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Entrepreneurship education in the Tanzanian higher education institutes: The learning theories perspective

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Abstract

How can higher learning institutions in Tanzania impart entrepreneurship for employment creation? Entrepreneurship education cultivates innovative talents, which is a crucial driving force for future development. The innovation-driven development strategies place new demands on entrepreneurship education. However, most of the current research and discussion in this field focuses on the construction of teaching staff in the entrepreneurial education ecosystem, curriculum development, and whether entrepreneurship education can influence the intention of entrepreneurship. Based on the learning theories, the individual traits and environmental of learners greatly influence the realization of entrepreneurship education. In Tanzania, the growth of higher learning is significant with some challenges and obstacles towards producing quality students. Among these challenges, effective teaching is the major one, others being infrastructures, learning facilities, and sizes of classes (number of students in a course). This study describes some innovative teaching and learning techniques in the Tanzanian higher education environment which helps to develop an individual's mindset, behavior, skills and capabilities. The entrepreneurship education should be applied to create value in a range of contexts and environments from the public sector, charities, universities and social enterprises to corporate organizations and new venture start-ups.

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1. Introduction

Entrepreneurship has become increasingly important to different countries as a source of economic growth and employment creation. Given the existing economic and social challenges facing many developing countries, the need for stimulating entrepreneurial activity has become a prominent goal for many governments. Entrepreneurship scholars (Thurik et al., 2008; Shane and Venkatraman, 2000) and educators (Mwasalwiba et al., 2012; Cooney, 2012; Isaga, 2015; Msamual et al., 2018) have

higHEIghted the relevance of entrepreneurship to economic development and the reduction of unemployment. Also, the role of small business in terms of growth, competitiveness, innovation, and employment is now substantially embedded in the activity of the entrepreneur. Scholars (Henry et al., 2003; Cooney, 2012; Mwasalwiba et al., 2012) have well-recognized that education and training opportunities play a key role in cultivating future entrepreneurs and in developing the abilities of existing entrepreneurs to grow their business to greater levels of success. The growth of businesses brings about economic and social value: Entrepreneurship is when you act upon opportunities and ideas and transform them into value for others.

In Tanzania, entrepreneurship education in higher education institutions (HEI) is less than 20 years old. Policymakers have turned to entrepreneurship as an approach to generate employment and foster economic growth. The United Republic of Tanzania [URT], (2003) argue that "... *SMEs contribute significantly to employment creation, income generation and stimulation of growth in both urban and rural areas*" (p. 3). To achieve this, policymakers have turned to scholars, particularly from higher education institutions (HEI) for guidance about the appropriate approach and context (Thurik et al., 2008; Mwasalwiba et al., 2012; Isaga, 2018). However, while seeking guidance about the appropriate role for entrepreneurship education, policymakers have been puzzled by ambiguous results at best. At Mzumbe University, for example, the first graduates in entrepreneurship (Bachelor of Business Administration in Entrepreneurship Development) were in the year 2004. Since then, the entrepreneurship programme has not sufficiently managed to train graduates who can establish businesses, create employment, and provide a solution to the existing social problem. This shows that the aim of entrepreneurship education and training should be to develop entrepreneurial capacities and mindsets that benefit economies by fostering creativity, innovation and self-employment. Also, creating a new venture, and to contribute to the reduction of unemployment.

However, the existing relationship between entrepreneurship and unemployment has posed a complex puzzle (Thurik et al., 2008; Isaga, 2018) to scholars, students, and parents. For example, graduates in the entrepreneurship programme view the relationship between entrepreneurship and employment as an unemployment push: The decision to become an entrepreneur is a response to either being unemployed or else the perception of dismal future employment prospects. Similarly, Machumu and Zhu (2019) argue that the growing demand for 21st-century learning, competencies and working skills has raised the need for innovative teaching and learning: *"Has upheld the integration of newly innovated technologies in education"* (p. 305). This calls for new pedagogical approaches and techniques to foster entrepreneurial mindsets, attitudes and skills. And teaching entrepreneurship should aim to impart a range of aspects like idea generation, managing start-up, innovation and business growth. Therefore, this conceptual paper (Imelda, 2014; Gilson1 and Goldberg, 2015; Jaakkola, 2020) focuses on reciting some pedagogical approaches that can be used to facilitate entrepreneurship in higher learning institutions in Tanzania. Specifically, the paper reflects on how HEI in Tanzania can foster entrepreneurship education through different learning approaches. The paper contributes to the theories of entrepreneurship education through different learning approaches. The paper contributes to the theories of entrepreneurship education through different learning approaches. The paper contributes to the theories of learning by linking different learning theories towards fostering entrepreneurship in Tanzania.

Following this introduction, I outline entrepreneurship education and learning in higher institutions concepts. Thereafter, I present the methodology and approach, followed by study findings. Then we offer our interpretation of the findings. Lastly, we summarize the main findings, the limitations of our study and explore different directions for future research.

2. Study Concepts

This section presents literature on the concepts of the paper. First, I present some literature on entrepreneurship education, and

secondly, the teaching and learning in higher institution.

2.1. Entrepreneurship education

In a traditional understanding, entrepreneurship was strongly associated with the creation of a business and therefore it was argued that the skills required to achieve this outcome could be developed through training. Recently, entrepreneurship is being viewed as a way of thinking and behaving that is relevant to all parts of society and the economy (Cooney, 2012), and entrepreneurs as people who exploit technological breakthroughs, commercialize innovations, drive technological change, and therefore create employment and promote economic growth (Shane and Venkataraman, 2000; Shane et al., 2003; Viinikainen et al., 2017). Thus, it is crucial to understand the entrepreneurship education and who becomes a successful entrepreneur. This will help educators and policy makers to develop pedagogies and policy measures that support individuals who pursue entrepreneurial careers.

Entrepreneurship education has received enormous attention from researchers, academicians and policymakers. In the current crisis of unemployment, governments emphasize entrepreneurship as an alternative way out (Cooney, 2012; Azim & Al-Kahtani, 2015). People are now found interested to equip themselves with entrepreneurship knowledge and skill, viewing it as a rewarding career alternative. As a result, intervention in the form of entrepreneurship education and training has become a common scenario. It is still a topic of much debate about whether entrepreneurs are born or made: whether entrepreneurs are ones with cognitivism or learned in the class. Some scholars (Shane & Venkatraman, 2000; López-Núñez et al., 2020) acknowledged that there are natural-born entrepreneurs, other scholars (Cooney, 2012; Viinikainen et al., 2017; Pluzhnik et al., 2018) argue that entrepreneurship is a skill that can be learned. Drucker (1985) argued that entrepreneurship is a practice and that *"most of what you hear about entrepreneurship is all wrong. It's not magic; it's not mysterious; and it has nothing, and do with genes. It's a discipline and, like any discipline, it can be learned."* If one agrees with Drucker's concept of entrepreneurship, then it follows that education and training can play a key role in its development. Pluzhnik et al., (2018) argue that HEI is charged to play a key role in developing highly qualified graduates in the entrepreneurship field: Graduates with an extensive creative and intellectual potential capable of implementing various business projects and becoming a driving force of sustainable economic growth in their countries.

Entrepreneurial education is often categorized into three approaches: Teaching "about", teaching "for", and teaching "through" entrepreneurship. Teaching about entrepreneurship means delivering content and theories to give a general understanding of the phenomenon. This is the most common approach in HEI (Mwasalwiba, 2010; Lackéus, 2015). Teaching for entrepreneurship means an occupationally oriented approach aiming at giving up-and-coming entrepreneurs the requisite knowledge and skills (Lackéus, 2015). And teaching though entrepreneurship means a process based and often experiential approach where students go through an actual entrepreneurial learning process. Lackéus, (2015) argue that teaching through entrepreneurship approach often leans on the wider definition of entrepreneurship, and can be integrated into other subjects in general education, connecting entrepreneurial characteristics, processes and experiences to the core subject. While the "about" and "for" approaches are relevant primarily to a subset of students on secondary and higher levels of education (Smith et al., 2006). Some important challenges have however been identified when trying to embed entrepreneurship into education this way, such as resource and time constraints, resistance from teachers, assessment challenges and cost implications (Smith et al., 2006; Lackéus, 2015). Therefore, I adopt the definition of entrepreneurship as *"the process by which opportunities to create future goods and services are discovered, evaluated, and exploited"* (Shane and Venkataraman, 2000: 218), and three approaches of entrepreneurship

education (Lackéus, 2015). This understanding does not require viewing entrepreneurs as the founders of new firms or organizations. It requires the educational institutions to understand that the teaching and learning methodology needed in today's world helps to develop an individual's mindset, behaviour, skills and capabilities (Machumu et al., 2018; Machumu and Zhu, 2019). Also, can be applied to create value in a range of contexts and environments from the public sector, charities, universities and social enterprises to corporate organizations and new venture start-ups (Cooney, 2012; Pluzhnik et al., 2018).

2.2. Teaching and learning in higher institutions

Teaching at HEI is a multifaceted activity because it is not simply a case of passing on information, but an art of imparting knowledge and skills. While most instructors think that their major role is to appear in classes and giving lectures to cover the syllabus, different studies (Fink, 2003; Gurney, 2007; McKeachie, 2011) reveals that it is the instructor's role to create a learning environment in which students can actively learn. In entrepreneurship education, some learn about entrepreneurship and those who learn for entrepreneurship. The former learn to acquire basic knowledge and later learn to acquire entrepreneurship skills. It is the responsibility of the instructor to help learners to acquire both knowledge and skills. This has obligatory required HEI to be innovative to find a better way of facilitating entrepreneurship education. As a result, most HEI in Tanzania decided to establish entrepreneurship or business resource centres and incubation centres so that they can facilitate effective teaching of entrepreneurship.

But what is effective teaching? Unsurprisingly this question is raised many times. The simplest answer is that effective teaching is the one that facilitates learning. The biggest challenge to most higher learning instructors, and those who teach entrepreneurship in particular, is that understanding that teaching is as important as learning. Effective teaching depends not on what the instructor does *(teach)*, but rather on what the student does *(learn)*. Svinic and McKeachie, (2011) argue that teaching involves effective communication *[listening as much as talking]* between the learning and teaching parties. Both instructors and students need to have active thinking, but most important is what goes on in the students' minds. Therefore, effective teaching is the teaching which facilitates students' learning. Effective teaching takes place when a *variety* of teaching strategies, diversity of teaching techniques, or a mixture of pedagogy are provided in the classroom to facilitate learning. The focus should be on gaining understanding rather than just getting or providing the right answers. In the next section, I present some theories of learning to understand how learning occurs. This will help entrepreneurship educators to facilitate learning.

2.3. Theories of Learning

Understanding learning is increasingly important, as well as difficult mainly because it involves a dynamic and complex creature – a human being. As an instructor, your job is to help others (students) learn, and of course, learn yourself. But what real this learning concept is, and how it happens remains a contradiction i.e. how is it that a learner can understand something new? Consider a person who is absolutely and completely ignorant – a newborn child for example; how could this person understand, and learn, something that was incomprehensible – beyond his/her understanding? Theorists do not all agree about what learning is or how it happens. For example, Imelda (2014) argue that *"the theoretical perspectives, including school governance, school curriculum, curricular relevance and implementation, the teacher-learner interface, accessibility of schools (for example, distances the children had to travel, usually walking, to and from school), school environment – including possibilities of bullying, as well as school support and sensitivity to learners' individual and collective needs" (p. 186) affects learning. Then, below I have tried to summarize different theories of learning so that we may all have a general understanding of learning and how it happens.*

2.3.1. Classical Theories of Learning

A classical theory of learning is the oldest theory developed by Plato (400BC), and later Aristotle, on how learning occurs. Plato argues that learning is the ability to remember what the soul learned before coming to the earth (before coming into existence). Classical theories conceptualize knowledge based on the origin of ideas or concept: Where does learning comes from or begin? They argue that learning depends upon some prior knowledge or experience. Therefore, knowledge is innate, it is in place in the mind at birth. Learning is the process of recalling what the soul has learned and absorbed on the way to earth. In this regard, learning is stimulating memory and teaching is helping this remembering process. This understanding of learning clarifies why some people can learn more, or they can learn more readily than others, and some cannot learn some things at all no matter what. It all depends on what they learned before. If someone does not previously know something, one cannot learn it now. In entrepreneurship education, this understanding of learning collaborate with entrepreneurship scholars (Shane and Venkatraman, 2000; Cooney, 2012; Pluzhnik et al., 2018; López-Núñez et al., 2020) who argue that entrepreneurs are born, are those with inborn cognitive abilities in the discovery of entrepreneurial opportunities.

Consequently, other classical theorists, The Lockean Atomistic, argue that knowledge is not inert and learning is experiencing. Learning is the process of using inborn (mental) powers of combination, abstraction, integration and so on through the power of memory on collected information (experience) of its environment via its senses. Thus you cannot learn without experience, we learn by experiencing things from the environment via our senses. This theory provides the importance of entrepreneurship practice as the means of leaning. It requires entrepreneurship instructors to teach by using simulation games, and hands-on learning approaches.

2.3.2. Behaviourism

Behaviourism is the learning perspective that focuses on behaviour [actions] rather than knowledge [information]. Behaviourists believe that learning is the process of expanding the behavioural range or list and not the matter of expanding the ideas in the mind of learners. In this perspective, instructors will perceive students to have been learned if they will have a change in behaviour: If they can show a change in actions rather than information. A student from the entrepreneurship course should show some entrepreneurial actions rather than entrepreneurial information Their focus in learning is not on how new knowledge is acquired, but on how new behaviour is acquired. After all, the mind is a subjective and non-publicly observable entity, thus cannot be explained scientifically. Thus learning is not on how the student (learner) understands, and learns theory, but how they behave in such a way that they can apply or do things using the theory.

Consequently, behavioralists argue that learning can be facilitated through Classical conditioning (Watson) or operant conditioning (Thorndike and Skinner). Classical conditioning focuses only on the stimulus (natural or conditioning) that provokes the behaviour. Hence, learning (behaviour) is created by the stimulus. But operant conditioning focused on the reward or reaction after response i.e. what happens to the behaviour after it has occurred? If the behaviour is positively rewarded, it will persist, if negatively rewarded will die out. Hence, learning is created by the reward received after responding to a stimulus: Learning [behaviour] occurs by rewarding the response. In classical conditioning, learning can only be built upon substituting the conditioned stimulus for the natural one; while in operant conditioning any response to any stimulus can be conditioned simply by immediate reward.

In Tanzania, the behavioural approach is vividly in different levels of education – kindergarten, primary, and secondary levels: The operant conditioning, the stick (punishment) and carrot (positive reinforcement) system are dreadfully used to facilitate learning.

For example, in primary and secondary schools, students are punished for failing exams, tests, and projects. Similarly, society gives negative (social) recognition when students fail to accomplish their activities or projects. Eventually, students are affected as they develop fear hence affects their learning at higher levels. This has affected students as the social reward forces them to develop behaviour to learn to pass their examinations, to answer questions to get them right, and they have a very great fear of failure. At HEI, students pay more attention to class activities that are used to evaluate their progress or have a reward, they study hard during examinations, and they answer questions to get it right. Similarly, entrepreneurship graduate is sceptical to go into businesses – they fail to show the entrepreneurial behaviour – as they have become risk evaders than risk-takers.

The behavioural theory can explain why most graduates cannot establish their businesses. Graduates have a very big fear of failure (unsuccessful entrepreneurs) than the pride of success: Their fear of business failure is so high such that it overwhelms their need for achievement behaviour (McLarend, 1961, 1965; Shane et al., 2003; López-Núñez, et al., 2020). Consequently, Shane and Venkataraman, (2000) denote entrepreneurship as a set of behaviours that include the exploration of opportunities, innovation and value creation. And López-Núñez et al., (2020) denote business behaviour as a function of the individual differences, personality and capacity factors. Business and entrepreneurship behaviour must predict the business activity and discriminate between "successful" and "unsuccessful" entrepreneurs. Therefore, instructors at HEI should understand the impact of reinforcements in stimulating students' learning. They should practice/apply different positive rewarding techniques to encourage students' learning and improve students' entrepreneurship behaviour. One of the techniques is the use of a "*one minute paper*" (Svinick and McKeachie, 2011:270). This approach gets students to think actively during the lecture and it gives the instructor feedback about what students are learning from the lecture. To acquire a "successful" entrepreneurship behaviour, students should be motivated to think and write without the threat of grades.

Furthermore, behavioural theory explains the motivation of establishing businesses. In the entrepreneurship literature, the prime motivational theory studied is the need for achievement (McLarend, 1961; Shane et al., 2003; Aramand, 2012). Accordingly, the literature regarding this phenomenon confirms that the motivation to start businesses is the reward received including economic and non-economic rewards. These rewards include the desire for achievement and independence, personal development, improved social status and recognition in the community. These rewards are generally divided into "pull" factors and "push" factors (Isaga, 2018). Pull factors are those which attract people to start business activities, while push factors force individuals to opt for self-employment (Dawson and Henley, 2012; Isaga. et al., 2015). Pull factors (rewards) that motivate individuals to start a business include autonomy, independence, social status, greater personal control. Then again, push factors include job dissatisfaction, insufficient salary and necessity (Isaga, 2018). This suggests that people can show entrepreneurship behaviour due to both negative and positive rewards. However, people who practice entrepreneurship for pull rewards have a greater chance for prosperity than those who go for push rewards.

2.3.3. Cognitivism

Cognitivism is the learning perspective that focuses on the inner mental activities – opening the "black box" of the human mind – as a valuable and necessary condition for understanding how people learn. Mental processes such as *thinking, memory, knowing, and problem-solving* need to be explored. Cognitivism assumes that people learn from one another, through observation, imitation and modelling. Learning is an active process of filtering, selecting, organizing, and integrating information. Also, the human cognitive architecture, and the need to apply sound instructional design principles based on our knowledge of the brain and memory. Cognitivism uses the metaphor of the mind as a computer: information comes in, is being processed, and leads to certain

outcomes.

In Tanzania, this theory or the application of the theory is of great importance in teaching skills. Higher learning institutions should transform their curriculum and pedagogies from knowledge-based to skills-based. Teaching should be done through approaches that stimulate thinking, practices, and problem-solving. Some of the teaching approaches include case studies, simulation games, and teaching videos and documentaries. However, students should have some thinking skills to be able to think critically, logically, analytically and develop new meanings and application. The theory also stimulates collaborative learning as students have to learn together: The teaching should focus on collaboration rather than competition. The current approach uses competition teaching and learning where students have to learn for grades rather than for skills. "A" students are considered to be the best and competent than "C" students.

2.3.4. Constructivism

Constructivism is a theory of learning and an approach to education that emphasizes the ways learners create [construct] meaning of the world (learn) through a series of individual constructs. Machumu and Zhu (2017) argue that in constructivist learning students should have an ability to construct meaningful and educationally worthwhile knowledge on their learning which is a process of continuous collaborative reconstruction of experiences (Garrison and Archer, 2000; Garrison and Kanuka, 2004). Constructivists point out two concepts to describe the theory: Assimilation and accommodation.

The assimilation theory suggests that learning occurs by changing or altering what is perceived in the outside world to fit the internal world. The result of assimilation is that complex and familiar external objects are simplified to fit pre-existent categories. Assimilation occurs when the learner does not change the internal world to suit the object, but it takes in new information or experiences and incorporates them into existing ideas. The process is somewhat subjective because we tend to modify experience or information somewhat to fit in with our preexisting beliefs. For example, if water will be poured in two glasses of the same size, and then one glass to be poured in a bigger glass such that the water levels are not the same, but without adding or reducing the quantities, then a learner who can understand that the water has the same quantity because nothing is added or lost but only change of glass, and can explain the differences in water level will be learned through assimilation. Similarly, assimilation is observed if the learner can understand the size of an object despite changes in shape, or several pieces from the original object.

Furthermore, the accommodation theory asserts that learning occurs by changing the internal world to fit the outside world. Accommodation occurs when a learner perceives information that cannot fit into any pre-existing category; the learner must then create a new area of intelligence, perception, and thought to process the information gathered from the outside world. Looking back to the example of learning the difference between volumes, it can be that they originally had an idea about volumes but the second had no concept or ides of container/ glass sizes, thus the learner still compares water levels in glass to determine the amount of water. Therefore, when they learn that water is of the same amount because wider glass lowers the level than thinner ones, the learner alters the definition or understanding of volumes through accommodation.

Accommodation and assimilation theories differ because accommodation refers to having to change an existing schema while assimilation merely refers to adding new information: In assimilation, learners add new information to a schema without changing a schema. In accommodation, learners change a schema based on new information, that is, they change a schema to accommodate for new information.

In a constructivist class a crucially important aspect of an instructor's job is watching, listening, and asking questions to students to

learn about them and about how they learn (whether by assimilation or accommodation). This kind of watching and listening may contribute to the instructor's ability to use what the classroom experience provides to help them to create contextualized and meaningful lessons for small groups and individuals. Since constructivist teaching is based on the belief that learning occurs as learners are actively involved in a process of meaning and knowledge construction rather than passively receiving information, then instructors can bring in assimilation and accommodation methods by actively involving students. Learners can be involved through discussions, doing, critical observing, trying things on their own, and using visual and audios in teaching. Therefore, constructivist teaching which is also referred to as active learning or effective teaching is a modern learning theory that develops a modern way of teaching. The theory is a remarkably interesting and exciting way to teach because (1) it involves students in the learning activities, (2) There is much more student-instructor contact, and (3) Learners are the makers of meaning and knowledge: Learners develop meaning that suits their understanding or meanings in their world. And most important, (4) constructivist teaching fosters critical thinking and creates motivated and independent learners.

In Tanzanian higher learning education, the learning environment could limit the application of the theory. Institutional culture and values; teaching-learning facilities and infrastructure; rules, regulations, and procedures; and social facilities like accommodation, restaurant, and recreation facilities are very limited. Furthermore, instructors are challenged to prepare activities and tasks that will help students understand the concept and develop their application. However, instructors in entrepreneurship courses should make sure that they use the approach to foster entrepreneurship skills. Entrepreneurship is the process of creating, discovering, and exploiting value-adding opportunities. Constructive people can innovatively create, discover and exploit entrepreneurial opportunities. They can innovatively combine factors of production to develop new products, explore new markets and new use of products, find new sources of raw materials, and develop new [business models] organizations. Since constructivism leads a learner to create meanings on their own, then if cultural issues are not well considered they can into misconceptions and poor actual view of things. For example in a culture where boys are raised to be superior to girls, then boys' learning from what girls do or think could be very difficult or have different interpretations. Also in cultures where there are jobs, skills, and knowledge acquisition divisions based on the same cultural elements like clans, racial, age, sex, and family background, then constructivism learning can be very difficult.

3. Findings and Discussions

Transforming entrepreneurship education from learning to acquire knowledge and certificates to the education system which foster skills and competence require the renovation of the education system. In this section, we first present some challenges and constraints towards fostering innovative teaching and learning in higher education. Then we present some ways that can be used to teach entrepreneurship for skills and competence acquisition.

3.1. Barriers to effective teaching and learning in HEI in Tanzania

In the education system in Tanzania, teaching in an effective and modern way is a challenging thing because of some socialcultural things. The findings present at least seven issues or factors that limit the teaching and learning capabilities as they are presented in the next section below

Language being the most important factor for defining and constructing meaning and concepts, for communication in class and during [group] discussion, and instruction in classes – that is instructional language, can be a major block towards learning if not

well considered. In the education system in Tanzania, English is the educational language from secondary level education while Kiswahili is the national language and the most used and well understood by the majority if not all Tanzanians. Therefore, using English which is almost the third language, others being Kiswahili and mother tongues, of learners as the instruction language limits the thinking abilities for expressions, explanations, and discussions. A student has to think first in native language followed by Kiswahili before translating into English. This observation is in line with Balotin (2011) who pointed out that becoming constructive in the language that you do not master well is a bottleneck. Therefore, to foster creative and innovative thinking and enhance entrepreneurial activities in HEI, students should be allowed to learn, communicate, and think in the languages they master and understand well.

We also found that the education system of Tanzania teaches students to be receivers of knowledge than constructs. Before coming to the HEI students passes through different levels: pre-primary education (2 years), primary education (7 yrs), and secondary education (4+2 years), where they are hardly taught in classes with and insisted to be active listeners. During all these years, students are required to stay calm and quiet in classes waiting for teachers to teach them – to tell them everything they need to know. At this learning stage, good students are those who do not make noise or play in class or during class hours, stay in the classroom, and follow the school rules, regulations and timetable obediently. Later on, when these students come to tertiary education, they expect the same. Then, instructors who invite more discussions than lecturing or teaching are marked as incompetent and unknowledgeable hence they expect knowledge to come from students. Instructors need to have good techniques for managing discussions and making students learn through participation.

Interaction and the teaching-learning relationship between instructors and learners, learners and supporting staff, and learners and society is another important factor to be considered. In the HEI in Tanzania there is limited social and academic interaction and hence limits the transferring of knowledge and skills. For example, students cannot negotiate or argue some educational or social matters with their instructors. If this happens, it looks or sounds like a student want to challenge the capabilities and competences of their instructors or a student want to show that they know much than their tutor. Also, the interaction of male to female students is limited as most students are coming from single-sex schools (secondary schools) hence gender interaction is a challenge when they come to higher education. At the society level, most HEI students feel more superior and highly educated than neighbourhood people, and thus they think they have nothing to learn from their localities. This culture brings a very challenge when it comes to educational projects, or solving real problems in society. It is therefore important to change the attitude and improve social skills to both students and instructors so as they can improve their social interactions.

Technology, learning materials, and learning infrastructures is another factor to take into consideration. There are still low qualities and old technological learning facilities, you cannot get access to youtube scripts, leaning by seeing is impractical, the classroom environment is hard to facilitate constructivism learning and limited teaching-learning materials.

The size of classes is another challenge. In Tanzania, higher education is facing the challenge of massive enrollments. Classes have a large number of students with limited seats such that in some universities students attend lectures outside lecture halls, or have to stand for quite long during lectures. This limits the ability to have group discussions; giving immediate feedback; assessing and evaluation, and other managerial issues that an instructor has to do to implement effective teaching. However; instructors need to use different techniques like setting exams that will enhance fair, reliable and valid assessment for large classes; the use of peer feedback; dividing classes for seminars or tutorials, and learn different techniques for engaging large class like a minute paper.

Different leaning motivation. Most students are in schools not to acquire knowledge, but to acquire the required level of education to get good jobs, or get promotion in their workplaces. Thus it's more of the "push" than the "pull" factors that keep them to school. To motivate such a student to learn needs some skills and competence. Thus instructors should take some initiatives to meet student's expectations without liquidating university's and courses' objectives.

Learning-teaching fear. Students come to higher learning with fear of pursuing the programme. They have different information and perception of university learning. They have social fear; academic fear and of course they fear the future if the market will accept their competence after college. Instructors at the university have their fear as well. They fear to destruct the reputation of the university; their image; how to maintain social relations with people whom they have to assess and evaluate. Instructors fear how they will build a good future generation, and of course, meeting both students' and markets' expectations. All these fears can be overcome if both instructors and learners will understand their potentials; capabilities; and competences.

3.2. Learning principles to foster entrepreneurship skills and competences

Learning is not necessarily an outcome of teaching because even with what is taken to be the best mode of instruction still there will be some students, including academically talented ones, who will understand less than we think they do. With determination, students taking an examination are commonly able to identify what they have been told or what they have read; careful probing, however, often shows that their understanding is limited or distorted, if not altogether wrong. This finding suggests that parsimony is essential in setting out educational goals: HEI should pick the most important concepts and skills to emphasize so that learners can concentrate on the quality of understanding rather than on the quantity of information presented.

Furthermore, instructors need to understand that what students learn is influenced by their existing ideas. Students have to construct their meaning regardless of how instructors or books tell them (*constructivism*). Mostly, a student does this by connecting new information and concepts to what he or she already believes – *knowledge assimilation or accommodation*. Concepts—the essential units of human thought—that do not have multiple links with how a student thinks about the world are not likely to be remembered or useful. Concepts are learned best when they are encountered in a variety of contexts and expressed in a variety of ways, for that ensures that there are more opportunities for them to become embedded in a student's knowledge system. But effective learning often requires more than just making multiple connections of new ideas to old ones; it sometimes requires that people restructure their thinking radically (*fundamentally, totally, completely*). That is, to incorporate some new idea, learners must change the connections among the things they already know (*Cognitivism*), or even discard some long-held beliefs [entrepreneurs' myths in this case] about the world (*experience*). Alternatively, instructors should help learners to distort the new information to fit their old ideas or to reject the new information can be right and correct or not. If their intuition and misconceptions are ignored their original beliefs are likely to remain even though they may give the answers their instructors want. Therefore, students must be encouraged to develop new views by seeing how such views help them make better sense of the world.

Progression in learning is usually the concrete to the abstract: students can learn most readily about things that are tangible and directly accessible to their senses. They learn better through visual, auditory, tactile, and kinesthetic. With experience, they grow in their ability to understand abstract concepts, manipulate symbols, reason logically, and generalize. These skills develop slowly, however, and the dependence of most people on concrete examples of new ideas persists throughout life. Concrete experiences are most effective in learning when they occur in the context of some relevant conceptual structure. The difficulties many students

have in grasping abstractions are often masked by their ability to remember and recite technical terms that they do not understand. As a result, instructors—from kindergarten through college—sometimes overestimate the ability of their students to handle abstractions, and they take the students' use of the right words as evidence of understanding. Similarly, people learn to do well only what practice: If students are expected to apply ideas in novel situations, then they must practise applying them in novel situations. If they practice only calculating answers to predictable exercises or unrealistic "word problems" then that is all they are likely to learn. Equally, students cannot learn to think critically, analyze information, communicate scientific ideas, make logical arguments, work as part of a team, and acquire other desirable skills unless they are permitted and encouraged to do those things over and over in many contexts.

Instructors in the HEI in Tanzania should understand that effective learning requires feedback. The mere repetition of tasks by students, whether manual or intellectual, is unlikely to lead to improved skills or profound insights. Learning often takes place best when students have opportunities to express ideas and get feedback from their instructors, peers, and experts in the field. But for the feedback to be helpful to learners, it must consist of more than the provision of correct answers. Feedback ought to be analytical, to be suggestive, and to come at a time when students are interested in it. And then there must be time for students to reflect on the feedback they receive, to make adjustments and to try again. This requirement is mostly neglected, it is worth noting, by most examinations especially finals.

Lastly, instructors should understand that expectations affect performance: Students respond to their expectations of what they can and cannot learn. If they believe they can learn something, whether solving equations or riding a bicycle, they usually make headway. But when they lack confidence, learning eludes them. Students grow in self-confidence as they experience success in learning, just as they lose confidence in the face of repeated failure. Therefore, instructors need to provide students with challenging but attainable learning tasks and help them succeed. What is more, students are quick to pick up the expectations of success or failure that others have for them. The positive and negative expectations shown by parents, counsellors, principals, peers, and—more generally—by the news media affect students' expectations and hence their learning behaviour. This is in line with the behavioralist approach towards rewarding a response. Also, it confirms the Shane et al., (2003) on developing some entrepreneurial behaviour like internal locus of control, tolerance for ambiguity, and need for achievement. When, for instance, an instructor signals his or her lack of confidence in the ability of students to understand certain subjects, the students may lose confidence in their ability and may perform more poorly than they otherwise might. If this apparent failure reinforces the instructor's original judgment, a discouraging spiral of decreasing confidence and performance can result.

3.3. Teaching principles to foster effective learning in HEI in Tanzania

Effective teaching gives more emphasis on the importance of using a variety of techniques, methods and pedagogies of teaching to ensure that learning will take place. That is, effective teaching can be achieved when different techniques and pedagogies can be used. Different methods are appropriate for different areas of knowledge: There is no single accepted teaching method that can teach all areas of knowledge. A technique for teaching mathematics varies from the one for teaching drama; a technique for leaning the bible varies from the one to learn entrepreneurship, marketing, or music. Therefore, effective entrepreneurship teaching needs different pedagogy for different areas of knowledge, skills and competence, and even for different topics in the same course. Similarly, students have different learning preferences, therefore, they need different styles and techniques to learn. For example, some students are visual learners, some like working in groups, while some prefer the written word or learning by doing. Conversely, one teaching style causes mind-numbing and limits creativity to both instructors and learners. A monotonous

diet of the same teaching style will cause even the keenest student to lost interest. Finally, helping students to develop learning skills and learn how to access resources and use the learning resource centre/library are vital to life-long learning.

3.3.1. Teaching Should Reflect Professional Values

In Tanzania today, everyone is questioning the moral, social, and professional ethics and values almost in every sector. Doctors are pointing fingers at politicians, politicians to instructors in HEI, and so on: Every profession reproaches another profession for behaving unprofessional, unethical, and for not following the right values. But instructors and those who raise these professionals have a great chance of correcting the confusion. Professionalism is more than a body of knowledge and a way of accumulating and validating that knowledge. It is also a social activity that incorporates certain human values. Holding curiosity, creativity, imagination, and beauty in high esteem is not confined to some skills and professions but rather to the whole society. Therefore, teaching should not be just meeting in the class but should observe teaching ethics, learning ethics, social and professional values.

3.3.2. Welcome Curiosity

Professionalism does not create curiosity: They accept it, foster it, incorporate it, reward it, and discipline it. Instructors should encourage students to raise questions about the material being studied, help them learn to frame their questions enough to begin to search for answers, suggest to them productive ways for finding answers, and reward those who raise and then pursue unusual but relevant questions. Instructors should learn different approaches and techniques of rewarding (positive reinforcement) curiosity. Similarly, learners should be able to ask the right questions, and most important to find alternative solutions or answers for different problems. Instructors should avoid stone cut answers, or having the thinking that there is only one right answer for every problem. But they should foster curiosity, and accept different thinking. Anything can be right, and everything can be wrong, it is all situational!

3.3.3. Reward Creativity

Teaching should prize the creative use of imagination. The classroom ought to be a place where creativity, innovations, and invention (*as qualities distinct from academic excellence*) are recognized and encouraged. Indeed, instructors can express their creativity by inventing activities in which students' creativity and imagination will pay off. Rewarding (*which can be a positive comment, acknowledgement, or just a smile*), from the operant and conditional reinforcement theory of learning, will motivate students from being more creative and innovative, hence learning.

3.3.4. Encourage a spirit of healthy questioning

Natural sciences prosper because of the institutionalized scepticism of their practitioners. Their central tenet is that one's evidence, logic, and claims will be questioned, and one's experiments will be subjected to replication. In classrooms, it should be the normal practice for instructors to raise such questions as How do we know? What is the evidence? What is the argument that interprets the evidence? Are there alternative explanations or other ways of solving the problem that could be better? The aim should be to get students into the habit of posing such questions and framing answers.

3.3.5. Avoid Dogmatism

Students should experience learning as a process for extending understanding, not as an unchangeable truth. This means that instructors must take care not to convey the impression that they or the textbooks are absolute authorities whose conclusions are always correct. Instructors should be able to question the credibility of claims, the overturn of accepted scientific beliefs, and what to make out of disagreements among experts in the field. Instructors should help students to balance the necessity for accepting a great deal of science on faith against the importance of keeping an open mind. This will help students and instructors to have critical thinking which leads to new knowledge.

3.3.6. Promote Romantic Responses

Learning is not as easy as instructors think, just like how students think about teaching. Leaning needs to be loved. And different studies proved that students do well in subjects or courses which they love most. Instructors should establish a learning environment in which students can broaden and deepen their response to the beauty of ideas, methods, tools, structures, objects, and professionals. Instructors should motivate students – *instead of threatening, showing no confidence in them, and discouraging them* – to see the beauty of the course, of the idea, of the concept so that they may like it, and hence learn it.

3.4. Teaching should aim to counteract learning anxieties

In most developing countries where access to higher education seem like a miracle, then getting there brings excitement to students, parents, family members, and the society at large. In Tanzania for example is common to hear people congratulating each other for being selected for getting to the university. Instructors should recognize that for many students, learning in higher institutions involves feelings of severe anxiety and fear of courses, environment, and failure or discontinuation. No doubt this results partly from what is taught and the way it is taught, and partly from attitudes picked up incidentally very early in schooling from parents and instructors who are themselves ill at ease with the system. Far from dismissing fear and anxiety as groundless, though, instructors should assure students that they understand the problem and will work with them to overcome it. Instructors should make sure that students have some sense of success in learning the course, and they should not emphasize getting all the right answers as being the main criterion of success. Understanding anything is never absolute, and it takes many forms. Instructors should try hard to make students (*particularly the less confident ones*) aware of their progress and should encourage them to continue studying.

Conclusion, limitation and implication

Entrepreneurs are made, not born, by imparting the knowledge and skills needed for attitude and behavior change towards creating a new business venture. Instructors in HEI in Tanzania should be able to develop and teach for entrepreneurship, design lessons, and be aware of the pedagogy choices. Also, entrepreneurship educators should expand their teaching range to promote awareness of the underlying didactic principles and develop a language for expressing these principles. And they should be aware of their behaviour and its effect on learners: Instructors should be aware of the range of approaches available and can fulfil the requisite range of teaching roles, such as role model, supervisor and feedback provider.

Students' views on their entrepreneurship education are related to their perception of innovation, entrepreneurship and employability. But, fostering innovation and employability through entrepreneurship education should be the primary task of HEI. Innovative awareness and innovative ability are the core process of students' innovation activities, which are also influenced by

innovation personality. The educational system of HEI has to provide an academic environment that may catalyze job creation, nurturing start-ups. If learners are constantly challenged to expand their content knowledge they will be motivated to broaden their cognitive levels, form a defence mechanism to eliminate the negative impact caused by perceived pressure.

The process of shaping the ability of student entrepreneurs is a social interaction process in which information resources are acquired and transformed in the form of observation or direct participation in entrepreneurship education. This process also involves creating new knowledge through transforming experience and putting knowledge into practice. Entrepreneurship education may change a student's attitudes toward entrepreneurship (Galloway & Brown 2002; Wei et al., 2019). Students' perception and attitudes toward entrepreneurship education can determine whether students' creativity will be expressed and constitutes a self-judgment of one's perceived competence in generating novel ideas, forming an internal, lasting, and stable innovative personality. At the same time, entrepreneurship education provides student entrepreneurs with the information, knowledge, and other resources they need, thereby forming a strong atmosphere of innovation and entrepreneurship, reducing environmental uncertainty, and creating a good environment for innovation and development. Entrepreneurship education provides comprehensive learning management for student entrepreneurs, helping them to establish correct values and cognitive systems, enhance their perceptions of innovation and continuously integrate, and accumulate new knowledge to shape their innovative ability and personality.

This study is limited to the entrepreneurship education that foster venture creation and employment creation. Also, it is limited to the classical, behaviorism, cognitivism, and constructivism theories of learning. Other studies can focus on other perspectives of entrepreneurship education like creativity, creative thinking and innovation; venture creation and business development; and fostering entrepreneurial skills. Similarly, on the theoretical perspective, other studies can use other modes and theories of learning like the blended learning theory. Consequently, this study is limited to the higher learning institutions. But, the education system of Tanzania have three lower levels before the higher education. A study to analyses how entrepreneurship education can be fostered to the lower levels is highly suggested.

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