

EXPLORING ALTERNATIVE ASSESSMENTS FOR INCLUSION IN ENTREPRENEURSHIP EDUCATION

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ABSTRACT

This is a fact that needs to be understood why the subject of entrepreneurship is important in preparations of the young and upcoming generation of learner to face the job market opportunity. Traditional assessment approaches are not effective in identifying various and numerous skills and competencies required for entrepreneurship success. To fill this gap, this systematic review synthesizes the existing research on alternative assessments that have been proposed for use in the context of entrepreneurship education with the aim of informing new assessment methods which could enhance students' achievement of learning outcomes and readiness for entrepreneurship. In the past, the Namibian assessment practices have been more of norm referenced whereby medium of assessment was mostly paper and pencil tests and written examinations which seem to go against the grain of learners' diverse learning styles, cultural endowments and multiple intelligences. The advantage of the use of alternative evaluation is that it flexible and comprehensive and allows for showcasing knowledge in a range of ways. This research proceeds through a comprehensive literature review and analysis of peer-reviewed publications to select various multiple assessment approaches. Such methods include, but are not limited to, the following: experiential learning projects, business simulations, case analyses, portfolio presentation and pitching. The review analyses the effect of these other forms of assessments in developing the evaluation of self-critical thinking, creativity problem solving skills and the development of an entrepreneurial spirit. Moreover, it examines the various factors that affect the utilisation as well as the acceptance of the other forms of assessment such as preparation of the teacher, availability of resources, and students. From this analysis, the understanding of how alternative assessment could improve the entrepreneurial education curriculum and future studies.

Keywords: Alternative Assessments, Entrepreneurship Education, Assessment Methods, Experiential learning, Active Learning, Student Engagement, Pedagogy, Innovative Assessment, Case Studies, Simulation Games.

INTRODUCTION

Entrepreneurship education has changed over time with the prevailing educational trends where more inclusive and practical approaches. Traditional assessment methods, such as standardized tests and essays, are increasingly viewed as insufficient for capturing the complex skills and competencies required for entrepreneurial success (Novogen,2022; Morselli,2019). Thus, innovation has led to the modern approach to assessment methods since the practical applicability and spectrum of dynamic entrepreneurial skills cannot be assessed through a traditional method. These alternative methods include practical projects, competency tools, and innovative evaluation frameworks designed to provide a more comprehensive picture of students' abilities (Dinning, 2018; Ukoha, 2017).

Introducing and implementing alternative assessments into entrepreneurship education not only aligns with contemporary pedagogical practices but also supports the inclusion of diverse learner groups. Alternative assessments can address the varied learning

styles and needs of students from different backgrounds, including those with disabilities and marginalized communities (Tanjung, 2023). This shift is particularly important to help bring about a more equitable educational environment that values diverse perspectives and experiences (Almulla, 2023; Kolb, 2014).

Nevertheless, the shift to the use of innovative, alternative assessments offers also certain opportunities as well as threats. Although these methods provide a more comprehensive assessment of the entrepreneurial competencies, they have to be applied appropriately, taking into consideration issues of fairness, reliability and educational objectives (Mishra, 2023; Misawa, 2024). Knowledge in this areas is valuable for entrepreneurship educators and policy makers who strive to enhance entrepreneurship education and support all students in developing their entrepreneurial potential. This paper explores the current alternative assessment methods in entrepreneurship education, their impact on diverse learner groups, and the associated challenges and opportunities.

Limitations of Traditional Assessment Methods

Traditional assessments, such as standardized tests and essays, have several drawbacks in assessing the entrepreneurial skills and competencies. These methods often emphasize theoretical knowledge and memorization over practical skills poorly reflecting crucial aspects such as problem-solving, creativity, and real-world application. They may have limited ponder on important entrepreneurial competencies such as risks taking, and innovativeness. Further, traditional assessment practices may be ineffective at considering a students' learning style and thus disadvantage students with disabilities or those from non-traditional learning backgrounds. They also fail to reflect realities of the business world and are not an accurate mimic of the real unstructured environment of an entrepreneur where problem-solving forms a real, major part. In addition, such assessments tend to focus on the individual activity, without proper regard to the people skills, collaboration and team work, which are essential for an entrepreneur (Miller, 2020; Wang, 2023). Thus, while traditional assessments have their place, their limitations underscore the need for alternative methods that better capture the full spectrum of entrepreneurial competencies.

Research problem

The focus research problem is the limitation of traditional assessments methods that can be used in entrepreneurship education and their inability to capture the holistic, dynamic, and diverse skills necessary for entrepreneurial success. Traditional assessments tend to focus on standardized testing and rote memorization, which may exclude certain demographics and overlook critical competencies such as creativity, problem-solving, adaptability, and critical thinking. This desktop study seeks to address this gap by exploring alternative assessment strategies that are more inclusive and aligned with the multifaceted nature of entrepreneurship, thereby enhancing diversity, equity, and overall educational outcomes in entrepreneurial training.

Purpose of the Study

It is against this backdrop that this study aims at identifying alternative approaches of student assessment that may foster diversity in entrepreneurship education. Therefore, by exploring and discussing these innovative practices in this study, the hope is to present some indication on how entrepreneurship educators can better assess the competencies and potential of a diverse range of learners. In this respect, particular emphasis is made on equity

in assessment, ensuring that all students have the opportunity to demonstrate their entrepreneurial skills and knowledge in a manner that aligns with their strengths.

Research Objectives

1. To identify existing alternative assessment strategies used in entrepreneurship education.
2. To evaluate the effectiveness of these strategies in fostering inclusion and accurately assessing entrepreneurial competencies.
3. To provide recommendations for educators and policymakers on implementing inclusive assessment methods.

Research questions

1. What are the current alternative assessment methods used in entrepreneurship education?
2. How do these methods contribute to the inclusion of diverse learner groups?
3. What are the potential challenges and opportunities associated with implementing alternative assessments in entrepreneurship education?

REVIEW OF LITERATURE

Entrepreneurship Education: Theoretical Frameworks

In today's world, the education of entrepreneurship has been acknowledged as a component of economic and social development as that provides creativity, innovation, and economic growth. To begin with, entrepreneurship education has theoretical roots in many fields although most of them are rooted in fields as economics, education, and psychology. Among them it is possible to list such theories as: experiential learning theory, constructivism and transformative learning theory.

Experimental Learning Theory

Taking into consideration the Kolb's Experiential Learning Theory (ELT) a key role in the context of entrepreneurship education is given to the process of turning the experience into knowledge. The theory posits that learning is a cyclical process involving four stages: These comprise of concrete experience, which entails the concrete experience of the idea in question; reflective observation, which involves monitoring the process of experiencing the particular idea; abstract conceptualization where the learner tries to conceptualize the idea; and active experimentation where one tests the idea. Kolb's work is rooted in the educational paradigm of Dewey, Lewin and Piaget all of whom postulated that learning was anchored on experience. This cycle is very important in entrepreneurship education, since it reflects the inherent nature of the subject; the process of gaining knowledge through direct participation in actual business experiences.

Subsequently, several authors have attempted to build on the premise of ELT and have emphasized that ELT is an integrated and versatile approach. The process of cyclical learning is stated by and the main focal point is that interaction with the environment is the key to knowledge generation. This tallies with the goals of the entrepreneurship education where the learner is required not only to be taught and absorb theoretical knowledge but also put this knowledge to practical use via practical business exercise, which involves reflection and learning by doing (Zaman, 2017) argue that there is practicality of ELT explaining that it enables students to transition from teaching to practice, considering the fact that proactivity and solving of emerging challenges are highly central in entrepreneurial activities.

As for the ELT process in the context of entrepreneurship education, actual project approaches, business games and case studies are taught effectively, which are major projects and solving real business problems. These methods are in harmony with Kolb's view of the fact that learning is a process in which both the planning and the action meet the experience and the conception (Kolb, 2008). This is supported by (Burke, 2020) for a reason that experiential learning enables students to learn their best styles of learning that will serve them well in the diverse business environment to solving various problems and identify opportunities that are available in the market.

To this discussion (Murrell, 1987) bring knowledge into understanding the role of experience-based learning. According to the ELT cycle is comprehensive, which puts emphasis on how learners get to different stages of feeling, thinking, reflecting, and groping. In this process, they enhance skills such as innovation, creativity, and critical thinking in the process of being an entrepreneur. In the same way, (Dernova, 2015) posits that the Knowledge Acquisition Model turns experiences into purposeful knowledge, which is equally applicable in the entrepreneurship learning since learners are expected to solve real-life problems.

Combined, these authors offer a sound, theoretical framework for how Kolb's experiential learning theory translates into entrepreneur education. Thus, the strength of ELT is in its orientation at maintaining the involvement, critical thinking and context sensitivity of the learning process. This way, by adapting entrepreneurship curricula with elements of experiential learning more accurately and effectively student can be prepared for the task of starting and running a business as well as applying the resulting problem-solving knowledge and thinking.

Constructivism in Entrepreneurship Education

Student-centered teaching and learning approach known as constructivism has shifted grounds to entrepreneurship education because of its core principles of engagement, self-mastery, and problem solving. Constructivism engages students into making their understanding of knowledge by participation and this is in line with the dynamism and practical experience inherent in entrepreneurship. This alignment makes constructivism a suitable approach in developing critical thinking, creativity and problem-solving skills of the aspiring entrepreneurs.

A number of scholars have noted that constructivism is useful in spearheading student-centered teaching and learning processes especially in the context of entrepreneurships. According to (Tanjung, 2023) highlighted that constructivism enriched students' participation and problem-solving abilities since this charisma motivates the student to actively construct their knowledge. In their meta-analysis they showed that the effect size equals 1.548 thus supporting the positive effects that a constructivist approach has towards improvements in educational performance. It explains that constructivism improves student's problem-solving skills, increases independence, cooperation, and critical thinking that are useful in entrepreneurial learning. Thus, constructivism empowers students, supports the practical application of learned concepts and consequently assists the students in achieving a comprehensive understanding of business issues and decisions.

The study of (Ulhaq, 2024) also strengthens the argument of adopting constructivism into the entrepreneurship curriculum more specifically Project Based Learning (PBL). In their latest research, are equally persuasive in stating that problem solvers implementing radical constructivism in problem-based learning improves on the complexity of problems that a student is capable of solving by directing them to construct personal meaning out of scientific content and applying them to real life entrepreneurship. This approach is similar to the process of entrepreneurship endeavour that requires people to make changes and overcome

challenges in the course of business operations. It supports this by asserting that constructivist learning facilitates development of 21st-century skill important in entrepreneurship for instance, critical thinking and creativity.

Similarly, (Sumarna, 2022) supports the constructivism approach due to its ability to encourage problem-solving and Students' learning. Some of them argue that context-based strategies, which embrace the use of constructivism for example Contextual teaching and learning (CTL) enable the students to learn how ideas can be applied in solving 'real-life' problems on own. This independence is especially important in the context of entrepreneurship education because it is precisely in its process that success often depends on a person's abilities to discover something which may be useful, develop an idea, and learn how to work at the situation which has no clear solution.

The constructivism theory also has its strengths in the aspect of Collaboration which also helps in the improvement of the entrepreneurial learning. Based on the concept that (Sioukas, 2023) in the current technique adopts, constructivism creates room for reflective practice, peer practice, and real-life practice all of which are core in building entrepreneurial skills. By participating in the solution of business-related issues, it is possible to gain the advantages of teamwork, which positively affects the ability to create new ideas and makes the entrepreneurial idea more polished.

Overall, this study has found that the incorporation of constructivism in teaching entrepreneurship makes a huge improvement on problem-solving abilities, critical thinking and creativity. It promotes an atmosphere of learning where the students are able to solve business related problems that are real, work in groups with other students, and also take responsibility of their own learning. This approach is relevant with the modern tendencies of entrepreneurship that calls for flexibility, creativity and pragmatic problem solving. If constructivist approach is embraced in classes, students will be better placed to understand the dynamics of entrepreneurship and matches them to the challenges of ever-growing competitive business environments.

Transformative Learning Theory (TLT) in Entrepreneurship Education

TLT presents an ideal model for integrating critical synthesis, personal transformation and meaningful learning that are critical success factors for entrepreneurial ventures. As opposed to the conventional method of learning, learning transformation appears to develop a higher understanding for rational learning and transformation, which is highly relevant in the current world of business, especially for a student aspiring to be an entrepreneur.

A number of academicians have written on TLT to clarify its significance in the teaching of entrepreneurial studies. It raise critical thinking as an essential step in constructing personal change since (Kuriakou, 2023) supports it when the person liberates himself from self-deception. Some people assert that transformative learning facilitates changing of learners' thinking patterns as well as assumptions, which makes them embrace deep practices and self-reflection. This process is especially important in the course of teaching entrepreneurship as that field is based on the ability to change, and creativity that entice students to challenge some of the norms and the knowledge they possess. Thus, the type of self-reflection promoted by TLT help students tackle the uncertainties of entrepreneurial endeavours with a more work-in-progress attitude.

Comforting this structure, (Baldwin , 2023) accentuate the concepts of experience, dialogically and mind-states as aspects defining the processes of transformative learning. A bit more focused to the case of TLT, observes that key components of TLT, namely experience and dialogue, fit very well in the framework of experiential learning commonly adopted in entrepreneurship education which is learning through business experiences also

notes that consciousness and critical thinking in assumptions are critical for the expansion of consciousness. Since most entrepreneurial learning involves adjusting the awareness of students and interacting with them in such a way that they will challenge the mental maps of their business models. Such principles enable students to acquire the skills in reflective and adaptive working that is essential in being an entrepreneur. (Dolan, 2024) extends the discussion by examining the societal dimension of transformative learning while (Lenglet, 2022) applies the transformative learning concepts by discussing the more holistic view of learners in his paper '*Hope, respect, empathy and advocacy: The potential of entrepreneurship education*' supports this assertion by adding that, while it is correct to ensure that entrepreneurship education is aimed at creating employability and economic growth the education should not lose sight of the seven '*Sustainable Development Goals*'. This somewhat wider meaning of the concept of education fits well into the current trend in the popularity of social entrepreneurship and the task of companies as agents of social change. Likewise, explicitly emphasizes on the transformative nature of TLT for the growth of both individual and society. Through empowering students and making them have critical thinking capacity, the entrepreneurship education can be used to encourage students into practicing change in the society while they train to become entrepreneurs.

(Javed, 2023 & Ndemanu, 2022) also stress the lifelong-learning perspective on TLT, stating that the entrepreneurship education shall develop terminally a portfolio of personal training, the skills to synthesize practice with theory. At an entrepreneurial level, it entails educating students to become flexible and capable of transforming their ways of carrying out their businesses as they admitted new knowledge. This emphasis on learning who one is and continuous learning equips the future entrepreneurs for idea flow, innovation and continue to adopt the competition in the dynamic environment.

(Carter, 2023) present to the discourse on transformative learning by adding the dimension of feelings to it. They posit that the cultivation of self through emotional development commensurate with the management of edge-emotions such as grief processes constitutes part of TLT. This focus in emotional intelligence is important in entrepreneurship education because, entrepreneurs experience high levels of emotional demands, stressors including dealing with failure, risk and uncertainty. TLT cultivates organizational and psychological outlook flexibility in students that prepares them to address the psychological burden that goes along with being an entrepreneur.

Therefore, Transformative Learning Theory is helpful when it comes to teaching and practicing entrepreneurship as it focuses on the process of reflection, individual change, and personal transformation. This approach is quite similar to the recent trends in educational models that shift from the emphasis on the acquisition of knowledge to students' self-awareness, their ability to adjust to the conditions of their learning environment and social outcomes. So, including TLT into the curricula in entrepreneurship, educators will be prepared students for the various uncertainties, challenges and opportunities which come with the subject of entrepreneurship education for successful business and development of individuals and society.

Traditional vs. Alternative Assessment Methods in Entrepreneurship Education

The migration from traditional to the other forms of teaching assessment in the entrepreneurship education is due to the fact that different and new competencies needed for entrepreneurship assessment call for better and more effective assessments. Current knowledge – tests, assignments, business plans – do not reflect vibrant and useful characteristics of an entrepreneur. Having risen as educators look for ways to enhance the use

and relevance of assessments, there is the rise of other assessment methods that are practical, formative and reflective in nature.

Further notes that there are limitations of conventional assessments, and it is crucial to combine formative and summative assessments as a way of developing the entrepreneurial competence, as pointed out by and described what he called dynamic assessment model incorporating computer-based tests, which is a better way of assessing entrepreneurial skills as compared to other traditional approaches. Comparably, calls for the assessments that would be linked directly to the particular learning outcomes and teaching approaches used in the activities rather than the fixed assessment models.

It stated that there is a recent discourse about the development of creative and real-life assessment approaches in the entrepreneurship curriculum acknowledges that the conventional forms of assessment such as essay writing and tests are shifting to include more projects and other forms of assessment works to note a major challenge in Nigeria's Colleges of Education with regards to traditional teaching and assessment practices that inhibits the entrepreneurial learning processes and calls for more suitable and efficient assessment frameworks.

(Ojo, 2021) consider practical projects as well as competency tools as the forms of the alternative assessment. It discusses coach ability and other competencies for assessment with reference to surveys and interviews as a mean of experience-based evaluation of entrepreneurial abilities. The authors who support this approach practical projects and case studies are presented instead of tests and questionnaires which can simply be fake to depict the real entrepreneurial capabilities.

In a similar study, suggest that assessments of coach ability and other competencies can be done through learning through the survey and interviews, which is more effective than tests in evaluating skills of the entrepreneurs. It recommends the focus on utilising more project and cases than the test and questionnaires, and makes this proposition because they maintain such methods are more appropriately reflective of the entrepreneurial capacities.

As for the educational assessment, also lay stress on the application of new assessment modes. Fuzzy integrated assessment is adopted to assess innovative skills and teaching environment with a view of improving on the quality of entrepreneurial talent. Authors [28] in their study develop an assessment model of innovation and entrepreneurship education that is based on the BP neural network which is a more refined tool of assessment as compared to simple qualitative assessment.

(Hamalainen, 2023) explain the advantages of rubric-based and self-assessment tools. Transversal competencies can be assessed using rubrics and self-assessment tools as explained. It offers an assessment tool based on a rubric developed for the evaluation of entrepreneurship competence, thus enriching the set of the methods suggested for the purpose in this area.

It presents more examples of more engaging and continuous approaches. It describes an online learning environment that evaluates the performance management capabilities with an example of an innovative formative assessment method. The notes the importance of assessing and evaluating oneself continuously while in the process of teaching and learning entrepreneurship, s/he further notes that the most appropriate assessment framework are the formative and the summative assess.

The review of literature in this study reveals that there is an increasing concern with the use of conventional forms of assessment in the teaching of entrepreneurship and the emerging interest in the innovative approaches. As for the other methods, such as competency tools, interactive assessments as well as rubric-based evaluations, they allow for the broader and more realistic evaluation of the entrepreneurial skills. Thus, through the integrated application of these innovative assessment strategies, these assessments enable

educators to address the complexity of the previous conceptions of entrepreneurship and subsequently improve the delivery of entrepreneurship education.

Inclusive Education in Entrepreneurship

Integration of diversity into entrepreneurship studies is slowly becoming a trend as society and education stakeholders and leaders acknowledge its possibility to make a difference in the lives of persons who are discriminated against or otherwise unable to fit into the normal society. According to the transforming training initiatives co-generation with the disadvantaged communities, higher education institutions should aim towards the value creation and enterprising behaviour. Their research focuses on the ability of the inclusive education in enhancing lives' economic and social statuses especially for the marginalized people. So, the critical focus needed is the actual inclusion of excluded people, alternatively, making entrepreneurship education a direct means of positive social change.

Likewise, (Kuriakou, 2023) pay heed to the efforts aiming to increase the European entrepreneurship education programs inclusiveness. In their study, they determine the students groups, which are likely to be marginalized in such programs and suggest the early intervention tools and approaches for enhancing the participation of these groups. This is consistent with who has pointed that entrepreneurship education for the youths must be all encompassing so as to produce responsible entrepreneurs. This is where Idika's work clarifies further the social applications of integration, stressing how education can help develop the economy, and support the stability of the community.

Another aspect of inclusive education is, therefore, the sensitization of the society to certain requirements like that of persons with disabilities. Inclusive innovation and entrepreneurship can be trained to students by where the work emphasizes disabilities and the value on universal design techniques. Thus, this form of education makes it possible for students to effectively understand as well as how to participate in the creation of entrepreneurship that is usable by everyone including those that are challenged. Building on this, moved forward to establish inclusive education as a moderator of entrepreneurial activities of the disabled students. They also conclude that there is the possibility of positive changes in the behaviours of the students with disabilities and the kind of choices they make by having access to a pro-entrepreneurship education.

Building on this theme, overviews how the concept of inclusive education is useful to support the equality of opportunities that people with disabilities have to engage on entrepreneurial activities. This view gives credence to the concept of 'inclusiveness' associated with entrepreneurship education as an open opportunity for foundation of entrepreneurial competence enhancement in anybody and everyone, who would wish to engage in enterprise initiatives and contribute positively to the economy.

Altogether they stress that diverse composition of an entrepreneurial classroom does not mean that all obstacles that prevent certain groups from participating in entrepreneurship are eliminated. Through the use of special emphases that suit the tapestry of other students' enrolment, inclusive education can be a call to social and economic emancipation.

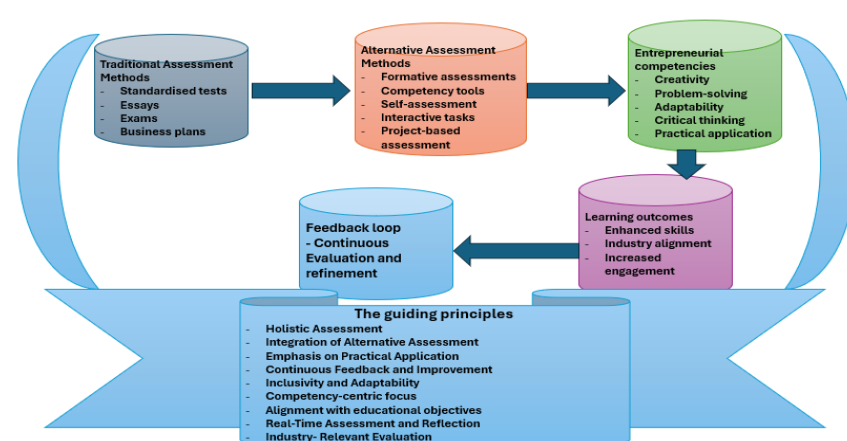


FIGURE 1
CONCEPTUAL FRAMEWORK: ENTREPRENEURIAL ASSESSMENT
EVOLUTION MODEL (EAEM)

From the literature review and theoretical framework, the researchers came up with a conceptual framework or model that they believe would suggest alternative Assessments in entrepreneurship education. The model is called The Entrepreneurial Assessment Evolution Model (EAEM). The Entrepreneurial Assessment Evolution Model (EAEM) is a conceptual framework designed to enhance the evaluation of the competencies acquired by entrepreneurs in the context of the utilization of innovative alternative assessment methods instead of the usual and conventional ones. Entrepreneurial Assessment Evolution Model (EAEM), this name suits this model because it reflects the transition from the traditional ways of assessing skills to the new ways.

Core Concept

EAEM endeavours to overcome some of the shortcomings of traditional methods of assessment in the context of entrepreneurship education by incorporating alternative assessment tools that are more suitable for the identification and cultivation of entrepreneurship skills and related competencies.

Components of EAEM

1. **Traditional Assessment Methods:** It encompasses standardised tests, essays writing, examinations and business plans. Often emphasizes theoretical knowledge rather than practical skills, creativity, and innovative, and real-world application. It fails to capture different forms of entrepreneurial competencies and experience.
2. **Alternative Assessment Methods:** It encompasses the formative assessments, competency tools, self-assessments, the project-based evaluations and the interactive tasks. Benefits include a holistic assessment of the skills vital to the success of an entrepreneur, it aligns with real-world scenarios, and encourages problem solving, innovation, critical thinking, creativity and adaptability.
3. **Entrepreneurial Competencies:** Summarize as creativity, problem solving, adaptability, critical thinking, and practical application. According to this model, these competencies should be assessed alternative methods since the current methods do not give an accurate picture of the strength and abilities of an entrepreneurial student.
4. **Learning Outcomes:** Enhanced skills in entrepreneurship, better alignment with industry needs, enhanced students' engagement and motivation. The model aims at improving the efficiency and effectiveness of the entrepreneurship education.
5. **Feedback Loop:** The model can be used at schools and universities to improve existing programs of entrepreneurship by means of applying the AMAE model and using the approaches which comply with the principles of EAEM. EAEM can be used by teachers in order to tailor the assessments to reveal students' entrepreneurial capabilities and to offer constructive feedback. This way, educational policymaker can

encourage the integration of principles of EAEM in policies of entrepreneurship education, assessment for learning.

Purpose of the EAEM

1. **To Improve Assessment Accuracy:** Incorporating alternative assessments, the model aims to provide a more accurate and comprehensive evaluation of students' entrepreneurial skills and competencies.
2. **To Enhance Inclusivity:** The model addresses the need for diverse assessment methods that can accommodate different learning styles and backgrounds.
3. **To Align with Industry Needs:** focusing on practical and industry-relevant skills, EAEM seeks to better prepare students for the entrepreneurial challenges they will face in the real world.

To Foster Practical Skills: It emphasizes the importance of assessing real-world skills and competencies that are crucial for entrepreneurial success.

Application of the model

The model can be used at schools and universities to improve existing programs of entrepreneurship by means adopting alternative assessment methods and using the approaches which comply with the principles of EAEM. EAEM can be used by teachers in order to tailor the assessments to reveal students' entrepreneurial capabilities and to offer constructive feedback. This way, educational policymaker can encourage the integration of principles of EAEM in policies of entrepreneurship education, assessment for learning. The EAEM represents a forward-thinking approach to evaluating entrepreneurial education, focusing on practical skills, inclusivity, and continuous improvement.

Relationships Between Concepts

1. **Traditional vs. Alternative Assessments:** Entrepreneurial competencies are better evaluated by use of alternative assessments than by the traditional means. Including functional, comprehensive practical assignments and formative evaluations, they are the opposite of the conventional assessments.
2. **Competency Development:** Project and interactive type of assessment create the basis for the development of entrepreneurial competencies by engaging students in hands-on, reflective, and collaborative activities.
3. **Holistic Evaluation(Assessment Methods):** The use of formative assessments, self-assessment and competency tools result in a holistic analysis of the students' entrepreneurial ability, with the capacity to provide feedback and improvement throughout learning.
4. **Practical Application:** Real-World Relevance: Alternative assessments, usually involve activities that mimic real life entrepreneurial activities; therefore, these forms of assessment are more appropriate for preparing students for real life entrepreneurial activities.

Core Principles

The EAEM is constituted on several principles that help in its assessment of the entrepreneurial education.

1. **Holistic Assessment:** Concentration on assessing all the spectrum of the enterprise competencies such as creativity, problem-solving, adaptability, and practical application. In Traditional assessments places more stress on theoretical knowledge were as EAEM intends to evaluate overall skills which may be critical for entrepreneurial training success. This includes both cognitive and practical competencies, ensuring a more complete understanding of a student's abilities.
2. **Integration of Alternative Assessments:** Employ both formative and summative assessments and use project-based assessments, self-assessments, competency tools and interactive tasks. EAEM uses numerous procedures of assessing the competencies which can be applied to the context of enterprise creation. That is why such integration enables a more accurate assessment and allows to reflect actual entrepreneurial actions to a greater extent.

3. **Emphasis on Practical Application:** Ensure the assessments are similar with the real-life cases and experiences of an entrepreneur / industry practices. It also focuses on authentic and realistic assessments since the model aims at testing the student's application of the acquired concepts and knowledge in real life. This approach is very useful in because it helps minimize the time that is taken between classroom learning and actual practice of entrepreneurship.
4. **Continuous Feedback and Improvement:** The feedback loop of the model makes feedback a continuous procedure that will help in the constant evaluation of the teaching practices and the assessment processes. Thus, at EAEM, incorporates constant feedback this feedback enables a continuous improvement process which makes sure that educational strategies do not become outdated, or irrelevant to the students.
5. **Inclusivity and Adaptability:** Develop assessments that would involve several people with different learning experiences to ensure that everyone is catered for with equal opportunity. These learning needs and preferences of students are addressed in the model as the model knows that all students are unique. Through the use of the variety of assessment tools, EAEM is able to afford every student chance to evidence his or her competencies in the capacities that he or she masters best.
6. **Competency-Centric Focus:** Center assessments around specific entrepreneurial competencies, such as innovation, risk-taking, and strategic thinking. Thus, EAEM is more oriented towards the identification of cognitive factors important for entrepreneurial performance rather than the outcome of knowledge tests. This competency-centric approach helps in developing targeted skills that are crucial for effective entrepreneurship.
7. **Alignment with Educational Objectives:** Ensure that assessment methods are aligned with the learning outcomes and objectives of the entrepreneurship education program. The model points to the need of organizing assessments to ensure that they are in line with the goals of the educational program. This alignment assists in finding out to what extent the students are covering the intended learning outcomes and the skills that help them become better entrepreneurs.
8. **Real-Time Assessment and Reflection:** The model adopts live feedback and opportunity for self-analysis during the progress that will enhance learning and personal growth of entrepreneurial skills. EAEM consists of assessments that are taken in the learning process, giving the learner an opportunity to self-evaluate and even correct the wrong answers. This real time learning approach caters for constant learning and growth.
9. **Industry-Relevant Evaluation:** Regularly update the assessments to reflect current industry's trends and innovations because most, if not all, should be applicable in the industry. This way EAEM guarantees that the skill or performance of students is measured by real life examples and standards enhances applicability of their learning outcomes.

Together these principles result in a more efficient, fair, and realistic approach for evaluating the entrepreneurial education students; in addition, they aim at improving the overall assessment of the students' entrepreneurial skills and skills for addressing the real-life issues.

EAEM is an enhancement of entrepreneurship education since it overcomes the weaknesses of traditional assessment paradigms while incorporating more robust, diverse strategies for measuring competencies that would be useful in entrepreneurship. By evaluating and engaging the multi-paradigmatic competencies the EAEM promotes such traditional and heir entrepreneurial skills as creativity, adaptability, and problem-solving. This model enhances a connection between the assessment practices in the classroom and the real-world problems and industry requirements so that the students are in better standing to engage in entrepreneurial activities outside the classroom. The EAEM also focuses on the diversity and flexibility of the assessment options provided where the presentation methods include catered for the EAEM learning styles for more inclusive entrepreneurial education. Finally, the vision of the EAEM is to enhance the quality of the entrepreneurship programs since it offers the accurate, holistic, and realistic assessment of students' entrepreneurial skill sets in order to equip them for the challenging tasks within the global world of entrepreneurship.

Other models similar to the EAEM are the Authentic Assessment Models, Competency-Based Assessment Models, the Experiential Learning Models, the Transformative Learning Models, and Integrated Assessment Models. The unique Aspects of the EAEM is the integration of Specific Alternative Assessments, it focuses on Entrepreneurial Competencies, and it has a feedback Loop for Continuous Improvement. There are other models on assessments, but the EAEM model has a detailed integration of formative assessments, competency tools, and feedback loops tailored to entrepreneurship in a more specific way. Emphasizing competencies specific to entrepreneurship, such as creativity, adaptability, and problem-solving, and how alternative assessments can enhance these skills is a unique angle. Incorporating a feedback loop for ongoing refinement and assessment aligns with modern educational theories but adds a dynamic component to the model.

Materials and Methods

Research Design

This research work adopts a method of desk-top research whereby information is collected from secondary sources drawn from literature, reports and studies. Conducting a desktop study is particularly appropriate for this research because it helps the researcher consolidate the results of the literature review on possibility to introduce the forms of alternative assessments and inclusive practices for the preparation of entrepreneurs. Based on a literature analysis of related sources, this study's goal is to determine which of the current alternative assessment approaches support inclusion, diversity, and equity in entrepreneurial learning spaces the most effectively.

The current study is a review and as such, a qualitative methodology is adopted for the content analysis of scholarly publications in the field of assessment in entrepreneurship education. The research does not use original data, but use different authors' articles, educational policy reports, and cases to support the argument.

Data Collection

The information for this desktop study was obtained from Google Scholar, JSTOR, Eric and e-journals on entrepreneurship education databases. The selection of literature was guided by the following criteria:

1. **Relevance to Alternative Assessments:** Such sources included articles that deliberated or reviewed other alternative of assessment in contexts of entrepreneur education or other forms of education at large.
2. **Focus on Inclusivity:** Literature that looked at inclusive practices in education or specifically in entrepreneurship education were included
3. **Publication Date:** The most recently published studies have been preferred for this purpose with an emphasis on the last decade.
4. **Diverse Contexts:** These papers involved students from cultural and socio-economic diversity to obtain a broad range of inclusive practice and assessment.

Data Analysis

Moreover, each article was reviewed applying thematic analysis that deals with the identification of patterns (themes) in the presented material. This process involved several steps (Carter, 2023):

1. **Familiarization with Data:** Various articles were selected, and the contents read and re-read several times to ensure the author comprehensively understood the proper progression of the argument, findings and recommendations concerning both alternative assessment and inclusion.
2. **Coding:** Specific keywords, terms and concepts were indexed for these themes including 'peer assessments', 'project-based learning', and 'inclusive assessment'.
3. **Theme Development:** The codes were further categorized into minor themes such as 'the feasibility of the use of the alternative assessments', the 'influence on different learner groups' and the 'barriers to implementation of the assessments'.
4. **Analysis and Synthesis:** The review of existing literature was conducted, and these ideas were categorized, compared, and contrasted to create links and to show potential research areas for future work and the most effective assessment strategies for promoting inclusion in entrepreneurship education.

RESULTS

This section may be divided by subheadings. It should provide a concise and precise description of the experimental results, their interpretation, as well as the experimental conclusions that can be drawn.

Question 1: What is the current alternative assessment methods used in entrepreneurship education?

In entrepreneurship education, traditional assessment methods are increasingly being supplemented or replaced by alternative approaches that better reflect entrepreneurial skills and competencies. Some prominent alternative assessment methods include:

1. **Dynamic Assessment Models:** to traditional methods. It notes that computer-based tests as the type of dynamic assessment model of entrepreneurial skills are more interactive than foregoing kinds of tests.
2. **Practical Projects and Competency Tools:** As pointed by there is an introduction of practical projects and competency tools. Such methods include the use of business simulations and the use of real live projects together with cases which are real and gives a better picture of the abilities of an individual in business.
3. **Fuzzy Integrated and Neural Network Models:** It highlight new formative and summative assessments such as fuzzy integrated assessments and BP neural networks that provide a more sophisticated way of measuring innovative skills and teaching conditions than can be offered by qualitative assessments only.
4. **Rubric-Based and Self-Assessment Tools:** It supported the rubric-based and the self-assessment. These methods evaluate competencies of a universal nature and personal changes and, therefore, provide for individual feedback on the outcomes attained by the students.
5. **Online and Continuous Assessments:** It presents how formative assessments can also incorporate use of online learning forum and self- assessment, which is constant and unobtrusive.

Question 2: How do these methods contribute to the inclusion of diverse learner groups?

Alternative assessment methods contribute to the inclusion of diverse learner groups by addressing various needs and learning styles:

1. **Increased Accessibility:** Such strategies, such as universal design in entrepreneurship education, which describe, include ways to make assessments accessible for persons with disabilities, fostering a more inclusive learning environment.
2. **Tailored Feedback:** These approaches employ specific rubrics and self-assessment whereby students are provided with special assessments that enhance their different learning capabilities and speeds; thus, can accommodate all types of learners.
3. **Engagement with Real-World Problems:** Application-based assignments raise students' problem-solving skills directly that could be helpful to participating disadvantaged students who can benefit from good modelled, real-life skills in view of their identity contexts.
4. **Broader Participation:** Flexible and creative models of assessment increase the percentage of students' engagement because mass assessment restricts the number of students who can excel in traditional knowledge tests, especially those formats of exams that may be disadvantageous to some students.

Question 3: What are the potential challenges and opportunities associated with implementing alternative assessments in entrepreneurship education?

Challenges:

1. **Implementation Complexity:** Different methods of assessment are somewhat elaborate and comprise a change of the usual practices of teaching and rating. This can present difficulties in terms of organising, access to resources or difficulties when attempting to train teachers.
2. **Resource Intensity:** Computer based or neural network type of assessments may also be time consuming and resource intensive which may not be easily accessible in some learning environments.
3. **Scalability Issues:** When it comes to expansion of the idea in line with the capacity to extend the adoption of the various forms of the alternative assessments across different institutions of learning, this can be a challenge especially when done in areas of minimal resource.

Opportunities:

- a. **Enhanced Learning Outcomes:** Self-evaluation through alternative assessments can result to better evaluating of the student's entrepreneurial skills hence improving the learning achievement and readiness for challenge.
- b. **Increased Inclusivity:** These methods offer the potential for teachers and students to increase learning participation and engagement as well as recognizing diverse learning requirements and experiences hence providing greater integration in classes.
- c. **Innovation in Education:** The promotion of the appropriate assessment brings about Change in practising teaching and assessment processes, a factor contributes to positive change in delivering effective and efficient Entrepreneurship programmes as proposed.

In general, pros outweigh cons inherent in the use of the specific types of assessments in the context of the entrepreneurship education; hence, the benefits of the suggested approaches towards making the learning process more inclusive and effective are obvious.

Recommendations for policy and practice

Based on the limitations of traditional assessments in entrepreneurship education, several recommendations for policy and practice can be made based on the limitations of traditional assessments in entrepreneurship education, several recommendations for policy and practice can be made:

1. **Adopt Alternative Assessment Methods:** In order to enhance learners' participation, lower stress, and promote inclusiveness of diverse intellects, educational institutions should incorporate, for example, practical assignments, case and Competency-based evaluation models. Such methods are closer to realistic entrepreneurial assignments and tasks which lets students show their problem-solving skills and creative thinking in exercise.
2. **Implement Formative Assessments:** The evaluative strategies include formative assessments including feedback given to student, peer and self-assessments which offer constant update on the students' progress and areas of difficulty as pointed. The above approach is more helpful in finding strengths and weaknesses which in turn promote repetition and improvement.
3. **Enhance Inclusivity:** It should also encourage the use of helpful policies that engages all learners including those with disabilities and from underrepresented groups. To minimize unfair measure of their entrepreneurial skills, assessments are made in ways that are favourable to everyone with disability.
4. **Promote Real-World Relevance:** In particular, assessments have to be developed to look like genuine entrepreneurial situations and conditions. This includes the use of such approaches as simulations and role plays that mimic real business environment as well as case studies.
5. **Encourage Collaborative Assessments:** As has been established that teamwork is a critical component of entrepreneurship, then assessment should involve group and team-based activities. Such approach helps to develop important teamwork skills and is gladly present in the authentic entrepreneurial projects.

6. **Integrate Technology:** Technology application in assessments like digital portfolios and computation-based models can improve the assessment process. New technologies support more vibrant, participative, and flexible assessment techniques that are better suited at assessing entrepreneurial knowledge and skills.

With the above suggestions, educational institutions would be better placed to bring on board another dimension to an assessment system that would help competent students to fit inside the entrepreneurial challenges fully.

CONCLUSION

It is established that there is a shift in the current methods being adopted in the assessment of learning in entrepreneurship education towards dynamic, inclusive and real-world relevant approaches. Assessment techniques include dynamic assessments, practical projects, fuzzy integrated models that include rubrics, and other tools that supplement the traditional approaches to assess entrepreneurial competencies. Such approaches create and support the conditions of diversity, accessibility and various learning styles and needs.

EAEM reflects this progressive change in that it encourages an emphasis on the other forms of assessment, which are dynamic, realistic, and participatory. Unlike conventional tests that can stereotype students' academic achievements focusing on memorizing content knowledge, EAEM is aimed at assessing appropriate and valuable 'work readiness' entrepreneurial attributes such as innovation, flexibility, and resilience. Thus, using real-world relevance, formative feedback, and continuous improvement, the EAEM enables the educational institutions increase the accuracy of the abilities' evaluation.

This model underscores the importance of the call to have designs in assessments that will seek to meet the learners' needs hence creating a better learning environment. In addition, it orients to industry expectations by ensuring students have the needed skills to solve entrepreneurship dilemmas by experience and knowledge.

In this way, EAEM embodies and promotes a learning paradigm which is holistic, applicable, and adaptable in order to assure the progressive development of an entrepreneurship education model that is student-oriented, competency-focused and innovative. It supports changes in policies that would render effective change, integration of information technology as well as consistent feedback that would make the education in entrepreneurship significant and effective in the ever-evolving contemporary world.

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