

Innovative Pedagogical Approaches by Edupreneurs in Teacher Training

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Abstract

Innovative pedagogical approaches introduced by edupreneurs in teacher training are transforming traditional education paradigms. This study explores the innovative pedagogical approaches by edupreneurs in teacher training, with special focus on teacher training institutions in Kebbi State, Nigeria. The study adopted mixed-method approach. A sample of 76 educators was purposively drawn from four teacher training institutions in Kebbi State, Nigeria as participants for the study. Questionnaire and interview schedules were used to collect data from the sampled respondents. The face and content validity of the two instruments was carried out using experts. Both instruments were further subjected to pilot testing, and a reliability coefficient of 0.75, 0.80 and 0.78, respectively for the 3 items were determined using Cronbach Alpha formula. Descriptive statistics of mean and standard deviation were used to answer the research questions. Findings revealed (Grand mean score = 3.0) to show that teacher educators in Kebbi State, Nigeria makes use of innovative pedagogical approaches by edupreneurs to collaborate with their peers in other institutions, and it also revealed (Grand mean score = 3.0) to indicate that innovative tools play a significant role in enhancing collaboration practices among teacher educators in Kebbi State, Nigeria. Also, (Grand mean score = 3.2) to revealed certain barriers hindering collaborative culture among teacher educators in Kebbi State, Nigerian. It was therefore recommended that educators should incorporate fostering a culture of innovation and continuous improvement, edupreneurs are preparing a new generation of teachers who are not only skilled educators but also adaptable leaders capable of navigating the evolving educational landscape transformative teacher education in teacher education institutions in Kebbi State.

Keywords: Educational Technology, Transformative Teacher Education, Teacher Training Institutions Edupreneurs, Pedagogical.

Introduction

Innovative pedagogical approaches by edupreneurs in teacher training involves integrating novel strategies, tools and frameworks to enhance the effectiveness of teaching methods and improve education outcomes. Edupreuers often integrate cutting-edge technologies, learner-centered strategies, and real-world applications to prepare teachers for modern class rooms. This approach might include; technology integration personalized learning, practical experience, collaborative learning and continuous feedback which providing ongoing evaluation and support to improve teaching skills. Edupreneurship is the application of entrepreneurial principles to

education to drive innovation and create new education models and tools; it focuses on integrating business strategies with educational practices to enhance learning outcomes and address sector challenges (Miller O and Yeo, E. 2017). Edupreneurship involves leveraging entrepreneurial methods to develop new educational gaps and needs. It emphasizes creating impactful changes through innovative approaches in teaching and learning (Mita, U. 2013). Edupreneurship refers to the use of entrepreneurial skills and strategies to innovate and reform education. This approach aims to introduce new technologies, methodologies and educational models that improve teaching practice and students' outcomes (Zhao, Y. 2014). Edupreneurship is characterized by entrepreneurial approaches to solving educational problems and advancing the educational system, if involves the reaction of new initiatives and ventures that drive educational improvement and innovation (Bingham G & Hara O 2018).

Statement of the Research Problem

In the evolving landscape of education, traditional pedagogical methods in teacher training often fail to fully address the needs of modern classrooms or equip educators with the skills required for innovative teaching. This disconnect highlights a critical gap in teacher preparation programs, particularly in how they adapt to contemporary educational demands and pedagogical advancements. Edupreneurs, as agents of educational innovation, propose novel approaches that integrate new methodologies, technologies, and educational philosophies into teacher training. However, there is a lack of comprehensive research examining the effectiveness of these innovative pedagogical approaches in preparing educators for the complexities of current and future teaching environments.

The problem, therefore, lies in understanding how these new approaches developed by edupreneurs can effectively bridge the gap between traditional teacher training methods and the dynamic requirements of modern education. This research evaluates the impact of innovative pedagogical strategies introduced by edupreneurs on teacher preparedness and instructional effectiveness. How can we enhance collaboration among educators that will enable them to connect, communicate, and overcome existing challenges, and enhance their professional development, and work collectively towards transformative educational outcomes particularly in tertiary institutions of learning?

Objectives of the Study

The study is guided by the following objectives:

1. To bring new pedagogical techniques and technologies into teacher training programs by incorporating digital tools, interactive platforms and modern educational methodologies in teacher training.
2. Improving accessibility; through online platforms and blended learning approaches, edupreneurs make teacher training more accessible to educators, tools and platforms on collaborative practices among teacher educators in Kebbi State, Nigeria.
3. To identify challenges to the effective integration of edupreneurship in fostering collaboration among teacher educators in Kebbi State, Nigeria.

Research Questions

The following research questions were formulated in line with the stated objectives:

1. To what extent do teacher educators make use of edupreneurship digital tools, to collaborate with the peers in other teachers training institutions?
2. What role do edupreneurship tools play in facilitating collaboration among teacher educators in Kebbi State, Nigeria?
3. What are the barriers to effective Edupreneurship integration in fostering a collaborative culture among teacher educators in Kebbi State, Nigeria?

Theoretical Framework

The innovative pedagogies approach by edupreneurs represents a transformative shift in education, driven by entrepreneurial initiatives that challenge traditional paradigms. This approach emphasizes learner-centered, technology-enhanced, and skill-oriented methods to meet the evolving demands of modern education. (Clayton M. Christensen's 2008) *Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns*, which explores the role of disruption in creating flexible, accessible, and personalized learning experiences.

Learner-Centered Pedagogy

ClassDojo is an educational technology company founded by (Sam Chaudhary and Liam Don in 2011). It provides a communication platform that connects teachers, students, and parents. The platform helps in managing classroom behavior, facilitating communication, and promoting student engagement. Learner-centered pedagogy is an educational approach that prioritizes the needs, interests, and learning styles of students. It shifts the focus from traditional teacher-centered methods, where the teacher is the primary source of knowledge, to a model where students actively participate in and take responsibility for their own learning. (Weimer, M. 2013). An approach to teaching that prioritized the needs interests, and learning styles of students. It involves designing learning experience that engage students actively and support them in taking responsibility for their own learning (Patricia M. King and Karen A 2007)

Digital tools

Digital tools and platforms: Including the following:

1. *Virtual Classroom Platforms*: Zoom widely used for live sessions and interactive discussions.

Microsoft Teams: Integrates well with other Microsoft tools and offers robust collaboration features.

Google Meet: Simple and integrates with Google Workspace. Webex: Offers strong security features and integration options.

2. *Interactive Software*: Kahoot: For creating engaging quizzes and polls. Mentimeter: Allows for interactive presentations and real-time feedback. Padlet: Useful for collaborative boards and brainstorming sessions. Nearpod: Combines lessons with interactive elements and formative assessments.

3. *Online Resources*: Khan Academy: Offers a wealth of educational content and exercises. Coursera: Provides access to online courses from top universities. edX: Features courses and certifications from a range of institutions. Duolingo: Useful for language learning and practice.

4. *Learning Management Systems (LMS)*: Moodle: Open-source LMS for course management and delivery. Canvas: Known for its user-friendly interface and robust features. Blackboard: Offers comprehensive tools for course management and delivery. Schoology: Combines LMS with social networking features.

5. Content Creation and Collaboration: Google Drive: For file sharing and collaborative document editing. Microsoft OneDrive: Integrated with Microsoft Office for seamless collaboration. Prezi: For creating dynamic and interactive presentations. Canva: For designing engaging visual content. These tools and platforms can support various aspects of a virtual classroom, from live instruction and interactive activities to course management and resource sharing.

Integration of technology in teacher training

Integration of technology involves using digital tools and platforms to enhance the development and delivery of educational programs, here's how it can be listed below:

1. Online learning platforms; Edupreneurs can leverage platforms like courser, Udemy or even custom-built platforms or offer courses and training modules
2. Virtual classrooms; tools like Zoom, Microsoft teams, Google meet facilitate real time interactions, allowing for virtual workshops, seminars and collaborative sessions.
3. Learning management systems (LMS) system like module backboard, canvas help in organizing course content tracking learning progress, and providing a centralized platform for resources and communication
4. Educational apps and software; integrating apps that support learning management assessment and communication can enhance the training experience for example, apps for formative assessment or digital boards can be used to engage trainees.
5. Data analytical; using data analytic tools to track progress and outcomes can help in personalizing training and identifying areas that need improvement.
6. Content creation tools; Tools like Canva, adobe spark, or even AI-drive content generator can assist in creating engaging and interactive training materials.
7. Collaborative tools; platforms like Trevo, slack, or Asana can facilitate project based learning and collaboration among trainees

By integrating these technologies edupreneurs can enhance the effectiveness and reach of their teacher training programs, making them more adaptable and responsive to the needs of modern educators.

Methodology

The study adopted a descriptive survey research design and used a mixed-methods approach (Quantitative and Qualitative) to generate and interprets data. (Adeyemi, 2018) had

opined that by not being limited to a single method of research, the researcher can answer their research questions comprehensively and thoroughly. While quantitative data presented the overall picture of a problem, qualitative data gave the relevant explanatory details. The population for this study includes all lecturers in tertiary institutions in Kebbi State, while the target population for this study comprised of lecturers from the school of education in 4 teacher training institutions in Kebbi State. A total of 76 respondents were selected using purposive sampling technique. This sampling size was selected in line with Krejcie and Morgan table (1970) for the determining sample size from a given population. This research employed questionnaire and in-depth interview to generate data from the participants.

The instruments for this research were subjected to face and content validity by experts who assessed the comprehensiveness, adequacy and clarity of the items in the instruments. The reliability of the instrument was established through a pilot study and reliability coefficients of 0.75, 0.80 and 0.78 respectively for the 3 items were determined using Cronbach Alpha formula. The data collected through the quantitative study was analysed using mean and standard deviation. A mean response of 3.0 was considered as benchmark in this study. This is because the decision mean of 3.0 on a 5-point Likert scale is a well-justified and commonly accepted threshold for interpreting survey responses (Jamieson, 2004). It leverages the inherent properties of the scale, and provides a clear distinction between agreement and disagreement, and facilitates straightforward analysis and interpretation of the data in survey research, making it a useful tool for evaluating the effectiveness of programmes or interventions like the teacher-community relationship. Furthermore, qualitative data gathered through the interviews were analysed through descriptive analysis and used direct quotations of participants' opinions in order to increase the validity of the results. More so, the data were organised according to Sub-themes as it was structured in the interview schedules.

Results

Research Question 1: To what extent do teacher educators make use of edupreneurship digital tools, to collaborate with the peers in other teachers training institutions?

Table 1: Mean and Standard Deviation on Lecturers' Opinion on the Extent at which Teacher Educators make use of Edupreneurship Tools to collaborate with their Peers in other Teachers Training Institutions

SN	Items	N	X	SD	Decision
i	I used Edupreneurship tools to exchange ideas, experiences, and resources with my peers in other teachers training institutions	76	3.5	0.53	U
ii	I used Edupreneurship tools to connect with peers for professional supports	76	3.2	1.54	U
iii	I used Edupreneurship tools to undertake a joint research with co-educators from other institutions	76	3.0	1.24	U
iv	I used Edupreneurship tools to collaborate for the purpose of promoting professional development	76	2.9	1.54	NU
v	I perceived technology-based collaboration as effective in enhancing my professional development	76	2.5	1.80	NU
vi	Online and ICT-based collaboration has improved my instructional practices	76	3.0	1.76	U
vii	I use Edupreneurship tools to discuss professional challenges with co-educators globally and finds solutions to them	76	2.6	1.78	NU
Grand Mean			3.0		Used

Key: U = Used, NU = Never Used

In line with research question 1, the result in table 1 revealed that educators in teacher training institutions Kebbi State make use of Edupreneurship tools to exchange ideas, experiences, and resources with co-educators in other teachers training institutions. The data analysis indicated the mean scores of 3.5, 3.2, 3.0, 3.0 with the standard deviation values of 0.53, 1.54, 1.24, 1.76 for item statements i, ii, iii and vi respectively to show their agreement. However, have shown their disagreement on item statements iv, v, and vii with the mean scores of 2.9, 2.5, 2.6 and standard deviation values of 1.54, 1.80 and 1.78. Generally, the summary of the table reveals the grand mean score of 3.0 which is equal to the decision mean score of 3.0. This implies that majority of the sampled educators in teacher training institutions in Kebbi State make use of Edupreneurship tools to collaborate with their peers in other teachers training institutions

Research Question 2: What role does Edupreneurship tools play in facilitating collaboration among teacher educators in Kebbi State, Nigeria?

Table 2: Mean and Standard Deviation on Educators' Opinion on the role of Edupreneurship Tools in enhancing collaboration Practices among Teacher Educators

SN	Items	N	X	SD	Decision
i	Edupreneurship pedagogical tools helps teacher educators to share resources and materials with colleagues in other institutions	76	3.9	1.08	Agree
ii	Edupreneurship pedagogical tools helps to facilitate communication and feedback among teacher educators	76	3.1	1.19	Agree
iii	Edupreneurship pedagogical helps to support collaborative planning and curriculum development among teacher educators	76	3.0	1.24	Agree
iv	Edupreneurship pedagogical helps to enhance quality and frequency of collaboration among teacher educators	76	3.3	1.54	Agree
v	Edupreneurship pedagogical tools helps to facilitate professional development and learning communities among teacher educators	76	3.4	1.80	Agree
vi	Edupreneurship pedagogical tools helps to facilitate the exchange of ideas, experiences, and resources, which can significantly enhance teaching effectiveness	76	3.0	1.76	Agree
vii	Edupreneurship pedagogical tools helps to facilitate collective research initiatives, and enable teacher educators to work together on educational innovations and improvements	76	3.7	1.17	Agree
Grand Mean		3.3			Agree

Table 2 displays mean and standard deviation on respondents' opinion on the role of Edupreneurship pedagogical tools in enhancing collaboration practices among teacher educators in Kebbi State Nigeria. Specifically, all the item statements received positive responses. This is shown by the respective mean scores that are between 3.0 and above. Therefore, the summary of the table reveals the grand mean score of 3.3 which is greater than the decision mean score of 3.0. This implies that majority of the sampled educators have indicated that Edupreneurship pedagogical tools plays a significant role in enhancing collaboration practices among teacher educators in Kebbi State Nigeria.

Research Question 3: What are the barriers to effective Edupreneurship pedagogical integration in fostering a collaborative culture among teacher educators in Kebbi State, Nigerian?

Table 2: Mean and Standard Deviation on Educators' Opinion on the Barriers to effective Edupreneurship pedagogical integration in fostering Collaboration Practices among Teacher Educators

SN	Items	N	X	SD	Decision
i	Limited access to Edupreneurship pedagogical tools hindered teacher educators from effective collaborate with colleagues in other institutions	76	3.2	1.62	Agree
ii	Insufficient training, and support for teacher educators reduced effective collaboration with colleagues in other institutions	76	3.7	1.17	Agree
iii	Inadequate educational technology infrastructure and maintenance in teacher education institutions hindered teacher educators from effective collaboration	76	3.8	1.03	Agree
iv	Lack of innovative pedagogical content knowledge among educators hindered effective collaboration	76	3.0	1.78	Agree
v	Limited access to reliable internet services affects effective collaboration	76	3.4	1.54	Agree
vi	Limited digital literacy skills and resources limits effective collaboration among teacher educators	76	3.0	1.76	Agree
vii	Cyber security concerns and online safety issues hindered effectively collaboration	76	2.7	1.49	Disagree
Grand Mean			3.2		Agree

Table 3 shows participants' responses on the barriers to effective Edupreneurship pedagogical tools integration in fostering collaboration practices among teacher educators. It was revealed based with the mean scores of between 3.0 and above. However, only item statement vii received a mean score of 2.7 which is below 3.0 bench mark to express that cyber security concerns and online safety issues does not hindrances collaboration. On a general note, analysis of table 3 reveals the grand mean score of 3.2 which is more than the decision mean score of 3.0. This implies that majority of the sampled educators have regarded these barriers as impediments to building collaborative culture among teacher educators in Kebbi State, Nigerian.

Results of In-Depth Interviews with Teacher Educators

After analyzing the results, researchers conducted in-depth interviews with 6 respondents who were chosen randomly from the teacher educators who had been selected for the study. Regarding the use of Edupreneurship pedagogical tools for collaboration, majority of those who participated in the interview (5 educators) reported that they make use of innovative pedagogical approaches in platforms, applications and sites like Zoom Application, Google meet, Facebook,

Instagram, and WhatsApp among others to connect with peers, mentors, specialists/professors, individually or in professional groups to share ideas and resources, discuss challenges and sometimes undertake joint researches together. Although, they are using innovative pedagogical approaches by edupreneurs in teacher training to collaborate with other professionals, however, it was not frequent as expected. A participant (1 educator) responded that he have never participated in any online discussion forum or collaborate with any professional using digital tools. But he has engaged in face-to-face consultations with professional and colleagues around him.

Another area discussed during the interviews was the role of innovative pedagogical approaches tools play in enhancing collaboration practices among teacher educators. Majority of educators who participated in the interview (5 educators) considered edupreneurs as the backbone of educational innovations, which made collaboration possible. According to the participants offers numerous online tools and platforms that offer support and enhance collaborative among educators. They cites online learning management systems, discussion forums, social media, video and audio conferencing, and host of other collaborative software has helped them to connect, share, communicate, and collaborate with professionals regardless of geographical locations. The other participant who has never used educational technology to collaborate attested to the fact that even though he does not use edupreneurship in that regard, but acknowledge the important role is playing in today's education landscape.

Regarding the barriers to effective collaboration among educators, the participants interviewed have identified certain challenges they considered to be limiting effective collaborative culture among teacher educators in teacher training institutions in Kebbi State, Nigerian. Some of the obstacles they identified include: poor educational technologies infrastructures, limited reliable internet access, poor electricity supply, low digital literacy skills among educators, insufficient funding, insufficient training, and support and some forms of resistance to change among others. Based on the challenges identified, the participants suggested ways of improving the effective culture of collaboration, which include: improved funding and support, provision of Enhancement of Digital Literacy, Facilitation of Flexible Learning, Preparation for Tech-Integrated Classrooms, Learner-Centered Pedagogy in teacher training institutions, organizing conferences and workshops were edupreneurs will learn about the new normal in education and be trained on digital skills. By integrating innovative tools and methodologies edupreneurs can make teacher training more engaging and motivating, interactive

and immersive learning experiences can help teachers better understand and apply new concepts leading to increased enthusiasm and commitment to their professional growth.

Discussion of Findings

The findings of this study have provided in-depth evidence to the role of edupreneurship in building a edupreneurs in collaboration for innovative approach by teacher education in Kebbi State, Nigeria. The findings from both quantitative and qualitative studies revealed. Firstly, that teacher educator in Kebbi State, Nigeria partially makes use of innovative pedagogical tools to collaborate with their peers in other institutions. This finding is in agreement with the finding of (Adebayo *et al.* 2023) whose study discovered that educators in tertiary institutions in Nigeria make use of digital platforms to connect with professional across the globe to enhancing their teaching. It is also in conformance with the finding of (Sulaimon and Adebayo 2023) whose study reported that an educator in Nigeria explores various opportunities offered through collaboration to empowering themselves and enhance their professional development for sustainable education. (Tolorunleke *et al.* 2023) reported in their findings that collaboration is a practice not only among teachers but students who uses online collaborative tools for learning and for improving their academic performance. In support of this finding, (Olumorin *et al.* 2022) has reported that teachers across all level of education in Nigeria are harnessing the power of technology to bridge the Urban-Rural divide, which provide equal opportunities for professional growth through educational technologies. Nevertheless, the reason for the minimal use of edupreneurship among educators may be due to the fact that most of the teacher training institutions in the state lacks innovative pedagogical tools, access to reliable internet services and poor electricity supply to facilitate technology integration and collaboration. (Dominic *et al.*, 2021). There is also limited digital literacy among educators in teacher education institutions in Nigeria as reported by (Raji *et al* 2024). (Tenreyro 2019), Edupreneurs are individual who are entrepreneurial in the field of education, driving positive change and innovative in the sector. They are often at the forefront of designing and implementing inclusive practice in teacher training that address the needs.

Secondly, the finding also revealed that educational technology tools play a significant role in enhancing collaboration practices among teacher educators in Kebbi State, Nigeria. This finding is in line with the finding of (Bergmann, & Sams, 2012). In a flipped classroom model, traditional lectures are moved out of the classroom and delivered through videos or other digital content,

allowing classroom time to be used for interactive, hands-on activities, Pre-Class Content Delivery: Trainers provide pre-recorded lectures, readings, or instructional videos that trainees review before attending in-person sessions. This ensures that trainees come prepared with foundational knowledge. In-Class Activities: Classroom time is dedicated to applying concepts through discussions, case studies, role-plays, and group work. This active engagement helps deepen understanding and refine practical skills. Interactive Tools: Use technology such as online quizzes or discussion boards to assess understanding and foster interaction before and after classroom sessions. (Roberts & Pruitt, 2021). In their findings, (Darling-Hammond *et al.* 2020) have discovered that collaborative technological tools can provide opportunities for excellent. The study revealed further that collaborative technology facilitates joint projects and research initiatives, enabling teachers to work together on educational innovations and pedagogical improvements. Hence, the use of interactive and engaging educational technological tools can motivate educators to participate in collaborative activities with professionals and professional learning communities.

Thirdly, the findings of the study have discovered certain barriers in fostering collaborative culture among teacher educators in Kebbi State, Nigerian. Some of the obstacles that were discovered in this study to impede collaboration include: limited access to edupreneurs, insufficient training, and support especially on innovative pedagogical tools in integration and collaboration, lack of technological pedagogical content knowledge among educators, limited access to reliable internet services, and limited digital literacy skills and resources among educators in teacher education institutions. The finding of this study is in consonance with (Adeoye 2018), (Ogunleye 2019) and (Sulaimon and Adebayo 2023) whose study identified lack of technological infrastructures in institutions as basic hindrance to building a collaboration culture among educators. This is buttressed further by the high level of infrastructural decay in the nations' teacher education institutions. The finding correspond with the finding of (Raji *et al* 2024) whose study discovered a limited digital literacy and limited access to reliable internet services as strong impediments to implementation of educational technologies like Artificial Intelligence (AI) and virtual environments and other collaborative technologies in Nigeria's tertiary institutions.

Conclusion

The innovative pedagogical approaches by edupreneurs in teacher education integration in Nigeria institutions are offering a promising pathway to building a culture of collaboration. By

leveraging education in using its tools and platforms, edupreneurs can collaborate to overcome existing challenges, enhance their professional development, and work collectively towards transformative teacher education in Kebbi State, Nigeria. There is no doubt that certain barriers have posed a challenge to building an effective collaboration culture among edupreneurs, however, these challenges can be resolved with effective implementation in the teaching and learning process. Moreover, Encourage Experimentation: Allow teacher candidates to try out new methods and techniques in their teaching. Provide a supportive environment where they feel comfortable experimenting with different approaches and it promote Collaborative Learning: Facilitate opportunities for candidates to work together, share ideas, and learn from each other's experiences. Collaboration can spark creative solutions and innovative strategies.

In addition it also Integrate Technology it will Introduce candidates to various educational technologies and tools. Encourage them to explore how these can enhance learning and offer new ways to engage students to focus on Problem-Solving: Challenge candidates with real-world problems and scenarios. Encourage them to develop innovative solutions and teaching strategies to address these challenges and in terms of feedback and Support it provides constructive feedback and mentorship. Positive reinforcement and guidance can help candidates refine their strategies and build confidence in their innovative approaches by implementing these strategies, teacher training programs can better align with learner-centered principles, promoting more effective, engaging, and responsive educational experiences.

Recommendations:

Based on the findings of this study, the following recommendations were made:

1. Educators should incorporate edupreneurs in teacher training by innovative pedagogical approaches in collaboration for transformative teacher education in teacher education institutions in Kebbi State.
2. Explore the collaboration between edupreneurs and academic institutions in development and implementing and foster educational practices in teacher training to significantly improve teacher education landscape.
3. Immediate steps must be taken to enhance collaboration among edupreneurs in educational institutions in Kebbi State. This includes establishing robust training programs, engaging

various stakeholders in contributing to technological advancements in education, and aligning professional practices with digital tools and platforms.

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