

Techno-Pedagogical Competence of Teachers

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Abstract

The intent of this study is to explore the Techno-Pedagogical Competence of Teachers. Multistage Random Sampling Technique was adopted to draw the sample of 400 Government senior secondary school teachers of Punjab (200 rural + 200 urban). Teacher's Techno-pedagogical Competence scale by Rajasekar and Sathiyaraj was used. t-ratio was applied to figure out the outcomes. It was evinced from the results that there exists no significant difference in mean scores of Techno-Pedagogical Competence among rural and urban teachers.

Key words: Techno-Pedagogical Competence

Techno-Pedagogical Competence

Techno-pedagogy is a hybrid method by using technology in teaching. Technology and pedagogy are always blending just as techno-pedagogy is structure, which includes appropriate technological principles and ethics in a course for good communication and easy understanding, which is mediated electronically. The word Techno-Pedagogical competence is a term that holds combination of three areas: technology, pedagogy, and competence. In this context, technology includes technologies such as computers, internet, audios devices, videos devices, overhead projector, slide projector, films, and blackboard. Pedagogy includes art and science of the teaching, and the last word competence means having the ability to use these technologies in the teaching learning process. It holds the important place for the teacher to be most effective in his/her classroom. It is said to be as the combination of the application of technological competence with pedagogical competence of the teacher. It includes knowledge about strategies and methodology of teaching used in classroom. It is used to strengthen pedagogical base of teacher and to make him able to cope up with the changing environment of the educational process.

Review of Related Literature

Lyonga and Nkeng (2022) examined perceptions of techno-pedagogical skills among 42 staff members at HTTC Kumba, Cameroon, using a questionnaire and chi-square analysis. Their findings

revealed a generally positive perception of techno-pedagogy among respondents.

Qurashi and Jan (2022) conducted a comparative study on 600 secondary school teachers (347 private, 253 government) in Kashmir using a standardized competence scale. Results showed private school teachers had significantly higher techno-pedagogical competence and more positive attitudes towards technology integration than government school teachers.

Setua (2022) assessed 42 CBSE and ICSE secondary teachers and found a moderate positive correlation between techno-pedagogical skills and effective online teaching. Significant differences were observed between teachers with low and high skill levels.

Chattopadhyay and Sarkar (2023), studying 180 teachers from various disciplines in the Malda area, found that most had moderate levels of techno-pedagogical competence, with some variation based on academic discipline.

Raveendran and Muthuchamy (2023) evaluated 275 B.Ed. trainees in Pudukkottai District and reported average levels of competence. Science trainees outperformed those in language disciplines, and urban trainees scored higher than rural ones, although no significant differences were found based on gender or qualification.

Objective of The Study

To study the significance of difference between means of Techno-Pedagogical Competence among Rural and Urban Teachers.

Hypothesis of The Study

There exists no significant difference between Techno-Pedagogical Competence among Rural and Urban Teachers.

Delimitations of The Study

- The sample was included only 400 teachers from Government senior secondary schools.
- The study was conducted on five districts of the state of Punjab.
- Teachers teaching in rural areas were considered as rural teachers and teachers teaching in urban areas were considered as urban teachers.

Sample

In the current study, a multi-staged random sampling technique was used. Five administrative divisions of Punjab were selected for study. From these five divisions, five districts (one from each division) were randomly selected using the lottery method, and eight schools were then randomly selected from each district. 400 teachers (200 rural and 200 urban) from government senior secondary schools were decided on as the study sample.

Tool Used For Data Collection

Teacher's Techno-pedagogical Competence scale by Rajasekar and Sathiyaraj (2013).

Statistical Technique Used

- t-ratio was used to find the significance of difference between means of Techno-Pedagogical Competence among Rural and Urban teachers.

Analysis And Interpretation of Data

H_0 – “There exists no significant difference between techno-pedagogical competence among rural and urban teachers”

Locale	N	Mean	SD	t-ratio
Rural	200	155.58	18.41	0.731*
Urban	200	157	20.25	

*not significant at 0.05 level of confidence

Table evinces that the obtained values of mean of techno-pedagogical competence of rural and urban senior secondary school teachers are 155.58 and 157

respectively. The calculated value of t-ratio is 0.731. The obtained value of t-ratio is not significant at 0.05 level of confidence. It reveals that there exists no significant difference in mean scores of techno-pedagogical competence of rural and urban senior secondary school teachers. Hence, the hypothesis H_0 – “There exists no significant difference between techno-pedagogical competence among rural and urban teachers” stands accepted.

Major Findings

The obtained mean value of Techno-Pedagogical Competence among rural and urban teachers is 155.58 and 157 respectively and t-ratio 0.73, which is not significant. Thus, there is no significant difference is evinced in mean scores of Techno-Pedagogical Competence among rural and urban teachers.

Educational Implications of The Study

The study evinced the no significant difference between techno-pedagogical competence among rural and urban teachers, but the mean scores of rural teachers is less than the urban teachers. This is because, the rural area teachers might not have so much exposure to technology in their routine lives, reducing their level of acquaintance and comfort with utilizing it in classroom. Adoption of modern technology in education may be hampered by traditional viewpoint or aversion to change. Promote collaboration and peer tutoring among rural teachers. Promote mentorship programs, in which seasoned teachers can guide, assist, advice and support their colleagues, in utilizing and embracing technology.

Suggestions For Further Research

- In present research, work is done on senior secondary school teachers only. The similar study can also be done on the teachers working at primary level, secondary level and college level and university level.
- The comparative study can be done on the teachers working in government and private school teachers too.
- Studies can also be made on effect of teacher's techno-pedagogical competence on academic achievement of students.
- A similar study can be conducted on teachers working in CBSE board or ICSE board.

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