

Evaluation of the FinTan innovative pedagogy model in fostering students' independent learning: A case of three higher learning institutions in Tanzania

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ABSTRACT

This study focused on the usefulness of the FinTan innovative pedagogy model in enhancing entrepreneurship skills among students in higher learning institutions in Tanzania. Guided by the Teaching Framework for Entrepreneurship Theory, the target population was three higher learning institutions, 120 lecturers, 700 students, and 9 team leaders who were beneficiaries of the FinTan innovative pedagogy model. Stratified random and purposive sampling techniques were used to draw the sample for the study, which consisted of 327 respondents. Questionnaires and interview guide instruments were used to collect data that were validated by researchers and evaluation experts, and Cronbach's Alpha was used to ensure the reliability of the questionnaires. Trustworthiness and triangulation were used for the reliability of the interview guide instruments. Quantitative data were analyzed using descriptive statistics and presented using tables, while qualitative data were analyzed using thematic analysis. The findings of this study revealed that the FinTan innovative pedagogy model was effective in helping students to build networking with experienced individuals in society and relate the topic mate-

rials to the needs of society, which in turn develops entrepreneurship skills. The study concluded that the FinTan innovative pedagogy model is useful in enhancing entrepreneurial skills in students. The study recommended that the three institutions should share the knowledge with other higher learning institutions for students to develop entrepreneurship skills, which are identified as essential skills in minimizing the unemployment rate as well as caring for the environment in the process of self-employment.

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1. Introduction

Learning is an interaction between teachers and students in which the goal is to achieve behavior change in terms of acquiring soft and hard skills. Learning objectives are achieved if accompanied by an interest in learning by students (Puspitarini & Hanif, 2019). Independent learning is considered a crucial foundation for developing both soft and hard skills in students, as it encourages self-directed learning, critical thinking, problem-solving, time management, and research abilities, which are essential components of both skill sets (Hill & Stalp, 2019). Independent learning is a pedagogical approach that encourages individ-

uals to assume responsibility for their learning, set their own goals, manage their time effectively, and engage in a self-directed exploration of subjects (Singh, 2014). An independent learning approach fosters self-regulation, critical thinking, and the ability to adapt to diverse learning environments, making it a fundamental skill for lifelong learning.

Employers often emphasize the importance of autonomy and initiative because, without these skills, graduates may find it difficult to meet job expectations (Smith & Brown, 2020). Graduates lacking these skills may struggle to take ownership of their tasks, leading to missed deadlines and unmet objectives. Furthermore, working inde-

pendently allows employees to make proactive decisions, adapt to challenges, and contribute innovative solutions without constant supervision. A deficiency in these areas can hinder graduates' performance in dynamic work settings, making them less competitive in the job market (Jones & Andrews, 2019). Without these abilities, graduates may struggle to analyze complex situations, identify viable solutions, or think creatively when faced with challenges. This inadequacy can lead to poor performance outcomes, such as errors in judgment or an inability to meet client expectations, ultimately diminishing their value to employers. As a result, such graduates may find themselves at a competitive disadvantage compared to peers who possess strong independent learning skills and can navigate uncertainty effectively.

Additionally, stakeholders, including educators and industry leaders, have noted that a lack of independent learning can lead to decreased motivation and engagement among employees. This can result in lower overall job satisfaction and higher turnover rates, further complicating the transition from education to professional life (Davis, 2021). This can result in significant costs for organizations, including recruitment, training, and onboarding expenses, as well as the loss of valuable knowledge and expertise. Moreover, when employees are not invested in their roles and responsibilities, they are less likely to be motivated to contribute to the organization's mission and goals, ultimately hindering its overall performance and success.

In Tanzania, graduates were found to lack these skills, which are related to independent learning, due to curriculum limitations, teaching methods, and a lack of practical experience. These concerns were described by several researchers with the effort of improving the teaching and learning process in Tanzania to produce graduates who are competent in the labor market. Many higher education institutions in Tanzania do not provide sufficient opportunities for students to engage in practical, hands-on learning experiences. Internships, project-based learning, and cooperative education programs can enhance independent learning, but these are not always readily available (Mweereza, 2020). In addition, the education system in Tanzania has often emphasized examination performance rather than fostering critical thinking, creativity, and independent learning; as a result, graduates may have a solid grasp of theoretical knowledge but cannot apply it practically (Mhando & Shitundu, 2018).

Despite the graduates' excellent academic credentials, a significant number of employers in Tanzania's gas, telecommunications, and oil industries were compelled to incur additional expenses for training that complemented their technical and independent working skills and qualified them for the positions for which they applied (NACTE, 2020). Considering this information, Tanzania's educational system faces difficulties in equipping its graduates with the necessary skills to compete on the global labor market. According to research by Munishi (2022), there appears to be a deficiency in the Tanzanian curriculum regard-

ing the development of students' independent skills. Curricula at all levels face the difficulty of incorporating suitable strategies to foster independent skills, spanning from primary to higher education.

Acknowledging the critical significance of higher learning institutions in preparing individuals for the industrial landscape and equipping students for the professional environment, it is crucial to mention that the government has permitted non-governmental organizations (NGOs) and privately-owned businesses to address the current deficiencies. An example of a noteworthy endeavor is SUSIE, which is presently utilizing the FinTan innovative pedagogy model to support skills development in higher education institution students in Mwenge Catholic University, Moshi Cooperative University, and Dar es Salaam University for four years. The model prioritized in-class and outside-the-classroom learning to ensure that students applied the knowledge that they had gained for the effective development of skills, including independent learning skills. Through the implementation of FinTan, students engaged in discussions with community members representing diverse disciplines to transform obstacles into advantageous learning experiences. These interactions allowed students to identify and understand the obstacles that they faced in their learning journeys. By collaborating with diverse perspectives, they were able to transform these challenges into unique and advantageous learning experiences that also contributed to skills development and academic growth. This summative evaluation was conducted to ascertain how the FinTan innovative pedagogy model fosters students' independent learning in three higher learning institutions in Tanzania.

2. Purpose of the evaluation

Diverse stakeholders have lodged complaints to demonstrate the existence and severity of graduates' difficulties. A significant proportion of Tanzanian graduates are deficient in independent working skills, which are considered essential competencies in the contemporary workplace (Munishi, 2022). Most Tanzanian college graduates are unprepared for the challenges of independent engagement skills in contributing to the nation's economic development due to a lack of knowledge regarding independent skills (Stima & Kuppusamy, 2018). As a result, more than sixty percent of recent Tanzanian graduates are waiting for formal employment from the government or private sector, even though there are insufficient job openings to accommodate all of them (REPOA, 2020).

The FinTan innovative pedagogy model endeavors to address these concerns by enhancing teaching and learning in institutions of higher education through the implementation of interactive learning that emphasizes activities both inside and outside the classroom for independent skills development. However, the model has not been assessed to determine the extent to which students have fostered independent learning skills. An evaluation study is

imperative to ascertain how the FinTan innovative pedagogy model fosters students' independent learning in three higher learning institutions in Tanzania.

3. Evaluation question

To what extent does the FinTan innovative pedagogy model foster students' independent learning in three higher learning institutions in Tanzania?

4. Significance of the study

This study would supplement a declaration that guarantees that graduates at every level possess the requisite competencies and skills required in the twenty-first century. Furthermore, policymakers would be educated by the study regarding the importance of routine monitoring and evaluation of the execution of activities specified in the policy, which would enable them to receive instantaneous feedback and take corrective action. This evaluation study would provide curriculum developers with insights that could guide the revision of specific components of the curriculum in response to societal changes and evolving requirements. Furthermore, this study has the potential to enhance students' involvement in the teaching and learning process at higher education institutions by integrating active and experiential learning strategies, collaborative activities, and real-world applications.

5. Theoretical framework

The proponent of this model is Brinkerhoff (2003), who introduced a new way of assessing the impact of the pedagogical model and other organizational interventions. This model aims to assess the impact and effectiveness of a particular intervention or program by examining both successful and unsuccessful cases. The model identifies and studies extreme cases that have achieved exceptional success or experienced notable failures. By analyzing these extreme cases, the model seeks to uncover the underlying factors and conditions that contribute to success or failure. This approach allows evaluators to gain a deeper understanding of the critical elements that drive positive outcomes and provides valuable insights for program improvement and replication. The Success Case Model encourages evaluators to go beyond surface-level analysis and explore the nuanced aspects of implementation, enabling organizations to identify best practices, pinpoint areas of improvement, and optimize their interventions for greater success.

This model was used in this study to identify the lecturers who were competent in implementing the FinTan innovative pedagogy model during the teaching and learning process and less competent to identify the strengths and weaknesses of the FinTan model in the two groups for improvement. The model was used to determine the effectiveness of lecturers in implementing the FinTan innovative pedagogy model and the independent learning skills

of students who are beneficiaries of the model. The model provided the evaluator with a framework to utilize successful cases to improve the less successful ones. By analyzing the factors contributing to success and identifying effective strategies employed in those cases, the evaluator could implement targeted improvements in areas where the desired results were not achieved.

6. Literature review

Luke and Hogarth's (2019) research focused on the effect of video tutorials on the development of autonomous learning skills among Australian students during the learning process. Examining the use of brief video tutorials in a post-graduate accounting course to assist students in developing and enhancing independent learning skills was the objective of the study. The researchers employed a case study methodology to examine and contrast student conduct during terms when video tutorials were not accessible to students, as opposed to subsequent semesters when they were provided. The lecturer developed a total of five video tutorials, each covering five distinct subjects within a single course.

Data collection instruments included questionnaires and interviews. Specifically, the interviews were carried out with lecturers who incorporated the video tutorials into their lessons. Students valued and appreciated the use of video tutorials because they found the videos to be effective and beneficial. Despite the positive findings, the researchers used tutors to determine the perception of students towards independent learning, which might limit the value of their study. Lecturers may have their own biases and preconceptions about how students perceive the video tutorials, which may not accurately reflect the students' actual experiences and perspectives. This knowledge gap justified the need for conducting the current study among lecturers and students to determine the extent to which the FinTan innovative pedagogy model enhances independent learning among students, in order for sufficient findings to inform the future directions of this project.

Meyer (2018) conducted a study on independent learning in London's higher education institutions to paint a comprehensive picture of the practice and its potential effects on students. The advantages of independent learning skills that were emphasized in that review were increased student motivation and enhanced learning management. Successful autonomous learning, according to the review, is contingent on a variety of internal and external factors. Strong relationships between instructors and pupils, as well as the creation of an environment conducive to the use of ICT, were external factors. The absence of implementation of the FinTan innovative pedagogy model in London, where the study was conducted, necessitates that the current investigation be conducted in Tanzania to determine whether it contributes to the development of independent learning skills among Tanzanian students. By addressing this research gap, significant insights can be gained re-

garding the distinctive circumstances of higher education institutions in Tanzania. Additionally, the function of innovative pedagogical approaches in fostering independent learning among students in Tanzania can be better comprehended.

Karatas (2020) investigated the role of independent learning metacognition and 21st-century skills in predicting fitness for online learning in Turkish higher education institutions. Independent learning abilities, metacognitive awareness, and 21st-century competencies and skills were investigated for their potential to predict readiness for online learning during the COVID-19 pandemic. The study employed a quantitative research methodology and selected 834 participants via convenience sampling. The present study was distinguished by its sound research approach and design. However, a discrepancy arose between the sampling techniques and research approach employed in the reviewed study, potentially impeding future evaluators' ability to generalize study findings. Convenience sampling may not produce the most accurate results, and the sample cannot be used in quantitative research because it restricts the generalizability of the findings (Golzar et al., 2022). The current study employed both probability and non-probability sampling techniques to ensure that all students and lecturers who benefited from the FinTan innovative pedagogy model had an equal opportunity to participate. This approach aimed to ensure the generation of valid and reliable findings, which in turn would facilitate the generalization of the results.

Bovill (2019) conducted research in Hungary on co-creation in higher education learning and instruction using the whole-class method. The purpose of the research was to investigate the viability of a co-creation approach involving the entire class in higher education. The study utilized a qualitative research approach, more precisely, a case study design. The primary results suggested that when a whole-class approach to co-creation is utilized, it encourages students to participate actively, collaborate, and develop their learning. Additionally, it fosters in them a greater sense of accountability, self-directed learning, and ownership. The study proposed that institutions of higher education give precedence to the implementation of co-creation practices and establish a nurturing atmosphere that encourages student initiative and engaged involvement. The research examined the components of the teaching and learning process that contribute to the development of independent learning abilities in students. This aspect is a critical component of the present evaluation study. As a result, the present evaluators were directed by Bovill's study to ascertain the degree to which the FinTan innovative pedagogy model promotes independent learning, which was one of the primary objectives of the project owners in implementing the model in three Tanzanian higher education institutions.

Tumaini University Dar es Salaam College (TUDARCo) in Tanzania was the site of the research conducted

by Hyttinen and Kazoka (2020), which examined the IRIS project introducing reverse innovation to higher education institutions in Tanzania concentrates on active pedagogy development through innovations and community interaction. The investigation utilized a case study methodology with a specific emphasis on the collaboration between TUDARCo and Turkey. The results indicated that the implementation of active pedagogy in Tanzanian higher education institutions improved the independent learning, critical thinking, and problem-solving abilities of the students. Furthermore, it promoted constructive community involvement and made a positive contribution to the cause of sustainable development. Active pedagogy is suggested as a strategy to enhance educational achievements and foster greater community engagement in Tanzanian higher education, according to the study. The research contributed significant insights to the ongoing investigation regarding the implementation of innovative pedagogy that emphasized student skills development and community member participation, both of which are critical components of the present study. Hence, to inform the project owners and other education stakeholders, a more comprehensive understanding of the precise effects of the FinTan model on students' independent learning, critical thinking, problem-solving abilities, and community engagement could be obtained through an evaluation of the model in Tanzanian higher education institutions.

7. Evaluation methodology

The convergent design under a mixed methods approach was used to conduct this evaluation study, whereby both quantitative and qualitative data were collected in one phase. The SUSIE project aimed to train lecturers and students from three higher learning institutions in Tanzania, namely, MWECAU, TUDARCo, and MoCU. This evaluation study specifically focused on this target population, consisting of 120 trained lecturers who actively implemented the FinTan innovative pedagogy model and 700 students who directly benefited from the FinTan model in their learning experiences. The stratified random sampling technique was used to select 120 students and 93 lecturers, while the purposive sampling technique was used to select 18 team leaders. Questionnaires were used to collect data from the students and lecturers, while the interview guide and observation guide were used to collect data from the team leaders.

8. Findings

To establish the extent to which the FinTan innovative pedagogy model enhances independent learning, both lecturers and students were provided with a Likert scale consisting of 12 items and asked to state the extent to which the model was used to develop independent learning skills among students. The responses from lecturers and students are summarized in Table 1.

Table 1. Responses of lecturers and students on the use of the FinTan towards students' independent learning ($n=93, n=193$).

Statements		Not at all (1)		To a small extent (2)		To a large extent (3)		To a very large extent (4)		Mean
		<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	
i. I am encouraged to ask for help from my peers rather than lecturers	Lecturers	12	12.9	41	44.1	32	34.4	8	8.6	2.38
	Students	24	12.4	63	32.6	79	40.9	27	14.0	2.56
ii. I am encouraged to reframe mistakes and difficulties as opportunities for learning	Lecturers	9	9.7	21	22.6	52	55.9	11	11.8	2.69
	Students	20	10.4	62	32.1	69	35.8	42	21.8	2.68
iii. I am encouraged to read materials outside the course materials provided by lecturers	Lecturers	7	7.5	28	30.1	33	35.5	25	26.9	2.81
	Students	16	8.3	61	31.6	70	36.3	46	23.8	2.75
iv. I am encouraged to focus more on the processes of learning rather than its outcomes	Lecturers	10	10.8	32	34.4	32	34.4	19	20.4	2.64
	Students	16	8.3	42	21.8	74	38.3	61	31.6	2.93
v. I am assigned to use relevant journals as reference materials	Lecturers	8	8.6	36	38.7	39	41.9	10	10.8	2.54
	Students	23	11.9	40	20.7	80	41.5	50	25.9	2.81
vi. I am aware of the steps involved in learning by understanding my learning styles and sharing their thinking	Lecturers	12	12.9	32	34.4	35	37.6	14	15.1	2.54
	Students	15	7.8	47	24.4	76	39.4	55	28.5	2.88
vii. I am assigned to use internet links for academic materials	Lecturers	0	0	8	8.6	52	55.9	33	35.5	3.26
	Students	13	6.7	43	22.3	75	38.9	62	32.1	2.96
viii. I am flexible in responding to higher-order questions asked by my colleagues during the teaching and learning process	Lecturers	13	14	35	37.6	39	41.9	6	6.6	2.40
	Students	18	9.3	67	34.7	65	33.7	43	22.3	2.68
ix. I am encouraged to categorize information in a simple way for me to remember when needed	Lecturers	9	9.7	39	41.9	36	38.7	9	9.7	2.48
	Students	35	18.1	74	38.3	52	26.9	32	16.6	2.41
x. I can find relevant books in the library for further reading after class hours	Lecturers	8	8.6	35	37.6	32	34.4	18	19.4	2.64
	Students	12	6.2	82	42.5	64	33.2	35	18.1	2.63
xi. I am encouraged to search for materials for peer teaching	Lecturers	15	16.1	26	28.0	40	43.0	12	12.9	2.52
	Students	18	9.3	51	26.4	67	34.7	56	29.0	2.93
xii. Assignments are differentiated for individuals to reflect independent learning	Lecturers	7	7.5	34	36.6	37	39.8	15	16.1	2.64
	Students	18	9.3	73	37.8	54	28.0	48	24.9	2.68
Grand Mean										2.68

Key: *f* = Frequency; % = Percentage.

The data in Table 1 show that according to the majority of lecturers (91.4%), to a large or very large extent, students in the FinTan innovative pedagogy model were assigned to use internet links for academic materials. The data are supported by students, as the majority (71%) of students claimed to use internet links for academic materials to a large or very large extent. These data show that students were assigned the task that demanded them to use their time independently to search for academic materials.

Although in other teaching methods, students can be assigned tasks which demand them to use the internet, through the FinTan innovative pedagogy model, students declared to use it differently during the personal interview. In Institution B, students explain that:

Through FinTan innovative pedagogy model, we were assigned the task of writing the needs assessment, collecting data, and making analysis and we were not that knowledgeable, so we used the internet links to study those processes.

The student added that there was “no copying and pasting like the other assignments we normally do.” Learning for understanding helps students to develop skills, which is part of the effort of the government to produce graduates with skills and competencies to improve society.

Similarly, data in Table 1 shows that the majority of lecturers (67.7%) encouraged students to reframe mistakes as opportunities to a large or very large extent, with a mean of 3.26, while 32.6% replied that students were encouraged to reframe mistakes as opportunities to a small extent or not at all. However, 57.6% of students responded that they were encouraged to reframe challenges as opportunities to a large or very large extent, with a mean of 2.96, and 42.4% of students said that they were encouraged to reframe challenges to opportunities to a small extent or not at all.

These data show that students were encouraged in a moderate way to reform the challenges into opportunities in society. Among the objectives of FinTan is to help students to use the available opportunities in society for self-employment. The model supports the guidelines in the Education Policy and Training of 2014 that education should facilitate the development of a culture for self-employment training and employment creation.

However, data in Table 1 revealed that the majority (62.4% and 60.1%) of lecturers and students, respectively, were, to a great extent, encouraged to use non-book materials to prepare lesson notes. These data show that students were encouraged to prepare notes for personal revision and studying. FinTan encourages learning for the understanding and application of knowledge; therefore, students were prepared to avoid direct definitions from books. The use of different sources of information builds the sense of triangulating the information to obtain updated materials.

When lecturers and students were asked to state the extent to which students were encouraged to use journals, which are among the non-book materials, a moderate (52.7% and 67.4%) percentage of lecturers and students, respec-

tively, replied that that students were assigned to use relevant journals for preparing the lesson notes to a great extent, while 47.3% of lecturers agreed with the statement that students were using journals as reference materials to a small extent or not at all.

These data show that to a moderate extent, students could use different sources of information, including journals, for individual preparation. Students were using journals, which can be accessed online or in libraries, and this shows that through the FinTan innovative pedagogy model, students were encouraged to use online as well as physical libraries for material searching.

Additionally, the data in Table 1 show that 54.8% of lecturers revealed that students were encouraged to focus more on the process of learning rather than its outcome to a large or very large extent, while 45.2% of lecturers agreed with the statement that students were encouraged to focus on the learning process rather than its outcome to a small extent or not at all. However, the majority (69.9%) of students responded that they were encouraged to focus on the learning process rather than the learning out comes to a large or very large extent.

These data show that the majority of students were encouraged to focus on the learning process, which provides opportunities for students to demonstrate their skills such as interaction, cooperation, presentation, communication, creativity, problem-solving, innovation, and critical thinking. Students developed a deeper understanding and connection with the material, which resulted in improved learning success.

This information is supported by Avelino (2022), who states that when students focus on learning, it allows them to gain a deeper understanding and connection with the material, which results in the development of hard and soft skills. The support of the theory by Brinkerhoff (2003) clearly defines the desired hard and soft skill outcomes that the learning program aims to achieve. Students develop the three domains of Bloom's Taxonomy, which are the basis of students' development of skills and competencies when they are encouraged to focus more on learning rather than outcomes. The FinTan innovative pedagogy model provides students with the opportunity to learn both in the classroom and outside their institutions, which increases their chances of developing skills.

However, a minority (31.1%) of students responded that they focused on the learning process to a small extent or not at all. This finding shows that there are lecturers who were either not competent or lack knowledge in the use of the FinTan innovative pedagogy model during the teaching and learning process, and who concentrate more on the grades of the students than on what the students achieve. The findings are in line with Ndlovu (2025), who states that when teachers focus more on assessment practices, learners think that the grade is the goal of learning. This challenge minimizes the opportunities of a few students to construct their knowledge during the learning process, which

results in the limited sharing of experience and skills development among students.

Furthermore, the data in Table 1 reveals that a moderate (55.9%) percentage of lecturers stated that students were encouraged to search materials for peer teaching to a large or very large extent, while the rest (44.1%) claimed that students were encouraged to search materials for peer teaching to a small extent or not at all. When students were asked to state the extent to which they were encouraged to search materials for peer teaching, the majority (63.7%) of them replied that they were encouraged to a large or very large extent, while the minority (32.3%) were encouraged to a small extent or not at all. These data show that students were using peer teaching to a moderate extent, which means that under the FinTan innovative pedagogy model, not all lecturers were encouraging peer teaching.

In institution A, during the face-to-face communication, one student said, “*we learned ourselves how to use SPSS version 2022 during data analysis of the needs assessment we administered to secondary school teachers.*”

Peer teaching increases interaction, cooperation, teamwork, and other hard skills development among the students themselves. These results concur with the study by Collins et al. (2020), who explains that peer teaching enhances students’ level of creativity in expressing ideas as well as comprehending new concepts, thus allowing a greater level of understanding. The average use of peer teaching under the FinTan innovative pedagogy model limited the development of skills among students.

In addition to that, the data in Table 1 shows that 53.8% and 51.3% of lecturers and students revealed that students, to a large or very large extent, find relevant books in the library for further reading after the class hour. These results show that students were generally capable of searching additional materials rather than depending on the lecturer’s PowerPoint notes, which are in a summary form. The ability of students to search for multiple sources of materials enhances their understanding of the topic and the development of skills.

However, the data in Table 1 reveal that 46.2% and 48.7% of lecturers and students, respectively, responded that students were capable of finding relevant books in the library for further reading after the class hour to a small extent or not at all. The data show that all students were assigned the task of searching for books in the library, which makes them visit that library.

Students need motivation to use the physical library due to the presence of technology devices whereby all the materials can be searched without visiting the physical library. A lack of facilities, the absence of professional librarians to encourage students, the arrangement of the books, and limited learning activities that demand students to use books in the library may lower the students’ interest in library use.

These results reflect what is explained by Hina and Abid (2017), namely, that students are confronted by numerous issues in libraries like the absence of material, un-

trained library staff, restricted opening hours, the absence of client mindfulness about ICT, constrained electronic assets, the absence of suitable direction from library staff, the absence of advanced libraries, and the physical environment of libraries. Despite the training provided to lecturers on how to motivate students to use the library, some factors act as a barrier to library use.

The face-to-face conversations with team leaders indicate the minimal use of the library among students due to the availability of smartphones and other technological devices. A lecturer in Institution A revealed that “*it is very difficult to restrict students to use the library in our institution because of the smart phones or laptop they owned*”. This finding shows that students were not provided with activities that needed them to visit the library for more references. If students are not encouraged or motivated to use multiple sources of information, this can limit their effort of visiting libraries and using books as reference materials.

These study findings concur with Harisanty (2019)’s view that the utilization of school libraries requires motivation from librarians and teachers through training and tasks which demand multiple sources of information. Students under the institutions that are using the FinTan innovative pedagogy model were encouraged to a moderate extent to use the books in the library.

However, the tendency of students not to use the books in the library can be due to the introduction of technology whereby book and non-book materials can be assessed on computers and mobile phones as reported by team leaders during the personal interviews. The team leader from institution A explained that “*technology limited the use of books in the library since students can use their mobile phones to access the materials they need*” (Team leader A, Personal communication, 18 January 2023). This information reflects what is explained by Harisanty (2019), namely, that in the era of globalization, the sources of information have shifted into the digital form whereby students depend on e-materials on their smart phones, tablets, and computers. Lecturers and students in the three institutions were encouraged to use e-learning materials rather than physical books in the library due to the presence of technology whereby books are available as soft copies.

Additionally, the data in Table 1 reveal that 55.9% and 52.9% of lecturers and students responded that, to a large or very large extent, assignments are differentiated to reflect independent learning. Lecturers who were using the FinTan innovative pedagogy model in teaching prepared assignments by considering Bloom’s Taxonomy domains and levels to maximize the possibility of students developing the skills and competences of independent learning. Independent learning assignments encourage students to use multiple sources of information by visiting libraries and using internet links.

During the personal communication, students claimed to be provided with assignments which differed from one group to another and sometimes from one individual to

another. A student in Institution B, during the personal interview, said that:

Sometimes, we are provided with the assignment in groups of ten, but the questions are not the same from one group to another. We break the questions into sub-tasks whereby everyone is assigned a different task to search before we combine them as a single assignment (personal communication with student, 13 December 2022).

This information shows that lecturers in a moderate are committed to preparing several assignments that reflect the number of students and their learning style in the class to promote independent learning. Students in a class differ in terms of cognitive ability and learning style, which calls for a teacher who is capable of preparing assignments that reflect the students' ability in order to increase their engagement with the lesson. That means that students are helped to develop skills based on independent learning such as material search, peer sharing, cooperation, interaction, and work organization as well as increasing the students' engagement with their learning.

These findings reflected what is explained by Zen and Ariani (2022), namely, that there is an opportunity to create engagement and motivation for students through independent learning. These findings are supported by the theory of Kirkpatrick (1959) that when students understand what they are working towards, it can increase their motivation to engage in independent learning. This reflects Gardner's learning theory that activities in the classroom should reflect individual learning styles for knowledge development (Cabual, 2021). The FinTan innovative pedagogy model reflects these theories by recognizing the use of differentiated activities to cater to individual needs during the teaching and learning process.

However, a minority (44.1% and 47.1%) of lecturers and students revealed that assignments were differentiated to reflect independent learning to a small extent or not at all. These data show that some lecturers provided differentiated assignments to students, although to a small extent. Lecturers were trained on how to teach by using the FinTan innovative pedagogy model, which shows that they were knowledgeable in the use of the model. A failure to use the model effectively might be due to other factors such as the lecturer's attitude to change from using the lecturer method to applying the FinTan innovative pedagogy model, which reflects active learning.

In general, the evaluation findings indicate a significant positive response from both lecturers and students towards the FinTan innovative pedagogy model. A high percentage of lecturers (91.4%) and students (71%) reported the extensive use of internet resources for academic materials, reflecting independent learning practices. While most participants felt encouraged to learn from the process rather than just the outcomes, a minority noted that not all lecturers fully embraced this approach. Furthermore, despite moderate encouragement to utilize library

resources, technology appears to have diminished students' engagement with physical books. Overall, the model shows promise in fostering skills development among higher learning institutions.

9. Conclusion and recommendations

The FinTan innovative pedagogy model has shown considerable promise in enhancing independent learning among students, yet its full potential has not been universally realized. The findings suggest that while many students and lecturers report positive outcomes, such as the increased use of internet resources and a focus on the learning process rather than just the outcomes, challenges remain in terms of uniform implementation and the integration of physical library resources. These discrepancies highlight that although the model fosters important aspects of independent learning, its success is still contingent on several key factors, including lecturer engagement, institutional support, and resource accessibility.

To fully capitalize on the model's potential, several strategic actions are required. First and foremost, ongoing professional development for lecturers is essential, not only to deepen their understanding of the model but also to ensure its consistent application across all educational contexts. Training programs should focus on the effective use of technology, as well as on developing strategies for differentiating assignments to cater to diverse student learning styles. Furthermore, institutions should invest in bridging the digital divide by fostering a more balanced use of both physical and digital resources. This could involve rethinking how libraries are utilized, making physical libraries more accessible, and encouraging students to engage with a broader range of academic materials. Lastly, institutional leaders must address the inherent challenges of technological reliance, ensuring that the model does not inadvertently diminish student interaction with traditional academic resources. Only through these comprehensive reforms will the FinTan innovative pedagogy model truly realize its transformative potential in fostering independent, lifelong learners.

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Conflicts of interest

The author(s) declare no conflict of interest.

Data availability statement

Data supporting these findings are available within the article or upon request

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Not applicable

Informed consent statement

Written informed consent has been obtained from the patient(s) to publish this paper.

Sample availability

The author(s) declare that no physical samples were used in this study

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References

- Avelino, J. (2022). Benefits of focused learning: Enhancing understanding and engagement. *Educational Research Journal*, 10(2), 123–130. [CrossRef]
- Bovill, C. (2019). Co-creation in learning and teaching: The case for a whole-class approach in higher education. *Journal of High Education*, 79(2), 1023–1037. [CrossRef]
- Brinkerhoff, R. O. (2003). The success case method: A strategic evaluation approach to increasing the value and effect of training. *Journal of Advances in Developing Human Resources*, 7(1), 86–101. [CrossRef]
- Cabual, R. A. (2021). Learning styles and preferred learning modalities in the new normal. *Open Access Library Journal*, 8(4), 1–14. [CrossRef]
- Collins, S., Eriksen, M., Finocchio, B., & Oakley, J. (2020). Developing Students' Coaching Ability Through Peer Coaching. *Journal of Management Education*, 44(1), 9–38. [Cross-Ref]
- Davis, A. (2021). The impact of learning strategies on employee engagement. *Journal of Workforce Development*, 4(2), 22714–2485.
- Golzar, J., Noor, S., & Tajik, O. (2022). Convenience sampling. *International Journal of Education & Language Studies*, 1(2), 72–77.
- Harisanty, A. (2019). The shift to digital sources of information in the era of globalization. *Journal of Educational Technology*, 32(4), 275–290.
- Hina, Q. A., & Abid, U. (2017). An Empirical Investigation of Problems and Issues Being Faced by the Students While Using the Libraries in University of the Punjab, Lahore. *Bulletin of Education and Research*, 39(2), 225–238.
- Hill, S.E., & Stalp, M.C. (2019). The expectations of adulting: Developing soft skills through active learning classrooms. *Journal of Learning Spaces*, 8(2), 25–40.
- Hyttinen, R., & Kazoka, J. (2020). *Trajectory of the IRIS project. Teoksessa R. Hyttinen et al. Reverse Innovation Improving Community Engagement through Active Pedagogy in Tanzania: Case TUDARCo. Turun ammattikorkeakoulun raportteja 262* (pp. 7–18). Turun ammattikorkeakoulu. Available online: <http://julkaisut.turkuamk.fi/isbn9789522167484.pdf> (accessed on 11th February 2025).
- Jones, R. J., & Andrews, H. (2019). Understanding the rise of faculty–student coaching: An academic capitalism perspective. *Academy of Management Learning & Education*, 18(4), 606–625.
- Karatas, K. (2020). The role of self-directed learning, metacognition, and 21st century skills predicting the readiness for online learning. *Contemporary Educational Technology*, 13(3), 300. [CrossRef]
- Kirkpatrick, D. L. (1959). Techniques for evaluating training programs. *Journal of the American Society of training Directors*, 13(11), 3–9.
- Luke, B., & Hogarth, K. (2019). Developing and enhancing independent learning skills: Using video tutorials as a means of helping students help themselves. *Accounting Research Journal*, 24(3), 290–310. [CrossRef]
- Meyer, J. (2018). Independent learning in London higher learning institutions: A detailed picture and impact on students. *Journal of Educational Research*, 45(3), 587–145.
- Mhando, M. N., & Shitundu, J. (2018). Academic preparedness and independent learning among higher education students in Tanzania. *Tanzania Journal of Education and Development*, 6(2), 123–134.
- Munishi, E. J. (2022). Factors Contributing to Lack of Soft Skills among Tanzanian Higher Learning Graduates. *East African Journal of Education and Social Sciences*, 3(2), 64–72. [CrossRef]
- Mweereza, I. (2020). Challenges facing higher education in Tanzania: Implications for employability. *Journal of Education and Practice*, 11(5), 45–50.
- NACTE. (2020). *Mapping skills gap and skills needs for technician graduates in the selected economic sectors for industrial growth in Tanzania*. National Council for Technical Education (NACTE).
- Ndlovu, B. B. (2025). Exploring teachers' practices when using formative assessment in improving quality education. *Cogent Education*, 12(1). [CrossRef]
- Puspitarini, Y. D., & Hanif, M. (2019). Using learning media to increase learning motivation in elementary school. *Anatolian Journal of Education*, 4(2), 53–60. [CrossRef]
- REPOA. (2020). *Youth transition from school to work in Tanzania: A case of Vocation education and Training in Tanzania*. REPOA.
- Singh, A. S. (2014). *Conducting Case Study Research in Non-Profit Organizations*. Qualitative.

- Smith, J., & Brown, K. (2020). The role of autonomy in employee performance. *International Journal of Human Resource Management*.
- Stima, T. J., & Kuppusamy, S. (2018). The role of business education in Tanzanian college graduates' preparedness for entrepreneurship. *Journal of African Business*, 20(3), 45–59.
- Zen, Z., & Ariani, F. (2022). Academic achievement: The effect of project-based online learning method and student engagement. *Heliyon*, 8(11). [CrossRef] [PubMed]