

Adoption and Integration of Modern Teaching Technologies in Higher Education: A Quantitative Study of Faculty Practices

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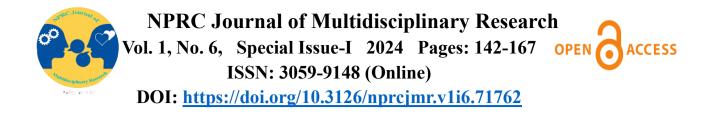
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Abstract

This is a quantitative study that represents the adoption and integration of modern teaching technologies by faculty members in higher education. Since technological tools are gaining much importance day by day in the improvement of learning outcomes, this research will help in filling up critical gaps in knowledge, attitude, and practices of faculties regarding these technologies. It was structured in a questionnaire type administered to all 46 faculties for data based on perceptions of and current use of modern teaching tools. Results show that conventional live classroom teaching is the primary mode of teaching at 60.90 percent, 17.40 percent utilize learning management systems, and only a few faculties use online collaborative tools at 6.50 percent. The attitude towards integrating technology is positive since 91.40 percent of male and 91.00 percent of female respondents acknowledged its contribution to learning. Still, this attitude differs across demographic groups and significantly in terms of age and teaching experience. While younger faculty are more likely to use modern technologies, older faculty rely more on traditional approaches. This study concludes that focused professional development and resource accessibility are the most influential factors that shape the improved technology integration in higher education.

Keywords: Modern teaching technologies, Adoption, Faculty members, Technology integration



Introduction

Teaching is the process of facilitating learning, guiding students through their educational journey and helping them acquire knowledge, skills, values and attitudes. It involves not only the transmission of knowledge or information but also the development of critical and creative thinking, problem solving activities. According to renowned educational theorist John Deway, "Teaching is the enterprise of supplying the conditions which make learning possible." (Deway, 1938). This definition emphasizes the teacher's role in creating an environment conductive to learning.

So, in the process of teaching learning activities, the teacher should have a sound knowledge of teaching at the same time he/she has to know what is good teaching.

Good teaching goes beyond merely presenting information; It involves engaging students in the learning process, encouraging active participation and promoting deep understanding. Characteristics of good teaching involve clear objectives, student engagement, adaptability, timely and constructive feedback, continuous assessment, etc.

Teaching practices refer to the various methods and strategies employed by educators to facilitate learning. These practices encompass a widely range of activities, including lesson planning, instructional methods, assessment techniques, classroom management and the use of educational technology. Effective teaching practices are those that not only engage students but also enhance their understanding and retention of the subject matter. Applying Modern Teaching Technology in classrooms is one of the crucial part of modern days teaching and learning. The convergence of teaching practices and modern technology has increasingly become a central theme in enhancing student engagement and learning outcomes. Research by (Christensen, 2013) indicates that the strategic integration of modern technologies can significantly boost student engagement by providing interactive and personalized learning experiences. The selection of teaching tools and technology is influenced by various factors, including the subject being taught, the level of education, the needs and abilities of the students and the resources available to the teacher.

This study focuses on the Modern Teaching Technology adopted by faculties at Baneshwor Multiple Campus, with an emphasis on the knowledge of modern teaching technology, the attitude of teachers towards modern teaching technology and, present practices of modern teaching technology among teachers and students.



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Use of Technology

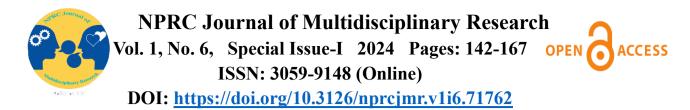
The integration of technology in education has revolutionized the teaching and learning process. Different technological tools such as interactive whiteboards, computers, learning management system, and digital resources enhance instructional delivery and facilitate access to a wealth of information. This not only makes the learning experience more dynamic and interactive but also prepares students for a technology-driven world. (Bates, 2003) discuss the importance of effectively using technology in higher education to support learning and teaching. (Mishra, 2006) introduce the concept of Technological Pedagogical Content Knowledge (TPACK) as essential for integrating technology in teaching. Additionally, technology enables personalized learning, allowing students to progress at their own pace. Modern teaching technology has significantly reshaped the educational landscape with the rapid advancement of digital tools and platforms, educators worldwide are increasingly adopting technology to enhance teaching methods to improve student engagement, facilitate personalized learning and foster a collaborative environment.

Modern Teaching Technologies Adopted at BMC

Baneshwor Multiple Campus is located in the vibrant educational hub of Kathmandu, Nepal. It is a well-established community campus awarded with QAA from UGC Tribhuvan University known for offering a diverse range of academic programs. As a center of higher education, the campus attracts students from various backgrounds and aims to provide quality education that meets the evolving demands of society. The adoption of modern teaching technology at Baneshwor Multiple Campus is not just a response to global educational trends but also a necessity driven by the increasing demand for quality education. The shift towards a technology-rich learning environment is expected to enhance the effectiveness of instructional strategies, making learning more accessible and adaptable to the diverse needs of students.

However, the adoption of these technologies does not exist without challenges. Faculty members may face barriers such as inadequate technical support, lack of training, resistance to change and the need for substantial time investment to adopt new tools. These challenges can significantly influence the extent and effectiveness of technology adoption, thereby impacting students' outcomes.

Existing literature highlights both the potential benefits and challenges associated with the adoption of modern teaching technologies. According to (Smith, 2019)the integration of digital tools in higher education has the potential to enhance student learning experiences by providing more interactive and engaging content. Similarly, (Williams, 2021) emphasizes that adapting teaching methods to incorporate technology can lead to more efficient and effective learning processes.



Despite the recognized advantages, (Brown L., 2020) notes that many educators still struggle with the adoption of these technologies, particularly in traditional educational settings where there is a strong reliance on conventional teaching methods. The need for a supportive infrastructure and ongoing professional development is crucial for overcoming these barriers and ensuring that technology adoption leads to meaningful improvements in teaching and learning outcomes.

In this context, it becomes essential to explore the extent to which faculty members at Baneshwor Multiple Campus are adapting modern teaching technologies, the factors influencing their adoption and the subsequent impact on student learning. This study aims to contribute to the growing body of knowledge by providing insights into the current state of technology adoption at the campus and offering recommendations for enhancing the integration of modern technology tools. Adapting modern teaching technology by the faculties at Baneshwor Multiple Campus plays a crucial role in shaping the academic experiences and outcomes of the students.

Statement of the Problem

The effective integration of modern teaching technologies into educational practices is a critical challenge for higher education institutions aiming to enhance student engagement and learning outcomes.

Despite the growing importance of modern teaching technologies in enhancing educational outcomes, there remains a significant gap in understanding how faculty members at Baneshwor Multiple Campus engage with these tools. Specifically, there is limited insight into the level of knowledge that faculty members possess about available technological resources, their attitudes towards integrating these technologies into their teaching practices, and the extent to which they are currently utilizing these tools. Preliminary observations suggest that variations in technological proficiency and differing attitudes towards technology may affect the consistency and effectiveness of its application in the classroom.

Addressing these issues is crucial for developing targeted interventions that can improve the adoption and effective use of modern teaching technologies. By systematically exploring faculty members' knowledge, attitudes, and current practices, this study aims to identify the underlying factors that influence technology integration in teaching. The findings are expected to provide a comprehensive understanding of the challenges and opportunities associated with technology adoption, thereby informing strategies to enhance faculty development and optimize the use of educational technologies to foster better learning environments.



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Objectives of the Study

The overall objective of the study is to explore the types of modern teaching technologies adopted by faculty members at Baneshwor Multiple Campus. The specific objectives are as follows:

1. To identify the types of modern teaching technologies adopted by faculty members.

2. To identify the attitudes of faculty members towards the use of modern teaching technologies.

3. To examine the present practices of modern teaching technologies among faculty members.

Significance of the Study

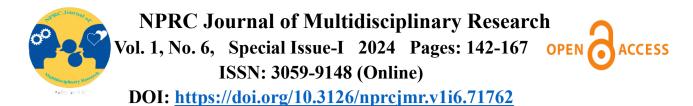
This study contributes to the broader understanding of technology adoption in the Nepalese higher education context, particularly at Baneshwor Multiple Campus. The findings will provide valuable insights for policymakers and campus administrators seeking to enhance technology integration.

This study holds substantial significance across various domains:

- This study provides insights into the types of technologies adopted by faculty, identifying gaps and opportunities for further integration.
- This study examines faculty attitudes towards modern teaching technologies, offering a nuanced understanding of the factors influencing adoption.
- It identifies current practices of technology use, informing campus administration and policymakers about the effectiveness of existing strategies.
- This study helps researchers by providing data and insights that can be used in further studies on technology adoption and educational practices in similar contexts.
- The study offers valuable insights into the types of technologies currently adopted by faculty members, identifying existing gaps and potential opportunities for further integration. This information is crucial for curriculum developers and faculty trainers to design programs that enhance the technological competencies of educators.
- Educators can benefit from understanding the impact of modern teaching technologies on teaching and learning processes. The study's findings will enable educators to refine their instructional practices, thereby improving the overall quality of education provided.
- This study offers valuable information to stakeholders, such as educational policymakers and administrators, for making informed decisions on resource allocation and support for technology adoption.

Limitations of the Study

The limitations of the study include a relatively small sample size of 45 faculty members, which may affect the generalization of the findings. Additionally, the study focuses on specific types



of technologies which may not represent the full spectrum of tools available. Finally the reliance on self-reported data through questionnaires could introduce biases, as respondents might exaggerate or underreport their use of technology.

Other common Limitations of the Study can be listed as below;

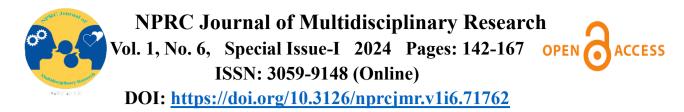
- This study is based only within the periphery of Baneshwor Multiple Campus.
- Self-reported data: The study relies on self-reported data collected through a closedended questionnaire, which may be subject to biases such as social desirability or inaccurate self-assessment.
- Lack of qualitative insights: The quantitative, exploratory research design does not capture the depth of individual experiences or the reasons behind faculty attitudes and practices, which could have been explored through qualitative methods like interviews or focus groups.
- **Potential for rapid technological change**: Given the fast pace of technological advancement, the findings of this study may become outdated quickly, limiting their long-term relevance.
- **Institutional specificity**: The study does not account for institutional policies, culture, or resources that might influence technology adoption, potentially overlooking key factors that affect the integration of modern teaching technologies.

Theoretical Review

Teaching technology, broadly defined, encompasses a variety of tools and methods used to enhance the teaching and learning process. This includes both hardware (e.g., computers, interactive whiteboards) and software (e.g., Learning Management Systems, educational apps) that facilitate instruction and engagement in educational settings (Johnson, Becker, & Freeman, 2015). The use of teaching technology is grounded in several theoretical frameworks that explain how and why educators adopt and integrate these tools into their pedagogy.

One of the most influential theories in this domain is the **Technology Acceptance Model** (**TAM**), developed by (Davis, 1989). TAM posits that two main factors—perceived usefulness and perceived ease of use—determine an individual's intention to use a technology, which in turn predicts actual usage. This model has been widely applied to understand the adoption of teaching technologies in educational institutions. According to (Venkatesh & Bala, , 2008), the model has been expanded to include external variables such as experience, voluntariness, and subjective norm, which further influence technology acceptance.

Another relevant theoretical framework is the **Diffusion of Innovations Theory**, proposed by (Rogers, 2003). This theory explains how, why, and at what rate new ideas and technologies spread through cultures. It identifies several key elements that affect the adoption process: the innovation itself, communication channels, time, and the social system. In the context of



educational technology, this theory helps to explain the varying rates at which faculty members at educational institutions adopt new teaching tools and methods.

Empirical Review

The empirical review focuses on existing studies that have explored the adoption of modern teaching technologies in higher education. Empirical studies on the adoption and integration of teaching technology in higher education reveal a wide range of findings, reflecting the diverse contexts and conditions under which technology is employed. Research by (Johnson, Becker, & Freeman, 2015) highlights that the adoption of teaching technologies is often driven by the potential to improve student engagement and learning outcomes. Their study found that educators who perceived technology as enhancing the learning experience were more likely to integrate it into their teaching practices.

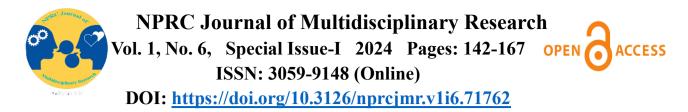
However, empirical evidence also suggests that there are significant barriers to the adoption of teaching technology. For example, (Straub, 2009) identified factors such as lack of training, resistance to change, and insufficient technical support as common challenges faced by faculty members. In a study conducted by (Anderson, 2017), it was found that while many educators acknowledge the benefits of modern teaching technologies, their actual usage is often limited due to these barriers.

Further empirical research by (Veletsianos, 2017) explored the attitudes of faculty members towards teaching technologies. They found that while younger faculty members and those with more technological experience were more likely to adopt new tools, there was still a significant proportion of educators who were hesitant, often due to concerns about the effectiveness of technology in achieving pedagogical goals. This aligns with the findings of (Venkatesh & Bala, 2008), who noted that perceived ease of use and external support are critical factors in the adoption process.

Research Gap

Despite the extensive research on teaching technology adoption, several gaps remain in the literature, particularly in the context of developing countries and specific educational settings. Most studies have been conducted in Western contexts, leaving a gap in understanding how teaching technologies are adopted and utilized in non-Western settings, such as Nepal. Additionally, while there is substantial research on the factors influencing technology adoption, there is limited empirical evidence on the long-term impact of these technologies on teaching effectiveness and student outcomes in diverse educational environments.

Moreover, existing studies often focus on either the technological or pedagogical aspects of teaching technology adoption, with few examining the intersection of these domains holistically. This study aims to address these gaps by exploring the current practices, attitudes,



and challenges associated with teaching technology adoption among faculty members at Baneshwor Multiple Campus in Nepal. By doing so, it contributes to the broader literature and provides insights that can inform policy and practice in similar educational contexts.

Methods and Materials

This chapter states the methodological aspects of the study. It consists of the research design, sources of data, population and sampling, study populations, data collection tools and procedures and data analysis and interpretations.

Research Design

Research design and sampling are fundamental in scientific research (Mahat et al., 2024). This study adopts a quantitative research design with an exploratory approach to investigate the modern teaching technologies adopted by faculty members at Baneshwor Multiple Campus. The quantitative design allows for the systematic collection and analysis of numerical data, providing a structured framework to explore the extent and nature of technology adoption among the faculty (Craswell, 2017). The exploratory nature of the research is particularly suited to this study, given the limited prior research on the specific context of teaching technology adoption in Nepalese higher education institutions. This approach facilitates the identification of patterns, trends, and relationships that can form the basis for future, more detailed investigations.

Sources of Data

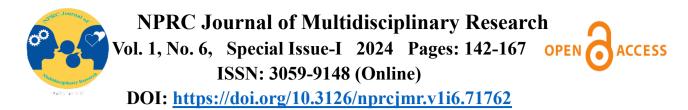
The data for this study were collected through primary sources. Specifically, data were obtained directly from faculty members of Baneshwor Multiple Campus through a structured closed-ended questionnaire. Primary data collection was essential to ensure that the findings are directly relevant to the study population and reflective of their current practices, attitudes, and challenges related to modern teaching technologies.

Population, Sample Size and Sampling Procedure

The population for this study consists of faculty members from Baneshwor Multiple Campus, a prominent educational institution in Nepal. The total population includes 46 faculty members, who vary in terms of gender, age, educational qualification, educational background, and teaching experience. Due to the manageable size of the population, a census sampling method was employed, allowing all faculty members to participate in the study. This method ensures comprehensive coverage of the population, thus enhancing the reliability and validity of the findings.

Study Area

The study was conducted at Baneshwor Multiple Campus, located in Kathmandu, Nepal. This institution is known for its diverse academic programs and a faculty body that includes members from various disciplines. The campus serves as an ideal setting for exploring the adoption of modern teaching technologies, given its established infrastructure and commitment to educational innovation.



Data Collection Tools and Procedures

The main tool for the data collection was a closed-ended questionnaire, which was designed to capture quantitative data on the types of technologies adopted, faculty attitudes towards these technologies, and the current practices of technology use. The questionnaire was developed on the basis of knowledge, attitudes and present practices related to modern teaching technologies with consisted of multiple-choice questions and demographic questions.

The data collection process involved distributing the questionnaires to all 46 faculty members of Baneshwor Multiple Campus. Respondents were given a week to complete the questionnaires, ensuring that they had sufficient time to provide accurate and thoughtful responses. The completed questionnaires were then collected and coded for analysis.

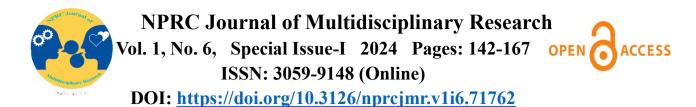
Results and Analysis

Demographic Information

The subjects of the research work were the faculty members of the Baneshwor Multiple Campus, representing various gender, age-group, educational qualification, educational background and teaching experience.

		Frequency	Percent
Gender	Male	35	76.1
	female	11	23.9
	Total	46	100.0
age group	25-35yrs	18	39.1
	36-45yrs	13	28.3
	46-55yrs	11	23.9
	56+yrs	4	8.7
	Total	46	100.0
educational qualification	master's degree	33	71.7
	M.phil	6	13.0
	Ph.D	7	15.2
	Total	46	100.0
	education	10	21.7
educational background	humanities	21	45.7
	science	10	21.7
	Management	5	10.9
	Total	46	100.0
	1-5 years	10	21.8
teaching experience	6-10 years	7	15.2
	11-15 years	4	8.7
	16+years	25	54.3
	Total	46	100.0

Table 1 Demographic profile of respondents



The demographic profile of the respondents reveals a predominantly male group, with 76.1% being male and 23.9% female, indicating a significant gender imbalance. The age distribution shows that the largest proportion of respondents (39.1%) falls within the 25-35 years age group, followed by 28.3% in the 36-45 years group, 23.9% in the 46-55 years group, and a smaller percentage (8.7%) aged 56 years and above. In terms of educational qualifications, a substantial majority hold a Master's degree (71.7%), while 15.2% have a Ph.D., and 13.0% possess an M.Phil. This indicates that the participants are generally well-educated, with a significant portion having advanced academic qualifications. The respondents' educational backgrounds are diverse, with 45.7% coming from the Humanities, 21.7% each from Education and Science, and 10.9% from Management. Finally, the teaching experience among the respondents varies widely, with over half (54.3%) having more than 16 years of experience. This distribution suggests that while the sample includes a range of experience levels, a considerable number of respondents are highly experienced educators.

Teachers' Knowledge Towards Modern Teaching Technologies

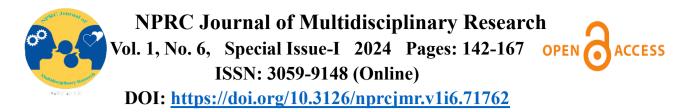
The following sections explore the teachers' knowledge towards modern teaching technologies based on gender, age group, educational background, qualification, and teaching experience.

		Which of the follo	wing teaching te	chniques are me	odern to you?		
						online	
						collaboration	
						tools(e.g.	
			Online learning	Artificial	Interactive	google, docs,	
			platforms	Intelligence	whiteboards	zooms.)	Total
	male	Count	7	10	4	14	35
Gender		% within gender	20.0%	28.6%	11.4%	40.0%	100.0%
	female	Count	5	1	3	2	11
		% within gender	45.5%	9.1%	27.3%	18.2%	100.0%
То	tal	Count	12	11	7	16	46
		% within gender	26.1%	23.9%	15.2%	34.8%	100.0%

Table 2: Teachers' knowledge towards modern teaching technology by gender

(Source: Field survey, 2024)

Table 2 reveals gender-based differences in perceptions of modern teaching technologies. Among female teachers, 45.5% (5 out of 11) view online learning platforms as modern, compared to 20.0% (7 out of 35) of male teachers. Similarly, 27.3% (3 out of 11) of female teachers consider interactive whiteboards modern, versus 11.4% (4 out of 35) of male teachers. In contrast, male teachers are more likely to see artificial intelligence (28.6% or 10 out of 35)



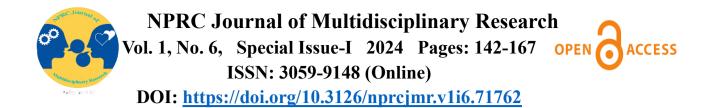
and online collaboration tools (40.0% or 14 out of 35) as modern, compared to 9.1% (1 out of 11) and 18.2% (2 out of 11) of female teachers, respectively. This suggests that male and female teachers prioritize different technologies, potentially due to varying familiarity or experience with these tools.

	Whi	ch of the followin	g teaching tech	nnique are mode	ern to you?		
			Online			online collaboration tools(e.g.	
			learning	Artificial	Interactive	google,	
			platforms	Intelligence	whiteboards	docs,zooms.)	Total
age group	25-35yrs	Count	4	5	3	6	18
		% within age group	22.2%	27.8%	16.7%	33.3%	100.0%
	36-45yrs	Count	3	3	2	5	13
		% within age group	23.1%	23.1%	15.4%	38.5%	100.0%
	46-55yrs	Count	4	1	1	5	11
		% within age group	36.4%	9.1%	9.1%	45.5%	100.0%
	56+yrs	Count	1	2	1	0	4
		% within age group	25.0%	50.0%	25.0%	0.0%	100.0%
Тс	otal	Count	12	11	7	16	46
	Field surve	% within age group	26.1%	23.9%	15.2%	34.8%	100.0%

Table 3: Teachers' knowledge towards modern teaching technology by age group

(Source: Field survey, 2024)

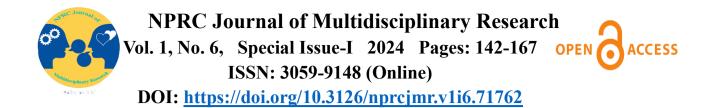
Table 3 shows distinct age-based differences in perceptions of modern teaching technologies. Teachers aged 46-55 years are more likely to view online learning platforms (36.4%) and online collaboration tools (45.5%) as modern, whereas those aged 56+ years show the highest recognition of artificial intelligence (50.0%) and interactive whiteboards (25.0%). Interestingly, none of the teachers aged 56+ years consider online collaboration tools as modern. These differences suggest that age influences how teachers perceive and prioritize modern teaching technologies, likely due to varying levels of familiarity, experience, or comfort with these tools.



	Whic	h of the followin	g tea	ching techn	iques are mod	ern to you?		
							online collaboration	
				Online			tools(e.g.	
				learning	Artificial	Interactive	google, docs,	
				platforms	Intelligence	whiteboards	zooms.)	Total
educational	master's	Count		9	6	4	14	33
qualification	degree	% within educational qualification		27.3%	18.2%	12.1%	42.4%	100.0%
	M.phil	Count		1	3	1	1	6
		% within educational qualification		16.7%	50.0%	16.7%	16.7%	100.0%
	Ph.D	Count		2	2	2	1	7
		% within educational qualification		28.6%	28.6%	28.6%	14.3%	100.0%
Total	<u> </u>	Count		12	11	7	16	46
		% within educational qualification		26.1%	23.9%	15.2%	34.8%	100.0%

Table 4: Teachers' knowledge of modern teaching technology by qualification

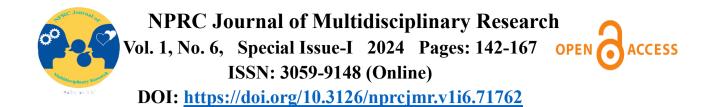
Table 4 reveals differences in perceptions of modern teaching technologies based on teachers' educational qualifications. Among those with a master's degree, 42.4% (14 out of 33) view online collaboration tools (e.g., Google Docs, Zoom) as modern, making it the most recognized technology in this group. In contrast, only 16.7% (1 out of 6) of M.Phil holders and 14.3% (1 out of 7) of Ph.D. holders see these tools as modern. Ph.D. holders show a more balanced recognition across the technologies, with 28.6% viewing online learning platforms, artificial intelligence, and interactive whiteboards as modern. Meanwhile, M.Phil holders have the highest recognition of artificial intelligence, with 50.0% (3 out of 6) considering it modern. Overall, teachers with higher educational qualifications tend to have diverse perceptions of modern teaching technologies, with those holding master's degrees being more inclined toward online collaboration tools, and those with M.Phil or Ph.D. degrees showing varied preferences across different technologies.



	Which of t	he following tea	ching techn	iques are mod	ern to you?		
						online	
						collaboration	
			Online			tools(e.g.	
			learning	Artificial	Interactive	google,	
			platforms	Intelligence	whiteboards	docs,zooms.)	Total
educational	Education	Count	2	3	3	2	10
background		% within	20.0%	30.0%	30.0%	20.0%	100.0%
		educational					
		background					
	Humanities	Count	7	6	2	6	21
		% within	33.3%	28.6%	9.5%	28.6%	100.0%
		educational					
		background					
	Science	Count	2	2	1	5	10
		% within	20.0%	20.0%	10.0%	50.0%	100.0%
		educational					
		background					
	management	Count	1	0	1	3	5
		% within	20.0%	0.0%	20.0%	60.0%	100.0%
		educational					
		background					
Тс	otal	Count	12	11	7	16	46
		% within	26.1%	23.9%	15.2%	34.8%	100.0%
		educational					
l		background					

Table 5: Teacher's knowledge of modern teaching technology by educational background

Table 5 reveals differences in the perception of modern teaching technologies based on teachers' educational backgrounds. Teachers from humanities are more likely to view online learning platforms (33.3%) as modern, while those from education are most likely to recognize artificial intelligence (30.0%). Interactive whiteboards are considered modern by teachers from education and humanities backgrounds (30.0% and 9.5%, respectively). On the other hand, online collaboration tools are highly regarded by teachers from management (60.0%) and science (50.0%) backgrounds. These findings suggest that teachers' educational backgrounds influence their perceptions of modern teaching technologies, with different fields prioritizing different tools based on their relevance and familiarity within their disciplines.



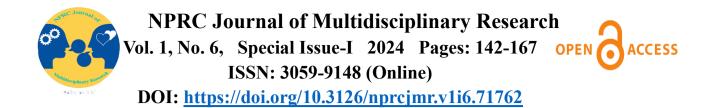
	Which	n of the following tea	ching techr	nique are mode	ern to you?		
						online	
						collaboration	
			Online			tools(e.g.	
			learning	Artificial	Interactive	google,	
			platforms	Intelligence	whiteboards	docs,zooms.)	Total
Teaching	1-5 years	Count	1	3	3	3	10
Experience		% within Teaching	10.0%	30.0%	30.0%	30.0%	100.0%
		Experience					
	6-10	Count	2	2	0	3	7
	years	% within Teaching	28.6%	28.6%	0.0%	42.9%	100.0%
		Experience					
	11-15	Count	4	0	0	0	4
	years	% within Teaching	100.0%	0.0%	0.0%	0.0%	100.0%
		Experience					
	16+	Count	5	6	4	10	25
	years	% within Teaching	20.0%	24.0%	16.0%	40.0%	100.0%
		Experience					
Total		Count	12	11	7	16	46
		% within Teaching	26.1%	23.9%	15.2%	34.8%	100.0%
		Experience					
		•					

Table 6: Teacher's knowledge towards modern teaching technology by teaching experience

The data shows variations in perceptions of modern teaching technologies based on teaching experience. Teachers with 11-15 years of experience are most likely to see online learning platforms as modern (100.0%), while those with 1-5 years and 6-10 years of experience are more inclined to recognize artificial intelligence (30.0% and 28.6%, respectively). Interactive whiteboards are viewed as modern by 30.0% of teachers with 1-5 years of experience and 16.0% of those with 16+ years. Online collaboration tools are most recognized by teachers with 6-10 years (42.9%) and 16+ years (40.0%) of experience. These patterns suggest that familiarity and comfort with these technologies vary with the length of teaching experience.

Teachers' attitudes towards modern teaching technology

The following sections explore the teachers' attitudes towards modern teaching technologies based on gender, age group, educational background, qualification, and teaching experience.



To w	hat exter/	nt do you ag	ree integrating te	chnology in te	aching positiv	ely impacts th	e learning	
			e	xperience?				
			Strongly				Strongly	
			disagree	Disagree	Neutral	Agree	agree	Total
Gender	Male	Count	2	1	0	13	19	35
		% within	5.7%	2.9%	0.0%	37.1%	54.3%	100.0%
	gender							
	Female	Count	0	0	1	5	5	11
		% within	0.0%	0.0%	9.1%	45.5%	45.5%	100.0%
		gender						
То	tal	Count	2	1	1	18	24	46
		% within	4.3%	2.2%	2.2%	39.1%	52.2%	100.0%
		gender						

Table 7: Attitude t	towards using	modern	toaching	technology	hy gondar
Tuble 7. Alliude i	owaras asing	s mouern	reaching	rechnology	by genuer

Table 7 indicates gender-based differences in attitudes towards integrating technology in teaching. Among male teachers, 54.3% (19 out of 35) strongly agree that integrating technology positively impacts the learning experience, and 37.1% (13 out of 35) agree, resulting in a total of 91.4% showing a positive attitude. In contrast, female teachers are similarly positive, with 45.5% (5 out of 11) agreeing and another 45.5% (5 out of 11) strongly agreeing, making a total of 91.0% showing a positive attitude. Both genders exhibit a strong inclination towards technology's positive impact, with minimal disagreement or neutrality: 5.7% (2 out of 35) of male teachers and none of female teachers strongly disagree, while 0.0% of both genders are neutral. These findings suggest that both male and female teachers largely agree on the benefits of integrating technology into teaching, with only a small proportion expressing neutral or negative views.

To what extent do you agree integrating technology in teaching positively impacts the learning										
			expe	erience?						
Strongly Strongly										
disagree Disagree Neutral Agree agree										
age group	25-35yrs	Count	0	0	0	9	9	18		
		% within age	0.0%	0.0%	0.0%	50.0%	50.0%	100.0%		
	group									
	36-45yrs	Count	2	0	1	3	7	13		
		% within age	15.4%	0.0%	7.7%	23.1%	53.8%	100.0%		
		group								
	46-55yrs	Count	0	1	0	5	5	11		
		% within age	0.0%	9.1%	0.0%	45.5%	45.5%	100.0%		
	group									
	56+yrs	Count	0	0	0	1	3	4		

Table 8: Teachers' attitude towards using modern teaching technology by age- group



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	% within age	0.0%	0.0%	0.0%	25.0%	75.0%	100.0%
	group						
Total	Count	2	1	1	18	24	46
	% within age	4.3%	2.2%	2.2%	39.1%	52.2%	100.0%
	group						

(Source: Field survey, 2024)

Table 8 illustrates variations in attitudes towards the integration of technology in teaching across different age groups. Among teachers aged 25-35 years, 50.0% (9 out of 18) strongly agree and 50.0% (9 out of 18) agree that technology positively impacts learning, indicating a unanimous positive perspective. Teachers aged 36-45 years show a slightly varied distribution, with 53.8% (7 out of 13) strongly agreeing, 23.1% (3 out of 13) agreeing, and 7.7% (1 out of 13) being neutral, while 15.4% (2 out of 13) strongly disagree. In the 46-55 years age group, 45.5% (5 out of 11) strongly agree and another 45.5% (5 out of 11) agree, with 9.1% (1 out of 11) disagreeing. For those aged 56+ years, a significant 75.0% (3 out of 4) strongly agree and 25.0% (1 out of 4) agree, reflecting a strong consensus on the positive impact of technology. Overall, the majority of teachers across all age groups agree that integrating technology enhances the learning experience, with minimal disagreement or neutrality observed.

To what exten	t do you agr	ee integrating tec	hnology in perience?	teaching p	ositively ir	npacts the	learning	
			Strongly				Strongly	
	-		disagree	Disagree	Neutral	Agree	agree	Total
educational	Master's	Count	2	0	0	14	17	33
qualification	degree	% within	6.1%	0.0%	0.0%	42.4%	51.5%	100.0%
		educational						
		qualification						
	M. Phil	Count	0	0	1	1	4	6
		% within	0.0%	0.0%	16.7%	16.7%	66.7%	100.0%
		educational						
		qualification						
	Ph.D	Count	0	1	0	3	3	7
		% within	0.0%	14.3%	0.0%	42.9%	42.9%	100.0%
		educational						
		qualification						
Tota	1	Count	2	1	1	18	24	46
		% within	4.3%	2.2%	2.2%	39.1%	52.2%	100.0%
		educational						
		qualification						

Table 9: Teachers' attitude towards using modern teaching technology by educational qualification

(Source: Field survey, 2024)

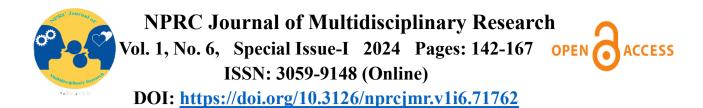


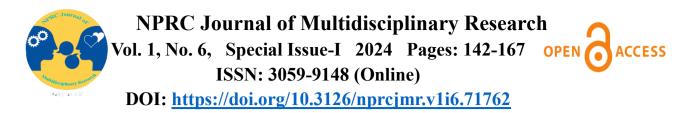
Table 9 shows differences in attitudes toward integrating technology in teaching based on educational qualifications. Among teachers with a master's degree, 51.5% (17 out of 33) strongly agree and 42.4% (14 out of 33) agree that technology positively impacts learning, resulting in a total of 93.9% with a positive view. For those with an M. Phil, 66.7% (4 out of 6) strongly agree, 16.7% (1 out of 6) agree, and 16.7% (1 out of 6) are neutral, with no one disagreeing or strongly disagreeing. Among Ph.D. holders, 42.9% (3 out of 7) strongly agree and 42.9% (3 out of 7) agree, with 14.3% (1 out of 7) disagreeing. Across all educational qualifications, a significant majority view technology integration positively, with minimal disagreement or neutrality. Specifically, 52.2% of all respondents strongly agree with the benefits of technology in teaching, demonstrating a strong consensus on its positive impact.

Table 10: Teachers' attitude towards using modern teaching technology by educational background

To what extent do you agree integrating technology in teaching positively impacts the learning experience?										
			Strongly				Strongly			
			disagree	Disagree	Neutral	Agree	agree	Total		
educational	Education	Count	0	0	0	3	7	10		
background		% within educational background	0.0%	0.0%	0.0%	30.0%	70.0%	100.0%		
	Humanities	Count	0	1	1	7	12	21		
		% within educational background	0.0%	4.8%	4.8%	33.3%	57.1%	100.0%		
	Science	Count	2	0	0	5	3	10		
		% within educational background	20.0%	0.0%	0.0%	50.0%	30.0%	100.0%		
	management	Count	0	0	0	3	2	5		
		% within educational background	0.0%	0.0%	0.0%	60.0%	40.0%	100.0%		
Tota	1	Count	2	1	1	18	24	46		
		% within educational background	4.3%	2.2%	2.2%	39.1%	52.2%	100.0%		

(Source: Field survey, 2024)

Table 10 reveals varying attitudes towards the integration of technology in teaching across different educational backgrounds. Teachers from the education field exhibit the most positive stance, with 70.0% (7 out of 10) strongly agreeing and 30.0% (3 out of 10) agreeing that technology enhances learning, showing no disagreement or neutrality. In the humanities field, 57.1% (12 out of 21) strongly agree and 33.3% (7 out of 21) agree, with 4.8% (1 out of 21) each being neutral and disagreeing. Teachers in science show mixed views, with 50.0% (5 out of 10) agreeing, 30.0% (3 out of 10) strongly agreeeing, and 20.0% (2 out of 10) strongly disagreeing, with no neutral responses. For management educators, 60.0% (3 out of 5) agree



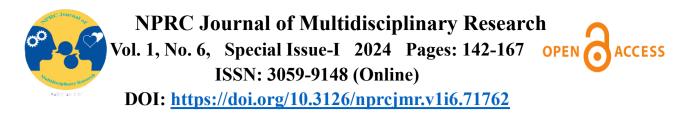
and 40.0% (2 out of 5) strongly agree, with no disagreement or neutrality. Overall, the majority of teachers across all educational backgrounds perceive a positive impact of technology integration, with minimal disagreement or neutrality. Specifically, 52.2% of all respondents strongly agree that technology benefits teaching, indicating a broad consensus on its positive influence.

		6	experience?			1		_
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Teaching	1-5 years	Count	0	0	0	4	6	10
Experience	_	% within Teaching	0.0%	0.0%	0.0%	40.0%	60.0%	100.0%
		Experience						
	6-10	Count	0	0	1	4	2	7
	years	% within Teaching	0.0%	0.0%	14.3%	57.1%	28.6%	100.0%
	11-15	Experience Count	0	0	0	2	2	4
		% within Teaching Experience	0.0%	0.0%	0.0%	50.0%	50.0%	100.0%
	16+ years	Count	2	1	0	8	14	25
		% within Teaching Experience	8.0%	4.0%	0.0%	32.0%	56.0%	100.0%
Total	1	Count	2	1	1	18	24	46
		% within Teaching Experience	4.3%	2.2%	2.2%	39.1%	52.2%	100.0%

Table 11: Teachers' attitude towards using modern teaching technology by teaching experience

(Source: Field survey, 2024)

Table 11 indicates varying attitudes toward integrating technology in teaching based on teaching experience. Among teachers with 1-5 years of experience, 60.0% (6 out of 10) strongly agree and 40.0% (4 out of 10) agree that technology positively impacts learning, with no disagreement or neutrality. Teachers with 6-10 years of experience show a mixed perspective: 57.1% (4 out of 7) agree, 14.3% (1 out of 7) are neutral, and 28.6% (2 out of 7) strongly agree, with no disagreement or strong disagreement. In the 11-15 years category, 50.0% (2 out of 4) strongly agree and 50.0% (2 out of 4) agree, with no neutral or disagreeing responses. Teachers with 16+ years of experience exhibit a predominant positive view, with 56.0% (14 out of 25) strongly agreeing and 32.0% (8 out of 25) agreeing, while 8.0% (2 out of



25) disagree and 4.0% (1 out of 25) strongly disagree. Overall, a significant majority of teachers across all levels of experience view technology integration positively, with only a small proportion expressing disagreement. Specifically, 52.2% of all respondents strongly agree on the benefits of technology in teaching, underscoring a consensus on its positive impact.

Teachers' present practice of using modern teaching technologies

The following sections reveal the teachers' present practice of using modern teaching technologies based on gender, age group, educational background, qualification, and teaching experience.

			Which of th	e following tec	hnological tools	s do you frequently	apply in	
					your classes?			
						Online		
				Learning	Conventional	collaboration	Project-	
			Interactive	management	live classroom	tools(google,	assisted	
	whiteboards system teaching docs, zooms, etc) teaching						Total	
Gender	male	Count	0	6	22	2	5	35
		% within	0.00%	17.10%	62.90%	5.70%	14.30%	100.00%
		gender						
	female	Count	0	2	6	1	2	11
		% within	0.00%	18.20%	54.00%	9.10%	18.20%	100.00%
		gender						
Tot	al	Count	0	8	28	3	7	46
		% within	0.00%	17.40%	60.90%	6.50%	15.20%	100.00%
		gender						
(0	TP' 11	-	004					

Table 12: Teachers' present practice of using modern teaching technology by gender

(Source: Field survey, 2024)

Table 12 illustrates the present use of modern teaching technology by gender. None of the male or female teachers reported using interactive whiteboards in their classes. Among male teachers, 17.1% frequently use learning management systems, 62.9% rely on conventional live classroom teaching, 5.7% use online collaboration tools such as Google Docs and Zoom, and 14.3% apply project-assisted teaching.

For female teachers, 18.2% utilize learning management systems, 54% prefer conventional live classroom teaching, 9.1% employ online collaboration tools, and 18.2% use project-assisted teaching methods.

Overall, across both genders, the most commonly used teaching method is conventional live classroom teaching (60.9%), followed by learning management systems (17.4%), project-assisted teaching (15.2%), and online collaboration tools (6.5%). None reported the use of interactive whiteboards.



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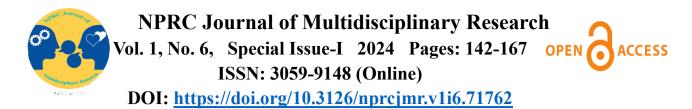
Which of the following technological tools do you frequently apply in your classes?								
						Online		
				Learning	Conventional	collaboration	Project-	
			Interactive	management	live classroom	tools(google,	assisted	
			whiteboards	system	teaching	docs,zooms,etc)	teaching	Total
age	25-	Count	0	3	10	3	2	18
group	35yrs	% within age	0.00%	16.70%	55.60%	16.70%	11.10%	100.00%
		group						
	36-	Count	0	4	6	0	3	13
	45yrs	% within age	0.00%	30.80%	46.20%	0.00%	23.10%	100.00%
		group						
	46-	Count	0	1	8	0	2	11
	55yrs	% within age	0.00%	9.10%	72.70%	0.00%	18.20%	100.00%
		group						
	56+yrs	Count	0	0	4	0	0	4
		% within age	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%
		group						
Т	otal	Count	0	8	28	3	7	46
		% within age	0.00%	17.40%	60.90%	6.50%	15.20%	100.00%
		group						

Table 13: Teachers present practice of using modern teaching technology by age group

(Source: Field survey, 2024)

Table 13 presents data on the frequency of modern teaching technology use across different age groups of teachers, including interactive whiteboards, learning management systems, conventional live classroom teaching, online collaboration tools (e.g., Google Docs, Zoom), and project-assisted teaching.

- **25-35 years age group:** Out of the 18 teachers in this age group, 16.7% use learning management systems and online collaboration tools, respectively. A majority of 55.6% rely on conventional live classroom teaching, while 11.1% use project-assisted teaching. No teachers in this group use interactive whiteboards.
- **36-45 years age group:** Among the 13 teachers in this group, 30.8% use learning management systems, 46.2% depend on conventional live classroom teaching, and 23.1% utilize project-assisted teaching. No one in this group uses online collaboration tools or interactive whiteboards.
- **46-55 years age group:** Of the 11 teachers, 9.1% employ learning management systems, while the majority, 72.7%, use conventional live classroom teaching. A smaller percentage (18.2%) applies project-assisted teaching, and none use online collaboration tools or interactive whiteboards.
- **56 years and older age group:** In this group of 4 teachers, all (100%) exclusively rely on conventional live classroom teaching, with no usage of other technological tools



such as interactive whiteboards, learning management systems, online collaboration tools, or project-assisted teaching.

The data indicates that across all age groups, conventional live classroom teaching remains the most widely used method, especially in the older age brackets. Among the younger teachers (25-35 years), there is a greater diversity in the use of modern teaching technologies, including online collaboration tools and learning management systems, compared to the older groups. Notably, teachers aged 46 and above heavily rely on traditional classroom teaching, with limited use of other modern tools.

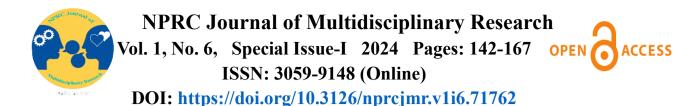
The absence of interactive whiteboards across all age groups suggests either a lack of availability or preference for this particular technology. Overall, younger teachers show more openness to incorporating modern teaching tools compared to their older counterparts, highlighting a potential generational gap in technology adoption in the classroom.

			Which of	the following	technological (tools do you frequ	uently		
				apply in your classes?					
					Conventional	Online			
				Learning	live	collaboration	Project-		
			Interactive	management	classroom	tools(google,	assisted		
			whiteboards	system	teaching	docs,zooms,etc)	teaching	Total	
educational	master's	Count	0	6	19	3	5	33	
qualification	degree	% within	0.00%	18.20%	57.60%	9.10%	15.20%	100.00%	
		educational							
		qualification							
	M. Phil	Count	0	0	5	0	1	6	
		% within	0.00%	0.00%	83.30%	0.00%	16.70%	100.00%	
		educational							
		qualification							
	Ph.D	Count	0	2	4	0	1	7	
		% within	0.00%	28.60%	57.20%	0.00%	14.30%	100.00%	
		educational							
		qualification							
Total	Total Co		0	8	28	3	7	46	
		% within	0.00%	17.40%	60.90%	6.50%	15.20%	100.00%	
		educational							
		qualification							

Table 14: Teachers' present practice of using modern teaching technology by educational qualifications

(Source: Field survey, 2024)

Table 14 presents teachers' use of modern teaching technology based on their educational qualifications. Among those with a master's degree, 57.6% primarily use conventional live classroom teaching, 18.2% incorporate learning management systems, 15.2% employ project-



assisted teaching, and 9.1% use online collaboration tools, with no reported use of interactive whiteboards. Teachers with an M. Phil degree strongly prefer conventional teaching, with 83.3% relying on it and 16.7% using project-assisted methods. None in this group reported using learning management systems, collaboration tools, or whiteboards. Ph.D. holders demonstrate a slightly higher use of learning management systems, with 28.6% utilizing them, while 57.2% continue to use conventional teaching methods and 14.3% employ project-assisted teaching.

Overall, conventional live classroom teaching remains the dominant approach across all educational qualifications. Learning management systems are somewhat more popular among Ph.D. holders, but the overall use of modern teaching technologies, including project-assisted methods and online tools, remains relatively low. Interactive whiteboards are not used by any group, indicating limited adoption of diverse technological tools despite varying levels of educational attainment.

			Which of t	Which of the following technological tools do you frequently					
				appl	y in your class	ses?			
					Conventional	Online			
				Learning	live	collaboration	Project-		
			Interactive	management	classroom	tools(google,	assisted		
			whiteboards	system	teaching	docs,zooms,etc)	teaching	Total	
educational	Education	Count	0	1	7	0	2	10	
background		% within	0.00%	10.00%	70.00%	0.00%	20.00%	100.00%	
		educational							
		background							
	Humanities	Count	0	3	12	3	3	21	
		% within	0.00%	14.30%	57.10%	14.30%	14.30%	100.00%	
		educational							
		background							
	Science	Count	0	1	8	0	1	10	
		% within	0.00%	10.00%	80.00%	0.00%	10.00%	100.00%	
		educational							
		background							
	Management	Count	0	3	1	0	1	5	
		% within	0.00%	60.00%	20.00%	0.00%	20.00%	100.00%	
		educational							
		background							
Te	Total Co		0	8	28	3	7	46	
		% within	0.00%	17.40%	60.90%	6.50%	15.20%	100.00%	
		educational							
		background							
		202.4							

Table 15: Teachers	' present practices	s of using mo	dern teaching	technology by	educational
background					

(Source: Field survey, 2024)

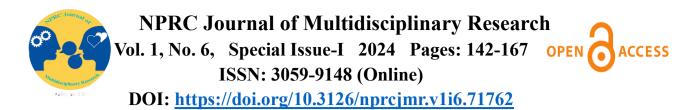


Table 15 illustrates the practices of teachers using modern teaching technology based on their educational background. Teachers from the Education background predominantly rely on conventional live classroom teaching, with 70% using this method, while 20% use project-assisted teaching and 10% apply learning management systems. Those from Humanities show similar preferences, with 57.1% using conventional methods, 14.3% using learning management systems, online collaboration tools, and project-assisted teaching each. Science background teachers also favor conventional teaching (80%), while 10% each use learning management systems and project-assisted teaching. Teachers from Management display a different trend, where 60% use learning management systems and 20% each use conventional or project-assisted methods.

Overall, conventional live classroom teaching remains the dominant practice across all educational backgrounds, while learning management systems are more popular among teachers from Management. The overall use of diverse technological tools like online collaboration and interactive whiteboards is limited across all groups.

Teaching Experience Teaching Experience Teaching Experience Teaching				Which of the following technological tools do you frequently apply in						
Interactive whiteboards Learning management whitebast Conventional live classroom biols(gogle, dassisted docs,zooms,etc) Project-assisted teaching docs,zooms,etc) Total Teaching Experience 1-5 Count 0 1 6 2 1 10 Wears $\frac{1}{9}$ within 0.00% 10.00% 60.00% 20.00% 10.00% 100.00% Experience						your classes?				
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $							Online			
					Learning	Conventional	collaboration	Project-		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $				Interactive	management	live classroom				
Experience years % within Teaching Experience 10.00% 10.00% 60.00% 20.00% 10.00% 100.00% 6-10 Count 0 3 2 0 2 7 years % within 0.00% 42.90% 28.60% 0.00% 28.60% 100.00% reaching Experience 11-15 Count 0 0 4 0 0 4 11-15 Count 0 0 4 0 0 4 years % within 0.00% 0.00% 100.00% 0.00% 100.00% 0.00% 100.00%				whiteboards	system	teaching	docs,zooms,etc)	teaching	Total	
Teaching Experience Teaching Experience Teaching Experience Teaching	Teaching	1-5	Count	0	1	6	2	1	10	
Experience Count 0 3 2 0 2 7 9 within 0.00% 42.90% 28.60% 0.00% 28.60% 100.00% Teaching Experience 28.60% 0.00% 28.60% 0.00% 28.60% 100.00% 11-15 Count 0 0 4 0 0 4 years % within 0.00% 0.00% 100.00% 0.00% 100.00% years % within 0.00% 100.00% 100.00% 0.00% 100.00% Teaching Experience	Experience	years	% within	0.00%	10.00%	60.00%	20.00%	10.00%	100.00%	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			Teaching							
years % within Teaching Experience 0.00% 42.90% 28.60% 0.00% 28.60% 100.00% 11-15 Count 0 0 4 0 0 4 years % within 0.00% 0.00% 100.00% 0.00% 0.00% 100.00% years % within 0.00% 0.00% 100.00% 0.00% 0.00% 100.00% teaching Experience 16 1 4 25 % within 0.00% 16.00% 64.00% 4.00% 16.00% 100.00% Teaching Experience 1 4 25 100.00%			Experience							
Teaching Experience Teaching Experience Teaching Experience Teaching Image: Constraint of the second		6-10	Count	0	3	2	0	2	7	
Experience Experience 0 0 4 0 0 4 11-15 Count 0 0 0 4 0 0 4 years % within 0.00% 0.00% 100.00% 0.00% 0.00% 100.00% Teaching Experience		years	% within	0.00%	42.90%	28.60%	0.00%	28.60%	100.00%	
11-15 Count 0 0 4 0 0 4 years % within 0.00% 0.00% 100.00% 0.00% 0.00% 100.00% Teaching Experience 1 4 25 16+ Count 0 4 16 1 4 25 years % within 0.00% 16.00% 64.00% 4.00% 16.00% 100.00% Teaching Experience 1 4 25 100.00% 1			Teaching							
years % within Teaching Experience 0.00% 0.00% 100.00% 0.00% 0.00% 100.00% 16+ years Count 0 4 16 1 4 25 % within years % within 0.00% 16.00% 64.00% 4.00% 16.00% 100.00% Teaching Experience 1 0 8 28 3 7 46 Total Count 0 8 28 3 7 46			Experience							
Teaching Experience Teaching Experience Teaching 16+ years Count 0 4 16 1 4 25 % within Teaching 0.00% 16.00% 64.00% 4.00% 16.00% 100.00% Total Count 0 8 28 3 7 46 % within Teaching 0.00% 17.40% 60.90% 6.50% 15.20% 100.00%		11-15	Count	0	0	4	0	0	4	
Experience Experience Image: Constraint of the second sec		years	% within	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$			Teaching							
years % within Teaching Experience 0.00% 16.00% 64.00% 4.00% 16.00% 100.00% Total Count 0 8 28 3 7 46 % within Teaching 0.00% 17.40% 60.90% 6.50% 15.20% 100.00%			Experience							
Teaching Experience Teaching Image: Constraint of the second sec		16+	Count	0	4	16	1	4	25	
Experience Experie		years	% within	0.00%	16.00%	64.00%	4.00%	16.00%	100.00%	
Total Count 0 8 28 3 7 46 % within 0.00% 17.40% 60.90% 6.50% 15.20% 100.00%			Teaching							
% within Teaching 0.00% 17.40% 60.90% 6.50% 15.20% 100.00%			Experience							
Teaching	Total	l	Count	0	8	28	3	7	46	
			% within	0.00%	17.40%	60.90%	6.50%	15.20%	100.00%	
Engeniege			Teaching							
Experience			Experience							

Table 16: Teachers' present practices of using modern teaching technology by teaching experience

(Source: Field survey, 2024)

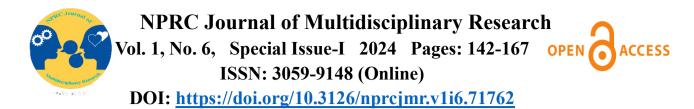


Table 16 explores teachers' use of modern teaching technology based on their years of teaching experience. Among those with 1-5 years of experience, 60% predominantly use conventional live classroom teaching, 20% use online collaboration tools, and 10% each use project-assisted teaching and learning management systems. Teachers with 6-10 years of experience show a stronger preference for learning management systems (42.9%), followed by project-assisted teaching (28.6%) and conventional methods (28.6%). All teachers with 11-15 years of experience exclusively use conventional classroom teaching (100%). For those with 16+ years of experience, 64% use conventional teaching, while 16% each use learning management systems and project-assisted teaching, and 4% use online collaboration tools.

Overall, conventional live classroom teaching remains the most utilized approach across all experience levels, with learning management systems being more prevalent among mid-career teachers (6-10 years of experience). Teachers with longer careers (16+ years) also integrate project-assisted teaching more frequently.

Findings, Conclusion and Recommendations

The research has identified key glimpses into the adoption and integration of modern teaching technologies by the faculty members at Baneshwor Multiple Campus. The important findings have been identified below in detail:

Technology Adoption: The explicit mode of teaching used by faculty in this institution is conventional live classroom teaching, as 60.9% of all the responses targeted those who use this mode. Learning management systems are used by 17.4%, project-assisted teaching by 15.2%, and online collaboration tools by 6.5%. No respondents reported the use of an interactive whiteboard.

Knowledge and Attitudes: Faculties show overall positive attitudes toward integrating technology into teaching. For instance, 91.4% of male teachers and 91.0% of female teachers agree that technology enhances learning. Yet, the awareness of particular technologies is very sharp in variation with regards to the demographic factors. For instance, 45.5% of female teachers perceive online learning platforms as modern, while only 20.0% of male teachers do. On the other hand, 40.0% of male teachers recognize online collaboration tools.

Demographic Differences: From the results, it is clear that the younger the faculty the more diverse they are in the use of technology. In that age bracket, that is 25-35 years, 16.7% were found to use the learning management systems and online collaboration tools. For the older faculty members, those who are 56 and above, tend to be traditional where 100% of the responding population within the age bracket used conventional live classroom teaching only.

Experience Influence: The variation in technology adoption rate can be traced based on experience in teaching as well. While 60% of the faculty members with 1-5 years of experience depend on conventional methods, 42.9% of them with 6-10 years prefer learning management



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systems. On the other hand, 100% of the respondents who are in teaching for 11-15 years use only conventional means.

Conclusion

The integration of modern teaching technologies into the Baneshwor Multiple Campus is best described by a high reliance on traditional live teaching approaches. The faculty is generally positive about technology, though significant differences in knowledge and use exist among different demographic groups. Younger faculty and those with less teaching experience appear better positioned to adopt new technologies, while older faculty are more likely to persist with traditional approaches to teaching.

Recommendations

Professional Development: Specific professional development programs should be implemented at institutions to enhance faculty knowledge of and comfort with contemporary teaching technologies. Of course, such programs will be particularly necessary for older faculty and/or those for whom traditional approaches to teaching remain the focus.

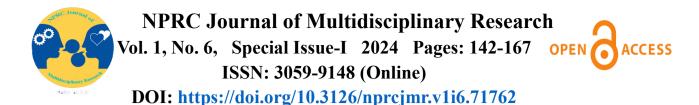
Resource Availability: The increasingly easy availability of a range of technological tools and resources on campus would help stimulate interest in - and use of - various teaching approaches among faculty.

Ongoing Support: This would also provide a forum where faculty members can share best practices and experiences about the integration of technology, and this can lead to more faculty collaboration in the adoption of new teaching practices.

Future Research: Longitudinal studies that track changes over time in the adoption of technology and studies examining the effect of training programs on teaching practices would be greatly welcomed as a means to add insights to create better technology integrations in higher education.

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