceptually, flexible learning is generally cited within the open learning field: "the concept of open education is ill defined but has to do with matters relating to access, freedom from constraints of time and place, means, structure, dialogue and the presence of support services" (Tucker, 2013). Openness in terms of means would imply the presence of choice between distance and continuous modes as well as choice between specific media. Most of these features relate to educational policy and philosophy rather than the modality of teaching. Moore (2013) argues that

the emphasis in open learning needs to move from one of access to that of mainstreaming, creating new opportunities for learning and the development of independent learners.
Ellington (1997), notes that flexible learning began to be used as a term in the UK in the early 1980s. There is confusion in the minds of practitioners between the terms open, distance, flexible and resource based learning, which the literature compounds. Often they are used interchangeably; sometimes one subsumes the other (Hudson, Maslin, & Oates, 2013).

COL reported in their newsletter (*Connections*) that it commissioned a study about national policy and implementation of open and Distance learning (ODL) and use of information and communication technology in TVET in the pacific. Conducted by the open polytechnic of New Zealand, the study examined opportunities for flexible learning approaches to TVET in nine Commonwealth pacific Countries. While almost all countries identified TVET as an important part of their education, and that there are regional policies about open and flexible TVET in the region, there seemed to be little activity related to these policies (Commonwealth of Learning, 2012).

While it is clear from the literature that flexible learning can occur in the absence of technology, there is now either an explicit or implicit recognition that ICT is a key enabler for flexibility.(Terry, 2000), describes that the term 'flexible' is used to refer to practices which utilize the capacities for learner-learner and teacher-learner interaction made possible through recent developments in communication and information technology to provide increased 'openness' in both on and off-campus delivery of educational programmes. Collis et. al., (2012) note that concept of distance itself is losing its meaningfulness as distance learners attend on campus sessions, attend local study centres, and use ICT for communication and interaction. King, (2001) agrees that there is no longer a special distance learner constituency, so it is difficult for distance programmes to differentiate themselves. In a collection of international cases on the subject, Cochran-Smith (2004) makes reference to a phenomenon of hybridisation worldwide, which he describes as the use of ICT by conventional universities to enhance on campus learning and create new courses for distance learners. This would seem to be a consistent theme throughout much of the literature, for example, Shurville, O'Grady & Mayall (2008) similarly argue in their assertion that flexible education expands upon the ethos of distance learning by providing students with flexible access to learning experiences in terms of at least one of the following: time, place, learning style, content, assessment and pathways.

The advent of ICT has resulted, in practice, in the convergence of distance and campus based learning and a blend of e-learning and face-to-face learning for on campus students (Khan, 2007). This has produced a wide range of flexibilities depending on the strategic intent of a given institution. While current trainees may adapt to the special characteristics of e-learning, the online environment itself is a new challenge for learners, some other matters like motivation, independent learning and time management simply present themselves in a new context. The challenge for flexible learning with technology then is to maintain a kind of valuable learning relationship.

Methodology

Design informs the arrangement of the conditions for the collections and analysis of the data in a manner that aims to combine relevance to the research purpose (Kothari, 2004). This study adopted a descriptive survey method. This was preferred because it is efficient in collecting large amounts of information within a short time. Besides, a descriptive survey research copes up with a technically distinctive situation in which there are many variables of interest rather than data points, and as a result it relies on multiple sources of evidence. This study was conducted in Kenyan TVET institutions in the Western region of Kenya. At the time of research there were 13 technical training institutions in Western Kenya with a total student population of approximately nine thousand five hundred. The sample for the study was selected using stage sampling procedure, whereby a sample was first drawn from among the institutions, and then samples were further drawn from among the students, lecturers and members of management in the sampled institutions. Half (50%) of the institutions were selected to participate in the study. Since the study used survey method, the researcher used questionnaires, interviews, observation, and document analysis as the main instruments for data collection. The selection of the instruments was guided by the nature of the data to be collected, the time available as well as the objectives of the study. Data analysis was facilitated by use of SPSS 17.0, (2008). Descriptive statistics such as frequency distribution and percentages were calculated and presented in tables and charts.

Discussion of Findings

Influence of the Syllabus on Adoption of Flexible Approaches

This study sought to determine how the syllabus influences adoption of flexible approaches to teaching in technical training institutions in Kenya. Most of the trainees reported to be pursuing either a three year or a two year course that generally followed a set full time schedule. This indicates that courses that require the physical presence of learners are mostly offered in institutions. Three quarters (75%) of the respondents said they had no authority to develop their own courses tailor-made to suit a specific need in the market or even reorganise existing syllabi. This essentially confirms that institutions have to depend on national level curriculum developers, notably the Kenya Institute of Curriculum Development.

The problem arising out of this scenario is that learners are forced to pursue only pre-determined course patterns. Examples include fixed term dates, fixed content delivery methods, fixed evaluation and certification. This therefore allows for little or no flexibility as far as the learners' choice of time, place and mode of study is concerned. This is despite the fact that both learners and teachers alike agreed to a greater extent to the fact that contents of the syllabi they currently used could be delivered in a flexible approach. However, the respondents felt that the current syllabus offered opportunities for adoption of flexible formats of learning (83% of teachers and 80% of learners indicated that their courses could be delivered in a flexible approach). The syllabus therefore is, though a key hindrance, not a barrier to overall adoption of flexible approaches to teaching in technical training institutions in Kenya.

Institutional Factors and Adoption of Flexible Approaches

This study therefore sought to find out specifically what institutions have put in place in terms of preparedness to adoption of flexibility in teaching and learning.

Artfield, et. al. (2013) asserts that institutions need to make a major commitment to make sure that flexible learning is embedded in their structures. Most institutions have set up in place the necessary backbone infrastructure and technical support for Information Communication Technology (ICT). Over 70% of respondents indicated that their institutions have broadband access to the internet. This is in agreement with Strewick & Ellis (2005) who say that 70% of senior professionals and managers now use the internet as part of their work. The study results also indicate that all institutions have strategic objectives to improve learning. This means that there is generally a realization that adoption of new methods of training is inevitable. Whether the initial change is small scale or part of the whole institutional strategy, it will challenge assumptions and practices that may have been there for some time (Artfield, et al., 2013). There is need however, to improve the technical support considering that only 6.2% of the respondents reported that its quality was very good

Conclusions

This study sought to investigate factors that influence the adoption of flexible approaches to teaching in technical training institutes in Kenya. The study specifically sought to establish how the syllabus influences the adoption of flexible approaches to teaching in technical training institutions in Kenya as a first objective. In this regard the researcher concludes that institutions need to be accorded more autonomy, and granted some level of authority to develop custom made syllabi geared towards provision of industry specific solutions. Some degree of regulation must however be instituted to guard against unscrupulous practitioners in the field.

The second objective of the study was to determine how institutional factors influence the adoption flexible approaches to teaching in technical training institutions in Kenya. As a conclusion the researcher notes that most institutions have the necessary strategies and objectives to improve its quality of learning environments albeit sometimes only in theory.

Based on the foregoing discussion of the findings and conclusion, the following recommendations are offered.

i. The government should set aside sufficient funds for each college to improve teaching resource infrastructure. The answer to improving access to more school leavers, improving the completion rate and also improving quality lies not in developing more TVET colleges, but improving the current ones. A flexible approach focused college can hold over 50, 000 students through various modes of study – others online, on campus, weekend, evening, home-based, work-based, distance, informal programmes - the list is endless!

ii. The overall capacity of the training institutions to train should be enhanced. Staff upgrading and training on innovative course offering solutions should be done. Training on use of open educational resources, e-learning and distance learning for example should be done.

iii. Teacher training colleges must expand their training to include studies in innovative course methodologies. It is not enough to only include ICT as a subject in college.

References

Allen, M. W. (2003). *Michael Allen's Guide to E-Learning: Building Interactive, Fun, and Effective Learning Programs for Any Company* . Hoboken: John Wiley & Sons.

Artfield, John, Hodgkinson, Keith, Smith, Alison, . . . al., e. (2013). *Flexible Learning in Highier Education: Teaching and Learning in Highier Education.* London: Routledge.

Cochran-Smith, M. (2004). Taking Stock in 2004: Teacher Education in Dangerous Times. *Journal of Teacher Education, 55*(1), 3-7.

Collis, & et al. (2012). *Flexible learning in a Digital world: Experiences and Expectations.* London: Routledge.

Commonwealth of Learning. (2012, Feb). Connections, learning for development, 2012, . *Vol 17, (No 1.)*. Canada: Commonwealth of Learning.

Ellington, H. (1997). Flexible Learning -Your Flexible Friend . In C. Bell, M. Bowden, & A. T. (Eds.), *Implementing Flexible Learning: Aspects of Educational and Training Technology XX1X.* London: Kogan Page.

Ferej, A. (1996). The use of traditional apprenticeships in training for self-employment by vocational training institutions (VTIs) in Kenya. In J. Grierson, & I. Mckenzie, *Training for Self-employment through Vocational Training Institutions.* Geneva: ILO.

Harry, K. (2002). *Higher Education Through Open and Distance Learning* . London: Routledge.

Hudson, R., Maslin, S., & Oates, L. (2013). *Flexible Learning in Action: Case Studies in Higher Education.* New York: Routledge.

International Labour Organization . (2003). *Training for Work in the Informal Sector: Evidence from Kenya, Tanzania and Uganda.* Geneva: ILO.

Khan, B. H. (2007). *Flexible learning in an information society.* London: Idea group Inc.

King, B. (2001). Managing the Changing Nature of Distance and Open Learning at Institutional Level. *Open Learning, 16*(1), 47-60.

Kothari, C. (2004). *Research methodology: Methods and techniques.* Daryaganj, New Delhi: New Age International (P) Ltd.

Ministry of Education. (2009). *Education Statistics Department Report.* . Nairobi: Ministry of Education.

Ministry of Education. (2012). *A Policy Framework for Education.* Nairobi: Government printer.

MoEST, & KIE. (2010). *TVET Curriculum development framework, final Draft.* Nairobi, Kenya: Government Printers.

Reif, R. L. (2013, September 26). *Education.* Retrieved 2014, from Time: http://nation.time.com/2013/09/26/

Republic of Kenya. (2003). *Report of the Task Force on Implementation of Free Primary Education.* Nairobi: Jomo Kenyatta Foundation.

Republic of Kenya. (2005). *Sessional paper No 1 of 2005 on policy framework on education, training and research.* Nairobi: Government printer.

Shurville, S., O'Grady, T., & Mayall, P. (2008). Educational and Institutional Flexibility of Australian educational software. *Campus wide information systems, 25*(2), 74-84.

Simiyu, J. W. (2007). Introducing e-learning as a strategy to increase enrolment in TVET. *1st African UNESCO-UNEVOC Summit on access and Inclusion for TVET in Africa through new ICT-based Solutions.* Safari Park Hotel, Nairobi: UNESCO. Retrieved May 2, 2013, from www.unevoc.unesco.org: www.onevoc.unesco.org/publications

Terry, D. (2000). *Changing University teaching: Reflections on Creating Educational Technologies, open and Distance learning Series.* Hove, United Kingdom: Psychology Press.