

Assessment of the Integrated Curriculum Model for fostering 21st Century Entrepreneurial Skills and its Implications for Graduate Employability

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Abstract

In the rapidly evolving landscape of the 21st century, fosters entrepreneurial skills among students and has become imperative to prepare them for the dynamic and uncertain future. This study explores the implications of the integrated curriculum for teacher training programmes in Nigeria. This study adopted the descriptive research design of survey type. The population of the study consisted of university teacher trainees while the target population were final year students sampled purposively. The instrument for the study was a researcher-designed questionnaire subjected to the test of internal consistency to ensure that the instrument is valid while the instrument was subjected to the test of internal consistency to ensure its reliability. Three research questions were posed and answered using percentage while one generated hypothesis was tested using chi-square statistic. The finding of the study revealed that integrating entrepreneurial education into teacher training programmes holds significant promise for equipping students with the 21st-century skills necessary for success in an increasingly competitive and innovation-driven world. By adopting the integrated curriculum model theoretical knowledge, experiential learning, and industry collaboration, educators can play a pivotal role in nurturing entrepreneurial mindsets and capabilities in the next generation. However, further research is needed to

understand the optimal approaches, challenges, and outcomes associated with this integration, thereby informing evidence-based practices and policies in educational settings.

Keywords: Entrepreneurial Skills, Graduate Employability, Integrated Curriculum Model, 21st Century

Introduction

Education is the mainstay of any economy without which human society cannot progress. However, the recent trend in globalization and digital civilization has infused the need for dynamic and unique approach to knowledge acquisition in global educational landscape. Nowadays, students are now seeking to integrate knowledge across multidisciplinary context and utilize their prior experiences in their current field of learning. There is therefore an acute need for effective curriculum that can make adequate connections between different subjects and real-world experiences, leading to a deeper understanding of concepts. Integrated curriculum model (ICM) therefore emerged a growing model of learning through which the inquisitive demand of people the present-day world can be achieved (VanTassel-Baska & Wood, 2023). The ICM is a holistic approach to learning which prepares students for the complexities of the modern world, where problems are often interdisciplinary in nature (Magoma, 2016)

The university is a pivotal aspect of any economy (Aguh et al., 2023). It is a higher institution of learning which bridge gap between abstract knowledge and real-life application (Steele & Rickards, 2021; Valero & Van Reenen, 2019). According to Ahmodu and Sofoluwe (2018), university education refers to the formal learning experience which aligns with an integral curriculum within a university setting. Wide range of undergraduates and postgraduate programs are offered in the universities, not only to develop the job-specific skills but also foster skills crucial for critical thinking, civic engagement and labour adaptability (Ogunode et al., 2021). In the lenses of these activities, universities across the globe aim to develop students' ability in the skills and proficiencies needed to navigate diverse professional and personal contexts in the human society. Yusuf et al. (2023) defines the university education as an intellectual journey that involves the acquisition and application of knowledge, skills, and values through structured learning experiences, leading to personal development and societal contribution. It is a formative experience that prepares individuals for specific careers or professions through specialized knowledge, practical skills, and ethical standards relevant to their field of study (Ajape et al.,

2020). While, Baro et al. (2017) views university education as an opportunity for individuals to explore diverse disciplines, ideas, and perspectives, fostering critical thinking, creativity, and lifelong learning. Alao and Jagboro (2017) argued that every university possess a culture of inquiry and discovery, driving the advancement of knowledge, technology, and societal progress through research and innovation. Through this, Ogunode and Madu (2022) noted that every university promotes understanding, tolerance, and cooperation among individuals from diverse backgrounds, fostering a sense of global citizenship and responsibility. Not only that, the education from a university in view of Godwin (2021) serves as a pathway for social mobility, enabling individuals from disadvantaged backgrounds to access opportunities for personal and professional advancement.

The core advantage of university education lies in its transformative potential, Oluwakemi and Omolara (2015) as well as offering individuals the opportunity to acquire specialized knowledge, critical thinking skills, and professional competencies (Oluranti, 2014). In the Nigerian frameworks, Almohtaseb et al. (2023) argued that many have chosen and taken keen interest in the university education in that most university graduates in the western world are believed to be better equipped to access a wide range of career opportunities, achieve higher earning potentials, and contribute meaningfully to their communities and the nation at large. Furthermore, university education fosters a culture of research, innovation, and lifelong learning, preparing graduates to navigate a rapidly changing world and make informed decisions that benefit both themselves and society (Daramola, 2024). In Nigeria, universities stand as cornerstones of national progress, nurturing skilled citizens and fueling innovation (Gambo &Fasanmi, 2019). They provide specialized educational training and practical experiences, preparing graduates for diverse professions (Ogunode et al., 2021). This skill development plays a critical role in enhancing employability and contributing to a skilled workforce, a key aspect of human capital development (Olowonefa et al., 2022).

Employability of university Graduates has become an absolute necessity in the 21st century which is marked by rapidly shifting jobs graduates are expected to have knowledge and skills that respond to the trends and challenges that are altering the nature of work in both the formal and informal sectors (Oladele et al., 2024).Constant monitoring is also crucial for developing a workforce that is suitable for the challenges of the 21st century and for building the much-needed

21st-century work abilities of adaptability for the purpose of boosting graduate employability in light of the fast-paced work environments that are prevalent in today's world (Papier, 2021; Trudeau & Omu, 2017). Studies like Nnadijeze and Oteyi (2023) acknowledge the progress made in expanding access to university education, with the establishment of numerous private universities alongside public institutions. This has increased overall enrollment numbers. However, concerns remain regarding equity in access, as financial constraints and geographical location create barriers for disadvantaged groups (Ahoatu & Ogunode, 2021). Furthermore, the skills gap between higher education preparedness and fast-evolving labor market demands in Africa is identified as one of the main challenges for youth employment which requires urgent attention from relevant stakeholders as a contribution for solving unemployment challenges in the continent (UNESCO, 2022).

The totality of students' learning and experiences is planned and determined by the curriculum, which encompasses the content, skills, values, and experiences students engage with to achieve educational goals while enhancing students' capabilities in fostering both intellectual and social development. Curriculum models serve as a blueprint for designing and organizing learning experiences within an educational curriculum while providing the framework for outlining what students should learn, how they will learn it, and how their learning will be assessed. There are different curriculum models, which include content-driven model, process-oriented model, learner-centered model, outcome-based model and integrated model. The integrated curriculum model particularly seeks to break down subject silos and promote connections across disciplines (Kahveci & Atalay, 2015). Owolabi (2021) affirmed that each curriculum model offers distinct advantages and challenges. The effective application lies in understanding their core principles, analyzing the specific educational context, and potentially combining elements from various models to create a hybrid approach tailored to the unique needs of learners and learning goals.

Integrated curriculum is a desired practice in the modern-day educational society (Drake & Reid, 2018). Farouq and Ayodele (2016) defines integrated curriculum (ICM) as a system of education that is organized in such a way that it cuts across different subject-matter lines, bringing together various aspects of the curriculum into meaningful association to focus upon broad areas of study. The authors further explained that ICM incorporates critical thinking; creative thinking,

citizenship, character development, and communication which transcend across disciplines. Unlike the conventional distinct curriculum, Onoh et al. (2018) argue that the integrated curriculum is designed in a way to impact learning and teaching in a holistic way and reflects the real world interactively without restrictions to only one discipline. Thus, it makes sense that curriculum integration offers an effective way to teach these 21st Century capabilities and maintain, and possibly boost academic achievement. Indeed, Gardiner (2020) identifies creativity, critical, and higher order thinking as key benefits of interdisciplinary activities. Provided the array of related approaches, it may be best to consider integrated curriculum as a continuum of practices that fall somewhere between the traditional distinction of individual content areas and the unification of all subjects and experiences (Kreijkes & Grooten, 2024). Owolabi (2021) emphasized that ICM stands today as a strong opium knowledge unification and educational dynamism. In many developed nations, it is believed that, undergraduate curriculum should possess organic unity and that knowledge calls for greater synthesis or profounder meaningfulness or more explicit inter-relationship of parts. Integration links all types of knowledge and experiences, contained within the curriculum plan, emphasizing vertical and horizontal relationships, among topics and themes, from all knowledge domains, thus achieving unity of knowledge (Bouckaert, 2023; Pieters et al., 2019).

As noted by an (2017), the ICM is described as one that connects different areas of study by cutting across subject-matter lines and emphasizing unifying concepts. Recognizing this, Parmin et al. (2019) noted that ICM focuses on making connections for students allowing individuals to engage in relevant, meaningful activities that can be connected to real life. Therefore, an ICM is important in today's modern society because it provides students with the knowledge, skills, and attitudes they need to thrive in a complex and rapidly changing world. It prepares them to be lifelong learners who can adapt to new challenges and contribute meaningfully to society. In addition, an integrated curriculum can also promote social and emotional learning. The consideration of a continuum, or different phases of curriculum integration, has been described by various authors in which the disciplines move from being distinct and separate, to being combined with boundaries preserved, to being blended until disciplinary distinctions are no longer evident (Applebee et al., 2007). Although, some authors describe relating curriculum integration to the 'real world' in terms of serious examination of social issues (Venville et al., 2012; Wall & Leckie, 2017); or actively preparing to participate in a democracy (Bergmark & Westman, 2018;

Hopkins, 2014), others consider employing the practice to simply replicate the ‘real world’ as interconnected (Burke & Lehane, 2023).

Considering that today’s world is interconnected, it only makes sense that knowledge be presented as interconnected. Within the context of the university system, Magoma (2016) emphasized a link among the humanities, communication arts, natural sciences, mathematics, social studies, music, and art. Hence the authors argued that skills and knowledge can be developed and applied in more than one area of study, even at the higher institution level. ICM is regarded as a panacea to this deficiency as it can help students take control of their own learning (Atalay& Kahveci,2015). ICM is regarded as a great gift to experienced teachers being a system of getting a new pair of lenses that make teaching a lot more exciting and help learners look forward into the next century (Drake & Reid, 2020). However, introducing the ICM package in Nigerian traditional school system is not easy: it requires the right conception, design, time, research, training, dialogue and constant evaluation (Igwe, 2019). Chang (2012) explores employability through an integrated curriculum in Taiwan and provided an example of a special curriculum that links to enterprises for increasing senior students’ employability. Offorma (2016) examined key integration of culture and its relevance for the Nigerian basic education curriculum planning. This study therefore seeks to examine the integrated curriculum model for fostering 21st century entrepreneurial skills and its implications for graduate employability with peculiar focus on the University setting in Nigeria.

Statement of the Problem

There is no gainsaying the fact that the career landscape has changed significantly, which raises the question on the relevance of the curriculum in preparing students to face rapidly changing global challenges (Adeoye et al., 2023). Reports show that students ill-prepared for modern careers and global competition (NewsDirect, 2023; Daramola, 2024). This situation requires an educational curriculum that will reflect current global trends, technological advancements and industry needs. While the existing studies provide valuable insights into the implementation of integrated curriculum at the basic education level and non-Nigerian tertiary institutions (Chang, 2012; Offorma, 2016), there is a limited body of research addressing the implementation and effectiveness of integrated curriculum models in Nigerian universities which leaves a notable research gap emerges concerning the application and impact of such models specifically within the higher education sector in Nigerian universities. Given the unique

challenges and dynamics of the higher education landscape in Nigeria, it is crucial to investigate how integrated curriculum models with respect to having the required employability skills relevant for today's educational job market in this the Nigerian context. This necessitates a targeted exploration within the Nigerian university setting to inform tailored strategies that align with the specific needs relevant in this 21st century. It is against this background that this study examined the integrated curriculum model for fostering 21st Century Entrepreneurial Skills and its implications for graduate employability

Purpose of the Study

The aim of this research is to examine the influence of the integrated curriculum model on fostering 21st century entrepreneurial skills and its implications for graduate employability with peculiar focus on students from the University of Ilorin, Ilorin. The specific objectives are to: examine the entrepreneurial skills acquired by teacher training in university of Ilorin; investigate the extent to which utilized teacher-training curriculum model in the University of Ilorin aligns with the principles of an integrated curriculum model. Evaluate the influence of the integrated curriculum model on students' entrepreneurial skills development in the University of Ilorin.

Research Questions

1. What are the employability skills acquired by teacher trainees in University of Ilorin?
2. To what extent does the utilized teacher training curriculum model for teacher trainees follows the principles of an integrated curriculum model?
3. Does the integrated curriculum model influence students' entrepreneurial skills development?
4. Does the utilised curriculum model significantly influence teacher trainees' entrepreneurial skills development in the University of Ilorin?

Research Hypothesis

H01: The utilised curriculum model does not significantly influence on students' entrepreneurial skills of communication, leadership, creativity, empathy, emotional stability, teamwork, problem solving, adaptability and conflict Resolution.

Methodology

A descriptive survey research design was adopted for this study. This design was deemed appropriate for understanding of how the integrated talent curriculum in Nigeria universities impacts student academic engagement in University of Ilorin, Nigeria through an investigative lens. The population of the study is university undergraduates while the target population for this study comprised the entire undergraduate students of the faculty of Education in the University of Ilorin. The purposive and convenient sampling technique was employed for sampling of the participant. A structured questionnaire was designed and used as the data collection. The instrument had a Likert scale of four (4) points was used to enable the respondents give their opinions to 16-items in the questionnaire based on the following grades: Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, and Strongly Disagree (SD) = 1. The instrument had two sections, section A was designed to collect information on extent to which curriculum model for teacher trainees follows the principle of an integrated curriculum, section B was designed to collect information on Influence of the integrated curriculum model on students' entrepreneurial skills development for teacher trainees. The questionnaire was content validated for relevance and to ensure that the items conveyed meaningfully and clearly. The instrument was further subjected to the test of internal consistency to ensure the reliability of the instrument. The reliability coefficient of the instrument was 0.79 and as such the instrument was judged to be reliable. In order to meet the objective of the study, the researcher will develop questionnaires to collect data. The questionnaires were administered using google forms and disseminated through students WhatsApp groups. The collected data would be analyzed using the descriptive statistics to answer the research questions and chi-square to test the study hypothesis using the Statistical Package for Social Sciences software, V.27.

Results

Two hundred and six responses were received with no data missing which connotes a 100% completion rate and based on which the data analysis was carried out.

Answering of Research Questions

Research Question One: What are the employability skills acquired by teacher training in university of Ilorin?

Table 1: Employability Skills Acquired from Teacher Training

Employability Skills	Frequency	Percent	Rank
Communication	87	42.2	1st
Leadership	48	23.3	4th
Creativity	69	33.5	2nd
Empathy	42	20.4	5th
Emotional Stability	37	18.0	7th
Team work	68	33.0	3rd
Problem-solving	31	15.0	8th
Adaptability	41	19.9	6th
Conflict Resolution	1	0.5	9th

As shown in Table 1, (87 of 206 - 42.2%) of the respondents indicated that they acquired communication skills from their training as teachers ranking first, next was creativity with (69 of 206 – 33.5%) ranking second, after which (68 of 206–33.0%) indicated team work ranking third, and then (48 of 206 – 23.3%) indicated that they acquired leadership skills ranking fourth, while (42 of 206 – 20.4%) indicated empathy ranking fifth,(41 of 206 – 19.9%) indicated adaptability ranking sixth,(37 of 206 – 18.0%) indicated emotional stability ranking seventh, (31 of 206 – 15.0%) indicated problem-solving ranking eight, and lastly (1 of 206–0.5%) indicated conflict resolution raking ninth. This result showed that the percentage ranking of students on acquired employability skills was generally low with the highest-ranking skill of communication at 42.2%.

Research Question Two: To what extent does the utilized teacher training curriculum model in Nigeria follows the principles of an integrated curriculum model?

Responses were originally collected as SD: 1, D: 2, A: 3 and SA: 4 with seven items having minimum and maximum values of 14 and 28 respectively which was recoded to 14-18: 1to indicate a low alignment, 19-23: 2 to indicate a moderate alignment and 24-28 to indicate a high alignment of the utilized curriculum with the integrated curriculum model. The resulting data was analyzed using frequency/percentage statistics as shown in Table 2.

Table 2: Extent of Alignment of the Utilized Curriculum Model to the Integrated Curriculum Model

Extent of alignment	Frequency	Percent
Low	7	3.4
Moderate	111	53.9
High	88	42.7
Total	206	100.0

As shown in Table 2, 7(3.4%) of the respondents indicated that the utilized curriculum model in the sampled Nigerian university had a low alignment with the principles of an integrated talent curriculum, 111(53.9%) indicated a moderate alignment while 88(42.7%) of the respondents indicated that the utilized curriculum model in the sampled Nigerian university highly aligned with the principles of an integrated curriculum model. This result showed that most of the study participants indicated that the utilized curriculum model in the sampled Nigerian university is moderately aligned with the principles of an integrated curriculum model.

Research Question Three: Does the integrated curriculum model influence students' entrepreneurial skills development in the university of Ilorin?

Responses were originally collected as SD: 1, D: 2, A: 3 and SA: 4 with five items having minimum and maximum values of 5 and 20 respectively which was recoded to 5-13: 1 to indicate a non-affirmation and 14-20 to indicate an affirmation as influential on students' entrepreneurial skills development. The resulting data was analyzed using percentage statistics as shown in Table 3.

Table 3: Influence of Integrated Curriculum Model on Students' Entrepreneurial Skills Development

	Frequency	Percent
Non-affirmative	159	77.2
affirmative	47	22.8
Total	206	100.0

As shown in Table 3, 159(77.2%) of the respondents indicated that the utilized curriculum model in the sampled Nigerian university did not influence their development of entrepreneurial skills while 47(22.8%) of the respondents indicated that the utilized curriculum model in the sampled Nigerian university influence their development of entrepreneurial skills. This result showed that a few of the study participants indicated that the utilized curriculum model in the sampled Nigerian university influenced their entrepreneurial skills development.

Hypothesis Testing

H0: The utilised curriculum model does not significantly influence on students' entrepreneurial skills of communication, leadership, creativity, empathy, emotional stability, team work, problem solving, adaptability and conflict Resolution.

The generated study hypothesis was analysed using chi-square statistics to test the significance of the influence of integrated curriculum model on students' entrepreneurial skills development considering the skills indicated by the respondents as shown in Table 4.

Table 4: Chi-square Tests Showing influence of Integrated Curriculum Model on Students' Entrepreneurial Skills Development

Employability Skills	X²-Value	df	Asymptotic Sig. (2-sided)
Communication	1.121	1	.290
Leadership	0.170	1	.680
Creativity	7.419	1	.006*
Empathy	0.993	1	0.319
Emotional Stability	0.37	1	0.848
Team Work	0.788	1	0.375
Problem solving	0.001	1	0.973
Adaptability	0.958	1	0.328
Conflict Resolution	0.297	1	0.586

Significant @0.005

As shown in Table 4, a non-significant influence of integrated curriculum model on students' entrepreneurial skills development was recorded with all the employability skills except for creativity which was significant with a p-value of 0.01 which is less than 0.05. This connotes that integrated curriculum model on students' entrepreneurial of communication skill. Thus, the null hypothesis stating that there is no significant influence of the integrated curriculum model on communication skills is rejected. It therefore means that the integrated curriculum model significantly influences students' creativity skills.

Discussion of the Findings

This result showed that the percentage ranking of students on acquired employability skills was generally low with the highest-ranking skill of communication. This finding aligns with that of Akinbode & Oyelude (2020) and MasterCard (2023) which revealed that a significant proportion of Nigerian fresh graduates were deficient in 21st-century skills. Similarly, business leaders frequently express their dissatisfaction with the lack of skilled talent that is available to fulfill available positions (Papier, 2021; Trudeau & Omu, 2017). Oladele et al. (2024) reiterated this finding as contributing significantly to graduate underemployment and unemployment over the years. The onus is therefore on higher institutions to integrate more of entrepreneurial skills

development into teacher training programmes. Up scaling teacher training programmes is important as a panacea to graduate employability skills deficiency.

It was revealed from the findings of this study that the utilized curriculum model in the sampled Nigerian university moderately aligned with the principles of an integrated talent curriculum. Aligning the utilized curriculum with the integrated curriculum will benefit from its holistic approach to learning which prepares students for the complexities of the modern world, where problems are often interdisciplinary in nature (Magoma, 2016). This goes in line with the study of Beane (2019) who submitted that, integration of various elements, themes, or interdisciplinary approaches into the curriculum which goes beyond traditional subject-based teaching provides a more holistic and interconnected learning experience for students. The author further stated that integrated curriculum is a pedagogical approach that integrates a common theme or skill across various subject areas, allowing students to explore and understand it from diverse perspectives while maintaining the autonomy of each subject. This submission is strengthened by the findings by Kahveci and Atalay (2015) where student viewed the Integrated Curriculum Model and the differentiated social studies as effective. Thus, it imperative that curriculum integration offers an effective way to teach these 21st Century capabilities and maintain, and possibly boost academic achievement. Provided the array of related approaches, it may be best to consider integrated curriculum as a continuum of practices that fall somewhere between the traditional distinctions of individual content areas. Therefore, this finding gives credence to making efforts to align the teacher training curriculum model to the integrated model to be able to leverage its gains.

This result showed that a few of the study participants indicated that the utilized curriculum model in the sampled Nigerian university influenced their entrepreneurial skills development. For teaching and learning to take place in a formal setting in schools, the content in the curriculum and effective implementation determines the level of students entrepreneurial, which was regarded as the ticket to career boost (Hendy, 2022). This submission is also germane for solving the problem of skills gap between the preparedness of higher education and the rapidly changing demands of the labour market, which contributes significantly, to youth unemployment (UNESCO, 2022). Universities with teacher training programmes should therefore ensure that the deployed curriculum aids the acquisition of employability skills development as a panacea to graduate unemployment. Finally, the findings of this study revealed that the utilised curriculum

model significantly influences students' communication skill, which is just one among other nine tested skills. This finding may be due to the low alignment of the utilized curriculum to the integrated curriculum model, which incorporates critical thinking, creative thinking, citizenship, character development, and communication that transcend across disciplines (Drake & Reid, 2018). University education should adopt an integral process of impacting knowledge, skills and character traits, which prepares individuals for life and society. It is therefore imperative for higher institutions with teacher training programmes to align with the integrated curriculum model for an optimal graduate training.

Conclusion

Based on the results and the discussions above, it was concluded that the employability skills acquired from the teacher-training programme was low while utilized curriculum model aligned moderately with the principles of an integrated talent curriculum. Furthermore, the influence of the utilized curriculum on their entrepreneurial skills development was low with significance recorded in creativity skills; being only one of nine skills tested.

Recommendations

Based on which the following recommendations are proffered:

1. The university should encourage the adoption of the integrated curriculum model for deploying teacher training programmes within its faculty of education.
2. Student-led initiative should be promoted for the development of employability skills through the student leadership groups.
3. Training programmes should be provided by curriculum experts within the university community to equip lecturers on how to effectively deploy the integrated curriculum model.

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