

Influence of Some Demographic Factors on the Professional Development of Secondary Teacher Educators in West Bengal

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Abstract

The National Education Policy (NEP) 2020 emphasises the continuous professional development of teacher educators to help them achieve the desired competency levels. In the present study, the influence of selected demographic factors, namely gender and academic qualification, on the professional development of B.Ed. teacher educators in West Bengal have been investigated. An ex post facto research design was adopted. The sample comprised 309 B.Ed. teacher educators drawn from 57 B.Ed. colleges across 18 districts of West Bengal using a proportionate stratified random sampling technique. An information schedule developed by the researcher was used for data collection. The data were analysed using an independent samples t-test. The findings revealed that the professional development of teacher educators was independent of gender. Further, the results showed that teacher educators possessing a PhD degree had significantly higher professional development levels compared to those without a PhD. The findings of the study may be useful for improving the quality of teacher education in terms of both teaching and research across different contexts.

Keywords: Professional Development, Secondary Teacher Educators, Gender, Qualification

INTRODUCTION

In a rapidly changing globalised world, professional development has gained considerable importance,

as teacher educators require new sets of skills and competencies to effectively engage with the younger generation of learners (Kumar and Azad, 2016).

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This necessitates Continuous Professional Development (CPD) opportunities for teacher educators to ensure that they remain updated with the contemporary pedagogical practices and curriculum advancements. The National Education Policy (NEP) 2020 recognises the CPD of teachers as a key priority area for improving the quality of education in India. Furthermore, NEP 2020 emphasises the establishment of high-quality teacher education institutions and programmes to transform classroom teaching and learning.

The teacher education curriculum proposed under NEP 2020 is strongly research-oriented and aims to develop teachers' capacities for culturally responsive teaching, vocational education, and educational technology. While professional development opportunities have traditionally focused on subject-specific knowledge and pedagogy, there is a growing recognition that the development of socio-emotional competencies among educators also significantly enhances their effectiveness in the classroom (Soutter, 2023). However, limited attention has been paid to the professional development of teacher educators themselves, who play a critical role in building teachers' capacities (Parkhouse *et al.*, 2023).

Among the demographic factors that may influence the professional development of teacher educators, gender is considered important.

Previous research suggests that male and female teacher educators face different challenges in their academic and professional advancement (Bush *et al.*, 2022). Studies have also reported that the men and women differ in their learning preferences and interests with respect to professional development (Dousay and Trujillo, 2018). Earlier studies further indicate that the gender and academic qualifications of teacher educators influence teaching quality, professional development needs, and student learning outcomes. It has also been observed that the male and female teachers display different strengths and weaknesses in areas such as classroom management, content knowledge, and student motivation (Drudy, 2008).

With regard to qualifications, research findings indicate that teachers with higher academic qualifications, such as advanced degrees, tend to be more effective in the classroom (Uddin *et al.*, 2019). Despite this, there is limited empirical research, examining the combined influence of gender and academic qualifications on the professional development of secondary teacher educators, particularly in the Indian context. The present study, therefore, attempts to investigate the influence of selected demographic factors—namely gender and qualification—on the professional development of secondary teacher educators in the state of West Bengal.

The objectives and hypotheses of the study are stated below.

RESEARCH OBJECTIVES

- To compare the mean scores of professional development of male and female teacher educators.
- To compare the mean scores of professional development of PhD and non-PhD teacher educators.

RESEARCH HYPOTHESES

- There is no significant difference in the mean scores of professional development of male and female teacher educators.
- There is no significant difference in the mean scores of professional development of PhD and non-PhD teacher educators.

RESEARCH METHODS

Research Design

A descriptive *ex post facto* survey design was employed for the present study.

Population

The population of the study comprised all B.Ed. teacher educators working in teacher education institutions across the state of West Bengal.

Sample

A total sample of 309 B.Ed. teacher educators was selected from 57 B.Ed. colleges—comprising 52 self-financing colleges and 5 government colleges—spread across 18 districts of West Bengal. The sample was drawn using a proportionate stratified random sampling technique. The distribution of the sample with respect to region, gender, and academic qualification is presented in Table 1.

Tools Used for Data Collection

Professional development practices were assessed using an information schedule developed by the researcher. The tool was designed to measure

Table 1
Description of Sample

S. No.	Region	Institute	Gender		Qualification	
			Male	Female	PhD	Non-PhD
1.	Northern Region (7 Districts)	Total = 18 (17 SFC + 1 GC)	88	36	14	110
2.	Southern Region (3 Districts)	Total = 6 (5 SFC + 1 GC)	14	18	6	26
3.	Eastern Region (3 Districts)	Total = 14 (13 SFC + 1 GC)	40	14	8	46
4.	South-Eastern Region (2 Districts)	Total = 8 (7 SFC + 1 GC)	23	18	13	28
5.	Western Region (3 Districts)	Total = 11 (10 SFC + 1 GC)	47	11	9	49
Total = 5 Regions (18 Districts)		*SFC = 52 **GC = 5	212	97	50	259
Grand Total		57	309		309	

*SFC: Self-financing College, **GC: Government College

both the diversity and extent of professional activities undertaken and attended by teacher educators to enhance their professional competencies. The information schedule covered multiple dimensions, including educational qualifications; participation in orientation programmes, refresher courses, and short-term courses; presentation of papers at national and international conferences and seminars; publication of books and research papers with citations; involvement in research projects; academic visits abroad; administrative responsibilities; development of e-content; experience as a resource person; innovations in teaching and research; awards received; and participation in community enrichment programmes.

The draft of the information schedule was validated by five subject experts. Different dimensions were assigned different weightages. The total score of a teacher educator ranged from 5 to 100.

Technique Used for Data Analysis

An independent sample t-test was employed for data analysis using SPSS software, and the results were interpreted accordingly.

RESULTS

Before the application of statistical techniques, the normality of the data was assessed using SPSS, and the results are presented in Fig. 1.

From Fig. 1(a), it is observed that the histogram exhibits a bell-shaped

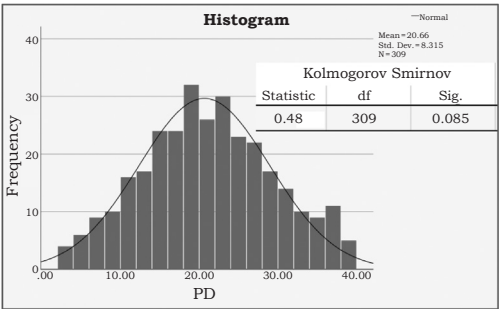


Fig. 1(a)

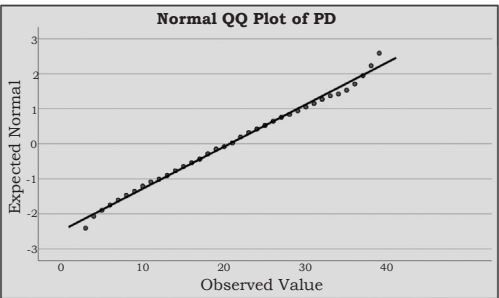


Fig. 1(b)

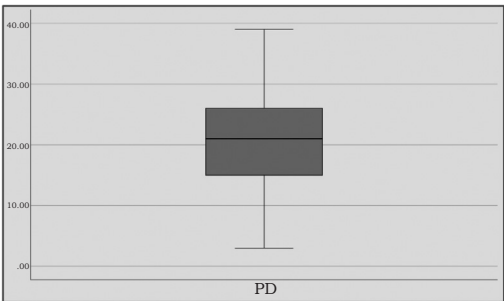


Fig. 1(c)

Fig. 1: (a) Histogram and Kolmogorov-Smirnov test of normality, (b) Q-Q plot, and (c) Box plot

curve and appears nearly symmetric. Further, the result of the Kolmogorov-Smirnov test is not significant, indicating that the data are normally distributed. Fig. 1(b) presents a Q-Q plot in which most of the points lie on or

close to the reference line. Additionally, Fig. 1(c) shows the box plot, which indicates the absence of outliers. Based on these results, it is concluded that the data satisfy the assumption of normality. Therefore, parametric statistical techniques can be applied. In the present study, an independent samples *t*-test was employed for data analysis. The objective-wise results and their interpretations are presented under separate captions.

Comparison of Professional Development of Teacher Educators in Terms of Gender

The first objective of the study was to compare the level of professional development of teacher educators in terms of gender. Gender comprised two categories, namely male and female. For the analysis, an independent samples *t*-test was applied, and the results are presented in Table 2.

From Table 2, the *t*-value of professional development of teacher

educators is 1.90, which is not significant. The corresponding null hypothesis that there is no significant difference in the mean scores of professional development between male and female teacher educators is not rejected. Therefore, it can be said that the professional development of male and female teacher educators is identical. In other words, professional development of teacher educators was observed to be independent of gender.

Comparison of Professional development of Teacher Educators in Terms of Qualification

The second objective was to compare the mean scores of professional development of PhD and non-PhD teacher educators. The educational qualification of teacher educators had two levels, namely PhD and non-PhD. With the help of an independent samples *t*-test, the data were analysed, and the results are given in Table 3.

Table 2
t-Value of Professional Development of Teacher Educators with Respect to Gender

Gender	Mean	N	SD	df	t-value	Remarks
Male	19.54	212	8.65	307	1.90	NS*
Female	21.61	97	9.28			

*NS = Not Significant

Table 3
t-Value of Professional Development of Teacher Educators with Respect to Gender

Qualification	Mean	N	SD	df	t-value	Remarks
Non-PhD	18.47	259	7.92	307	8.58	Significant at 0.01 level
PhD	29.08	50	8.39			

From Table 3, the *t*-value for the professional development of teacher educators is 8.58, which is significant at the 0.01 level with *df* = 307. It indicates a significant difference in mean scores of professional development between PhD and non-PhD holder teacher educators. Thus, the corresponding null hypothesis is that there is no significant difference in the mean scores of professional development between PhD and non-PhD teacher educators is rejected. Further, the mean score of professional development of non-PhD teacher educators is 18.47, which is significantly lower than that of PhD holder teacher educators, which is 29.08. Therefore, it may be said that the professional development of PhD holder teacher educators was found to be higher than that of non-PhD teacher educators. Further, the mean scores of professional development of secondary teacher educators in relation to their qualification has been shown graphically in Fig. 2.

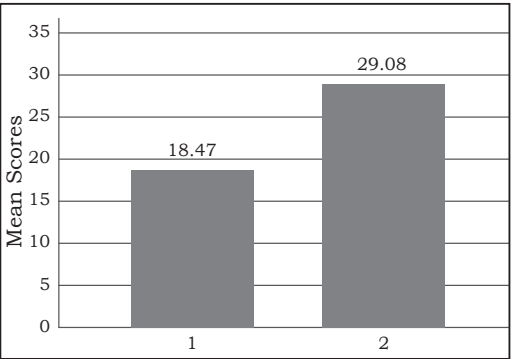


Fig. 2: Qualification-wise Mean Scores

DISCUSSION

Both objectives of the study were examined using an independent samples *t*-test. The findings related to the first objective revealed that male and female teacher educators did not differ significantly in their level of professional development. In other words, the professional development of secondary teacher educators was found to be independent of gender. These findings are consistent with earlier studies (Sarkar, 2020; Khan, 2017; Sivakumar and Benjamin, 2016).

The results of the second objective indicated that teacher educators holding a PhD degree demonstrated significantly higher levels of professional development than those without a PhD degree. This finding is in agreement with previous studies (Devi and Rajeswari, 2013; Daniel *et al.*, 2010). This may be attributed to the fact that teacher educators with PhD degrees tend to possess more advanced professional skills and competencies, particularly in the areas of teaching and research.

LIMITATIONS

The present study was subject to the following limitations:

- B.Ed. teacher educators working in the Departments of Education of State and Central Universities in West Bengal were not included in the sample.
- B.Ed. teacher educators working in the Departments of Education of private universities in

West Bengal were not included in the sample.

- The sample size was limited to 309 teacher educators.

EDUCATIONAL IMPLICATIONS

The findings of the present study may be utilised to promote the continuous professional development of pre-service teachers, in-service teachers, and teacher educators by equipping them with essential knowledge and skills. They may be encouraged to pursue higher qualifications, participate in seminars, conferences, workshops, and short-term courses, engage in community-based activities, and adopt innovative practices in teaching and research.

Thus, the outcomes of the study may prove beneficial for various stakeholders, including administrators, principals, non-governmental organisations, and policymakers.

CONCLUSION

The professional development of secondary teacher educators in West Bengal was examined in relation to gender and qualification using

an ex post facto research design. The findings of the study revealed that the professional development of secondary teacher educators is independent of gender. Furthermore, teacher educators possessing a PhD degree were found to have a higher level of professional development compared to those without a PhD degree.

The findings of the study may be utilised to enhance the quality of teacher education by promoting the practice of innovative skills and providing orientation towards conducting quality research and publishing in refereed national and international journals. Further research may be undertaken to examine the influence of other demographic and sociological variables on the professional development of teacher educators.

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