

INNOVATIVE LEARNING ENVIRONMENT AND TEACHING METHODS IN TVET INSTITUTIONS

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ABSTRACT

Interaction with instructors drawn from many TVET institutions in Kenya has revealed that the methods of teaching commonly taught to the instructors during their training, are not effective. Most of those methods are designed for people that have good communication skills among other skills. The purpose of this paper is to evaluate the traditional methods of teaching youth polytechnic students as well as multimedia teaching and to suggest other teaching methods that may be used to effectively impart knowledge and skills to these students. Teaching includes two major components, one of sending and the other, receiving information. Innovative methods are those methods that convey the knowledge and skills intended in a way that makes the sending and receiving of the information effective and efficient. The use of innovative methods in the youth polytechnics has the potential not only to improve education, but also to improve students' communication and interaction skills that will eventually eradicate the tribal animosities that has derailed development progress in Kenya and negatively affected human advancement.

Key words: Innovation, teaching methods, TVET institutions, Kenya

INTRODUCTION

A national long-term development blue-print for Kenya is to create a globally competitive and prosperous nation. The country hopes that this, coupled with a high quality of life would transform Kenya into a newly industrializing, middle-income country. Thus, the country would be expected to provide a high quality of life to all its citizens by 2030 in a clean and secure environment. This is what is commonly referred to as Vision 2030. A close look at the flagship projects to be put in place to facilitate attainment of Vision 2030 shows that Kenya will require highly skilled workforce in technical skills and in this regard the country has embarked on revitalizing TVET institutions including youth polytechnic, technical training institutes and national polytechnics. The country has moved even further to create two technical Universities to offer degree courses in technical training. The Vision is anchored on three key pillars; economic, social and political governance. In the last few decades the country has made many economic gains. Most gains have only been short lived due to destructions that occur during and after general elections. The political climate becomes so hostile resulting in destruction of property and loss of human life.

Most of the destruction comes from the youth's majority of whom had had training in the TVET institutions. The Chaos usually begin in a humble and in a very small scale but before long they change and become of very big magnitudes and turn out to be fatal causing a lot of property destruction, death and unimaginable human suffering. It is important to ask how the chaos that starts in a small, humble nature emerges. Usually it is a very trivial argument of something like candidate A is better than B. Lack of many words to sustain a healthy arguments particularly by the youths result in a physical fight and within no time the neighbours who also have few words (have acquired this from the education system), join in and in a short while two different groups are up in arms fighting over what they do not know! But how can the youths of a whole country have such a thing in common yet come from different cultures and different geographical regions? This paper builds an argument that the Kenyan youths behaviour especially during the political campaigns and elections can be attributed to the type education system they go through right from primary schools through secondary to technical institutes.

The paper begins by looking at challenges as a result of; students' background factors, teaching methods used, Teaching and learning resources availability and accessibility. The paper suggests some interventions that May be applied and ends with a conclusion.

1.2 Students Background Factors

Right from primary school when the children join school one thing that is stressed by many teachers is the idea of maintaining silence in class. Children are not supposed to make noise unless outside the classroom during break or lunch time. In fact a prefect is appointed in every class and the most crucial duty assigned is to write a list of noise makers and hand them over to teachers for punishment. From the time a child enters class one they are forced not to talk and if they do, some form of punishment awaits them. This practice has ensured that by the time of completing primary level education most children have mastered the art of keeping quiet and to themselves and when cornered they only fight back physically due to lack of words to sustain a logical argument.

1.3 Evaluation Methods

The type of examinations used for evaluation throughout primary school education, encourages rote learning. Most of these tests are objective tests particularly the multiple choice, true or false and matching

items. This does not give learners the freedom to think and supply an answer which would otherwise inculcate creative thinking among them. The method used to interpret the scores obtained in those examinations is usually norm referenced analysis as opposed to criterion based analysis. Norm referenced judges a students performance based on comparison with performance of the other students of the same level. In criterion referenced, assessment is done by comparing an individual's performance to a specific learning objective or performance standard rather than performance of other students (Wildemuth, 1985). Under norm method, the children are paraded from the best performed to the worst performed at the end of every term. The ranking of students continues through secondary education and even in some TVET institutions. Owe unto you if you your name falls low achievers' category oftenly. The consequences are fatal. The teacher keeps reminding you day after day that you are foolish and cannot accomplish anything in life.

Continued negative reinforcement becomes to the low achievers and positive reinforcement to high achievers has dire consequences later in a children's life. The child reacts by building a "wall" around him or herself which directly affects learning. The parent is also made to believe that the daughter or the son is not working hard in school, and continuous reprimand from parents strengthens the "wall". Never mind Intelligence Quotient, a hereditary trait contributes to intellectual performance of an individual, which means some of these genes may have been inherited from the parents! It is even amazing when the parents give tales to their children of how they excelled in schools during their time! One wonders how in a whole village all parents were attaining position ones. Does it mean no one was holding the last position? Some parents have not been honest with their children and this has resulted in building up stress tendencies among the children who would do better if parents admitted they too had some difficulties in some areas but they discovered their talents and excelled in them.

1.4 Teaching and Learning Resources

The competitive nature of our education system has made matters worse. Every child wants to hold the first position at the end of every term. There are two ways of doing this. First a child has to work very hard and secondly he or she must master the art and science of hiding valuable information from the others! It is one of the ways to ensure some students remain on top. Many people have mastered the art of hiding resources so much that they will always destroy such a resource or create ways of making the resource inaccessible.

It is interesting to note here that even some professors at the Universities have a problem with sharing information. In fact for them to have excelled so well in a system that was so competitive they must have worked very hard in schools and also perfected the skill of hiding information from others! At this high level, the professors discovered other words that will perfectly protect them as they endeavor in the world of hiding not only information but also raw data they obtain from publicly funded research! Some have no time to analyze the data but they would rather keep it in that form rather than paying a data analyst to bring out the findings! What if important results come out of the data? They discovered words, like patenting, copyright and can actually take you to a court of law if caught plagiarizing their work. Never mind the professor got full sponsorship to carry out the research but now they want to protect the data as their own. They discovered something else. This knowledge can be sold! That is the reason there are so many good abstracts online but at the end you find things like "to get a full text of the study call this number or "buy to download full text". They have fully mastered the art of hiding crucial information. The universities students are also learning from their professors and within no time it is a case of like teacher like student.

It is no wonder they do not comprehend why we must have Open Education Resources (OER). It is also the reason why some will keep promising to post some materials online but will never do it. We can only blame it on the education system that did not teach them the art of sharing information.

It may be interesting to assess the behaviour of the professors during political turmoil when a lot of had earned property is destroyed. When the youths are busy burning and destroying property and making weapons using the very skills they get from the TVET institutions negatively, the professors get involved too. Only they appear very professional with big titles like political analysts. But the analysis they make is so skewed depending their tribal alignments.

1.5 Teaching Methods

The instructors in the village polytechnics and indeed many TVET institutions are equipped with the traditional teaching methods including lecture methods, discussion methods, case studies, programmed instructions, role play, demonstration, experiments and educational field trips among others. Studies have shown that the method mostly used by these instructors is the lecture method and that students like it. According to Gibbs (1989) In lecturing there is too little scope for negotiation and construction of meaning. Using this method encourages students to be passive rather than active participants in the teaching /learning process. The method is teacher centered and does not help develop important skills such as communication skills, interpersonal skills, persuasive skills, creativity skills, problem solving skills and all other skills that would make them better citizens. The method ignores two very important domains of learning including psychomotor and affective domains. This complicates the “walls” already created by the students due to low self esteem, brought about by negative reinforcements from teachers and parents.

The teacher also adopts the local language rather than a national language that would help create cohesiveness among the Kenyan people. The local language is preferred due to the poor language skills among the students. There is also a limited hands on teaching where students learn by doing. This is due to scarcity of teaching/learning resources. Consequently the students Lack overt psychomotor skills. These skills are necessary in production of high quality products made by the students after their graduation. This perhaps explains why Kenya continues to import high quality furniture despite so many graduates from the TVET institutions and locally available raw materials.

1.6 Student’s attitude

Ruining self esteem for children has negative consequences. In many cases these students fail their primary examinations and end up in the village polytechnics. The students’ self esteem at this time is so low that they become very defensive and since they were told not to make noise, they respond by building a huge “fence” around them and only takes a very committed and an innovative teacher to break through the hedge. These students do not answer questions in class, they do not ask questions, they do not talk, and they do not laugh. Crying would hint they are indeed human beings with feelings, but by now they are so hardened, they do not cry! That is the kind of hedge we are talking about. What magic would bring down such fences? The instructor in the village polytechnic ignores other methods and uses the lecture method. The lecture method ignores student’s affective domain.

2.1 Interventions

A few interventions may be suggested to ensure that indeed Kenya attains the vision 2030 and sustain the gains made even in electioneering years. First the country must relook its education system in the

way its curriculum is developed. According to Bloom, 1956, there are three important domains of educational objectives viz; cognitive which deals with the intellect, psychomotor, concerned with physical skill development and affective domain which deals with attitudes. The three domains should be developed and given equal weightage for Kenyan youths develop psychomotor skills and positive attitudes towards themselves and other Kenyans. Teaching/learning should not concentrate on cognitive learning only.

New teaching/learning methods should be broadened to include all aspects of learning environment. The new methods should express the technology to be used (to break the fences created by face to face learning), the pedagogy to be used, the content, and the value of content. For instance if an instructor wants to assess if his agriculture students are establishing various nursery beds for vegetable production at their homes (value of the content), he can ask his students to take video clips as they carry out the exercise, and send the clips to his mobile phone for marking. Such a method would be called vidmob/psycho/nursery/home. Where vidmob would give a clue of the type of technology to be used, in this case a mobile phone (mob) used to take video (Vid) clips. The domain of education to be learned would be psychomotor (psycho) skills and the value of content learned would be home application. This would mean a whole revolution in how educators prepare schemes of work and lesson plans. It would mean that the schemes would require better preparations giving equal weights to the three domains of educational objectives. This will directly translate in producing students who are all rounded in terms of technology, content, pedagogy and they will only concentrate on knowledge and skills that add value to their lives for advancement of humanity. Institutions of learning should be encouraged to develop accessible open Education Resources (OER).

Teaching methods like use of lectures, which have been threatening learning for many years should be discarded. Encouraging methods that are very interactive would be crucial as this will inculcate ability to hold healthy discussions among Kenyans without physical fights. Such methods would include, use of MOODLE platforms and other learning management systems. In other words all classroom walls should be collapsed and make learning as flexible as possible. Face to face teaching learning should be blended with e-learning in order to allow the learners to be taught by variety of instructors and not restricted to just a few who may be suffering from major weaknesses.

Correct use of technology would also form part of the training. Unhealthy face to face discussion technique does not change if carried out online. If students are poor communicators and have no training to sustain healthy discussion to a civilized and peaceful ending, they will fight online. Only this time it will be a war of words. A good example is what happened between Nigeria and Kenya during the soccer match between the eagles of Nigeria and Harambee stars of Kenya. The Kenyans felt that the stars were treated badly while at Nigeria and started a twitter handle "#someoneTellNigerians" what followed was a war of words between the youths of the two countries and were it not for the distance between the countries possibly they would have been up in arms fighting each other.

3.0 Conclusion

The traditional methods of teaching in TVET institutions have not been effective. This may be attributed to the students' background factors including low self esteem. The continued negative reinforcement from the teachers and parents in the formative years is mostly to blame for the low self esteem. Consequently the students have built very strong walls around themselves. This has made it very difficult for the instructors to reach out to the students and takes very committed instructors using very innovative teaching /learning methods and environments to "break the walls. In class the students remain passive participants unable to hold healthy discussions to logical conclusions. Inability to hold healthy discussions has resulted into physical fights and property destruction particularly in electioneering years.

A revolution is needed in our education system to encourage sharing of information and talking with each other. A flexible way of acquiring knowledge and skills must be designed to collapse the walls of classrooms that have interfered with learning for a long time. The teaching methods adapted must clearly spell out the learning environment expected so as to include the technology to be used, the pedagogy, the content and the value of that content. The pedagogy adopted must consider all the three domains of education taxonomy, psychomotor, cognitive and affective domain. If this kind of strategy is adopted, Kenya would increase its chances of achieving vision 2030.

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