A Study on Techno-Pedagogical Competency among College Teachers in Nalbari District, Assam

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Abstract

In this twenty-first century, it is witnessed that many people has rising their interest on technology and they face difficulty to live and work without this. The rapid progress in science and technology has changed the way of teaching-learning process. To work productively; teachers need to adjust properly. Techno-Pedagogy is a method of teaching, where technology and various teaching methods and skills used simultaneously in the classroom. For making lessons more interesting and easily understandable, techno-pedagogical skills help teachers in using computers, the internet, and multimedia effectively. This research seeks to explore the level of Techno-Pedagogical Competency among college teachers, analyze how it varies in terms of gender (male and female) and teaching experience (above 10 years and below 10 years), and explore the dimension-wise differences between male and female teachers. A descriptive-survey method was employed for data collection. 100 college teachers were taken as sample of the study where 50 are Males and 50 are Females. For analyzing the data both Descriptive statistics (Mean and Standard Deviation) and inferential statistic (t-test) were used by the investigator. For collecting data,"Techno-Pedagogical Competency Scale" developed by Mir Rahul Ahmad and Dr. Gulshan Wani (2023) was used by the investigator. Findings revealed that the larger proportion of the teachers' exhibit above- average levels of Techno-Pedagogical Competence (TPC) and also indicated a significant difference between male and female teachers with respect to this variable.

Keywords: Techno-Pedagogical Competency, College Teachers

Introduction:

The rapid development of Information and Communication Technology (ICT) in recent years has brought revolutionary changes that were hardly foreseen ten years ago. These technological advancements have transformed the global communications, creating levels of connectivity and interaction that were unimaginable before in the world. This means that

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today's society and educational organizations are trying to adopt only those educators who can quickly adapt new challenges and their pedagogical practices to the changing demands of the educational landscape. To meet the expectations of institutions and society in this modern age, it is important for teachers to adopt innovative methods of teaching (Qurashi, 2024).

In every education sector, people experience a major transformation due to the rapid integration of ICT. The traditional approach of using chalk and talk for classroom instruction gradually gives a way to the advanced technology-based method. Digital tools and technical devices are now becoming an essential component of teaching-learning process, because it makes the education more participatory, engaging, and productive (Sindhwani, 2019). The people of current generation are well acquainted with technology and they confidently use it in their daily lives. Technology also helps in fostering the relationship between teachers and students by providing more engaging and accessible learning experiences. Thus, the use of effective technology has become more necessary for teachers in their teaching methods.

In education, techno-pedagogical competency refers to a teacher's ability to effectively combine technological knowledge with pedagogical skills to facilitate meaningful learning experiences. For college teachers, it involves planning, execution, stimulation, and evaluation of teaching through appropriate use of technology.

Techno-pedagogy refers to the use of technology through various electronic instructional supports for effective classroom instructions (Sindhwani, 2019). In their day-to-day classroom teaching, it basically focuses on the use of technological tools by teachers along with appropriate pedagogical strategies and subject content. In simple words, it is the teacher's ability to integrate technology, pedagogy and content knowledge in a meaningful way to strengthen the learning outcomes. The present relevance of techno-pedagogy can be observed in various aspects like encouraging innovative teaching techniques and utilizing online learning resources. It's also changing teacher's duties and responsibilities from a supplier of information to a facilitator of learning, which allows them to help students to build their own understanding and to clarify any concept. For making teaching-learning process more interesting, effective and meaningful; techno-pedagogical competencies should be improved (Qurashi & Jan, 2022). With proper knowledge of using technology, teachers can improve the classroom instruction by imparting knowledge in a way that makes learning more engaging and interesting. Furthermore it helps teachers by reducing their work load also. By using technology, a teacher can make the classroom learning more interactive and facilitate knowledge acquisition. Therefore, a teacher should have techno-pedagogical competence to successfully share knowledge in today's technology-based world.

Need and significance of the study:

Education in the 21st century has experienced a rapid transformation with the integration of technology which has brought a new dimension to knowledge and learning. People of this modern life widely use multiple technological gadgets as an integral part for their daily life activities. To provide quality education teachers have to understand the nature and functioning of educational technology.

A teacher is not only required to have subject knowledge but also have a variety of skills for effective knowledge sharing. In this context, the ability of a teacher to combine technology with teaching methods in an effective way indicates the importance of Techno-Pedagogical Competency. So, teachers should know about the proper usability of the technology for making classroom and teaching process effective.

Techno-Pedagogical Competency helps teachers integrate technology with appropriate teaching methods which make the learning process more effective and engaging. It also enables teachers to use digital tools through which they explain concepts clearly, design interactive lessons, and address as per the diverse needs of learners. It also supports teachers in improving classroom management, evaluation process, and communicates with students. A well competent teacher with such skills helps in creating a positive learning environment, motivating the students to be fully engaged and develop the ability to solve problems. Through meaningful, relevant and learner-centred learning; teachers can facilitate the standard of education.

College teachers are played a very important role in a student's life as they are the ones who guide the students in their studies and personal development at this stage of education. Along with the development of technology, college and university teachers are expected to merge various ICT tools, gadgets and suitable teaching techniques to upgrade the learning process.

With the Techno-Pedagogical skills they can design interactive lectures, provide access to different learning resources and foster group-oriented and self-directed learning among students. In this modern world various abilities of the students like- critical thinking, digital literacy and problem solving abilities, responsible use and adaptation of technology, making learning more engaging, flexible and relevant etc., can be developed by a well competent college teacher. But the numbers of studies related to the Techno-Pedagogical Competency of college teachers in Nalbari district of Assam are very less. The current research aims to provide the outcome of the level of college teachers on Techno-Pedagogical Competency and also the valuable insights that can enhance teaching practices, improve student outcomes.

Statement of the research problem:

The present study is mainly dealt with to find out the level of Techno-Pedagogical Competency among the college teachers of Nalbari District of Assam.

As per the need and significance of the study the investigator stated the problem with the following title as-

"A STUDY ON TECHNO-PEDAGOGICAL COMPETENCY AMONG COLLEGE TEACHERS IN NALBARI DISTRICT, ASSAM"

Objectives of the study:

1. To find out the level of Techno-Pedagogical Competency of college teachers.
2. To assess the Techno-Pedagogical Competency of college teachers in relation to-
   a. Gender- (Male and Female)
   b. Teaching Experience

3. To study the difference between male and female college teachers with respect to the dimension-wise level of techno-pedagogical competency.

Hypotheses:

Objective II:

$H_0$1: There exists no significant difference between Male and female regarding the Techno-Pedagogical Competency of college teachers.
$H_0$2: There exists no significant difference in Techno-Pedagogical Competency of college teachers on the basis of teaching experience.

Objective III:

$H_0$3: There exists no significant difference between Male and female college teachers with respect to the dimension-wise level of techno-pedagogical competency.

Operational Definitions of the Terms:

- **Techno-Pedagogical Competency:** Techno-Pedagogical Competency indicates the ability of teachers to effectively use technology in the teaching-learning process. In the present study, Techno-Pedagogical Competency refers to the scores obtained by the respondents on the Techno-Pedagogical Competence Scale developed by Mir Rahul Ahmed and Dr. Gulshan Wani (2023).

- **College Teachers:** College teachers are teachers engaged in teaching students at the undergraduate level after the completion of higher secondary education.
  In the present study, college teachers specially refer to the teachers working in five (05) selected colleges.

Delimitations of the study:

- The present study is delimited to only five (05) Government Colleges of Nalbari district, Assam.
- The present study is delimited to only college teachers of Nalbari District.

Research Gap

The review of related studies shows that a large number of studies have been studied on techno-pedagogical competency among teachers and trainee teachers in various educational settings. The studies primarily focused on variables such as gender, locality, type of school, attitude towards technology, professional ethics, organizational commitment, anxiety towards instructional aids and teaching effectiveness.

Many studies reported differences based on locality, while some found no significant differences with respect to gender. A few studies also examined the relationship between techno-pedagogical competency and factors such as teaching competency, teacher efficacy, and students' attitudes.

However, despite the growing body of research, certain gaps are still evident. Several studies were carried out on either at the school level or among trainee teachers, while limited studies focused specifically on college teachers and higher education institutions. Many studies were confined to particular regions or subjects such as English, Science, or EFL teaching, which limits the generalization of findings to other educational settings. Furthermore, only a few studies examined the dimension-wise techno-pedagogical competency of teachers. In higher education, comparative studies involving variables such as gender and locality together are also limited.

Moreover, many earlier studies were based on descriptive survey methods, while rather than many studies investigated the broader implications of techno-pedagogical competency on teaching-learning effectiveness in colleges. So, it become necessary to study about the level of techno-pedagogical competency of college teachers and also by considering the demographic variables such as gender and teaching-experience, and analysing the competency dimension-wise to have a better idea about the present status of techno-pedagogical competency in higher education.

Methodology:

For gathering the raw data, "descriptive survey method" has been used.

Population:

There is total 134 teachers (male and female) from five (05) Govt. College of Nalbari district. Out of 134 teachers (83=male, 51=female).

POPULATION

TWO **EDUCATIONAL BLOCKS**

TOTAL NO. OF Colleges=05

TOTAL NO. OF COLLEGE TEACHERS (Five Govt. Colleges)=134

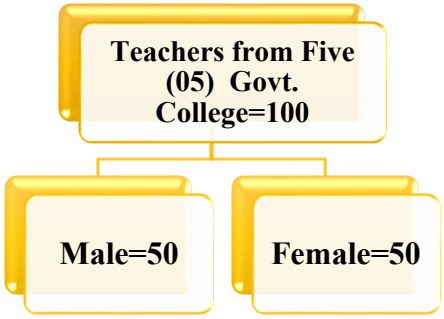
Kamrup College		**Nalbari College**		**MNCBM**		**Barbhag College**		**Tihu College**	
Total Teachers=13		Total Teachers=54		Total Teachers=17		Total Teachers=39		Total Teachers=11	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
10	03	33	21	06	11	26	13	08	03

Table1: Population distribution on the basis of gender

Sample:

'100' teachers (50 are Male and 50 are Female) selected by using 'Simple Random Sampling technique' from five (05) selected Govt. College of Nalbari District, Assam,

Figure1: Flow chart showing the Sample distribution



Tool Used:

Collecting the primary data, the investigator has used "Techno-Pedagogical Competency Scale", developed and validated by 'Mir Rahul Ahmad and Dr. Gulshan Wani (2023)'. In this scale, there are '32 items' categorized into 04 dimensions- 'techno skills for planning and preparation', 'for stimulation', 'for execution' and 'for evaluation cum feedback'.

Statistical Techniques Used:

In the present study, 'descriptive statistics-M, SD' and 'inferential statistic-t-test', used as statistical technique by the investigator.

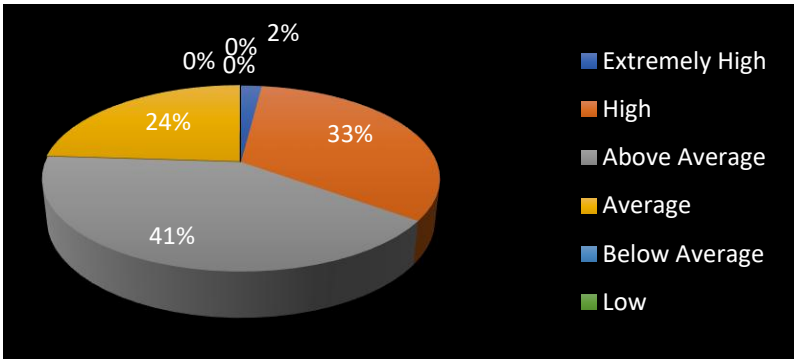
Data Analysis and Interpretation:

OBJECTIVE-1: To find out the level of Techno-Pedagogical Competency of college teachers.

Table4: Showing percentage distribution of college teachers towards Techno-Pedagogical Competency

Sl. No.	Level of TPC	N	Percentage
1	Extremely High	2	02%
2	High	33	33%
3	Above Average	41	41%
4	Average	24	24%
5	Below Average	0	0%
6	Low	0	0%
7	Extreme Low	0	0%

Figure2: Pie chart showing percentage distribution of College Teachers towards Techno-Pedagogical Competency



Interpretation: The table4 and figure2 illustrates the level of Techno-Pedagogical Competency of college teachers. Out of 100 college teachers (male-female), 02 teachers (2%) teachers have 'extremely high level' of TPC, 33 teachers (33%) teachers have 'high level' Competence, while 41 teachers (41%) fall under 'above average' range. In contrast, 24 teachers (24%) of teachers show 'average' level Competence. However no teachers fall under 'below average', 'low' and 'extreme low' level. So, it can be concluded that, majority of college teachers have above-average level of Techno-Pedagogical Competence.

OBJECTIVE-2: To assess the Techno-Pedagogical Competency of college teachers in relation to-

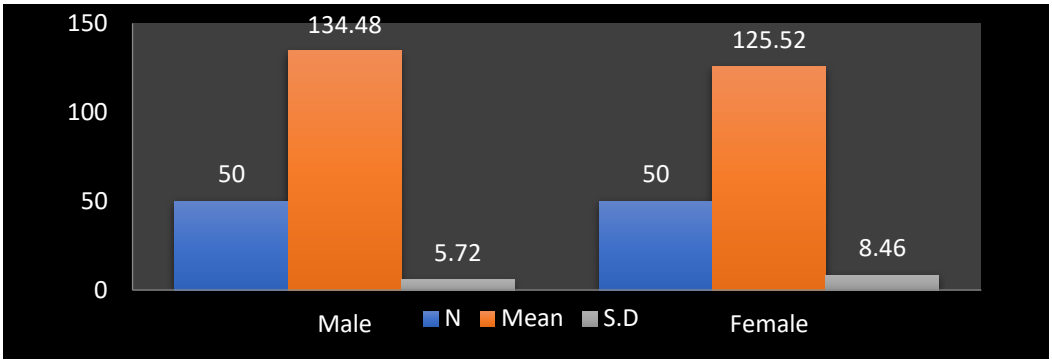
a. Gender- (Male and Female)

$H_0$1: There exists no significant difference between Male and female regarding the Techno-Pedagogical Competency of college teachers.

Table5.a: Showing "t" value of male and female college teachers with regarding to TPC

Gender	N	Mean	SD	df	t-value	Sig.
Male	50	134.48	5.72	98	6.22	Significant at 0.01 level
Female	50	125.52	8.46			

Figure3.a: Showing N, Mean (M)-scores and S.D of male and female college teachers with regarding to TPC



Interpretation: It is clear from table5.a and Figure3.a; that the mean score of 'male teachers' is 134.48 and 'SD' is 5.72, whereas the mean score of 'female teachers' is 125.52 with a 'SD' of 8.46. So, it can be concluded that, 'male teachers' have a higher 'M-score' (mean) of Techno-Pedagogical Competency than 'female teachers'.

The calculated "t" value is 6.22 with 98 Degrees of Freedom (df). The table of "t"-value at '0.05 level of significance' is 1.98, while at 0.01 level, it is 2.63. Since calculated "t"-value (6.22) is exceeding the table value at 'both levels of significance', hence the result 'significant at 0.01 level'. Therefore "Null Hypothesis **(Ho1)"** is rejected. So, the analysis indicates that gender demonstrate 'significant influence' on the level of Techno-Pedagogical Competency of college teachers, 'male teachers' showing higher Techno-Pedagogical Competency than 'female teachers'.

OBJECTIVE-2: To assess the Techno-Pedagogical Competency of college teachers in relation to-

b. Teaching Experience

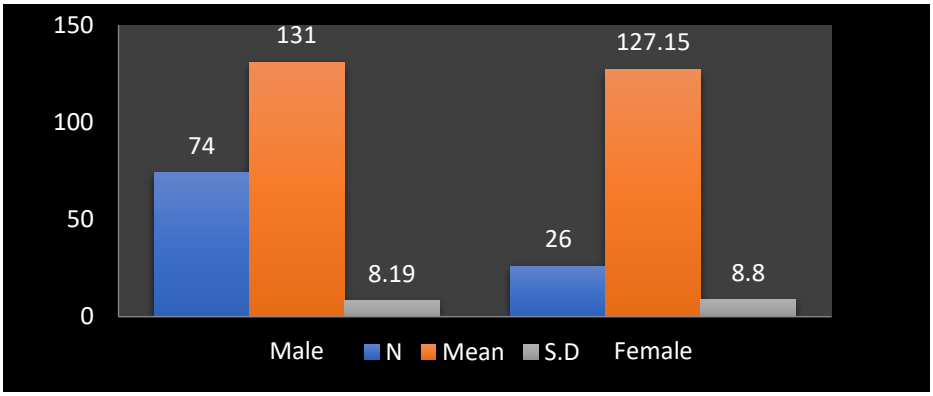
$H_0$2: There exists no significant difference in Techno-Pedagogical Competency of college teachers on the basis of teaching experience.

Table5.b: Showing "t" value of college teachers regarding level of Techno-Pedagogical Competency based on 'teaching experience'

	Teaching Experience	**N**	**Mean**	**SD**	**df**	**t-value**	**Sig.**
Techno-Pedagogical Competency	Above 10 years	74	131	8.19	98	1.95	***NS***
	Below 10 years	26	127.15	8.80			

NS: At both 0.01 and 0.05 level

Figure3.b: Showing N, Mean scores and S.D of college teachers regarding the level of Techno-Pedagogical Competency based on 'teaching experience'



Interpretation: From the Table 5.b and Figure3.b, it is clear that the mean score of teachers having 10 years of teaching experiences is 131 with an SD of 8.19, whereas the mean score of teachers having 'below 10-years teaching experience' is 127.15 with an SD of 8.80. It clearly point-out teachers with 'above 10-years' of experience have 'higher mean score' compared to those have 'below 10-years' of experience.

The calculated "t"-value is 1.95 with 98 df. Table value of "t" at '0.05 level of significance' is 1.98, while at '0.01 level' it is 2.63. Since the calculated "t"-value (1.95) is doesn't exceed table value at 'both 0.05 and 0.01 levels of significance', the result is 'not- significant'. Therefore "Null Hypothesis (**$H_0$2**)" is accepted. Hence, it can be concluded that 'teaching experience' does not have 'significant influence' on teachers level of techno-pedagogical competency.

OBJECTIVE-3: To study the difference between male and female college teachers with respect to the dimension-wise level of techno-pedagogical competency.

$H_0$3: There exists no significant difference between Male and female college teachers with respect to the dimension-wise level of techno-pedagogical competency.

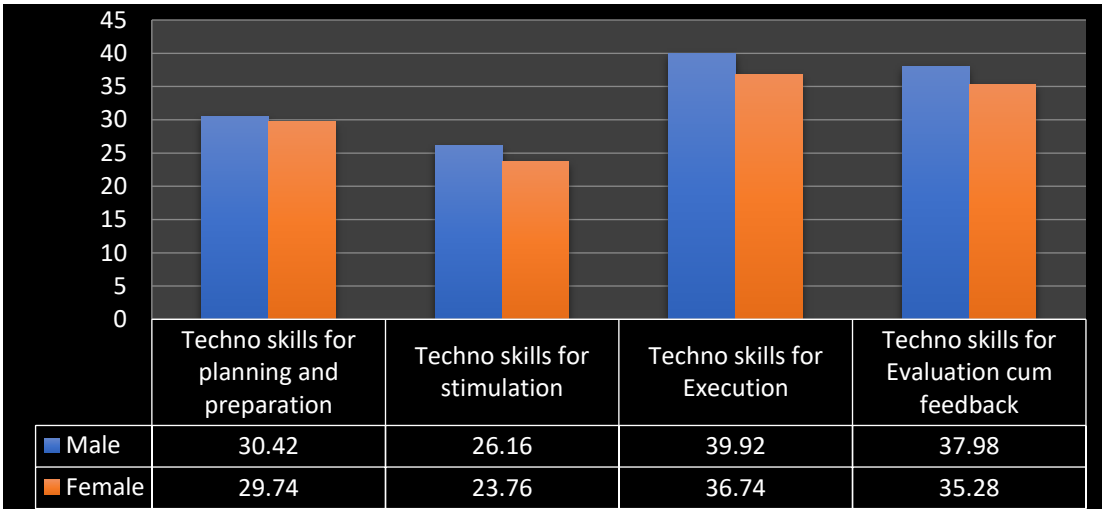
Table6: Showing the dimension-wise analysis of TPC among the college teachers based on their Gender

Sl No.	Dimensions of Techno-Pedagogical Competency	Gender	N	Mean	df	SD	t-value	Sig.
1.	Techno skills for planning and preparation	Male	50	30.42	98	2.48	*1.37*	***NS***
		Female	50	29.74		2.48		

2.	Techno skills for stimulation	Male	50	26.16	98	2.53	*4.74*	***S****
		Female	50	23.76		2.53		
3.	Techno skills for Execution	Male	50	39.92	98	3.53	*4.51*	***S****
		Female	50	36.74		3.53		
4.	Techno skills for Evaluation cum feedback	Male	50	37.98	98	3.82	*3.53*	***S****
		Female	50	35.28		3.82		

S*= Significant at both 0.05 and 0.01 level

Figure4: Graphical representation of 'Mean-scores' of Male-Female teachers in six dimensions of Techno-Pedagogical Competency



Interpretation: The Table-6 and Figure-4 depict the mean comparison of male and female college teachers on each dimension of Techno-Pedagogical Competency.

a) The table reveals that the mean score on the "dimension-I", male teachers is 30.42 with SD 2.48 and the mean score of female teachers is 29.74 with SD 2.48. The t-value comes out to be 1.37, which 'not significant' at 'both 0.05 and 0.01 level'. So, it can be concluded that 'there is no significant difference' in the dimension-I (techno-skills for planning and preparation) between male and female teachers.

b) The table reveals that the mean score on the "dimension-II", male teachers is 26.16 with SD 2.53 and the mean score of female teachers is 23.76 with SD 2.53. The t-value comes out to be 4.74, which 'significant at both 0.05 and 0.01 level'. Hence, it

can be concluded that 'there is a significant difference' in the dimension-II (techno-skills for stimulation) between male and female teachers.

c) The table reveals that the mean score on the "dimension-III", male teachers is 39.92 with SD 3.53 and the mean score of female teachers is 36.74 with SD 3.53. The t-value comes out to be 4.51, which 'significant at both 0.05 and 0.01 level'. Thus, it can be concluded that 'there is a significant difference' in the dimension-III (techno-skills for execution) between male and female teachers.

d) The table reveals that the mean score on the "dimension-IV", male teachers is 37.98 with SD 3.82 and the mean score of female teachers is 35.28 with SD 3.82. The t-value comes out to be 3.53, which 'significant at both 0.05 and 0.01 level'. So, it can be concluded that 'there is a significant difference' in the dimension-IV (techno-skills for evaluation cum feedback) between male and female teachers.

Hence, the Null Hypothesis (**$H_0$3)**, "There exists no significant difference between Male and Female regarding the dimension-wise level of Techno-Pedagogical Competency among college teachers", is rejected.

Thus, it can be concluded that there exists significant difference between male and female teachers in most of the dimensions of Techno-Pedagogical Competency, except planning and preparation, male teachers showing comparatively a greater "M-Score" (Mean) than female teachers.

Major Findings of the Study:

On the basis of analysis of data, the following findings are drawn:

On the basis of Objective-I:

The study shows that 02 teachers (2%) teachers have "extremely high level-TPC", 33 teachers (33%) teachers have "high level Competence", while 41 teachers (41%) fall within the "above average" range. In contrast, 24 teachers (24%) of teachers show "average level of Competence". However no teachers have below average, low and extreme low level Techno-Pedagogical Competence. So it can be stated that the majority of college teachers have above-average level of Techno-Pedagogical Competence.

On the basis of Objective-II-a):

The first objective of the study was to find out is there any difference between male and female teachers in their level of techno-pedagogical competency. The findings of the study showed, male teachers have "higher M-score (mean)" than female teachers. This indicates, gender influenced the level of techno-pedagogical competency (TPC) among college teachers, where male teachers revealed comparatively 'higher competency' than female teachers.

On the basis of Objective-II-b):

The second objective of the study was to find out is there any difference in the level of techno-pedagogical competency between teachers having "above and below 10-years of

teaching experience". The findings of the study show that teachers with "above 10-years of teaching experience" have 'higher M-score (Mean)' than those with "below 10-years of teaching experience". This indicates, the level of techno-pedagogical competency among teachers is influenced to a degree by 'teaching experience'. Therefore, it can be concluded that 'teaching experience' doesn't have "significant influence" on the level of TPC of teachers.

On the basis of Objective-III:

The third objective of the study was to find out is there any difference between male and female college teachers in the dimension-wise level of techno-pedagogical competency. The findings of the study show that male teachers have 'higher M- scores (Mean)' than female teachers in all the dimensions of techno-pedagogical competency. This indicates, "Gender" has an influence on the dimension-wise level of techno-pedagogical competency among college teachers. However, the difference is found "not-significant" in the dimension of planning and preparation, while it is "significant" in the dimensions of stimulation, execution, and evaluation cum feedback. Thus, it can be concluded that gender has an influence in the dimension-wise level of college teachers' techno-pedagogical competency.

Discussion:

The present study aims to find out the level of Techno-Pedagogical Competency of college teachers in Nalbari district. It is also aimed at providing a broader picture of the difference between male and female regarding the level of Techno-Pedagogical Competency of college teachers.

Findings revealed, most teachers have "above-average level of TPC", as supported by Qurashi(2024), Baregama (2022), Bala & TAO (2018),and Incik & Akay (2017).

But, the study also indicate that "gender" shows some influence, specially male teachers have "higher M- scores (mean)" than female teachers in techno-pedagogical competency; which is contradict with the findings of earlier research by Yusuf & Bhattacharyya (2025), Baregama (2022), and Baregama & Arora(2021). Yusuf & Bhattacharyya (2025) found "no significant" difference between male and female trainee teachers in techno-pedagogical competency. Baregama (2022) found that male and female teachers "not-differ significantly" in techno-pedagogical competency. Baregama & Arora(2021) also found, "no significant difference" in techno-pedagogical content competency of schools of secondary level teachers; with respect to 'gender of school'.

Educational Implications:

The use of modern technological tools by teachers in classroom instruction helps in improving the learning process and enables learners to apply technology in other aspects of their lives. This study will be very significant for educational administrators, policy makers, and teacher training programs also. While formulating policies, developing curricula, and implementing ICT in education, adequate importance should be given to teachers' techno-pedagogical competency and their effective use of technology in classroom teaching. Apart from providing computer literacy skills, the teachers should also be taught pedagogical skills

on how best to plan and deliver lessons using computers. It is imperative for government school teachers to be give opportunities to engage in various co-curricular and extracurricular activities such as seminars, workshops etc., among others in order to increase their techno-pedagogical competencies. Teachers could be nominated to participate in faculty development programs aimed at increasing their techno-pedagogical competency. Orientation programmes may be organized for teachers to familiarize them with various technological devices and their use in the teaching-learning process. The teachers can advise students and other people to enroll in online classes through MOOCs, NPTEL, and SWAYAM to increase their techno- pedagogical competency.

Recommendations

Based on findings of the present study, recommendations are suggested as per below:

1. The findings revealed that, larger number of teachers possessed above average techno-pedagogical competency. Therefore, efforts should be made to further strengthen and maintain their competency through 'ongoing professional & personal development programmes', 'workshops', 'seminars' and 'ICT-based training programmes'.
2. Teachers should be encouraged to integrate the modern technological tools and digital resources effectively in classroom teaching so that the teaching-learning process becomes more interactive, student-centered and effective.
3. It was found that, 'M-score' of female teachers on techno-pedagogical competency was 'relatively lower' than male teachers. Special orientation programmes, hands-on training and skill enhancement workshops may be organized to build their confidence and competency in using technology for teaching.
4. Techno-pedagogical competency is found comparatively lower for the teachers having below '10-years' of teaching experience. Therefore, refresher courses and mentoring programmes should be arranged for the newly appointed and less experienced teachers so that they can develop techno-pedagogical skills.
5. Institutions should provide adequate ICT infrastructure like smart classrooms, internet facilities, Computers, Projectors and digital teaching aids to improve the techno-pedagogical practices of teachers.
6. Can conduct various regular training-programmes on various aspects of techno-pedagogical competency such as planning and preparation, stimulation, execution and evaluation cum feedback by Colleges and educational authorities.
7. For keep updated teachers engaging in various level of education with emerging educational technologies and innovative teaching practices; various online courses, webinars, faculty development programmes and digital literacy programmes should be encouraged.

8. Teachers and students should be encouraged to interact and communicate healthily through the effective use of digital platforms and technological tools to enhance classroom engagement and learning outcomes.
9. The integration of ICT in teaching-learning practices at higher secondary and college levels should be made effective through formulation of policies and development of support systems by educational administrators and government agencies.
10. For that effective teachers who can integrate technology in classroom instruction, there should provision of awards, incentives and professional recognition for encouraging the development of techno-pedagogical competency (TPC) among teachers.

Suggestions for further Studies

Every research study remains incomplete in some way, as it continues to inspire further inquiry and investigation-

1. Similar studies may be conducted at different levels of education such as 'pre-primary', 'secondary', and 'higher' education to examine the techno-pedagogical competency of teachers at various stages.
2. The study may also be carried out on the other groups such as students, teacher trainees, and prospective teachers to understand their techno-pedagogical competency and ICT-integration in education.
3. Comparative studies may conduct among teachers of different districts, states to identify variations in techno-pedagogical competency.
4. Further studies may conduct to examine the relationship between techno-pedagogical competency and other variables- 'teaching effectiveness', 'academic achievement', 'attitude towards ICT', 'teaching experience', 'gender', 'locality', and 'professional development' etc.

Conclusion:

The findings of the study clearly indicate that 'majority of college teachers' possess "above-average level" of techno-pedagogical competency, which reflects a generally positive integration of technology with teaching practices. Only a very percentage of teachers demonstrate extremely high competency, while none fall in the below-average or low categories. This suggests; teachers are adapting to modern educational demands, although there is still scope for further enhancement. The study also reveals that gender shows some influence on techno-pedagogical competency, with male teachers having "comparatively a larger M-score" than female teachers. However, this difference is "not-consistently significant" across all dimensions.

Furthermore, teaching experience appears to have a limited role in influencing techno-pedagogical competency, as the difference between "more experienced" (above 10-years) and "less experienced" (below 10-years) teachers, is "not-statistically significant". Dimension-

wise analysis indicates that gender has a partial influence, being significant in areas like stimulation, execution, and evaluation, but not in planning and preparation. Overall, the study highlights that while teachers are reasonably competent, targeted efforts are needed to ensure uniform development across all groups and dimensions.

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