
Need and Effectiveness of Digital Pedagogy Training Among Higher Education Accounting Faculties

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ABSTRACT

Rapid technological shift in work environment and society necessitates education to be aligned with these changes for a better future. As a part of this transformation accounting education should also be advanced to meet the need of workplace and society. Digital technology should be incorporated in accounting education particularly in higher education institutions. In order to integrate digital technology in accounting education in higher education institutions, accounting faculties should be equipped with the latest technology tools and practices. Consequently, students get used to digital tools and techniques that they can apply in their profession and in other environments. The most appropriate way is making teachers trained with these tools from time to time. There is a need for digital pedagogy training specifically for accounting education. Even though general pedagogy training is provided for them, digital pedagogy training is insufficient. The study examines the need for and the effectiveness of digital pedagogy training among accounting faculties in higher education institutions.

Keywords: Digital Pedagogy, Digital Pedagogy Training, Higher Education, Accounting Faculties

INTRODUCTION

Technology has become an indispensable element in modern education system. It is because of the requirement from employment sector and the modern society. Society need people who are competent in adapting to this evolving digital environment. This requirement prompted higher education system to prioritise digitalised education. So that they shifted from traditional teaching method and implemented technology enhanced learning environments. This adoption introduced online learning hybrid learning and blended learning methods where student can develop digital skills. Faculties and students are able to use educational resources through digital platform and can be provided to students quickly within short period

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of time. Due to this change teachers need to develop their competencies before they teach students for getting a job in this technology driven society.

Pedagogy trainings are provided to teaching from time to time in the form of different course works. This enables them to utilise diverse approaches while teaching. But at present digital pedagogy training is more significant than mere general training. Technology should also be integrated in the training sessions with the objective of making every faculty in higher education institutions to be competent in building competencies which help in applying and using appropriate and effective digital tools. This enhances student's engagement and participation in the classroom and they will be benefited in the future. For this engaging learning environment teachers must be trained with emerging technology tools and practices through continuous professional development programs.

Accounting is a prominent career opportunity in the world. Technological innovation has happened in the area of accounting. Therefore, accounting profession demands a digitally advanced and prominent professionals who can use these digital tools and software in accounting practice. Digitally driven modern work place demands accounting graduates who possess competencies for using and applying the tools in accounting profession. So, there is a need to identify the need for specific accounting training about digital tools by evaluating the effectiveness of current training programs among accounting faculties. With this aim the study poses the following research questions:

- a) How far the digital pedagogy training received by accounting faculty members in higher education institutions are effective?
- b) Is there any need to conduct digital pedagogy training specifically for accounting education among the faculty members in higher education institutions?

OBJECTIVES

1. To evaluate the effectiveness of digital pedagogy training received by accounting faculty members in higher education institutions.
2. To assess the need for digital pedagogy training specifically for accounting education among the faculty members in higher education institutions.

LITERATURE REVIEW

- Mahapatra (2020) conducted a multiple case study on "Impact of Digital Technology Training on English for Science and Technology Teachers in India" among three teachers

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in the field of higher education. The study used questionnaire, observation, interview, field notes, and e-portfolios to collect data from these teachers. An initial data collection was done before giving them a twelve-hour hands-on training programme on digital technology, after that the change was also measured and compared with the before. By conducting individual and cross-case analysis this study found that training programme made a positive influence on the integration of technology in teaching with widening their knowledge in choosing suitable technical tools and enhancing their digital skills.

- Mexhuani(2024) in the article “Adopting Digital Tools in Higher Education: Opportunities, Challenges and Theoretical Insights”, aimed to identify the determinants that promote successful implementation of digital learning platforms in higher education. The applied Technology Acceptance Model to evaluate the readiness of students and faculties in the adoption of digital tools through the components perceived usefulness and ease of use and Diffusion of Innovations Theory to analyse the effect of trialability and observability at the institution level. The study revealed digitalization in higher education sector promote personalised and collaborative learning and improve access. Majority of students were satisfied with digital learning and faculties also found it successful in teaching. Faculties pointed out the problem of lack of training and ongoing professional development programmes. The readiness of institutions was revealed along with the challenges of budget constraints and infrastructural constraints.
- Omar and Mohmad (2023) analysed in the study titled “Pedagogy, ICT Skills, and Online Teaching Readiness as Factors on Digital Competency Practices among Secondary School Teachers in Malaysia”, the competency level of secondary school teachers by considering factors like digital pedagogy, ICT skills and online teaching readiness including their interrelationships. Through this descriptive and correlational approach, the study found great level of competency in digital pedagogy, and ICT skills and a significant level of readiness for online teaching. It suggested to provide supportive measures for teachers to be up to date and confident to face a future contingency.
- Pandaet al. (2024) carried on a study titled “Exploring the impact of digital technology in Indian higher education: a comprehensive analysis”. The primary objective of the study was to identify the relation between the effectiveness of using Information and Communication Tools by teachers and the teaching learning environment including

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digital tools and administrative support. Using DEMATEL approach (Decision-Making Trial and Evaluation Laboratory approach), they observed that ICT tools, administrative support, technical and pedagogical efficacy, training and content effectiveness should be focused to promote effectiveness of digital teaching and learning.

- Zhang and Policarpio (2025) revealed in the article titled “Bridging Digital Skill Gaps in Vocational Education: A Study on English Teachers' Digital Pedagogical Competencies”, English teachers have great level of digital proficiency. They have high level of digital literacy and have skills in using digital resources efficiently. The descriptive quantitative study employed for assessing the digital pedagogical skill among the teachers was effective. The English teachers possess knowledge in word processing applications, spreadsheet applications and other social networking medias. The study suggested that as they have proficiency in application of digital learning further training in the underexplored digital tools should be given to enhance digitalization in learning.
- Zhang and Wu (2025) studied the influence of digital teaching skills of university teachers on the quality of digital learning and digitalization in the higher education sector in an article titled “Impact of university teachers’ digital teaching skills on teaching quality in higher education”. Through structural equation modelling and factor analysis the study proved that the digital teaching skill of teachers has an indirect influence on the quality of teaching and learning in higher education and this relationship is moderated by student motivation and interactions in classroom. The study put forward the significance of continuous professional development in this digitalization era.

Existing literature concentrated on digital pedagogy training and digital pedagogy competence, focusing on its effectiveness, digital skills and attitudes of teachers from different disciplines in a general context. So, the effectiveness and need for digital pedagogy training in accounting education have not been adequately explored, even though it is a discipline which undergoes rapid digitalization. Digital pedagogy training in accounting education is necessary to equip students capable of getting modern accounting profession. So, this study aims to fill the gap by collecting and analysing the data collected from accounting faculties in higher education institutions in Kerala.

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RESEARCH METHODOLOGY

Research design

The present study examines the effectiveness and need for digital pedagogy training by adopting a descriptive research design. The study is conducted among accounting faculties in higher education institutions. Descriptive research design is selected as the study describes the impact of digital pedagogy training received by accounting faculties and the necessity of digital pedagogy training among faculties for future employment-oriented accounting education.

Area of the study

The study was conducted in Kannur district, Kerala. Accounting faculties working in different colleges including aided colleges, government colleges, self-financing colleges and university departments situated in Kannur district were the respondents in the study.

Source of data

To analyse the objectives primary data was collected. Data was collected from the accounting faculties using questionnaire prepared with google forms. The questionnaire was distributed among the faculties using online medias. Accounting faculties who received training earlier are taken as respondents in order to identify the effectiveness of earlier training and need for specific digital pedagogy accounting training.

Sampling technique

Purposive convenient sampling was adopted for data collection. A screening question was asked to ensure that data collected were only from accounting faculties and also from those who attended training whether general or specific to accounting education.

Sample size

The sample size of the study is 70 accounting faculties in Kannur district of Kerala working in different higher education institutions.

Tools for data analysis

Data collected through questionnaire were analysed using Jamovi Software. The analysis used statistical tools percentage method, cumulative percentage method, mean and standard deviation for data collected.

RESULTS AND DISCUSSION

The data collected from accounting faculties in higher education institutions in Kerala is analysed to evaluate the effectiveness and need for digital pedagogy training among

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accounting faculty members specifically for accounting. The data from 70 higher education accounting faculty members were analysed using the Jamovi 2.7.4 software.

TABLE 1
Demographic profile of respondents

Variable	Category	Counts	Percentage of total	Cumulative percentage
Age	26-40	43	61.4%	61.4%
	41-55	15	21.4%	82.9%
	Below 25	12	17.1%	100.0%
Gender	Female	54	77.1%	77.1%
	Male	16	22.9%	100.0%
Educational qualification	M Phil	3	4.3%	4.3%
	PhD	9	12.9%	17.1%
	Post graduation	58	82.9%	100.0%
Institution	Aided College	29	41.4%	41.4%
	Government College	11	15.7%	57.1%
	Self-Financing College	28	40.0%	97.1%
	University Department	2	2.9%	100.0%
Experience	Less than 3 years	22	31.4%	31.4%
	6-10 years	12	17.1%	48.6%
	3-5 years	14	20.0%	68.6%
	More than 10 years	22	31.4%	100.0%

Source: author's own data

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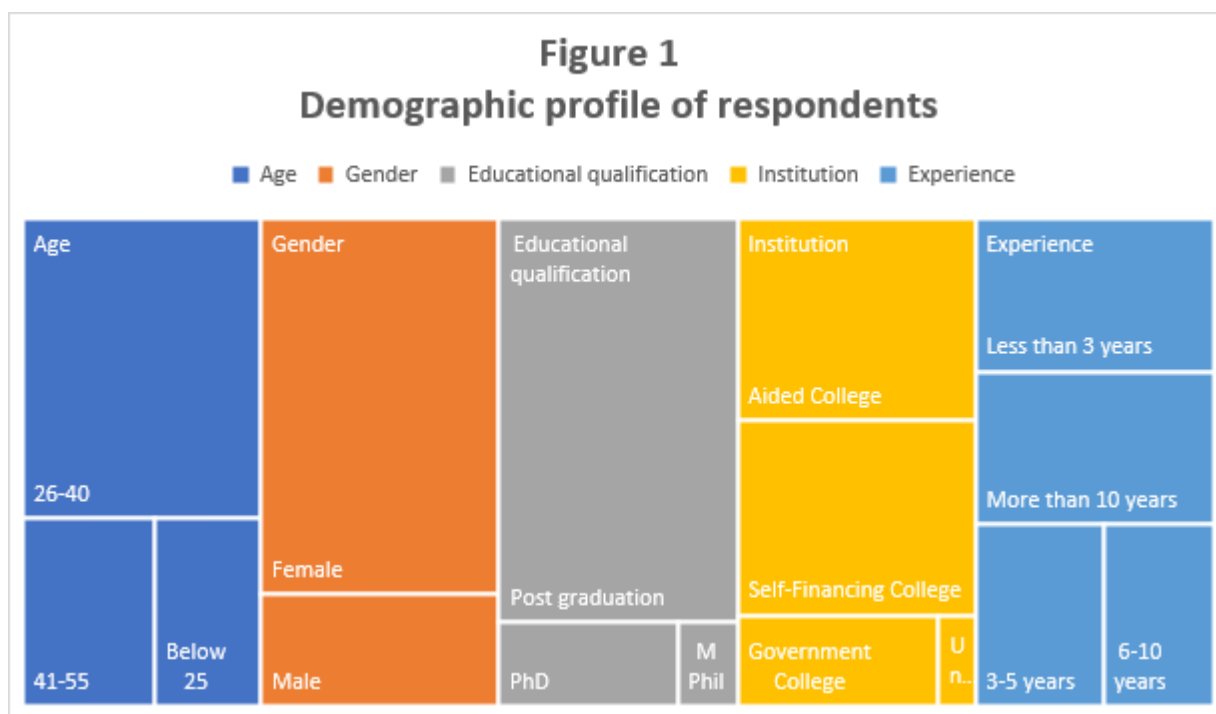


Table 1 shows the demographic profile of respondents. Majority of the accounting faculties belong to age group 26-40 followed by 41-55 years. 12 respondents represent age group below 25. Analysis of gender reveals that 77.1% of respondents were female and remaining 22.9 % male respondents. 82.9 of accounting faculties are post graduated, which indicates sample was predominantly composed of individuals holding post-graduation. Remaining 17.1% have qualification PhD or M Phil. A significant proportion of respondents were employed in aided college and self-financing college, followed by government college and university departments. Experience wise analysis shows that equal proportion of respondents have an experience of less than 3 years and more than 10 years. The demographic profile of respondents clearly expresses diverse backgrounds which ensures balanced representation.

TABLE 2

Frequencies of training

Training	Counts	% of total	Cumulative %
General digital pedagogy training	13	18.6%	18.6%

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Frequencies of training

General digital pedagogy training, Self learning	5	7.1%	25.7%
General digital pedagogy training, Self learning, Peer supported learning	4	5.7%	31.4%
Peer supported learning	3	4.3%	35.7%
Self learning	23	32.9%	68.6%
Self learning, Peer supported learning	6	8.6%	77.1%
Training specifically for Accounting education	9	12.9%	90.0%
Training specifically for Accounting education, General digital pedagogy training	1	1.4%	91.4%
Training specifically for Accounting education, General digital pedagogy training, Peer supported learning	1	1.4%	92.9%
Training specifically for Accounting education, General digital pedagogy training, Self learning	1	1.4%	94.3%
Training specifically for Accounting education, General digital pedagogy training, Self learning, Peer supported learning	1	1.4%	95.7%
Training specifically for Accounting education, Peer supported learning	1	1.4%	97.1%
Training specifically for Accounting education, Self learning	2	2.9%	100.0%

Source: author's own data

From table 2, among the respondents 32.9% used self-learning method only as training and applied in accounting education. 18.6% received general digital pedagogy training only. 22.9% received training specifically for accounting education. Peer supported learning is also preferred and applied by teachers while teaching accounting.

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For the purpose of evaluating the effectiveness of digital pedagogy training received by the accounting faculties three likert scale questions were analysed with the use of mean and standard deviation. The analysis of the improvement of faculty members after digital pedagogy training shows a mean of 4.01, that indicates the significant improvement in using digital tools and standard deviation (0.771) shows a moderate consistency. The frequency of usage of digital tools in accounting classrooms after training (mean 2.63 and standard deviation .817) is relatively low. Respondents use digital tools for assessments moderately showing a mean of 2.71 and standard deviation 0.745. Analyses of the student engagement with use of digital tools in accounting classroom was strong as per the response (mean 4.41 and standard deviation .648). In the case of confidence of faculty members while using digital tools the mean was of 4.11 and standard deviation was 0.692 which showed a strong agreement and highest self-assurance. According to respondents accounting curriculum demands use of digital tools to a large extent with mean 4.19 and showed a moderate consistent response with standard deviation 0.767. Respondents ensured that the use of digital tools in accounting education make it easy (mean 4.33 and standard deviation 0.653).

TABLE 3
USAGE OF DIGITAL TOOLS

TOOLS	COUNTS	PERCENTAGE
Google classroom/ LMS platforms, Video conferencing tools(Zoom, Google meet etc.), Presentation and content tools(Powerpoint, Googleslidesetc)	8	11.4%
Google classroom/ LMS platforms, Video conferencing tools(Zoom, Google meet etc.), Presentation and content tools(Powerpoint, Googleslidesetc), Accounting software(Tally,Quickbooks), Educational video/media platforms (YouTube, Swayam)	7	10.0%
Google classroom/ LMS platforms	5	7.1%
Google classroom/ LMS platforms, Presentation and content tools(Powerpoint, Googleslidesetc), Accounting	5	7.1%

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TOOLS	COUNTS	PERCENTAGE
software(Tally, Quickbooks), Educational video/media platforms (YouTube, Swayam)		
Google classroom/ LMS platforms, Video conferencing tools(Zoom, Google meet etc.), Presentation and content tools(Powerpoint, Googleslidesetc), Accounting software(Tally, Quickbooks), Interactive/engagement tools(Kahoot, Mentimeter), Educational video/media platforms (YouTube, Swayam)	3	4.3%
Accounting software(Tally, Quickbooks)	3	4.3%
Accounting software(Tally, Quickbooks), Educational video/media platforms (YouTube, Swayam)	2	2.9%
Google classroom/ LMS platforms, Presentation and content tools(Powerpoint, Googleslidesetc), Interactive/engagement tools(Kahoot, Mentimeter), Educational video/media platforms (YouTube, Swayam)	2	2.9%
Video conferencing tools(Zoom, Google meet etc.), Presentation and content tools(Powerpoint, Googleslidesetc), Educational video/media platforms (YouTube, Swayam)	2	2.9%

Source: author's own data

The analysis of the tools that is used in accounting education showed that 8 of the respondents use Google classroom/ LMS platforms, Video conferencing tools(Zoom, Google meet etc.), Presentation and content tools(Powerpoint, Googleslidesetc). seven of them used accounting software(Tally, Quickbooks), Educational video/media platforms (YouTube, Swayam) along with the items mentioned earlier.

TABLE 4

	R_ONE	R_TWO	R_THREE	R_FOUR	R_FIVE	R_SIX
N	70	70	70	70	70	70
Mean	3.09	3.19	2.80	3.11	3.13	3.16

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	R_ONE	R_TWO	R_THREE	R_FOUR	R_FIVE	R_SIX
Standard deviation	1.05	1.22	1.19	1.16	1.15	1.04

Source: author's own data

The challenges faced by the respondents while using digital tools in accounting was evaluated by using ranking scale. The results showed that the factor inadequate training in digital pedagogy (mean 3.09), fourth factor time constraints in preparing digital content (3.11), and fifth factor technical issues during implementation were moderately challenging. The second factor lack of institutional resources and the last factor students' limited access or digital skills were ranked between moderate and very challenging (mean 3.19). The least challenging factor as per the responses was lack of institutional support.

TABLE 5

Need for digital pedagogy training

NEED	Counts	% of Total	Cumulative %
No	2	2.9%	2.9%
Yes	68	97.1%	100.0%

Source: author's own data

The responses strongly stated the need for digital pedagogy training specifically for accounting education. Among 70 respondents more than 97% agreed with the need for training. For the open-ended question, which sought the specific areas in accounting education where training is required, only few respondents gave their insights. Many of them gave their need for getting training on the application of Artificial Intelligence in accounting. They showed their interest in updated technologies and its importance in making students capable of getting job in this rapidly changing industrial scenario.

FINDINGS AND SUGGESTIONS

This study among 70 accounting faculties in higher education institutions reveals that there is a major role for digital pedagogy training specifically for accounting education. Majority of the faculties showed their need to conduct a specific training for understanding and applying digital tools and techniques in accounting education necessary for accounting profession. Most of the faculties attended general pedagogy training and they mostly do self-study. Only few respondents received digital pedagogy training. Training improved their ability to use digital tools effectively. Most faculties occasionally or rarely use digital tools in accounting

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classrooms. Even though training was received by many the consistency in application of digital tools in education was little. The study found that use of digital tools in the classroom encourage student engagement and it make accounting education easy. Even though accounting curriculum demands use of digital tools and teachers are confident in using it, they face some challenges. Inadequate training in digital tools, time constraints, and technical issues during implementation are the most challenging factors. The results showed that there is institutional support for faculties for implementing digitalized accounting education.

Adequate training programmes should be conducted to faculties in order to improve their performance, which in turn helps students to compete in the digitalized society. Proper assessment of training needs should be done by institutions and offer training based on their needs. Faculties should be encouraged to use digital tools in all stages of teaching and assessment. They should guide students in achieving maximum skills required for accounting profession. Curriculum should give priority to the changing demands of the society. It should be prepared in such a manner that develop and strengthen the digital skills among students. Faculties should be offered professional development programmes frequently and must focus on providing practical skills in using digital tools. Faculties must make the learning environment student centered where they can be a facilitator for students works.

LIMITATIONS AND FUTURE DIRECTIONS

This study relied on data from limited sample size and data were collected from limited area. The study was among faculties in higher education institutions only. It was conducted among accounting faculties only so generalisation of the results in other disciplines is limited. Future studies can explore the need for digital pedagogy training in other disciplines. It can be studied as comparative also. This study concentrated on the whole effectiveness of training programs further studies can be carried out by analysing the impact of each training methods and digital tools and techniques. The respondents were from different institutions, therefore the difference in institutional policies and resources were not studied. Further studies can be done in this area and focus on finding methods for the integration of digital tools and techniques in education through digital pedagogy training.

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