AN EXPLORATION OF STUDENTS CENTRED LEARNING IN INSTITUTIONS OF HIGHER LEARNING IN TANZANIA: BENEFITS CHALLENGES AND RECOMMENDATIONS

Faisal Issa (PhD) Mzumbe University Dar es Salaam Campus College

Email: faissa@mzumbe.ac.tz

ABSTRACT

The paper identifies some of the important characteristics of Students Cantered Learning (SCL). Some of the efforts of promoting SCL are highlighted indicating the presence of SCL despite lack of systematic promotion features of the transformational approach to learning. The efforts include recognition of the relevance of SCL for higher education by the oversight institution and higher education institutions that are responsive to the development needs and the market. The challenges identified include internet connectivity and lack of pedagogical skills and focus on market penetration through distance learning and/ or blended learning that is more or less similar to conventional approach to learning. Additionally, it is observed that SCL capacity being created by standalone projects, experimental in nature, is possibly bringing a change but a more systematic approach institutional wide is needed for the SCL to be main-streamed and to become sustainable. the benefits from SCL and opportunities for transformative learning including exploiting internet connectivity and investing on staff capacity building, are highlighted. The paper is explorative with the purpose of creating broad understanding of the phenomenon that

is SCL. This is to pave the way for future quantitative or mixed research methods that could happen sequentially. Data were collected using mix methods including literature, document reviews, and key informant interviews. The study recommends for a more systematic institutional and even sector-wide promotion of SCL and further research to inform policy and practice.

Key words: Students centred learning, higher education, transformation, Tanzania

1.0 INTRODUCTION

The paper highlights the characteristics of Students Centred Learning (SCL) to make the concept and practice more understandable. It also identifies and suggests the importance of SLC and challenges that may affect its implementation and provides recommendations that can help the efforts of transforming learning in higher education institutions in the country.

Student Centred Learning (SCL) has been around in discourses for some time now. In the 1980s and 1990s, more engagement with SCL can be observed in the different literature available on the subject. EI, ESU (2010) opines that SCL was credited to Hayward as early as 1905 and to Dewey's work in 1956. Carl Rogers was then associated with expanding this approach into a theory of education in the 1980s and this learning approach has also been associated with the work of Piaget (developmental learning) and Malcolm Knowles (self-directed learning)." de la Sablonnie're, et al., (2009) also

associate SCL with the school of "constructivism" as propounded by Piaget (1973) and Vygotsky (1978).

Some of the important characteristics identifiable with SCL are outlined hereunder. The benefits to be accrued emanate from these characteristics and distinguish SCL from Teacher Centred Learning in educational settings.

Characteristics	Some explanations/descriptions	
Group work and collaborative learning	Group work or cooperative learning is an organisational strategy for teaching, whereby students engage in social interaction with their peers, developing skills in communication and responsibility whilst also learning syllabus content (Arthur, Gordon & Butterfield, 2003). The benefits of collaborative learning are widely known at the university level today but less practiced (Robert, 2004). Learning by cooperation influences the work tasks while working on the tasks and the motivation of	
	 while working on the tasks and the motivation of students (Enache & Crisan, 2013). Collaborative learning and collaborative writing can be of great value to student learning, but requires an effective learning design (Zheng, Niiya & Warschauer, 2014). 	
Transformative approach (Flipping the Classroom)	Many phrases have been coined to describe a critical shift in mission and purpose of higher education. Barr and Tagg (1995) expressed the change as a move from an Instruction Paradigm to a Learning Paradigm in which universities produce learning through student discovery and construction of knowledge.	
	Flipped classroom is different from the traditional classroom and has a blended learning element as students listen to the lectures delivered outside the classroom through online video lectures. Students become more motivated and confident in classroom discussions from watching the teaching video before	

Table 1: Characteristics of Students Centred Learning

	coming to along The algorithm and the
	coming to class. The classroom activities become more student-centered as teachers become facilitators (Siti Halili & Zainuddin, 2015).
	The flipped classroom is changing the role of instructors and their positions in class making them more cooperative and collaborative in contributing to the teaching process (Shi-Chun DU, Ze-Tian FU, & Yi WANG, 2014)
Formative Assessment for	Nicol and Macfarlane-Dick (2006) indicate that formative assessment can promote the development
feedback & lifelong learning	of capacities and attitudes used in lifelong learning.
incloing ican ining	Assessment for feedback and improvement is referred to as formative assessment; assessment for conclusive evaluation and judgment is referred to as summative assessment (Kyaruzi, 2011, Burkšaitienė, 2012; Evans, 2013; Banerjee, 2014).
	It is work undertaken by students during a course; and they get feedback to improve learning and it is not necessarily marked. It has a developmental objective enabling students to monitor own understanding and progress (Higgins, Grant & Thompson, 2010).
Prior knowledge influence future learning	Learner-centred learning environments recognize that the prior knowledge of learners influences powerfully future learning and thus attempt to build on prior knowledge. Students with relevant and deeper-level of prior knowledge were likely to perform better (Hailikari, Katajavuori, & Sari Lindblom-Ylanne, 2008).
	As prior knowledge is important, assessments, active learning, beginning-of-class activities are to be used to find out knowledge possessed by students and to decide how the information is to support classroom activities (Kurlaender & Howell, 2012).
Tools and IT Software aid SCL	For example, the Interactive Learning Toolkit (ILT), part of the ILT-BQ software package, helps you implement innovative teaching ideas, such as Peer Instruction and Just-in-Time-Teaching, and to monitor your students' learning. The goal is to help focus on teaching by streamlining the organizational work that accompanies the teaching of a course. Materials can be selected for class use from a large class-tested database and you can organize (and
	possibly share) your own materials. Administer your

	courses, design course web pages, and interact with your students, online (McCauley, 2003).
Learning has the upper hand to completing the syllabus	To create a focus on learning as opposed to teaching, a shift is needed from what is to be covered to what is to create successful learners (Diamond, 1997; Eberly, Newton, &Wiggins, 2001). A learner-centred syllabus creates a perception that teachers are more effective because they are approachable; they excite the class and create greater rapport with students. (Richmond, 2016; Richmond et al., 2014; Saville et al., 2010).
Constructivism	Constructivists believe that the learners' preconceptions and ideas are critical in shaping new understanding. Assessment based on constructivist theory must link the three related issues of student prior knowledge (and misconceptions), student learning styles (and multiple abilities), and teaching for depth of understanding rather than for breadth of coverage (Huitt & Hummel, 2003, Sjøberg 2010, Dagar & Yadar 2016).

Source: different relevant literatures as shown

SCL, as can be seen, in its ramification is an approach whereby the process of sharing learning is in-built. It is certainly practiced when the teacher is challenged to create understanding in the classroom. That is why good kindergarten teachers teach words to the pupils demonstratively and the singing and demonstrations continue after formal class hours. Instructions without participation – active involvement – at that level and possibly other levels achieves very little.

As Barry and Kind (1998) argue, learning can begin with known facts, understanding and discussing, problem solving, and experimenting, analysing patterns, organisation of ideas and trends, creativity and innovation, assessing theories,

evaluating outcomes, comparison of ideas, recommending, and rating. They refer to the Blooms Taxonomy that is depicted as a hierarchy of competencies or desired characteristics to be developed. They also propose that compatible teachers are necessary to support students to move up the hierarchy of learning, to be creative, and innovative¹.

Likewise, the SCL approach to learning is facilitated by flexible, innovative teaching personnel, and effective use of teaching time and different tools. Information Technology (IT) in its continuously improving form is an enabler that complements previous tools used to implement students' centred learning. IT has extended the possibilities of imparting knowledge, skills, and aptitudes and is enriching the student centred approach to learning. Moellor and Reitzes (2011) acknowledge that, technology improves learning outcomes and learner performance though there is a complex relationship between learning and technology.

Students' centred learning approaches in classrooms and lecture theatres offer significant possibilities for behaviour change on the learner, facilitator, and the teaching environment (Sandholz *et al.*, 1997; Christensen *et al.*, 2008; Donohue, 2010; Nicol & Macfarlane-Dick, 2006). Transformative education promotes programs that create flexible and adaptive workforce. A workforce that can learn and relearn the skills needed in the globalised international environment (Peter, 2003). There are, as such, numerous opportunities allowing beneficial exploitation of the SCL in

¹ There are many scholars and practitioners that engage with the popular Bloom's Taxonomy, for example see

https://sites.educ.ualberta.ca/staff/olenka.bilash/Best%20 of%20 Bilash/bloomstaxonomy.html

Tanzania amidst continuously improving accommodative learning environments.

After this introductory section, what follows is the methodology section that explores the teaching approach as mostly practiced in higher education institutions in the country. Thereafter, some important efforts of promoting SCL are also highlighted including the existing challenges and recommendations. Finally is the conclusion.

2.0 METHODOLOGY

This is an exploratory study on students' centred learning in higher education in Tanzania. Exploratory research is undertaken to explore a problem not well studied and for which findings might change the core direction of analysis (Lewis & Thornhill, 2012). In the exploratory research, there is a room for sequential use of qualitative, quantitative, and mix method research (Berman, 2017). The concept of transformation learning in higher education in Tanzania is relatively new such that many issues are largely unexplored. This paper will highlight several issues that might require more focussed studies. Data collection has involved mixed methods including literature and document reviews and key informant interviews that purposely comprised quality assurance staff, projects' staff, student leaders, TCU staff, and some academic staff. Participant's observation method has also featured. This is mainly because the author being a practicing academic has been involved in the transformative teaching capacity building workshops and conferences. In qualitative research, participant observation was used for data collection about people, processes, and cultures (Kawulich, 2005).

3.0 SCL AS PRACTICED IN HIGHER EDUCATION INSTITUTIONS

For many years, Tanzania has been practicing some variants of SCL in the form of active learning. For instance, purposeful education has been practised in the early years after independence under the banner of Education for Self-reliance (Sumra & Katabaro, 2014). In Education for Self Reliance, Nyerere provided a framework for reference for 'Students Centred Learning'. The following important issues to learning were central to the arguments Nyerere provided, hard skills versus soft life skills, learning by doing, acquisition of skills and knowledge relevant to individual and society well-being after school life, cooperative learning involving new relationships between students themselves, students, their teachers, and parents (Nyerere 1967). Learning, which is practice oriented and context sensitive, was the elucidated objective of Education for Self-reliance (Sanga, 2016; Weaver, 2011).

The benefits of SCL in higher education in the country can be limited because Students Centred Learning is not systematically mainstreamed and practiced. Most higher education institutions adopt the system of teaching that allocates teaching time between lectures and seminars. The classroom sessions are characterised by the teachers spending some hours lecturing, the students listening and taking notes. During seminars, students are supposed to work on earlier provided tasks in groups and make presentations. Making students work on tasks individually or in groups allows the facilitator to cover a wide area as the students do most work. However, the facilitator does not observe the dynamics in the

workings of the groups outside the classroom. Below is a description illustrating the teaching approach as it is mostly practiced, that is mostly teacher centred and less learner centred.

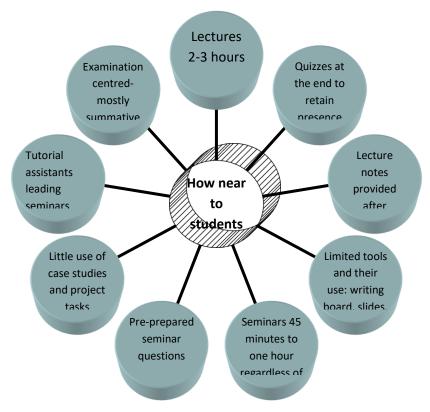


Figure 1: A representation of mode of teaching and

learning in Higher Education –

Source: created by Author from interviews of students and key stakeholders

Although there are some differences in the mode of teaching, for example, the lecturers themselves may lead the seminars; lecture notes may be provided or not provided, and the like, the depiction above is representative. Students' rapid assessment shows that the involvement of students in making presentations is also limited. This is because on average students make presentations less than ten times in the three or four years of one's study. Role-plays are left to the drama schools and lower level educational institutions. Nonetheless, some students organise debate sessions through clubs on particular societal problems of interest such as the environment gender, and the like Students also participate in organised symposiums, formal conferences. and entrepreneurship/innovation hubs when they occur.

Students commenting on the teaching as practiced said such practice does not involve "Manjonjo" (not spiced)². They also observed that few teachers design tasks and projects requiring active involvement of small groups of students. Some provide case studies during class hours, the facilitator keeping an eye on the group activities and provides advice and support.

² The following excerpt shows the universal challenge"...In some ways, education seems much the same as it has been for many years. A 14th century illustration by Laurentius de Voltolina depicts a university lecturer in medieval Italy. The scene is easily recognizable because of its parallels to the modern day. Classrooms today do not look much different, though you might find modern students looking at their laptops, tablets, or smart phones instead of books."See Perdue University: https://online.purdue.edu/blog/education/how-has-technology-changed-education

Some academics argue that projects and case studies require previous experiences that may not be available given the earlier educational experiences of the 'facilitators' themselves. As such, the ability of creating projects and of developing case studies might be limited.

As for the way students' assessments are carried out Kyaruzi (2011) argues that, continuous assessments as practised in Tanzania are made up of cumulative summative assessments instead of formative assessments that provide quality feedback for modifying teaching and learning activities in order to improve student attainment. Because students take their cues about what is important from what is being assessed, changing student learning behaviour may require a change in the method of assessment (Tilya, 2013; Brown, Bull and Pendlebury, 1997). Therefore, it is important to change the processes of assessing students to promote Students Centred Learning approach. This is important for students, those who teach, and those who are responsible for the design, accreditation, quality assurance, and review of curriculum.

Several attempts have been made in the last decade or so to introduce SCL in higher education in the country. One of these is a project called 'Building Stronger Universities (BSU)', where higher education institutions of the 'South' and those of the 'North' network in order to engage with SCL to improve education and contribute to growth and economic outcomes. In the South, the efforts are in the early stages and partner universities are yet to adopt SCL at institutional level. Individual academics involved are introducing Problem Based

Learning (PBL) and attempting to create a blend between elearning and face-to-face teaching³.

The project whose roles are to create understanding of issues and to provide reflection can be observed from one of the BSU organised conferences. The BSU Conference at Sokoine University of Agriculture held on March 1st and 2nd 2016 involved the University of Dar es Salaam, Sokoine University of Agriculture, Kilimanjaro Christian Medical University and Kwame Nkrumah University of Science and Technology. In the Conference, implementation progress was disseminated and discussed. The pending difficult question after the Conference was 'How to mainstream SCL more effectively and widely through local ownership and initiatives?' Below is a depiction of issues gleaned from the discussions during the conference proceedings⁴.

³ The BSU that started in 2011 is supported by DANIDA and involves collaboration between Danish Universities and universities in five countries of the South. The second phase runs from 2014-2017 and the third phase 2017-2021.

⁴ The author attended the Conference and made a presentation on SCL.

Activities & actions

Blend btn. E-learning and conventional teaching; Largely externally driven initiative; Limited institutional adoption; Experimental in nature; Local ownership not yet fully achieved; Differing level of adoption and accommodation among institutions.

PBL methodology workshops; Task forces to spearhead implementation; Training of trainers; Studies undertaken: use of IT; initial Characteristics opinions on PBL; environmental context and capacity for PBL and elearning in universities; National and international networking and sharing of experience conferences Training of trainers of teachers on e-learning and PBL; Courses re-designed to suit PBL and e-learning; PBL online teaching materials developed Additional infrastructure acquired; Customization of Moodle open platform; Experimentation with Edmodo; use of Information Increase technology and e-resources; Experimentation on small classes,

Figure 2: Issues in the introduction of SCL) in the target Universities

Source: Authors observations from attending The BSU Conference at Sokoine University of Agriculture held on March 1st and 2nd 2016.

There are also individual faculty efforts in collaboration with partners to create capacity for innovative pedagogy. For example, the School of Public Administration and Management of Mzumbe University in collaboration with Partnership African Social and for Governance Research (PASGR) organized skills enhancing workshop on participatory teaching methods associated with curriculum delivery for Master of Research and Public Policy (MRPP)5. Furthermore, there is an on-going effort to transform learning at Mzumbe University through Transforming Employability for Social Change in East Africa (TESCEA). This is a DFID funded project that started in 2018 and ends in 2021. Its purpose is to create transformative teaching capacity among the involved faculty members from three programs involving 36 courses. TESCEA aims at promoting holistic learning that comprises course redesigns, problem solving skills, creative learning, and gender responsive pedagogy. Stakeholders that are closely engaged include employers, academic staff, and students. These provide inputs and feedback on the missing skills. They also provide what needs to change to produce graduates that meet market requirements in terms of relevant

⁵ Master of Research and Public Policy (MRPP) is a collaborative graduate program in Africa that started in 2014. The MRPP delivery uses a common architecture, course content, and teaching. The workshop was held on 02 & 03 November 2016.

Source: https://www.pasgr.org/what-we-do/higher-education/

skills both hard and soft. A formal evaluation of TESCEA is yet to be carried out but according to project staff, informal feedback indicates positive change.

There have been some other attempts to make learning more practical and supportive to the changing environment in Tanzania. The country has seen some developments such as creation of Incubators to support the ICT industry and the Business Development Services Incubation Programmes to provide support to graduates and professionals to set up and develop businesses that provide services to micro, small, and medium enterprises. The National Council for Technical Education has adopted competency based training and training evaluation procedures. For example, the Vocational Education Training Authority employs Competence Based and Education and Training (CBET) system that involves the development and use of industry-based standards in training. Under CBET, learning is learner or trainee centred as opposed to being time focused and teacher centred, and as such learning progresses at the pace of the learner. In the CBET system, learning standards are developed based on functional analysis. Since the standards are based on occupations and more specifically on units within occupations, they are often referred to as occupational unit standards (Giz, 2011).

Overall, the efforts by different projects are towards student centred learning and create the needed capacity. Nonetheless, the projects often have limited scope and reach, and could be experimental in nature. They, however, provide reflective opportunities on the teaching approaches in the use and show the desire for positive changes.

4.0 SCL BENEFITS, CHALLENGES, AND RECOMMENDATIONS

The vision and mission statements of the institutions of higher education in the country refer to the novel objective of becoming centres of excellences. Likewise, the National Vision 2025 propagates for education that promotes development of mind-set and competitiveness. This can only be achieved when there is more creativity and learning that provides answers to the practical problems in the continuously changing environment and students' assessments processes that catalyse innovation and creativity.

Students' centred learning methodology for teaching at the institutions of higher education in Tanzania provides the opportunity to bring positive cultural change in the educational settings. The teaching practice has involved some tenets of the SCL approach to learning without any obvious framework for reference to most of the learners and instructors other than the curriculum. A much more mainstreamed adoption of SCL is likely to generate beneficial outcomes that are more significant. The outlined benefits, challenges, and recommendations provide the context for change to improve learning in our institutions.

4.1 What Benefits from SCL?

Many benefits could be derived from improving learning through practicing more systematically students' centred learning approaches in higher education institutions. Table 2 highlights some of the benefits.

Table 2: Possible Benefits from SCL to Influence CultureChange in Higher Education⁶

Teacher	Students	
More time available for observation and guidance as burden shifts to learner	Active participation and ownership of process	
Can observe knowledge and skill transfer or acquisition as learning occurs. Feedback is on time	Immediate feedback allows satisfaction and corrective measures	
More conversant with different tools and becomes technological savvy	Increase familiarity in the use of different tools used in SCL and becoming technological savvy	
Ability to reflect and make necessary improvements in approach and content	Peer learning allows new ideas and encourages appropriate social behaviour and confidence building	
Satisfaction and learning from the interactions in class	Abilities and talents uncovered and nurtured working on practical issues in project teams and through case studies	
Increased ability to influence students' behaviour and character	Ability to influence positively teacher behaviour	

⁶ See also the following benefits of SCL, it allows students to use digital content to explore knowledge beyond textbooks, smoothens collaborations, and interactions between students and teachers, it allows students to learn at their own pace and time, it allows coverage of more materials, it improves feedback and understanding, and the like (Ramírez, D., Hinojosa, C., Rodríguez, F. 2014). Benefits for teachers include opportunities to work closely with students, improving students' attitudes to learning, improving the ability of students to solve open ended problems, and the like (Shi-Chun DU, Ze-Tian FU Yi WANG 2014).

A learning environment created, new ideas, perspectives can emerge from the learners	Increase in the ability to synthesise and reflect	
Increased likelihood of achieving intended outcomes	Increased ability to learn and use the learning beneficially	
Commitment and required attendance in class and adequate preparations	Reduced absenteeism and increased independence	

Source: Experience and a synthesis of different literature on SCL

Although some benefits were highlighted in Table 2 as gleaned from different literature, the following benefits highlighted below are also important in our context.

There will be significant change in the quality of outputs in terms of students who meet market requirements in a changing Tanzania as a result of a wide adoption of SCL. This will be timely as the 'Hapa Kazi Tu' Motto (looking at the Motto positively) is going to necessitate a more selective approach to employment; increased productivity will be a necessity, as employers have to follow the legal requirements to pay their tax dues as required by law and follow more rigorously national employment policies.⁷

The quality of staff is likely to improve significantly as the ability to employ and support SCL in teaching becomes an input in acquiring new faculty members. The faculty members are likely to be more active and contribute to new knowledge

⁷ 'Hapa Kazi' was the adopted Motto that emphasized hard work and accountability of Government that was highly publicized in the earlier years of the Fifth Phase Tanzanian Government rule from 2015.

as they engage in the existing knowledge in a sharing and analytical circumstance.

Information technology is likely to achieve increased meaning to students and teachers. The existing capacity and that which is being created in IT will see better utilisation and probably act as a catalyst to promote that industry further.

There could be significant improvements in resource utilisation: time, finance, and human. First more commitment to the learning environment can be realised by both students and teachers. Second, the use and allocation of time might need to be reviewed so that SCL is effectively accommodated. Teaching can be organised to allow more time for collaborative engagements and the lecturer to participate in the seminars to facilitate SCL.

4.2 What Challenges for SCL?

Despite a brighter tomorrow being considered, our educational system is facing significant challenges. The effect of which might hamper SCL effectiveness and the benefits to be accrued. The HEDP (2010-2015) acknowledges there has been an increase of funding to higher education, but there are still significant quality challenges. These challenges include increased student enrolment, which is not matching the expansion of academic infrastructures, inadequate teaching, and learning facilities not in proportion to student enrolment. Others include out of date teaching and learning facilities, poor learning technique as a result of traditional old teaching and learning methods and students relying heavily on staff lectures, inadequate supply, and use of books and other relevant materials. Others include scarcity of standardized course outlines, textbooks, and supplementary materials for

students to access latest knowledge, under-qualified staff, and less competent entrants.

Sumra and Katabaro (2014) provide similar arguments on the weaknesses present in our educational systems and suggest evidence based approach to making improvements where emphasis should be on the quality of teachers and teacher accountability to complement other efforts. They observe that the expansion in enrolments does not necessarily contribute to economic development but what is significant should be quality of education and the learning outcomes achieved⁸.

At present, e- learning systems or platforms are available within most higher education institutions in the country but most platforms see few users. A study of e-learning systems in Tanzania Universities indicates only 46percent of 33 studied universities adopted e-learning systems (Lashayo, & Johar 2018). Most Universities do not make it mandatory for staff to use the e-learning system, especially where there are no distance learning and blended programs. For those having distance learning and blended programs, effectiveness is constrained by similar challenges that affect adoption generally. An important constraint is the use of e-learning to supplement the traditional approaches and not for transformation of learning. Other constraints include technologies, connectivity, support, costs, institutional issues including policies and curriculum (Mtebe & Raphael, 2018; Mwakyusa & Mwalyagile, 2016).

⁸ An in depth analysis of the higher educational system highlighting challenges is also provided by Tracy Bailey, Nico Cloete and Pundy Pillay (2011).

4.3 What Recommendations for SCL?

There are many recommendations for SCL to be institutionalised within higher education institutions. Students and teachers' commitment and enthusiasm can be harnessed to improve quality of learning by using different tools and technologies. For example, a quality assurance official at Mzumbe University observed that it is passion that drives some academic staff to use the Moodle e-learning platform to make learning more interactive by posting videos, case studies, and the like. This is of course in line with the University's Fourth Corporate Strategic Plan that explicitly calls for the efforts of introducing blended learning to encourage e-learning for the different teaching programs.

A review of different policy instruments and guidelines show some attention attached to SCL, albeit implicitly. These need to change and SCL has to feature more prominently in different discourses. For example, the umbrella framework, the Tanzania National Qualifications Framework (TNQF) signifies that education is necessary for appreciating and adapting to the environment and as a means of realising one's full potential.

The TCU that is mandated as a national oversight institution of higher education in the country looks at higher education as either conventional or open and e-enabled distance learning – and perhaps provides a restrictive focus –on student's centred learning advocacy. This is more obvious in the recent guiding output to higher education 'Handbook for Standards and Guidelines for University Education in Tanzania December 2019'. The Hand Book and the University Qualifications Frameworks encourage transformative learning, encourage learner-centred education and delivery that is responsive to national, and market needs. As observed, blended learning is not necessarily to bring about a student centred learning approach, but it can also be supportive to student centred learning particularly if it promotes collaborative learning and formative assessments, and the like. It is possible that our institutions of higher education consider distance learning or blended approaches as market penetration strategies and not as enriching learning as such. This needs to change, as technology is often to improve processes and systems and not to act as a substitute. Information and communication technologies provide supporting tools so that faculty members can develop project assignments, avail preparation materials to students at lower costs so that formal sessions are more interactive. ICT can be used to ascertain that students have gone through the reading materials and only collaborative interactions happen in classrooms and lecture theatres (Felder & Brent 2009).

Oversight guidelines need to show some flexibility to promote blended learning that only require access to the internet by learners and facilitators and which do not require the presence of physical centres in locations. At present, the latter is a prerequisite to accrediting a blended learning program by the TCU. Again, the division of class teaching hours in terms of lecture hours and seminars need to be reconsidered, as transformative learning requires course redesigns that allow interactions between teachers and students throughout the allocated teaching hours so as to promote collaborative and active learning.

There is a need to systematically review programs, the curricula, syllabuses, room settings, deployment of the teaching staff, and academic staff promotion criteria. For

example, in promotion the development of case studies and projects tasks need to be made mandatory.

In addition, it is important to match capacity and intake of students so that the infrastructure is not overwhelmed and the faculty members are not overstretched to be ineffective. A critical issue is discipline on the part of the faculty members so that they attend classes as required and are available for students. ICT Technology has to be initially taken as a supportive tool and inability to cope with technological developments should not limit the adoption of SCL among the teaching staff.

Because of the COVID 19 pandemic and college closures, higher education institutions are forced to explore the possibility for a systematically more mainstreaming of elearning and possibly the promotion of many blended learning programs. However, the identified constraints have to be addressed redress the traditional approach to learning that seems strong. If we assume that the future will see a much wider adoption of e-learning, then e-learning has to promote SCL that is outcome focussed and competency based and not only to supplement the face to face learning. In addition to availability of platforms and technologies, capacity building of staff and pedagogical support are important. Different scholars have echoed the problem of staff being insufficiently trained to effectively integrate e-learning in classrooms (Mtebe, and Raphael, 2018; Lashayo, & Johar 2018; Kisanga & Ireson, 2015; Mtebe & Raphael, 2013; Conway, Munguatosha, Muyinda, & Lubega, 2011).

We have to consider the standalone projects and initiatives as future platforms of a broad institutional transformation of

learning. Each project initiative, which is implemented, to transform learning has to create change champions. The projects also need to be scaled up utilizing local resources so that SCL is mainstreamed sustainably in all educational programs.

It could be necessary to plan for a nation-wide program for transformational learning. One such program is the Tuning EU-China Study for the modernization of higher education in China (2012-2019). The program describes the Tuning Approach as comprise of student centred and competency based learning⁹. This is the way to go for our institutions to offset the weaknesses in higher education and to enhance the competitiveness of our graduates (Ishengoma, 2017).

There are competencies that are to be developed or nurtured among faculty members to support SCL and to give meaning to it. Below is a diagrammatic representation of what is meant by competencies as per the leadership Competency Framework Developed for the public service.

⁹ Information on the whole program of the Tuning EU-China Study is available at http://tuningchina.org/

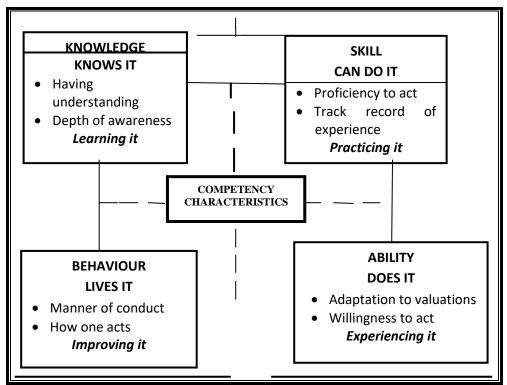


Figure 3: The Meaning of Competencies

Source: The leadership Competency Framework: Key Leadership Competencies in the Public Service (2010:3)

The faculty has to be capacitated in terms of knowledge, skills, behaviour, and ability to enable them to accommodate and live SCL. The following are some identified areas we might need to create training of trainers programs to strengthen staff capacity.

Competencies	Target Groups
IT skills including the development of software for interactive teaching, use open source platforms: Moodle, Edmodo, and probably those with more specific focus as RapidPro developed from RapidSMS by the support of UNICEF in 2016 it allows you to easily design, pilot, and scale services that connect directly with a mobile phone userwithout the help of a software developer.	IT staff Faculty members
Facilitation skills: use of simple methods such as clustering of ideas and identification of causal relationships, etc.	Faculty members & Students
Development of short case studies to work on in class	Faculty members
Teaching time management and planning skills	Faculty members
Collaborative engagements between faculty members. (to be made conditional in promotion decisions)	Faculty members
Use of tools for self-assessment, e.g., personality, inclination to risk taking, leadership styles, etc.	Faculty members
Designing and developing curricula and syllabus	Faculty members
Development of out of class exercises	Faculty members
Project cases demanding extra hours by students	Faculty members & Students
Team building skills	Faculty members & Students

Table 3: Key competencies to be developed among the faculty

Conflict management and resolution	Faculty members & Students
Familiarity with some theories about knowledge, learning, behaviour management and modification	Faculty members

Source: constructed from authors understanding of issues from different sources

Capacity development among faculty staff has to be a continuous undertaking. The significant issue here is that capacity is to exist within higher learning institutions. The organisation of the teaching activity has to take into consideration the SCL objectives so that faculty members can practice the knowledge and learning created.

5.0 CONCLUSION

As we have seen, SCL is a relevant approach to learning. universities have been practicing some form of SCL though not so systematically. We have also seen that the founder of the nation through Education for Self-reliance did set the stage for what we want SCL to be like today. There are numerous benefits from practicing SCL including generation of more value out of Information Technology as the technology advances. We are also possibly going to create outputs that match market needs in this challenging environment. Preparations are necessary to create the requisite teaching environment in terms of physical and non-physical capacities because it is important to develop competencies relevant to SCL approach to learning. The challenges identified have to be looked upon as enablers as they create room for creativity and innovation. It is necessary for institutional policy to embrace and coax a systemic adoption of SCL in our institutions of higher learning to achieve the desired goals.

In higher education, SCL has been available in some form depending on the curricula, teaching organization, individual staff exposure, and creativity and experimenting behaviour of faculty members that have adopted some aspects of SCL in their teaching. Our institutions of education have to be familiar with different theoretical tools and practical instruments for SCL. Using technology is an enabler, the ability to be creative, innovative, and experimenting has to be developed and nurtured through a responsive educational system and a flexible working environment for the teaching staff.

The initiatives to promote e-learning and/or distance or blended learning have to centrally embed the objective of transforming learning through students' centred learning approach. Possibly, a nationwide project, similar to EU-China Tuning project, could be necessary so that a nationwide change initiative could be adopted, even if phased.

The future seems bright as the impetus for change and challenges as a result of COVID 19 may require reassessment of our assumptions and thus cajole for flexibility and dynamism that may enrich the educational environment and bring about a more transformational approach to learning.

REFERENCES

- Alford, G., Herbert, P., & Frangenheim, E. (2006). Bloom's Taxonomy Overview. In Innovative Teachers Companion. ITC Publications, 176 224.
- Arthur, M., Gordon, C. & Butterfield, N. (2003). The impact of curriculum and instruction. In Classroom Management: Creating Positive Learning Environments. Thomson: Southbank, Victoria, 43-52.
- Banerjee A. (2014) Improving Student's Learning with Correct Feedback: A Model Proposed for Classroom Utility, *International Journal of Education and Psychological Research* (IJEPR) (3) 4. Retrieved from http://www.drivelearning.org/uploads/4/4/1/1/44110523/improving_student_learning_wit h correct feedback banerjee.pdf
- Barr, R. B. & Tagg, J. (1995) From Teaching to Learning A New Paradigm for Undergraduate Education. *Change*, Vol.27, No.6. Retrieved from: <u>http://www.maine.edu/pdf/BarrandTagg.pdf</u>,
- Barry, K. & King, L. (1998). *Developing Instructional Skills. Beginning Teaching and Beyond*, (3rd ed.), 144-167. Social Science Press.
- Berman E. A (2017), An Exploratory Sequential Mixed Methods Approach to Understanding Researchers' Data Management Practices at UVM: Integrated Findings to Develop Research Data Services, (6) 1, *Journal of eScience Librarianship*, Retrieved from <u>https://doi.org/</u> 10.7191/ jeslib.2017.1104.
- Block, L. S. (1984). National Development Policy and Outcomes at the University of Dar es Salaam. *African Studies Review*, 27(1), 97-115.
- Brown, G., Bull, J. & Pendlebury, M. (1997). Assessing Student Learning in Higher Education. Routledge. London, UK.
- Burkšaitienė, N., Romeris, M. (2012), Promoting Student Learning Through Feedback in Higher Education. *Socialinių mokslų studijos/Societal Studies*, (4) 1, 33–46.
- Conway, M., Maleko Munguatosha, G., Birevu Muyinda, P. and Thaddeus Lubega, J. (2011), A social networked learning adoption model for higher education institutions in developing countries, On the Horizon, Vol. 19 No. 4, pp. 307-320. Retrieved from <u>https://doi.org/10.1108/10748121111179439</u>
- Cloete, N. (2011) Universities and Economic Development in Africa. Retrieved from <u>http://chet.org.za/files/</u> uploads/reports/Case%20Study%20%20Tanzania%20and%20University%20of%20Da r%20es%20Salaam.pdf
- Christensen, C. M., Horn, M. B., & Johnson, C. W. (2008). Disrupting Class. McGraw Hill. New York, US.
- Dagar, V. & Yadav, A. (2016). Constructivism: A Paradigm for Teaching and Learning, *Arts and Social Science Journal*, (7) 4. Retrieved from DOI: 10.4172/2151-6200.1000200
- de la Sablonnie` re, R., et al., (2009) Challenges of applying a student-centred approach to learning in the context of education in Kyrgyzstan. International Journal of Educational Development. (29) 6, 628-634.
- Diamond, R. M. (1997). Foreword, in J. Grunert, The Course Syllabus: A Learning- Cen-tered Approach, (pp. viii–x). Bolton, MA: Anker Publishing Co, Inc.

- Donohue, N. C. (2010). Students at the Center: New England's future demands education based on a learner's needs and interests. The New England Journal of Higher Education. Winter, 24-25 Retrieved from https://nebhe.org/info/journal/articles/2010-Winter_Donohue.pdf
- Du Shi-Chun, Fu Ze-Tian, Wang Yi (2014). The Flipped Classroom–Advantages and Challenges, Proceedings of the 2014 International Conference on Economic Management and Trade Cooperation. Retrieved from https://doi.org/10.2991/emtc-14.2014.3
- Eberly, M., Newton, S. E. & Wiggins, R. A. (2001). The Syllabus as a Tool for Student-Centered Learning, *The Journal of General Education*, (50) 1, 56-74, Retrieved from https://www.researchgate.net/publication/236796353_
- Education International & European Students Union (2010). Student-Centred Learning: An Insight into Theory and Practice. Brussels. Retrieved from http://www.ehea.info/Upload/document/consultive/esu/2010_T4SCL_An_Insight_Into_T heory_And_Practice_565074.pdf
- Enache, R. & Crisan A. (2013). The Impact of a Collaborative Learning Using New Informational Technologies on Personality Development, *Procedia Social and Behavioral Sciences* (76), 327 335.
- Evans, C. (2013). Making Sense of Assessment Feedback in Higher Education, *Review of Educational Research*, (83)1, 70–120. Retrieved from http://rer.aera.net
- Fafunwa, A. B. (1974). History of Education in Nigeria. In Fafunwa, A. B., & Aisiku, J. U. (Eds.). Education in Africa: a comparative study. London: George Allen & Unwin.
- GIZ (2011). Structures and Functions of Competency Based Education and Training: A Comparative Perspective. Retrieved from http://hdl.voced.edu.au/10707/207345
- Hailikari, T., Katajavuori, N. & Lindblom-Ylanne, S. (2008), The Relevance of Prior Knowledge in Learning and Instructional Design, *American Journal of Pharmaceutical Education*, (72)5 Article 113. Retrieved from https://www.researchgate.net/publication/24005294_The_Relevance_of_Prior_Knowled ge_in_Learning_and_Instructional_Design
- Halili, S.J. & Zainuddin Z.(2015.) Flipping the Classroom: What We Know and What We Don't, *The Online Journal of Distance Education and e-Learning*, (3), 1. Retrieved from https://www.researchgate.net/publication/275535019_FLIPPING_THE_CLASSR OOM_WHAT_WE_KNOW_AND_WHAT_WE_DON%27T
- Higgins, M., Grant, F. & Thompson P. (2010) Formative Assessment: Balancing Educational Effectiveness and Resource Efficiency, *Journal for Education in the Built Environment*, (5) 2, 4-24.
- Huitt, W., & Hummel, J. (2003). Piaget's theory of cognitive development. *Educational Psychology Interactive*. Valdosta, GA: Valdosta State University. Retrieved from http://www.edpsycinteractive.org/topics/cognition/piaget.html.
- Ishengoma, J. M (2017). Incorporating the Tuning Approach in Higher Education curricular reforms and course design in Tanzania for enhancing graduates' competencies: stakeholders' views. Tuning Journal for Higher Education, (5) 1 Retrieved from doi: http://dx.doi.org/10.18543/tjhe-5(1)-2017pp121-169.
- Kawulich, Barbara B. (2005). Participant Observation as a Data Collection Method. Forum: Qualitative Social Research, 6(2), Art. 43, Retrieved from <u>http://nbn-resolving.de/urn:nbn:de:0114-fqs0502430</u>

- Kessy, D., Kaemba, M., & Gachoka, M. (2006). *The Reasons for Under Use of ICT in Education: In the Context of Kenya, Tanzania and Zambia*. Paper presented at the 4th IEEE International Workshop on Technology for Education in Developing Countries.
- Kisanga, D. & Ireson, G. (2015). Barriers and strategies on adoption of e-learning in Tanzanian higher learning institutions: Lessons for adopters. *International Journal of Education and Development using ICT*, 11(2), Open Campus, The University of the West Indies, West Indies. Retrieved from https://www.learntechlib.org/p/151845/.
- Komba, D., & Temu, E. (1996). Tanzania: Education for Self-Reliance Dimension of Education with Production. In W. Hoppers & D. Komba (Eds.), *Productive Work in Education and Training* (21), 63-88. Hague: CESO Paperback.
- Kurlaender M, Howell J. S. (2012). Academic Preparation for College: Evidence on the Importance of Academic Rigor in High School. Advocacy & Policy Center Affinity Network Background Paper, College Board Advocacy & Policy Center. Retrieved from https://files.eric.ed.gov/fulltext/ED541982.pdf
- Kyaruzi, F. (2011). Assessment of the Validity of Basic Mathematics Continuous Assessment in High and Low Performing Secondary schools: The Case of Coast and Dar es Salaam Regions. Unpublished Master of Education in Science Dissertation. University of Dar es Salaam.
- Lashayo, D. M. & Johar MGM (2018) Adoption of E-learning systems in Tanzania's universities: A validated multi-factors instructor's mode, *Journal of Theoretical and Applied Information Technology*, (96) 20, 6864-6876
- McCauley, V. (2003) Interactive Learning Toolkit: Tools for Interactive Classroom, Mazur Group, Division of Engineering & Applied Sciences Harvard University Retrivedfromhttps://mazur.harvard.edu/files/mazur/files/talk_508.pdf
- Ministry of Education and Vocational Training (2010). *Higher Education Development Programme 2010-2015.* Dar es Salaam, United Republic of Tanzania.
- MOEST (2017) Education Sector Development Plan, Tanzania Mainland (2016/17 2020/21, Dar es Salaam, United Republic of Tanzania.
- Moellor, B. & Reitzes, T. (July 2011). Integrating Technology with Student-Centred Learning. *A Report to the Nellie Mae Education Foundation*. Retrieved from http://www.nmefoundation. org/research/personalization/integrating-technology-withstudent-centred-learn
- Mtebe, J. S. & Raphael, C. (2018). A Critical Review of e-learning Research Trends in Tanzania, Journal of Learning for Development, (5) 2, 163-178
- Mwakyusa, P.W. & Mwalyagile, N.V. (2016) Impediments of E-learning Adoption in Higher Learning Institutions of Tanzania: An Empirical Review", *Journal of Education* and Practice, (7) 30, 152-160
- Nicol, D.J. & Macfarlane-Dick, D. (2006) Formative Assessment and Self-Regulated Learning: A Model and Seven Principles of Good Feedback Practice. University of Glasgow. *Published in Studies in Higher Education*, (31) 2, 199-218
- Nyerere, J. (1968). Education for Self-Reliance *Freedom and Socialism: A Selection from Writings & Speeches, 1965-1967.* Dar es Salaam: Oxford University Press.
- Peter, M. (2003). A Rationale for a Transformative Approach to Education, *Journal of Transformative Education*, (1) 1, 38-57

- Presidents' Office Public Service Management (2010). The leadership Competency Framework: Key Leadership Competencies in the Public Service. Dar es Salaam, United Republic of Tanzania.
- Purdue University (2020) 'How Technology has changed education.' Retrieved from https://online.purdue.edu/blog/education/how-has-technology-changed-education
- Ramírez, D., Hinojosa, C., Rodríguez, F. (2014). Advantages and Disadvantages of Flipped Classroom: STEM Students Perceptions. *Conference paper ICERI 2014*. Retrieved from https://www.researchgate.net/publication/276059389
- Richmond, A. S., Boysen, G. A., Gurung, R. A. R., Tazeau, Y. N., Meyers, S. A., & Sciutto, M. J. (2014). Aspirational model teaching criteria for psychology. *Teaching of Psychology*, 41, 281–295, doi:10.1177/0098628314549699
- Richmond, A. S. (2016). Constructing a Learner-Centered Syllabus: One Professor's Journey, IDEA Paper #60. Retrieved from https://www.ideaedu.org/Portals/0/Uploads/Documents/IDEA%20Papers/IDEA%20Pap ers/PaperIDEA_60.pdf
- Roberts, T.S (2004). *Online Collaborative Learning: Theory and Practice*, Information Science Publishing, Hershey
- Sandholz, J. H., Ringstaff, C. & Dwyer, D. (1997). *Teaching with Technology: Creating Student-Centred Classrooms*. New York, NY: Teachers College Press.
- Sanga, I. (2016). Education for Self Reliance: Nyerere's Policy Recommendations in the Context of Tanzania. African Research Journal of Education and Social Sciences, (3). Retrieved from http://arjess.org/education-research/education-for-selfreliance-nyereres-policy-recommendations-in-the-context-of-tanzania.pdf
- Saunders, M., Lewis, P. & Thornhill, A. (2012). Research Methods for Business Students, 6th edition, Pearson Education Limited
- Saville, B. K., Zinn, T. E., Brown, A. R., & Marchuk, K. A. (2010). Syllabus Detail and Students' *Perceptions of Teacher Effectiveness*. Teaching of Psychology, (37), 186–189.
- Sjøberg S (2010), Constructivism and Learning. In: Penelope Peterson, Eva Baker, Barry McGaw, (Editors), *International Encyclopedia of Education*, (5) 485-490. Oxford: Elsevier.
- Sumra, S. & Katabaro J.K. (2014). Declining Quality of Education: Suggestions for Arresting and Reversing the Trend. Economic and Social Research Foundation. Dar es Salaam. United Republic of Tanzania.
- TCU (2010) National Qualifications Framework Final Draft. Dar es Salaam, United Republic of Tanzania.
- TCU (2019) *Standards and Guidelines for University Education in Tanzania*, December 2019, Dar es Salaam, United Republic of Tanzania.
- Tilya, F. (2013). *Educational Assessment: Are we doing the Right Thing*? Retrieved from http://www.tenmet.org/Droop/Docs/COP%202013/Tilya.pdf .
- Weaver, N.E (2011). Educational Policy in Tanzania From Independence to the Present: Continuity and Transformation. Unpublished Thesis, Bachelor of Philosophy, University of Pittsburgh
- Zheng, B. Niiya M. & Warschauer, M. (2015). Wikis and Collaborative Learning in Higher Education, *Technology Pedagogy and Education* (24) 3,1-18.