

COLLAPSING CLASSROOM WALLS FOR INCREASED ACCESS AND SUCCESS

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PCF7 Theme: **"Open Learning for Development: Towards Empowerment and Transformation"**

Sub theme: **Institutional Development**

Introduction

In today's digital age educators and governments around the globe are rightfully demanding for more reflective practice and social activity in education.

Globally today we can say with confidence that for any societal development or prosperity; education plays a pivotal role. Simply put education is a way to acquire knowledge; which acts as a stepping stone used for leaping successfully into the challenging but exciting global economy. It is for this reason that we should impart education to our learners with built-in equality and justice that it deserves for its relevance to be seen in the society. The two main determinants of quality and excellence remain key in securing the competitive global opportunities. The world being the global village calls for equity and competence in actualizing our educational goals. It is for this reason that we need to address the concept of increasing access and success by providing more trained personnel for the job market. Technical and Vocational Education and Training (TVET) is defined as:

"A comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life."

In this broad definition, TVET refers to a range of learning experiences which are relevant to the world of work. In addition, the increasingly complex demands of globalization, the social and economical changes have significant implications for TVET.

Skills are vital for poverty reduction, economic recovery and sustainable development. As a consequence, policy attention to technical and vocational education and training (TVET) is increasing worldwide.

TVET comprises formal, non-formal and informal learning for the world of work. Young people, women and men learn knowledge and skills from basic to advanced levels across a wide range of institutional and work settings and in diverse socio-economic contexts.

If the world has to embrace full industrialization in the near future then by no means should we down play the role played by TVET in its endeavours in addressing these issues. However the situation at hand is rather absurd and appalling as TVET endeavours have always been down played with respect to incorporating new ideas in education.

Purpose of “Collapsing the classroom walls”

A major characteristic of the 21st century knowledge economy is an increasing demand for global standards and best practices.

While assuring quality is applicable to all educational delivery systems, Open and Distance Learning (ODL) differs quite substantially from conventional education systems in several ways, and one of which is the core competency requirements for academic staff.

To this end, there is a general consensus on the fact that academics moving into ODL contexts need to acquire certain core competencies (COL 2001, COL, 1999)

This is done in order to increase the number of trainees. It helps make quality online education: accessible and affordable for anyone, anywhere, at any time. Collapsing walls has ensured increased access, learning effectiveness, faculty satisfaction, student satisfaction, and scalability (institutional commitment to achieve capacity enrollment via cost effectiveness).

Key areas to consider for success

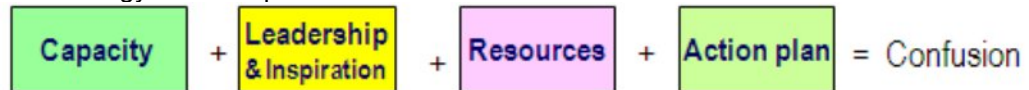
In the institutional development factor, the following need be addressed:

- Strategic Planning and Policy Development
- Providing flexible resources and Capacity planning
- Taking active action plans in teaching approaches
- Developing learning materials Open Education Resources (OERs)

The five pillars that must be addressed fully to realise change are as shown in the following:



In lacking Vision and Strategy we end up in confused status .



Leadership and Inspiration missing in picture results to Resistance as shown below:



In the absence of needed resources, frustration becomes prevalent as shown below



While the challenges are listed separately here, they are all intimately intertwined, such that the individual impacts are compounded.

Challenges of Starting ODL

The general daily challenges of starting the ODFL in most institutions can be categorized with regard to Lecturers, Learners and Administration as tabulated below:

Challenges faced by Lecturers

- No support from management since in relation to the need to develop ODFL for teacher training)
- Compromising on Quality issues with regard to content accuracy
- Inadequacy of skills and experience in the development and delivery of ODFL

Challenges faced by Learners

- Poor online study skills
- Limited knowledge of and access to ICT
- Lack of experience in ODFL and self-directed learning

Administrative Issues

- Lack of procedures for engaging a graphic artist
- Confusion of going paperless
- Providing opportunity for ODFL learners to use resource centres
- Understanding an interactive platform for communication and material access.

Institutional Formal and non-formal training environments to drive change

KTTC has in the past, embarked on capacity building activities conducted through residential, face-to-face mass training. This we did to bring on board most lecturers to appreciate the “Integration of ICT in Teaching, Learning and Management”. More cost effective approaches now adopted at KTTC to match the global practices in capacity building incorporates a situation in which all stakeholders can easily access and share information, knowledge and skills they need-anywhere and anytime-in a cost effective manner. This we have done using the Moodle platform This more innovative and efficient access to appropriate information, knowledge, and skills has led to increased interest in harnessing new tools and concepts in learning, teaching and administrative. We are not doing this in isolation but in an environment to complement and supplement our present capacity building engagements.

Adoption and use of technology for institution building

After a Training Needs Analysis survey carried out in the college in various groupings (see KTTC-2013-**Robert’s findings**) it is evident that the college is in the right track to collapsing the classroom walls for increased access.

The study carried out has proved some improved institutional readiness to benefit from the efficiencies gained by ICT in Teaching , Learning and Management.

The adoption of this has improved access and expansion of quality TVET programs through FaB approaches

Robert's findings e-learning readiness of KTTC learners

Statements	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
I can take responsibility and manage time for my own learning	3.2	3.2	1.1	51.6	40.9
I am motivated and willing to use computers for learning	3.2	5.4	0	43	48.4
I see e-learning as a viable alternative to traditional methods	1.1	9.8	4.3	43.5	41.3
I have basic computer skills	1.1	4.3	1.1	52.7	40.8
I see the need for and benefits of e-learning	4.3	3.2	1.1	41.9	49.5
I am comfortable learning using computers	1.1	17.6	3.3	54.9	23.1
I have basic computer literacy skills	0	8.7	3.3	56.5	31.5
I have basic e-learning skills	4.3	21.7	7.6	53.3	13
I am willing to collaborate and share information and knowledge	0	2.2	3.3	42.4	52.2

Information and Communication Technology

Learners were asked to indicate their level of agreement with statements referring to the e-learning readiness of KTTC's ICT infrastructure .The extent of agreement is shown in the table.

Robert's findings e-leaning readiness of ICT infrastructure at KTTC's

Statements	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
I have easy access to a computer while in college	2.2	22.6	6.5	46.2	22.6
I have easy access to a computer when am not in college	10.9	37	2.2	33.7	16.3
I have easy access to internet connectivity while in college	4.5	14.6	2.2	48.3	30.3
I have easy access to internet connectivity using my mobile phone	6.7	14.4	3.3	41.1	34.4
Internet connectivity within the college is reliable	8.8	12.1	7.7	46.2	25.3
I have easy access to internet connectivity when am not in college	10.8	32.3	3.2	40.9	12.9
Access to reliable internet connectivity when I am not in college is difficult	15.1	26.9	9.7	36.6	11.8
Bandwidth issues do not hamper the e-learning effort or limit its capacity	8	27.6	35.6	19.5	9.2

ICT department is well resourced and used	5.4	18.5	8.7	52.2	15.2
Network systems and components are compatible	5.7	9.1	13.6	52.3	19.3
KTTC has the ICT infrastructure that can efficiently host its e-learning content	5.4	17.4	9.8	39.1	28.3
Learners and Teachers have easy and fast access to the network	6.5	16.3	10.9	46.7	19.6
Communication with the ICT department is strong	5.5	23.1	3.3	48.4	19.8

Robert's findings e-learning readiness of content at KTTC

Statements	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
KTTC has initiated the development of content suitable for e-learning	3.2	11.1	25.6	40	21
The design of the e-learning material is user-friendly, well structured, and interesting	3.4	12.4	19.1	50.6	14.6
e-learning content is easy to create and put over the network	1.1	11.4	25	47.7	14.8
KTTC has a simple, user-friendly, flexible, intuitive, and conducive e-learning design	3.3	11.1	24.4	45.6	15.6
KTTC's e-learning content is up-to-date, relevant, appealing and user-friendly	4.4	11.1	23.3	46.7	14.4
e-learning content is easy to update and modify	2.3	4.6	19.5	54	19.6
The design of KTTC's e-learning content attracts and keeps learners using the system.	3.4	10.1	19.1	44.9	22.5
KTTC's e-learning content is interactive?	1.1	7.7	23.1	50.5	17.6
KTTC's e-learning content is designed to accommodate different learning styles	2.2	7.9	19.1	50.6	20.2
KTTC's e-learning content is appropriately targeted to learners	3.4	8.9	14.4	48.9	24.4

Organizational Culture

Lecturers were also asked to indicate their level of agreement with statements about how supportive the culture at KTTC was to the development of e-learning. The findings are presented in the following table:

Robert's findings e-learning readiness of KTTC's culture

Statements	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
KTTC top management supports the use of internet for learning purposes	10.6	12.4	16.4	39.2	21.4
KTTC has an e-learning initiative that enables employees and students to purchase computer equipment, including Internet access, for a heavily subsidized price	31.3	17.5	23.9	10.4	16.9
The ICT & Open Learning department gives us the time and opportunity to learn using internet	13.6	10.5	23.5	33.1	19.3
Learning using internet is accepted and communicated at all levels in KTTC	13.2	21.5	19.4	25.2	20.7
Training and learning using internet is seen as an investment, not as a cost	28.4	16.8	22.6	26.3	5.9
KTTC has the right people to initiate and implement e-learning	12.9	18.6	26.4	28.1	14.0
I have previous knowledge about e-learning	17.5	23.5	33.9	22.1	3.0
At orientation, KTTC explains the requirement to do some e-learning	09.4	23.4	37.2	22.7	7.3
E-learning strategy, processes and logistics are clearly articulated and followed at KTTC	15.2	22.1	46.3	13.9	2.5
E-learning strategy is aligned to broader KTTC goals and strategies	19.7	21.8	35.1	16.4	7.0
KTTC has a Learning Management Systems that support learners to get e-learning content	24.1	20.4	27.7	18.3	9.5

Robert's findings: **Sample Design**

Departments	Population			Sample		
	Lecturers	Trainees		Lecturers	Trainees	
		Regular	School Based Trainees		Regular	School Based Trainees
Administration	4	0	0	0	0	0
Electrical Engineering	9	95	47	1	10	5
Building and Civil Engineering	8	84	25	1	8	3
Mechanical Engineering	13	61	85	1	6	9
Computer Studies	7	118	112	1	12	11
ICT & Distance Learning	2	0	92	0	0	9
Information Studies	5	98	62	1	10	6
Education	20	27	252	2	3	25
Business Education	12	39	150	1	4	15
Entrepreneurship Education	9	39	50	1	4	5
Instructor Training	7	30	144	1	3	14
Maths and Physics	7	0	0	1	0	0
English	7	0	0	1	0	0
Physical Education	4	0	0	0	0	0
Total	114	591	1019	11	59	102

Robert's findings e-Learning Readiness Factors

E-learning readiness for each dimension of the five factors considered was measured by asking respondents to rate the extent to which they agreed with statements on the sub-factors considered in each category. In determining the percentage of relative readiness, agree and strongly agree were aggregated as agree. An aggregative index of 56.2% readiness level was arrived at by aggregating the individual readiness levels of the five factors as under:

Readiness factors readiness	Aggregate level of
Individual learners	86.7 %
Content	62.8 %
Information and communication technologies	66.4 %
Organizational culture	33.0 %
Organization and industry	32.1 %
KTTC's baseline e-learning readiness	56.2 %

Visit this site for Moodle : www.kttc.ac.ke Links: [e-learning](#)



Figure 1 Lecturers in M4DeR class



Figure 2 M4DeR class with visitors



Figure 3 M4DeR Lecturer gets Certificate



Figure 4 Deputy Principal opens the forum



Figure 5 M4DeR lecturers in class



Figure 6 Facilitator Y.O. in M4DeR class



Figure 7 Facilitator R.O. in M4DeR class



Figure 8 Youth protesting for unemployment

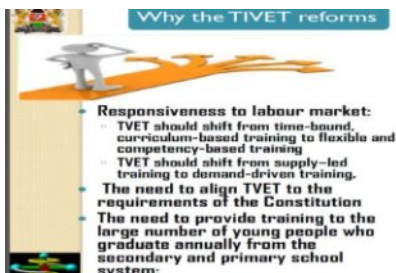


Figure 9 Caption from TVET Act

Collapsing walls brings on board, Life Long Learning (LLL)

Lifelong learning is the "ongoing, voluntary, and self-motivated" pursuit of knowledge for either personal or professional reasons. Therefore, it not only enhances social inclusion, active citizenship and personal development, but also competitiveness and employability.

The term recognizes that learning is not confined to childhood or the classroom but takes place throughout life and in a range of situations. Learning can no longer be divided into a place and time to acquire knowledge (school) and a place and time to apply the knowledge acquired (the workplace) instead, learning can be seen as something that takes place on an on-going basis from our daily interactions with others and with the world around us.

Governance and stakeholder relations including accountability and sources of relative advantage

As the saying goes “If you want to kill the snake aim at its head”; we have no exceptions here but to bring on board all the leaders in the institutions at hand.

The present models of education do not show any way out to bridge this gap. A bold and new initiative is essential and as a college we have spearheaded this idea through COL’s intervention

Attracting and retaining talent in institutions

Providing education for all at various levels remain core in addressing the critical mass who are otherwise left for the docks after doing their Certificate of Primary Examination. By offerings skills in various disciplines in the training institutions with collapsed walls, learners will be able to identify their talents.

Making ODFL institutions the preferred:

By collapsing the classroom walls we promote the speed with which courses are done and make the institution preferred to others.

This is achieved by many factors some of which can be seen in the following video clips attached .

Interviewed to establish what flexible learning has done to their institutions

NOTE: The two are in their extremes i.e.
20th century educator and 21st century educator

Arguments about the status in colleges today

- **20th Century educator: Complaints about low enrollment in TVET colleges**
- **21st century educator consoles the colleague and assures there is a way forward FLEXIBLE LEARNING IS THE ANSWER**

20th Century Educator wonders and asks:
What do we mean by flexible learning?

21st century Educator explains:

Flexible learning is an approach to education offering learners a choice in:

WHAT, HOW, WHEN and WHERE with respect to learning

- what to learn
- how learning and assessment takes place
- when learning and assessment is done
- where learning happens

20th Century Educator:

Having addressed what,how,when and where, there remains the WHY flexible learning?

21st Century Educator explains the WHY factor

It has helped in:

- Making the vision and mission statements operational
- Encouraging active rather than passive learning
- Promoting the development of independent learning and learning how to learn

It should be noted that exit point should be flexible as the structure of education here hows.



21st century Educator:

The benefits are enormous.

- We have made more cost-effective use of space and teacher time.
- We have promoted equity (a broader learner profile)
- We have allowed interaction with a largeeer learner group than before

Moving time to suit the learner (Video)

- Flexible starting dates
- Flexible exit points
- Part-time during the day, evening or weekend
- Online Learning
- Learning by appointment!
- Moving place to suit the learner
- Workplace based courses
- LRC based learning
- Distance learning
- Outreach centres

Providing learning programmes / courses to suit the learners (video)

- Offering single units

- Resource based learning – elearning, printed guides
- Flexible and Blended learning programmes
- Short mixed-mode courses

Removing fixed entry requirements (Video)

- Setting entry requirements that can be met by the target learners (especially important for adult learners)

Giving credit for prior learning and experience (from examination) (Video)

Catering for content and assessment preferences of learners (Video)

- Providing choice in constructing a programme
- Offering single units
- Providing flexible pathways through the content
- Providing flexible assessment modes (online / eportfolios / workplace based)
- Providing flexible assessment times / places

Financial gain for our Institutions

We have made more cost-effective use of space and teacher time and our college.

As a college our A in A has improved and in all aspects of the services requiring finances to facilitate our work, we always Break even

Below is COL's intervention on KTTC as a major TVET institution can be summarized as shown:

SUMMARY: Use of FaB in TVET, KTTC SCENARIO

Upfront



On going, improvements by COL intervention



The future is ... FaB

Conclusion

In line with the forum’s theme of "Open Learning for Development: Towards Empowerment and Transformation",it is only prudent that Institutions append the word “Flexible” approach to learning in order to realize their dreams of providing access and success . TVET institutions are thronged by the versatile youth who need to be attended to in style by providing:

- elective content
- flexible in method / pathways
- flexible in time
- flexible in place

Remember, “We should not teach today the way we were taught yesterday if we have to be relevant. tomorrow

References:

Lifelong Learning and the New Educational Order by John Field (Trentham Books, 2006) ISBN 1-85856-346-1

The Rapture of Maturity: A Legacy of Lifelong Learning by Charles D. Hayes ISBN 0-9621979-4-7

Ref: <http://www.unevoc.unesco.org/tvetipedia.0.html>

Not to be counted!!!!

NOTE

To the Papers evaluation committee for PCF7

My name is Yona Okidia
 I have forwarded my submission for the full paper.
 There is however some challenge I got i.e. the size limitation of the file to be uploaded. This prevented me from uploading the 10 videos which accompany the document.
 I have however deployed the use of a graphic software I got from the internet and through the spirit of cloud computing I have uploaded my full videos there. The software is called smore.
 For presentation this will be invoked just by clicking links and all will be well.
 The graphic style which allow me to have a very interactive presentation will make my presentation unique and NOT in the usual powerpoint format. (some form of innovation eeeh!)
 Thank you for the understanding.
 Regard,
 Yona
