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An Evaluation of the Effectiveness of Entrepreneurship Education in Secondary Schools in Tanzania



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Abstract. Entrepreneurship education (EE) was included in Tanzania's secondary school curriculum to alleviate poverty and create jobs. Entrepreneurship education content and approaches must be carefully selected and structured to further its effectiveness in addressing these goals. Global research shows notable patterns, or what can be considered 'best practices' in this regard, which can be used for comparison purposes. Therefore, the current investigation aimed to evaluate if, and to what extent, the EE included in the Tanzanian secondary school curriculum adheres to international best practices for structuring EE. Informed by such an evaluation, recommendations can be made to strengthen EE in this curriculum. A two-phased sequential mixed-methods investigation was conducted. Qualitative curriculum analysis, followed by a quantitative survey of 135 secondary school teachers, provided detailed data about structuring EE in the Tanzanian school curriculum. The data analysis showed the Tanzanian school curriculum could support effective EE; however, curriculum content and teacher education should be improved to advance EE in the country.

Keywords: curriculum; entrepreneurship education; job creation; poverty alleviation; secondary school; Tanzania

1. Introduction

While the United Republic of Tanzania has sustained stable economic growth over the last decade, the poverty headcount rate in the country is still high at 44.9% (World Bank, 2023). Tanzania's overall population was about 65.5 million in March 2022, showing significant population growth and adding to the

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number of people living in poverty (World Bank, 2023). UNICEF Tanzania (2019) estimated that about half the population are children, with around 12 million youth aged 10 to 19. Unemployment, another contributing factor to poverty in the country, has slowly but steadily increased over the past decade (Statistica, 2022).

Youth unemployment is twice as high as adult unemployment in Tanzania, so learners at school level must be prepared for the socio-economic challenges they will face (Weiss, 2015). Persistent poverty in the country urged the Tanzanian government to develop Vision 2025, which includes poverty reduction as one of its primary goals and was intended to be reflected in its educational policies (UNESCO, 2018). These educational policies include the latest school curriculum, which incorporates EE as a potential means to ameliorate youth poverty (Ministry of Education, Science and Technology [MEST], 2016a). Entrepreneurship education contributes to reducing poverty and develops learners' entrepreneurial mindsets and several skills needed for life and work (DeJaeghere, 2017). School curricula can kindle learners' awareness of and motivation to venture into entrepreneurship (Donaldson et al., 2021).

It is widely acknowledged that EE could reduce poverty and unemployment by contributing to job creation (Schoeninger et al., 2021; Walmsey & Wraae, 2022). Nevertheless, scholars like Berglund and Verduijn (2018), Floris and Pillitu (2019) and Valliere et al. (2014) caution that such education must be prudently constructed to effectively reach its intended goals. Such construction should consider both the content (what is included) and how it is scaffolded (how or when it is included) to optimise its effectiveness (Du Toit, 2018; Powell, 2013; Valliere et al., 2014; Weiss, 2015). In a country such as Tanzania, with its high unemployment and poverty rate, one would expect a school curriculum with well-scaffolded EE as part of the government's efforts to ameliorate these problems. Yet, research on what entrepreneurship is included or how it is structured in the Tanzanian school curriculum is scarce.

The problem that guided the current investigation was that the EE included in the latest Tanzanian school curriculum still had to be evaluated regarding the effectiveness of its structuring. Thus, the purpose of this investigation was to ascertain what EE content is included in the latest Tanzanian secondary school curriculum and how the content is scaffolded. The authors evaluated the structuring of EE in the Tanzanian curriculum compared to best practices for structuring EE internationally. The objective was to make recommendations for bridging potential EE gaps in the Tanzanian secondary school curriculum to advance EE in the country. Such adjustments may lead to EE becoming more effective in developing learners to become entrepreneurs, which can create jobs and reduce poverty in Tanzania.

The remainder of the paper is structured to report on global best practices identified for structuring EE in schools internationally. The research methods used in this investigation are then discussed, followed by the findings and results. Finally, a conclusion is drawn, and recommendations are made.

2. Global Best Practices for Entrepreneurship Education in Schools

An exploratory review of 359 research publications worldwide yielded a list of 'best practices' for structuring EE (Du Toit, 2018). The focus of Du Toit's study was twofold: to identify and categorise which elements repeatedly emerge in EE (the 'what'), and how these elements or constructs are scaffolded or constructed in EE curricula in other countries. She also highlighted the valuable and critical contributions of teachers in EE. For the current investigation, the authors developed a conceptual framework or overview of the core concepts identified by Du Toit (2018) (see Figure 1) to scaffold the discussion.

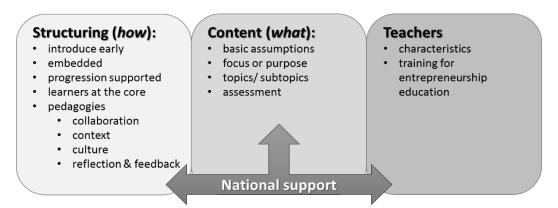


Figure 1: Themes developed from Du Toit's (2018) global best practices for entrepreneurship education

The above list of global best practices for effective EE was a good point of departure and comparative measure for how EE is conducted in Tanzanian schools. Next, each of the concepts in Figure 1 is briefly discussed.

2.1. Structuring of entrepreneurship education

The 'how' aspect of EE entails ways in which such education can be optimally scaffolded, structured and presented (Du Toit, 2018). **Early introduction** of entrepreneurship in school curricula (Figure 1) is preferred, as entrepreneurial intentions develop in learners of school-going age (Du Toit, 2018). Younger learners are more perceptive to new ideas; introducing the concept of entrepreneurship and being (or becoming) an entrepreneur should happen as early as possible in the school curriculum to ignite learners' entrepreneurial intentions and develop their entrepreneurial skills (Floris & Pillitu, 2019).

Many countries **embedded** EE in the curricula of other subjects (Figure 1) rather than presenting it as a stand-alone subject (European Commission, 2011; Val et al., 2017). Embedding EE into existing subjects fosters cross-curricular development of the topic, adds to learners' perceived value thereof, and increases real-life application choices (Du Toit, 2018). The trend towards embedding EE in other subjects to enhance its effectiveness is particularly evident in secondary school curricula in several European countries (Val et al., 2017) and in African countries such as Ghana (Akyeampong, 2014), South Africa, Eswatini, Lesotho, Botswana, and Zimbabwe (Du Toit, 2021).

The structuring of the various constructs within EE programmes differs widely, ranging from being unstructured and disconnected to being highly prescriptive and connected in set frameworks (e.g., Huq & Gilbert, 2017; Maritz, 2017; Valliere et al., 2014). Despite the broad range of scaffolding (or lack thereof), from an educational and constructivist viewpoint, the authors agree with Powell (2013) that 'structure is essential to entrepreneurship and entrepreneurship pedagogy' (p. 103). Structured linking of constructs guides organising and implementing EE to attain the intended outcomes of such programmes (Du Toit, 2018). In constructivist education, it is essential to scaffold **progression** within a topic – in other words, starting with more straightforward concepts, which provides a foundation of prior knowledge for subsequent, more complex learning (Valliere et al., 2014).

Aligning with constructivist principles, **learners** should be placed at the core of the learning process in EE (Kurczewska, 2016). Learner-centred approaches and methods should be selected for EE to increase learners' involvement in their learning and support the development of thinking skills and deeper learning (Kurczewska, 2016). To support its effectiveness, teachers – who are often used to the traditional lecture-based or teacher-centred approaches – must be prepared for this non-traditional approach to education.

Pedagogies or teaching-learning methods for EE must be based on active, learner-centred, collaborative and interactive learning (Kurczewska, 2016; Val et al. 2017). The focus must be on learning rather than on teaching. The methods selected should be carefully planned to support the development of knowledge, skills, values and attitudes needed in entrepreneurship. Learning from mistakes is an important method to help prepare learners for the challenges they might face in real-world entrepreneurship (Rusok et al., 2017). Du Toit (2018) suggests that to support these preferred pedagogies, collaboration, reflection and feedback must inform EE. Also, the contexts and cultures in which EE will be presented must be considered (Figure 1).

Collaboration with experienced entrepreneurs is vital to support EE teachers who are often not experts or knowledgeable about entrepreneurship's core components and mechanisms in practice. In cases where curricula are not detailed enough or teacher education for EE is not a priority, such collaboration would enhance learners' learning of the topic and align learning closer with the real world (Kurczewska, 2016; Powell, 2013).

The **context** in which EE takes place significantly affects how it is planned and presented (Figure 1). Context includes the logistical and physical environment (e.g., the classroom and facilities available to support learning) and the sociocultural context of the learners and teachers (e.g., diversity in language, culture, or poverty levels) (Rusok et al., 2017; Valliere et al., 2014). The more complex the context in which EE is implemented, the greater the requirement for careful planning, implementation and teacher support (Du Toit, 2018).

Culture is prominent in EE, enabling or obstructing entrepreneurship in any given society (Valerio et al., 2014). In some African countries, a culture of unequal access to education based on gender persists, and women's lack of support for independent enterprise development is sometimes the cultural norm (UNESCO, 2018). Nonetheless, in societies where the culture is supportive of entrepreneurship, many uplifting cases of success are reported (Valerio et al., 2014). The predominant culture in a society should be considered when planning for EE.

Reflection and feedback emerged repeatedly as a vital part of effective EE and link well with the pedagogy of learning from mistakes (Du Toit, 2018). In real-world entrepreneurship, learners must reflect and adjust, and developing these skills should form part of EE. The formative feedback provided by teachers, peers, or entrepreneurship experts during learners' EE is vital to provide alternative insights and opportunities for improvement or development of ideas and products (Berglund & Verduijn, 2018; Rusok et al., 2017).

2.2. Entrepreneurship education content

This theme focused on the 'what' aspect of EE (Figure 1). It involves the assumptions informing EE; its focus or purpose; which content topics are included; and what is assessed.

Basic assumptions underpin EE in most countries (Du Toit, 2018). The literature emphasises that all stakeholders should have a shared understanding of EE and the intention of including such learning in the curriculum (Valliere et al., 2014). Moreover, the assumption that entrepreneurship can be taught or learned (versus the assumption that only some learners are born with an entrepreneurship 'gift') (Valerio et al., 2014) and that it can be fostered in all learners can inspire a shared positive view of such learning (Du Toit, 2018).

The core purpose or intended **focus** of EE is the intentions or reasons for its inclusion in a curriculum (Du Toit, 2018). Most entrepreneurship programmes focus only on job creation and the associated development of management and business skills (Kurczewska, 2016; Valliere et al., 2014). This singular focus results in forfeiting the social and environmental value that EE can contribute to learners' lives (Berglund & Verduijn, 2018). A broader focus, including its potential for positive social and environmental contributions, is preferred (Du Toit, 2018).

Content or learning topics in EE programmes should contribute to more than knowledge and foster entrepreneurship skills, intentions and attitudes (Rusok et al., 2017). Entrepreneurship education content often has broader applications than enterprise development, contributing value to learners' everyday lives and preparing them for the world of work, even if they do not choose an entrepreneurial path (Berglund & Verduijn, 2018). Entrepreneurship education content should be tailored to reflect the entrepreneurship opportunities available to learners in a particular locale or field of study rather than only being generic (Rusok et al., 2017).

Assessment and education are often intertwined; however, assessment expectations in EE were found to be broader than for most other learning content (Du Toit, 2018). Assessment in EE entails the development and transferability of content knowledge and the development and fostering of entrepreneurial skills, competencies, attitudes and beliefs (Valliere et al., 2014). Thus far, aspects of EE in the intended curriculum have been discussed; however, its implementation in the enacted curriculum also shows notable patterns in global literature (Figure 1). Thus, how teachers approach and implement the intended curriculum is critical for effective EE.

2.3. Teachers enacting entrepreneurship education

Teachers contribute significantly to the effectiveness of EE (Figure 1). The personal characteristics of teachers and their training for EE are relevant (Du Toit, 2018). The preferred **teacher characteristics** for entrepreneurship education include a positive attitude and being passionate and inspirational (European Commission 2011). Such teachers lead by example, instilling positive attitudes towards entrepreneurship in learners (Val et al., 2017). Teacher education emerged as one of EE's most influential, but often deficient, constructs (Du Toit, 2018). As few teachers have personal experience with entrepreneurship, they must be trained to effectively approach and implement the topic (Kurczewska, 2016). **Teacher education** for EE should include knowledge, skills, competencies and a positive mindset to support entrepreneurship learning (Donaldson et al., 2021; Schoeninger et al., 2021).

Finally, Du Toit (2018) found that if all these 'best practices' are not supported nationally, EE would not prosper (Figure 1) despite sensible curriculum structuring, suitable content and enthusiastic, well-trained teachers.

2.4. National support for entrepreneurship education

National support and a shared understanding of the value of EE for a country and its citizens are vital (Du Toit, 2018). When EE is included in and supported by formal government documents (e.g., curricula or syllabi, and in national development plans), it serves as 'social encouragement' (Zhang, 2022), increasing its perceived value as part of learners' education. National support contributes to aligning EE with the vision and preferences of the country, tailoring such education to the needs of that society (European Commission, 2011). Governments should thus not only support EE but prioritise it (Johansen, 2018).

The research approach used to scaffold the investigation structured around these aspects of global best practices for EE is discussed next.

3. Research Approach and Methods

The theoretical framework that informed the study is discussed first, followed by details about the methods used.

3.1. The process model for entrepreneurship education from a constructivist viewpoint

Researchers in EE use different theories to analyse phenomena in this field. The process model (Hynes, 1996; Leitch & Harrison, 1999) was used in the current study to evaluate EE in curriculum implementation. This model considers

structuring, progression, learners, teaching methods, context, culture, reflection and feedback, assessment, and teachers as implementors of curricula. It 'provides multiple alternative structures and learning mechanisms to ensure the correct learning takes place' in EE (Hynes, 1996, p. 12). It employs action learning to contribute to problem-solving (Leitch & Harrison, 1999) and to support the development of skills and the transfer of knowledge to real-life situations (Hynes, 1996).

The current investigation was approached from a constructivist perspective. The notion that there is no singular truth but 'a narrative reality that changes continuously' (Fouché & Schurink, 2011, p. 307) shaped the current research. A collaborative inquiry approach (Fouché & Schurink, 2011) was used, informing the researchers' view that the construction and scaffolding of content in a proposed manner are valuable in education and contribute to effective curricula but that few of these constructs and structures are set in stone. Collaborative inquiry supports educators to 'make and sustain valued changes to their practice when they collaboratively construct, monitor and adapt context-specific approaches to address their goals' (Schnellert & Butler, 2014, p. 42). Collaborating in the co-construction of knowledge and understanding contributes to improved practice and allows for iterative constructive feedback, benefitting the collaborators. Content about topics (e.g., entrepreneurship) should relate to one another meaningfully and be scaffolded from less challenging to more demanding cognitive levels to support progression within topics (Clements & Joswick, 2018). In this context, scaffolding refers to the planned construction or structuring of the learning process. Such scaffolding provides a solid foundation of fundamental knowledge upon which subsequent knowledge and understanding can be constructed. In this manner, an ever widening and more cognitively demanding scaffold of knowledge, understanding and thinking can be constructed about a topic (Clements & Joswick, 2018), such as EE. To enable effective learning construction, both the content (building blocks) knowledge about the topic and the order in which it is presented and linked to other sub-topics are considered essential to move learning from mere memorisation of content to the development of deeper understanding and self-directed learning (Clements & Joswick, 2018). Selfdirected learning is foundational to life-long learning and a critical competency for thriving in the 21st century.

3.2. Methods

An exploratory sequential (mixed methods) research design (Fouché & Strydom, 2021) was used. The phenomenon was first explored qualitatively before attempting to measure it quantitatively (Fouché & Strydom, 2021). A qualitative document analysis of purposely selected documents in the Tanzanian school curriculum was first conducted to explore the phenomenon of EE, followed by a quantitative survey to determine teachers' perceptions of EE in Tanzanian schools.

In the first phase, a comparative analysis of the Tanzanian secondary school curriculum (document analysis) with the global best practices identified by Du

Toit (2018) was conducted. The document analysis aimed to determine the existing EE content and structure in the intended Tanzanian school curriculum. The Tanzanian secondary school curriculum includes an ordinary or O-level qualification, which encompasses Forms I-IV, followed by an advanced or A-level qualification (Form V-VI), both of which were analysed. Two independent researchers analysed the curriculum to identify patterns and incongruences and possible alignment with the best practices for entrepreneurship outlined by Du Toit (2018). Coding was done manually, using a priori codes related to the subthemes under the four main themes (Figure 1). Numerous iterative discussions were held to establish inter-coder agreement. Thematic analysis, aligning with the four main themes in Figure 1, was used (Table 2).

In the second phase, a survey was conducted with secondary school teachers of commercial subjects in Tanzania in 2022. After obtaining permission from the District Executive Director to conduct the research, nonprobability purposive convenience sampling was used to invite secondary school teachers in Dar es Salaam to voluntarily participate in the study (n=135). Accessibility to the secondary schools in Dar es Salaam was convenient as far as time and economic expense were concerned. Secondary school teachers were purposely selected based on their knowledge of enacting the commerce subject curricula at this level of education in Tanzania. Five purposely trained research assistants collected the data in person at 32 government-owned secondary schools in this city. These included 25 secondary schools (teaching Form I–IV) and seven advanced secondary schools (teaching Form I–VI). In Tanzania, the teaching requirement for teaching secondary schools, a bachelor's degree is required. The demographic information of the participants is outlined in Table 1.

Table 1: Relevance of objectives of teaching subjects at the university

Gender		Age				Highest qualification		
Male	Female	25-29 years	30-39 years	40-49 years	50 years or older	Education Diploma	Bachelor's Degree	
77	58	7	83	36	9	90	45	

The purpose of this phase of the study was to explore how educators, as the enactors of the intended curriculum in the country, perceived EE in Tanzanian schools. The 28 items (Table 3) in the paper-based, self-administered Likert-type questionnaire were developed in line with the global best practices for EE initially described by Du Toit (2018) (Figure 1). Descriptive statistics and explorative factor analyses were used to report the quantitative results. The statistical consultation services of the North-West University were engaged to analyse the qualitative data using Statistical Analytic Software (SAS Institute, 2020). The results from the survey provided the researchers with insight into how the practitioners of the curriculum (educators) perceived or understood EE in Tanzania's intended curriculum. During interpretation, the quantitative results were triangulated with the qualitative findings to enable the researchers to critically evaluate the intended Tanzanian curriculum's potential to contribute

to effective EE in the country. Triangulation contributed to the justification of the themes and the reliability and validity thereof.

4. Results and Findings

A summative overview of the findings from the Tanzanian curriculum document analysis compared to the identified global best practices for EE (Du Toit, 2018) is presented in Table 2.

Table 2: Comparing entrepreneurship education in the Tanzanian school curriculum to global best practices

Global best practices for entrepreneurship education (EE) in literature	Evident in Tanzanian school curriculum	
Structuring of entrepreneurship education		
Early introduction of EE in learners' school education	Yes	
Embed EE in other subjects in the curriculum rather than as a separate subject	Yes	
Some structuring of constructs in EE is required for progression	Yes	
Learners should be placed at the core of the learning process	Yes	
Active, learner-centred and linked-to-real-life pedagogies preferred	Yes	
Collaboration of teachers and learners with entrepreneurship experts to support more effective implementation of EE		No
Specific local contexts that are supportive of the implementation of EE		No
Culture plays a vital role in the planning and implementation of EE	Yes	
Reflection and feedback contribute to effective EE	Yes	
Entrepreneurship education content		
Basic assumptions and meanings, as well as intended outcomes for EE should be explicit	Yes	
EE should not only focus on preparation for running a business		No
Topics or content cover not only knowledge but includes skills, attitudes		No
Assessment of knowledge, skills, values, attitudes, learner and stakeholder satisfaction with EE		No
Teachers		
Passionate teachers with positive attitudes		No
Teacher education for EE is critical to success		No
National support for EE through policy	Yes	

Source: Adapted from Du Toit (2018).

The curriculum analysis showed that EE in the Tanzanian school curriculum followed patterns similar to global practices in the case of some aspects (Table 2). It was found that structuring and national support for EE in the Tanzanian curriculum mimics international best practices but that much of the content and teacher education for the topic do not (Table 2). The qualitative findings (Table

2) are discussed in detail after reporting the results (Tables 3 and 4) of the second phase. In the quantitative phase of the study, a Likert-scale questionnaire was used to inquire if participants strongly agreed (5), agreed (4), were neutral (3), disagreed (2) or strongly disagreed (1) with each statement. The mean of each response is outlined in Table 3.

Table 3: Participants' agreement regarding entrepreneurship education practices in Tanzanian schools

Ques	tionnaire Item	N	Mean
Q1	Entrepreneurship education is taught in Tanzania Schools	135	4.37
Q2	Entrepreneurship is taught in Secondary Schools	134	2.25
Q3	Entrepreneurship is taught in Primary Schools	134	4.31
Q4	Entrepreneurship is taught as a separate subject	135	2.21
Q5	Entrepreneurship is taught as (sub-)topics within other subjects	134	4.38
Q6	Entrepreneurship topics are scaffolded from the known to the unknown	133	3.54
Q7	Entrepreneurship topics become progressively more complex	134	3.98
Q8	Entrepreneurship learning content is linked to learners' real-life experiences	134	4.31
Q9	The entrepreneurship teaching and learning process is participatory	135	4.07
Q10	Entrepreneurship teachers invite special guests like entrepreneurs or other professionals to teach	135	3.25
Q11	Entrepreneurship learning content reflects the local environment	135	3.97
Q12	Entrepreneurship learning content reflects learners' known environment	135	3.78
Q13	The entrepreneurship learning process requires feedback in order to improve the learning process	134	4.20
Q14	Entrepreneurship education's learning objectives, meaning, and outcomes are well-known to the teacher	135	3.81
Q15	Entrepreneurship education's objective is to make the learner capable of starting a business	134	3.92
Q16	The focus of entrepreneurship education is to change the mindset of learners	133	4.14
Q17	Entrepreneurship learning content is knowledge-based	133	4.00
Q18	Entrepreneurship learning content aims at enhancing the skills and competence of learners	134	4.13
Q19	Entrepreneurship learning content aims at building an entrepreneurial mindset	134	4.25
Q20	Entrepreneurship assessment is based on knowledge, skills, values and attitudes	134	4.04
Q21	Entrepreneurship education learning content reflects local needs	135	3.83

Q22	Entrepreneurship education learning content reflects international needs	130	3.29
Q23	Entrepreneurship teachers are content with the learning content	133	2.96
Q24	Entrepreneurship teachers have been trained to teach entrepreneurship content	134	2.55
Q25	The necessary resources are available in the entrepreneurship learning process for effective learning to take place	134	3.23
Q26	Entrepreneurship teachers have passionate attitudes	135	3.68
Q27	Entrepreneurship education will create an enterprising society	134	4.32
Q28	The entrepreneurship learning process is supported by the government	135	3.29

The midpoint for the scale was 2.5. The mean scores ranged from 2.21 to 4.38 (Table 2). Overall, participants mostly agreed with the statements in the questionnaire (24 items above average \bar{x} = 2.5) on the five-point Likert scale. However, this was not the case for four items. The results in Table 2 show that participants disagreed with Q2 (mean = 2.25) and Q4 (mean = 2.21). The means of Q24 (mean = 2.55) and Q23 (mean = 2.96) were almost neutral (Table 2).

After determining the mean values, explorative factor analysis was conducted as a data-reduction procedure, contributing to construct validity, credibility and reliability. The 28 items in the questionnaire were reduced to seven constructs in the factor analysis. Only six factors are reported (Table 4), as the Cronbach alpha value was too low for the seventh factor; 67.94 of the variation was retained. Communalities varied between 0.52 and 0.8, indicating that all the questions contributed to the factor analysis. The factors were labelled to show their alignment with global best practices for implementing EE (see Figure 1). The selected labels are listed in Table 4. The results showed acceptable (0.69) to excellent (0.89) Cronbach alpha values for six of these constructs (Table 4). Constructs are considered reliable when Cronbach alpha values are greater than 0.6. The high Cronbach alpha values (Table 4) indicate good internal consistency of the items in the scale (Field, 2009).

The factor analysis was appropriate, and construct validity was assured based on Kaiser's measure of sampling adequacy (MSA), as is evident from the overall MSA of 0.83. According to Hair et al. (1998), an MSA \geq 0.80 can be interpreted as meritorious.

Next, the findings and results are discussed in line with the four main themes identified as global best practices for EE (Figure 1).

Table 4: Cronbach alpha values for six of the constructs

Entrepreneurship education construct	N	Cronbach alpha		
Local and learner-centred structure (Q8, 11, 12, 14, 16, 17, 18, 19, 21)	128	0.89		
Intended outcomes in content (Q13, 15, 22, 23)	126	0.82		

Pedagogical structure (Q9, 24, 25)	133	0.75
Constructivist principles in structure (Q5, 6, 7, 10)	131	0.69
Delivery (combining content, structure, teachers, and national support) (Q20, 26, 27, 28)	133	0.69
Position in structure (Q1, 3)	134	0.77

5. Discussion and Interpretation of the Findings and Results 5.1. Structuring of entrepreneurship education in Tanzanian schools

In Tanzania, EE is included as a topic in the Commerce Syllabus for Ordinary Secondary (MEST 2016b), Form I-IV, which means learners are introduced to this important topic from an early age, but only in certain subjects (Table 1). The early introduction of EE in the curriculum is positive; however, continuing the trend of useable EE in secondary school would contribute to constructivist learning and benefit learners more. Confirming the qualitative finding, the results in Table 2 show that participants agreed with Q3 (mean = 4.31) - that entrepreneurship is taught in primary schools - and disagreed with item Q2 (mean = 2.25) - that entrepreneurship is taught in Tanzanian secondary schools. This last result could be because EE is only embedded in a few commercial-type subjects or that the school structure in Tanzania does not follow a simple delineation between primary and secondary schools. Finland and Sweden, as examples of countries that are highly successful in implementing such learning, include EE early in their curricula (Hoppe & Namdar, 2023; Seikkula-Leino et al., 2021). In fact, EE is offered as a separate course or subject in Finland and the Slovak Republic (Val et al., 2017).

The analysis of the Tanzanian school curriculum indicated that EE is **embedded** (and therefore not a stand-alone subject) mainly in the subjects Commerce (O-and A-levels) and General Studies (compulsory A-level subject). Commerce subjects are mainly taught to learners studying Commercial Studies; thus, those in other fields such as science, arts and agriculture do not have similar opportunities for EE, except if they study General Studies, which limits its potential reach. The integration of entrepreneurship into the Tanzanian subject General Studies – compulsory at A-level (General Studies Syllabus for Advanced Level Secondary Education, 2010) – is redeeming, since it would expand the potential positive reach of EE to more learners. The results in Table 2 also show that participants disagreed with item Q4 (mean = 2.21) – that EE is not taught as a separate subject. This result confirms the qualitative finding that entrepreneurship is embedded in existing subjects (Table 1), following a similar pattern to international best practices.

It was found that the Tanzanian secondary syllabus entrepreneurship topics have been arranged in a logical and **progressive order**, from simple to more challenging content (MEST 2016b), in line with the best practices suggested by Du Toit (2018). The agreement of participants with items reduced to factor 4 (Tables 2 & 3) supports the finding that constructivist principles are evident and experienced in EE in Tanzania. Principles of **learner-centredness** are clear in

Tanzanian education; the approach is referred to as 'participatory and interactive' in which teachers serve as facilitators and learners learn by doing (active learning strategies) (MEST 2016b, p. 4). Teachers, as enactors of the intended curriculum, agreed that EE was structured to be learner-centred and considered learners' real-life and local environments (Table 4, factors 1 & 3).

Although some non-government Tanzanian school programmes include entrepreneurship **pedagogies**, it emerged that this is not true for the standard school curriculum (DeJaeghere, 2017). The discrepancy exists because non-government programmes focus more on strategies to make the learning process effective by including discussion groups, discussions, or brainstorming (MEST, 2010, 2016b). Currently, it is not evident in the Tanzanian school curriculum (Table 1), and participants were almost ambivalent about experienced entrepreneurs being invited as guest speakers in practice (Q10, Table 2), which could have contributed to **collaboration**. Such practices align with global trends and, if implemented regularly, would strengthen the facilitation of EE (Du Toit, 2018) by linking this learning to the real world (Table 4).

According to DeJaeghere (2017), the contexts in which EE is presented in most Tanzanian schools are challenging because of budget constraints, among others. Some entrepreneurial programmes offered by non-government organisations are aligned with the contexts in which they are implemented (DeJaeghere, 2017), but this is only true in a few cases. As primary education in Tanzania is free and compulsory, secondary education is free for selected learners, and in public schools, many learners are educated. However, a lack of sufficient resources negatively affects education quality due to budget limitations (Lucas Wandela, 2014). This results in unaccommodating contexts where EE occurs with limited resources and too few or untrained teachers (Lucas Wandela, 2014). Although DeJaeghere (2017, p. 13) describes an entrepreneurship culture based on a 'moral economy' (where an individual's survival cannot be separated from that of others) in Tanzania, explicit evidence thereof was not found in the curriculum. However, EE in Tanzania aims to make individuals self-reliant, and no bias against girls exists in this education system, which is informed by the Tanzanian Constitution, Education Policy and Curriculum (Tanzania Education Policy, 2014; MEST, 2010, 2016b). Feedback is mentioned as one of the required objectives of the Tanzanian Commerce syllabus, and it forms part of the prescribed assessment processes in the syllabus (MEST, 2016b), so it should realise as part of Tanzanian learners' EE in this subject, with which participants in the survey agreed (Q13, Table 2).

Participants agreed to some extent that **resources** to support effective EE were available (Q25, Table 2). The syllabus mentions teaching and learning resources for EE: books, web-based text, newspapers, journals, Braille documents, charts, resource persons and model persons (General Studies Syllabus, 2010). However, how widely these were available across all schools could not be established. This result and finding therefore cannot confirm nor refute claims by Lucas Wandela (2014) that budget limitations in Tanzania result in a lack of sufficient resources that negatively affects education quality. According to the European

Commission (2011), the availability of resources significantly affects the effective implementation of EE and a lack thereof would hinder its effectiveness. Developing and distributing resources that Tanzanian teachers can use to support effective EE should be a priority.

5.2. Entrepreneurship education content in Tanzania

To ensure that the Tanzanian society is engaged, stakeholders are involved in every significant step towards developing syllabi and considering various stakeholders' views is a mandatory part of curriculum development in the country, regardless of differences in perspectives (Tanzania Education Policy, 2014). The shared need for overcoming poverty and unemployment in Tanzania supports a shared **assumption** of the ameliorating effect EE can have.

Based on the Tanzania Development Vision 2025, which aims to create a competitive and independent nation by 2025, as well as the National Strategy for Growth and Reduction of Poverty (NSGRP, 2005), which is instrumental towards Tanzania Vision 2025 (Ntimbwa, 2019: 2), the **focus** of EE in Tanzania is still primarily economic; however, it is being expanded to include some social value too.

In Tanzania's O-level Commerce syllabus, entrepreneurship content topics include entrepreneurship, self-employment, characteristics of successful entrepreneurs, entrepreneurial motivation, invention and innovation, sources of capital, a business plan, and business start-up preliminary activities (MEST, 2016b). In Tanzania's A-level syllabus, 'entrepreneurship' is tacit, focusing more on business than entrepreneurship, for example, in the broad topics of 'marketing', 'advertising' and 'business capital' (MEST, 2010). Moreover, in General Studies at the A-level in Life Skills, entrepreneurship learning content focuses on 'self-reliance' and 'entrepreneurship' to align with the country's philosophy of 'education for self-reliance'. Content on this topic includes definitions of the two concepts, qualities of self-reliant persons and entrepreneurs, skills for the two concepts, and reasons why Tanzania youth fail to be self-reliant or entrepreneurs (General Studies Syllabus, 2010). Concerning informal entrepreneurship programmes, DeJaeghere (2017) mentions that additional content and pedagogy for entrepreneurship were added to these programmes, implying a deficit in the existing EE in the Tanzanian school curriculum. The ambivalence of participants about this aspect (Q23, Table 2) might confirm DeJaeghere's finding, as the participating teachers were not overwhelmingly in agreement that they were satisfied with the current content.

Assessment of EE in the Tanzanian subject General Studies is based on learners' ability to explain the concepts of self-reliance and entrepreneurship and discuss the qualities of self-reliant persons and entrepreneurs. In addition, learners must be able to demonstrate self-reliance and entrepreneurial skills and establish strategies for promoting their self-reliance in society (General Studies Syllabus, 2010). The extent to which the objective of self-reliance is achieved through the Tanzanian curriculum remains unclear, as details regarding assessing or measuring its attainment are mostly unspecified (Dejaeghere, 2017).

Participating teachers, however, mostly agreed (mean = 4.04) that assessment of several aspects, not just knowledge, was being implemented in Tanzanian EE (Q20, Table 2).

5.3. Tanzanian entrepreneurship education teachers

According to the Tanzanian Commerce Syllabus (MEST 2016b, p. 4), a teacher must be 'a facilitator who promotes, guides and helps students to do various activities'. Tanzanian teachers are therefore expected to lead and guide the learning process. Requirements for **teacher characteristics**, attitudes and behaviour are not delineated explicitly in the curriculum, but participants agreed that this country's 'entrepreneurship teachers have passionate attitudes' (Q26, Table 2).

In contrast, several participants disagreed that 'entrepreneurship teachers have been trained to teach entrepreneurship content' (Q24, Table 2) (mean = 2.55). Confirming this result, Bermeo et al. (2013) report that Tanzanian **teachers' qualifications** differ significantly, often not including a formal teaching qualification. Bartlett and Mogusu (2013) report that teachers in Tanzania often do not implement new pedagogical approaches effectively and disregard learner-centred learning. Unfortunately, the incorrect assumption that any teacher trained in 'related studies' (such as commerce) can teach entrepreneurship prevails in Tanzanian schools (Ntimbwa, 2019). Thus, focused teacher education is needed to bolster effective EE in Tanzanian schools. Accordingly, the European Union (2011) highlights the need to suitably train educators for EE as a critical component to ensure its effectiveness. Similarly, including EE in teacher training at Tanzanian institutions for teacher development would support its effective implementation.

5.4. National support in Tanzania for entrepreneurship education

The underpinning philosophies, theories and practices of EE in Tanzania are clearly reflected in the NSGRP (2005) and the Tanzania Vision 2025 documents, providing evidence that these national policies/programmes support the aim of reducing poverty and creating a better society in Tanzania through EE (Ntimbwa, 2019). Participants agreed on this issue (Q28, Table 2), which was a solid positive aspect of EE in the Tanzanian school curriculum. Similar patterns of government support for EE through policies were found in the high school curricula of Botswana (Du Toit & Gaotlhobogwe, 2018), Eswatini, Lesotho, and South Africa (Du Toit, 2021).

Finally, the authors support DeJaeghere's (2017, p. 17) plea that entrepreneurial skills and knowledge in Tanzania should be reframed as 'social capabilities, ones that consider and address the social, historical, and cultural inequalities that affect these youths and their communities, rather than purely as economic outcomes focused on development and growth'.

6. Limitations of the Study and Directions for Future Research

The study was limited in that it was conducted by two researchers from two different countries. The vast educational system in Tanzania made it impossible

to obtain data from all schools and all provinces. The study was conducted using the available documents and feedback from teachers based in Dar es Salaam and may, therefore, exclude the views of educators from more rural contexts. This was the first of several planned studies to trial and further develop the framework for best practices for EE. The researchers acknowledge that as research on the topic expands, the framework will develop and be adjusted accordingly. This implies that it is a work in progress and that further research should be conducted. Future research could be expanded to compare EE in the curricula of several countries simultaneously while benchmarking it against the current framework for 'best practices'. Focused research on developing EE in the Tanzanian school curriculum, particularly to address the divergences identified in the current study, should be conducted to strengthen and expand the benefits associated with entrepreneurship in the country. Collaboration between researchers across African countries contributes to building scholarship on this continent and must be pursued continually.

7. Conclusion and Recommendations

The findings and results revealed that structuring EE in the Tanzanian school curriculum aligns well with international best practices. However, this aspect can be strengthened by emphasising the contexts within which it is implemented, particularly funding for resources to teach this topic. One practical recommendation to enable this would be to develop a system or guidelines to support teachers, such as inviting experienced, successful entrepreneurs as guest speakers, which would create links for funding and improve access to potential resources. The Tanzanian national government actively supporting EE through policies was seen as a positive aspect of the current curriculum, which may buttress its implementation in practice. Two key themes emerged that would benefit from curriculum innovation or careful which would strengthen EE in Tanzanian schools. evaluation, entrepreneurship content in the curriculum should not be narrowly focused on developing knowledge for business creation. Focusing more on developing values, skills and attitudes would engender broader development for learners to thrive in life and work, even if they do not become entrepreneurs. Social issues would also increase in a country with a fast-growing population, so including social entrepreneurship in the curriculum could benefit learners and their communities. The most concerning theme (a global problem) is the lack of targeted teacher education for EE in Tanzania. Teachers are the implementers or enactors of the intended curriculum and are therefore key to realising the intended learning, making this a critical recommendation. The study established that teacher education and some aspects of the Tanzanian curriculum should be strengthened to foster effective EE in this country.

8. References

Akyeampong, K. (2014). Reconceptualised life skills in secondary education in the African context: Lessons learnt from reforms in Ghana. *International Review of Education*, 60, 217-234. https://doi.org/10.1007/s11159-014-9408-2

Bartlett, L., & Mogusu, E. (2013). Teachers' understandings and implementation of learner-centered pedagogy. In F. Vavrus & L. Bartlett (Eds.), *Teaching in Tension:*

- *International pedagogies, national policies, and teachers' practices in Tanzania* (pp. 61-74). Sense Publishers.
- Berglund, K., & Verduijn, K. (2018). Introduction: Challenges to entrepreneurship education. In K. Berglund & K. Verduijn (Eds.), *Revitalising entrepreneurship education: Adopting a critical approach in the classroom* (pp. 3-24). Routledge.
- Bermeo, M. J., Kaunda, Z., & Ngarina, D. (2013). Learning to teach in Tanzania. In F. Vavrus & L. Bartlett (Eds.), *Teaching in Tension: International pedagogies, national policies, and teachers' practices in Tanzania* (pp. 39-59). Sense Publishers.
- Clements, D., & Joswick, C. (2018). Broadening the horizons of research on discovery-based learning. *Instructional Science*, 46(4), 155-167. https://doi.org/10.1007/s11251-018-9449-1
- DeJaeghere, J. (2017). Educating entrepreneurial citizens: Neoliberalism and youth livelihoods in Tanzania. Routledge.
- Du Toit, A. (2018). Developing a framework for the effective structuring and implementation of entrepreneurship education in Consumer Studies. (Doctoral thesis, University of South Africa). https://uir.unisa.ac.za/handle/10500/24948
- Du Toit, A. 2021. Curriculum Analysis and Benchmarking of Consumer Studies and Comparable Subjects in Botswana, Eswatini, Lesotho, Namibia, South Africa and Zimbabwe. Project Report, April 2021. doi: 10.13140/RG.2.2.25609.98403
- Du Toit, A., & Gaotlhobogwe, M. (2018). A neglected opportunity: Entrepreneurship education in the lower high school curricula for technology in South Africa and Botswana. *African journal of research in mathematics, science and technology education*, 22(1), 37-47. https://doi.org/10.1080/18117295.2017.1420007
- Donaldson, C., Villagrasa, J., & Sánchez, F. (2021). Learner profile mapping: Stimulating autonomous motivation in entrepreneurship education. *Industry and Higher Education*, 35(4), 384-402. https://doi.org/10.1177/09504222211012322
- European Commission: Entrepreneurship Unit. (2011). *Entrepreneurship Education: Enabling teachers as a critical success factor*. Brussels: Directorate-General Enterprise and Industry. http://ec.europa.eu/DocsRoom/documents/9272/attachments/1/translations/en/renditions/native
- Field, A. (2009). Discovering statistics using SPSS (3rd ed.). Sage.
- Floris, M., & Pillitu, D. (2019). Improving entrepreneurship education in primary schools: a pioneer project. *International Journal of Educational Management*, 33(6), 1148-1169. https://doi.org/10.1108/ijem-09-2018-0283
- Fouché, C., & Schurink, W. (2011). Qualitative research designs. In A. De Vos, H. Strydom, C. Fouché & C. Delport (Eds.), *Research at Grass Roots* (4th ed., pp. 307-327). Van Schaik.
- Fouché, C., & Strydom, H. (2021). Mixed methods research. In C. Fouché, H. Strydom & W. Roestenburg (Eds.), *Research at Grass Roots* (5th ed., pp. 419-436). Van Schaik.
- Hair, J., Anderson, R., Tatham, R., & Black, W. (1998). *Multivariate data analysis*. Prentice-Hall.
- Hoppe, M., & Namdar, K. (2023). Towards entrepreneurship for a cause: educating transformative entrepreneurial selves for a better world. *Entrepreneurship Education and Pedagogy*, 25151274221148222. https://doi.org/10.1177/25151274221148222
- Huq, A., & Gilbert, D. (2017). All the world's a stage: transforming entrepreneurship education through design thinking. *Education+ Training*, 59(2), 155-170. https://doi.org/10.1108/et-12-2015-0111

- Hynes, B. (1996). Entrepreneurship education and training Introducing entrepreneurship into non-business disciplines. *Journal of European Industrial Training*, 20(8), 10-17. https://doi.org/10.1108/03090599610128836
- Johansen, V. (2018). Innovation cluster for entrepreneurship education. Lillehammer, Norway, Østlandsforskning/Eastern Norway Research Institute. Available online: http://icee-eu.eu/component/attachments.
- Kurczewska, A. (2016). Entrepreneurship education: Built upon the concepts of experience and responsibility. Łódź University Press. http://scouting.uni.lodz.pl
- Leitch, C., & Harrison, R. (1999). A process model for entrepreneurship education and development. *International Journal of Entrepreneurial Behaviour & Research*, 5(3), 83-109. https://doi.org/10.1108/13552559910284065
- Lucas Wandela, E. (2014). Tanzania post-colonial education system and perspective on secondary science education, pedagogy and curriculum: Qualitative study. (Doctoral theses, DePaul University). https://via.library.depaul.edu/soe_etd/71/
- Maritz, A. (2017). Illuminating the black box of entrepreneurship education programmes: Part 2. *Education+ Training*, 59(5), 471-482. https://doi.org/10.1108/et-02-2017-0018
- Ministry of Education and Vocational Training, United Republic of Tanzania. (2010). *Proposed Secondary Education Development Program* II (SEDP II) 2010 – 2014. Environmental and Social Management Framework (ESMF).
- Ministry of Education, Science and Technology (MEST), United Republic of Tanzania. (2016a). *Basic Education Curriculum Standard* III-VI.
- Ministry of Education, Science and Technology (MEST), United Republic of Tanzania. (2016b). Commerce Syllabus for Ordinary Secondary Education. Form I-IV. Tanzania Institute of Education.
- Ministry of Education and Vocational Training. The United Republic of Tanzania. (2010). Commerce Syllabus for Advanced Secondary Education Form V-VI. Tanzania Institute of Education. Dar Es Salaam.
- Ministry of Education and Vocational Training. The United Republic of Tanzania. (2016a). Curriculum for Advanced Secondary Education in Tanzania. Tanzania Institute of Education.
- Ministry of Education and Vocational Training. The United Republic of Tanzania. (2016b). Curriculum for Ordinary Secondary Education in Tanzania. Tanzania Institute of Education.
- National Strategy for Growth and Reduction of Poverty (NSGRP). (2005). Dar Es Salaam: Mkuki na Nyota Publishers.
- Ntimbwa, M.C. (2019). Factors influencing successful self-employment amongst graduates of higher learning institutions in Tanzania. (Doctoral dissertation, Maastricht School of Management). http://dspace.cbe.ac.tz:8080/xmlui/handle/123456789/576
- Powell, B.C. (2013). Dilemmas in entrepreneurship pedagogy. *Journal of Entrepreneurship Education*, 16, 99-112.
- Rusok, N., Kumar, N., & Rahman, S. (2017). A contemporary approach to entrepreneurship education and training. *International Journal of Asian Social Science*, 7(8), 696-707. https://archive.aessweb.com/index.php/5007/article/view/2926/4440
- SAS Institute Inc. (2020). The SAS System for Windows Release 9.4 TS Level 1M3 X64_8PRO platform. Copyright© by SAS Institute Inc., Cary, NC, USA

- Schoeninger, G. Herndon, R., Houle, N. & Weber, J. (2021). The Entrepreneurial Mindset Imperative, viewed 19 June 2022, from https://elimindset.com/newly-published-white-paper-theentrepreneurial-mindset-imperative/.
- Schnellert, L. & Butler, D. Canadian Education Association. (2014). Collaborative inquiry: Empowering teachers in their professional development. *Canada Education*, 54 (3), 42-44.
- Seikkula-Leino, J., Jónsdóttir, S. R., Håkansson-Lindqvist, M., Westerberg, M., & Eriksson-Bergström, S. (2021). Responding to Global Challenges through Education: Entrepreneurial, Sustainable, and Pro-Environmental Education in Nordic Teacher Education Curricula. *Sustainability*, 13(22), 12808. MDPI AG. https://doi.org/10.3390/su132212808
- Statistica. (2022). *Tanzania: Unemployment rate from* 2003 to 2022. https://www.statista.com/statistics/809026/unemployment-rate-in-tanzania/
- The United Republic of Tanzania. Ministry Educational and Vocational Skills. (2014). *Educational and Training Policy of 2014*.
- UNICEF Tanzania. (2019). For Tanzania's most vulnerable adolescents: A better chance in life. https://www.unicef.org/tanzania/stories/tanzanias-most-vulnerable-adolescents
- United Nations Educational, Scientific and Cultural Organization (UNESCO). (2018). Promoting lifelong learning for all. The experiences of Ethiopia, Kenya, Namibia, Rwanda and the United Republic of Tanzania. UNESCO Institute for Lifelong Learning, Hamburg, Germany.
- Val, E., Gonzalez, I. Iriarte, I. Beitia, A. Lasa, G., & Elkoro, M. (2017). A Design Thinking approach to introduce entrepreneurship education in European school curricula. *The Design Journal*, 20(1), S754-S766. doi: 10.1080/14606925.2017.1353022
- Valerio, A., Parton, B., & Robb, A. (2014). Entrepreneurship Education and Training Programs around the World: Dimensions for Success. World Bank. doi: 10.1596/978-1-4648-0202-7.
- Valliere, D., Gedeon, S., & Wise, S. (2014). A comprehensive framework for entrepreneurship education. *Special Issue on Entrepreneurial Education in the Journal of Business and Entrepreneurship*, 26(1), 89–120.
- Walmsey, A., & Wraae, B. 2022. Entrepreneurship education but not as we know it: Reflections on the relationship between critical pedagogy and entrepreneurship education. *The International Journal of Management Education*, 20(3), 1472-8117. https://doi.org/10.1016/j.ijme.2022.100726
- Weiss, T. (2015). Local understandings of the entrepreneur and entrepreneurship: A phenomenological case study from the southern highlands of Tanzania. (Doctoral dissertation, University of Minnesota). https://www.proquest.com/docview/1734038631
- World Bank Report. (2023). *The World Bank in Tanzania*. Tanzania at a glance. https://www.worldbank.org/en/country/tanzania/overview
- Zhang, J. (2022). Research and exploration on the optimisation of innovation and entrepreneurship education model from the collaborative perspective. *International Journal of Environment and Pollution*, 71(1-2), 37-57. https://doi.org/10.1504/ijisd.2023.10056552