



Motivation And Perceived Challenges Toward Online Teaching: Gender And Teaching Experience Differences Among Elementary Teachers

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Abstract

During the COVID-19 epidemic, the sudden shift to online instruction drastically changed teaching methods and placed additional demands on educators. It is still crucial to comprehend how educators adjusted to this change in order to guide future digital integration in the classroom. In this context, teachers' motivation and the challenges they perceive in implementing online teaching play a crucial role in determining the effectiveness of digital pedagogy. The present study examined gender and teaching experience differences in elementary teachers' motivation and perceived challenges toward online teaching, as well as the relationship between these two constructs. India's National Education Policy (NEP) 2020 emphasizes the use of technology for inclusive and high-quality education, positions teacher preparedness as a crucial factor in the digital revolution of education. In order to improve learning possibilities and equity, NEP places a strong emphasis on the creation and distribution of high-quality digital content, multilingual access, and technological infrastructure.

Using a descriptive survey design, data were drawn from 604 elementary teachers in government and aided schools. Using empirical data, the study investigates variations in motivation and perceived challenges across gender and experience categories. The study aims to contribute to the understanding of socio-educational factors influencing teachers' engagement with digital pedagogy. Findings are expected to highlight variations in level of motivation and perceived challenges, thereby offering insights for teacher training, institutional support, and policy planning in technology-mediated education environments.

Descriptive statistics, independent samples t-tests, one-way ANOVA, and Pearson correlation analysis were used for data analysis.

Keywords: Online teaching, Teacher motivation, Teaching challenges, Gender differences, Teaching experience, ICT in education.

Introduction: Need and Significance

The integration of digital technologies has significantly transformed educational practices across the globe. The rapid expansion of online and blended learning environments has created new opportunities for teaching and learning while simultaneously introducing several challenges for educators. Teachers are increasingly required to adapt to digital instructional methods, utilize online platforms, and manage virtual classrooms effectively. These shifts have highlighted the importance of understanding teachers' experiences, particularly their motivation to engage with online teaching and the challenges they encounter while implementing technology-mediated instruction.

The widespread adoption of online teaching gained unprecedented momentum during the COVID-19 pandemic, when educational institutions were compelled to shift from traditional classroom teaching to digital modes of instruction. Although this transition ensured continuity in education, it also exposed various infrastructural, technological, and pedagogical barriers faced by teachers. Many educators had to quickly acquire new technological skills, adapt their teaching strategies, and manage unfamiliar digital environments. As a result, teachers' motivation and their perceptions of challenges associated with online teaching became important factors influencing the effectiveness of technology-enabled education.

In the Indian context, the National Education Policy (NEP) 2020 recognizes the transformative potential of technology in education and emphasizes the integration of digital tools to enhance teaching-learning processes. The policy highlights the need to strengthen teachers' digital competencies and encourages the development of technology-enabled learning environments.

Teachers' motivation plays a crucial role in determining their willingness to adopt and effectively implement online teaching practices. Motivated teachers are more likely to experiment with new technologies, engage students in interactive learning activities, and adapt to changing instructional environments. At the same time, teachers often encounter multiple challenges while conducting online classes, including technological limitations, inadequate infrastructure, limited institutional support, and difficulties in maintaining student engagement. Understanding both motivation and perceived challenges is therefore essential for improving the quality and sustainability of online education.

Gender and teaching experience may influence how teachers perceive and engage with online teaching. Previous research suggests that gender differences may emerge in technology use, digital confidence, and attitudes toward technology-based instruction. Similarly, teaching experience may affect teachers' adaptability to new instructional methods and their familiarity with evolving educational technologies. Examining these factors can provide valuable insights into how different groups of teachers respond to the demands of online teaching environments.

Despite the growing emphasis on digital education and technology integration, limited research has examined how gender and teaching experience influence teachers' motivation and perceived challenges in the context of online teaching at the elementary level. Understanding these relationships is important for designing effective professional development programs and institutional support mechanisms that can strengthen teachers' capacity to implement technology-enhanced teaching practices.

The present study addresses this gap by examining gender and teaching experience differences in elementary teachers' motivation and perceived challenges toward online teaching, as well as the relationship between these two constructs. By exploring these dimensions, the study aims to contribute to a better understanding of teachers' experiences in digitally mediated learning environments and to provide insights that may inform teacher training and policy initiatives in line with the vision of NEP 2020.

Objectives of the Study

1. To examine gender differences in motivation toward online teaching among elementary teachers.
2. To examine gender differences in perceived challenges toward online teaching among elementary teachers.
3. To examine differences in motivation toward online teaching across levels of teaching experience.
4. To examine differences in perceived challenges toward online teaching across levels of teaching experience.
5. To examine the relationship between teachers' motivation and perceived challenges toward online teaching.

Hypotheses

1. To examine gender differences in motivation toward online teaching among elementary teachers.
2. To examine gender differences in perceived challenges toward online teaching among elementary teachers.
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5. To examine the relationship between teachers' motivation and perceived challenges toward online teaching.

Methodology

Research Design

The study employed a descriptive and comparative research design.

Sample

The sample consisted of 604 elementary teachers, including 393 male and 211 female teachers of Government Intermediate Colleges situated in Champawat district of Kumaon Region of Uttarakhand State.

Tools Used

Motivation toward online teaching was measured using a self-developed motivation questionnaire. Perceived challenges were assessed using the challenges dimension of the self-developed SWOC tool.

Statistical Techniques

- Descriptive statistics (Mean, SD)
- Independent samples t-test
- One-way ANOVA
- Pearson correlation

Results and Analysis**Table 1.1****Descriptive Statistics of Motivation by Gender (N = 604)**

Gender	N	Mean	SD
Male	393	52.58	8.006
Female	211	54.28	7.311

Entries in table 1.1 reveal that:

The mean motivation score of female elementary teachers ($M = 54.28$, $SD = 7.311$) is slightly higher than that of male teachers ($M = 52.58$, $SD = 8.006$). This suggests that female teachers demonstrate marginally higher motivation toward online teaching compared to male teachers. The standard deviation values indicate a moderate level of variability in motivation scores within both groups.

Table 1.2**Descriptive Statistics of Perceived Challenges by Gender (N = 604)**

Gender	N	Mean	SD
Male	393	19.03	2.329
Female	211	19.65	2.045

Entries in table 1.2 reveal that:

The female teachers ($M = 19.65$, $SD = 2.045$) reported slightly higher perceived challenges toward online teaching than male teachers ($M = 19.03$, $SD = 2.329$). This indicates that although female teachers appear more motivated, they also experience comparatively higher levels of challenges.

The variability in scores is relatively low, suggesting consistency in responses across participants.

Table 1.3**t-test for Gender Differences in Motivation**

S.NO.	Groups Compared	N	M	SD	t-ratios	df	Significance at 0.05 level
1.	Male	393	52.58	8.006	2.565	603	0.011 Significant
	Female	211	54.28	7.311			

Entries in table 1.3 reveal that:

The calculated t-value ($t = 2.565$, $df = 603$) is statistically significant at the 0.05 level ($p = 0.011$). Since the p-value is less than 0.05, the null hypothesis stating that there is no significant difference in motivation between male and female elementary teachers is rejected. Therefore, it can be concluded that gender has a statistically significant influence on teachers' motivation toward online teaching.

Table 1.4**t-test for Gender Differences in Perceived Challenges**

S.NO.	Groups Compared	N	M	SD	t-ratios	df	Significance at 0.05 level
1.	Male	393	19.03	2.329	3.247	603	0.001 Significant
	Female	211	19.65	2.045			

Entries in table 1.4 reveal that:

The obtained t-value ($t = 3.247$, $df = 603$) is statistically significant at the 0.05 level ($p = 0.001$). As the p-value is less than 0.05, the null hypothesis stating that there is no significant difference in perceived challenges between male and female teachers is rejected.

This implies that gender significantly influences the challenges experienced by teachers in online teaching.

Table 1.5**Correlation between Motivation and Perceived Challenges (Pearson correlation)**

Variables	N	Mean	SD	r	Sig. (p-value)
Motivation	604	53.18	7.807	0.016	0.698 Not significant
Perceived Challenges	604	19.25	2.252		

Entries in table 1.5 reveal that:

The correlation between motivation and perceived challenges is very low ($r = 0.016$) and statistically non-significant ($p = 0.698$). Since the p-value is greater than 0.05, the null hypothesis is accepted. This indicates that there is no significant relationship between teachers' motivation and perceived challenges toward online teaching.

In other words, motivation and perceived challenges operate independently.

Table 1.6**ANOVA for Teaching Experience Differences in Motivation and Perceived Challenges**

Variable	F	p	Result
Motivation	0.910	0.498	Not significant
Challenges	0.465	0.860	Not significant

Entries in table 1.5 reveal that:

a. Motivation

The results of ANOVA for motivation toward online teaching indicate that the F-value ($F = 0.910$) is not statistically significant at the 0.05 level ($p = 0.498$). Since the p-value is greater than 0.05, the null hypothesis is accepted. This suggests that there is no significant difference in motivation toward online teaching across different levels of teaching experience.

b. Perceived Challenges

The ANOVA results for perceived challenges show that the F-value ($F = 0.465$) is not statistically significant at the 0.05 level ($p = 0.860$). As the p-value exceeds 0.05, the null hypothesis is accepted. This indicates that perceived challenges toward online teaching do not significantly differ across teaching experience groups.

Discussion

The present study examined gender and teaching experience differences in elementary teachers' motivation and perceived challenges toward online teaching, as well as the relationship between these two variables. The findings provide several insights into teachers' engagement with digital teaching practices in the evolving educational landscape.

1. The findings of the study revealed a significant difference in motivation toward online teaching between male and female elementary teachers, with female teachers reporting slightly higher levels of motivation. Although the effect size was small, this result suggests that gender may play a role in shaping teachers' engagement with digital teaching practices. Female teachers' higher motivation may reflect their greater adaptability to new instructional environments or their willingness to invest additional effort in maintaining effective teaching-learning processes during online instruction. Previous studies on technology adoption in education have also indicated that gender differences may influence attitudes toward technology use and digital engagement in teaching contexts.
2. The study also found significant gender differences in perceived challenges toward online teaching, with female teachers reporting slightly higher levels of challenges compared to male teachers. This finding may indicate that while female teachers demonstrate strong motivation toward online teaching, they may simultaneously experience greater difficulties in managing the demands of technology-mediated instruction. These challenges may include technological constraints, increased workload, and difficulties in maintaining student engagement in virtual classrooms. The coexistence of higher motivation and higher perceived challenges suggests that teachers' commitment to online teaching does not necessarily eliminate the obstacles encountered during its implementation.
3. The results of the analysis indicated that teaching experience did not significantly influence teachers' motivation or perceived challenges toward online teaching. This suggests that both novice and experienced teachers encountered similar levels of motivation and challenges when adapting to digital teaching environments. The absence of significant experience-based differences may reflect the unprecedented nature of the shift toward online teaching, where educators across different experience levels were required to adjust to unfamiliar technological platforms and pedagogical approaches. These findings indicate that adaptation to online teaching may depend more on access to technological resources, training, and institutional support rather than on the length of teaching experience alone.
4. The correlation analysis revealed that there was no significant relationship between teachers' motivation and perceived challenges toward online teaching. This finding suggests that teachers who are highly motivated to conduct online classes may still encounter considerable challenges in the process. In other words, motivation alone may not be sufficient to overcome structural and technological barriers associated with online teaching. This highlights the complex nature of

teachers' engagement with digital instruction, where motivational factors and contextual challenges operate independently rather than in a simple linear relationship.

Implications of the Study

The findings of the present study provide several important implications for educational practice and policy.

1. Need for more inclusive and supportive digital teaching environments. Educational institutions should design professional development programs that strengthen teachers' confidence and competence in using digital technologies for instructional purposes.
2. Both novice and experienced teachers may require continuous training and institutional support to effectively implement technology-mediated teaching practices.
3. Educational institutions must address structural and technological challenges such as inadequate infrastructure, limited access to digital resources, and insufficient technical support.

These findings are particularly relevant in the context of the National Education Policy (NEP) 2020, which emphasizes the integration of digital technologies in education. Strengthening teachers' digital competencies and providing adequate institutional support will be essential for achieving the policy's vision of enhancing the quality and accessibility of technology-enabled education.

Conclusion

The present study examined gender and teaching experience differences in motivation and perceived challenges toward online teaching among elementary teachers. The findings revealed that significant gender differences exist in both motivation and perceived challenges, with female teachers reporting slightly higher levels of both constructs. However, teaching experience did not significantly influence teachers' motivation or perceived challenges toward online teaching. Furthermore, the results indicated that motivation and perceived challenges were not significantly related.

The study concludes that gender influences motivation and perceived challenges, while teaching experience does not significantly affect these variables. The findings highlight the importance of addressing structural barriers and enhancing support systems to improve online teaching effectiveness. While teachers may demonstrate a strong willingness to adopt digital teaching practices, they may still encounter multiple challenges in the process. Therefore, strengthening institutional support systems, improving digital infrastructure, and providing continuous professional development opportunities will be essential for enabling teachers to effectively implement technology-enabled teaching practices.

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