

# Exploring Teachers' Perspectives on the Effectiveness of Distance Learning: Preliminary results from a Quantitative Study

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## Introduction

The rapid advancement of technology has transformed the field of education, leading to the emergence of distance learning as a viable alternative to traditional face-to-face instruction. Distance learning, also known as online or remote learning, involves the use of digital tools and platforms to deliver educational content and facilitate interactions between teachers and learners (Smith & Johnson, 2019). In recent years, the widespread adoption of distance learning has been further accelerated by unforeseen events such as the COVID-19 pandemic, which necessitated the temporary closure of educational institutions worldwide and the transition to remote instruction (UNESCO, 2020). As a result, educational technology, and its effectiveness in supporting distance learning have garnered significant attention from researchers, educators, and policymakers alike.

In this context, the primary objective of this research study is to investigate the views of teachers regarding the effectiveness of distance learning in the field of educational technology. By examining the perspectives of teachers who have experienced and utilized distance learning, valuable insights can be gained into its potential benefits, challenges, and overall effectiveness. Understanding these factors is crucial for informing educational policies, improving instructional practices, and enhancing the quality of distance learning experiences for both teachers and learners.

## Research Design and Methodology

To guide this study, the following research questions were formulated:

- What are the perceptions of teachers regarding the effectiveness of distance learning?
- What are the main benefits and challenges associated with implementing distance learning?
- Are there significant differences in perceptions and experiences based on teacher characteristics such as teaching experience and subject area?

To address these research questions, a quantitative research approach utilizing a questionnaire-based survey was employed. The survey was administered to a sample of 120 teachers from diverse educational institutions. The data collected underwent both descriptive and inferential analyses and seek to provide a comprehensive understanding of the teachers' perspectives on the effectiveness of distance learning.

The participants in this study consist of 120 teachers from diverse educational institutions, including primary, secondary, and higher education levels. The sample was a convenient sample with teachers with different teaching experience levels and subject areas. The sample was stratified based on teaching experience categories (less than 5 years, 5-10 years, and more than 10 years) and subject areas (mathematics, science, computer science, and social sciences).

A questionnaire was developed as the primary data collection instrument. The questionnaire consisted of multiple sections designed to capture various aspects of teachers' perceptions, challenges, and benefits related to distance learning. The items were developed based on a comprehensive review of the existing literature, including validated scales and measures where applicable. The questionnaire underwent expert review and pilot testing to ensure its validity and reliability.

The questionnaire consisted of multiple-choice and Likert-scale items, designed to gather quantitative data. The questionnaire was distributed electronically to the selected participants, who were kindly asked to complete and return their responses.

Descriptive statistics, including frequencies and percentages, were employed to analyze the responses. Additionally, inferential statistics such as correlation analysis and regression analysis were conducted to examine the relationships between variables and factors influencing teachers' perceptions

## Preliminary results

The study consisted of 120 teachers from diverse educational institutions. The participants were stratified based on teaching experience categories and subject areas. In this section some of the preliminary results of the descriptive statistics of the study are presented.

**Familiarity with Distance Learning Tools.** Participants' familiarity with distance learning tools was assessed on a scale of 1 to 5, with 1 indicating "Not Familiar at All" and 5 indicating "Very Familiar." The mean scores and standard deviations for each tool are presented in the following Table

Distance Learning Tool	Mean	Standard Deviation
Learning Management Systems (LMS)- eclass and e-me	4.23	0.78
Video Conferencing Platforms	4.08	0.91
Online Discussion Forums	3.95	0.87
Virtual Whiteboards	3.64	0.93
Online Assessment Tools	3.82	0.85

The results indicate that teachers, on average, reported a high level of familiarity with various distance learning tools. Learning Management Systems (LMS) like eclass and e-me, and video conferencing platforms were the most familiar tools among the participants. This suggests that most teachers have experience and knowledge in using these technologies to facilitate distance learning.

**Perceived Benefits of Distance Learning.** Participants' perceptions regarding the benefits of distance learning were measured on a Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The mean scores for each benefit are shown in Table below.

Benefit	Mean	Standard Deviation
Flexibility in Learning	4.56	0.65
Increased Access to Learning	4.42	0.76
Opportunity for Self-paced Learning	4.28	0.83
Enhanced Digital Literacy	3.91	0.89
Collaboration Across Boundaries	4.15	0.79

**Challenges in Implementing Distance Learning.** Participants were asked to identify the challenges they encountered while implementing distance learning. The top three challenges reported by the participants are as follows:

- Limited student engagement and motivation (62.5%)
- Technical difficulties and connectivity issues (48.3%)
- Difficulty in assessing students' learning effectively (37.5%)

## Conclusions

The high level of familiarity reported by teachers with distance learning tools, particularly eclass and e-me, and video conferencing platforms, suggests that educators have developed competence in using these technologies to facilitate online instruction. However, it is crucial to address the lower familiarity levels observed with virtual whiteboards and online assessment tools. The perceived benefits of distance learning, including flexibility in learning, increased access to learning, and the opportunity for self-paced learning, align with previous research highlighting the advantages of online education. These benefits emphasize the potential of distance learning to cater to individual needs, overcome geographical barriers, and promote personalized and independent learning experiences.

## References

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