



RESEARCH COMPETENCY OF TEACHER EDUCATORS AT SECONDARY LEVEL IN JHARKHAND

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Abstract

This paper intends to identify the level of research competency of teacher educators at secondary level and compare the level of research competency of teacher educators in relation to gender, experience and qualification in Jharkhand. The method used was descriptive survey. The sample for the study was 200 teacher educators selected randomly from 40 teacher education institutes. The data was collected by using self-developed rating scale. The analysis was done by using SPSS and various non-parametric tests. The study found that there is no significant difference in research competency of male and female teacher educators. But there is a significant difference in the research competency of educators with regard to experience and qualification. This study suggested for conducting more and more capacity building programmes, research methodology courses, workshop, seminar, writing papers, training, self-study, online courses for improving research competency of teacher educators.

Keywords: Research Competency, Proposal Formulation, Self-Rating Scale, Teacher Educator, Data Analysis

Conceptualisation of the Problem

Teacher educators are the backbone of school education. They not only maintain and improve quality of the education system but also develop it through their role as developers and mediators of knowledge. Teacher educators are professionals who always strive towards their development and development of teachers. Hence, it is the role of teacher educators to prepare future teachers to be lifelong learners and educational workers to create a learning society. They are supposed to teach, provide training, conduct research as well as undertake consultancy. Research is one of the significant elements of roles of teacher educators as research helps in the professional development of teachers. Research has been defined as a “systematic investigation, including research developments, testing and evaluation, designed to develop or contribute to generalizable knowledge”.

The fundamental idea of research is the collection of facts, information, and observations in order to enhance our understanding. Research is widely acknowledged as the driving force behind the swift advancement and progression of life. As it continually evolves, research has consistently demonstrated its invaluable role in shaping fundamental transformations, exemplified by remarkable breakthroughs and developments not only within the realm of education but also across society at large. Research serves as a vital source of essential information in various domains, aiding individuals in comprehending the intricacies of a given process and ultimately achieving successful project outcomes. Teacher educators must develop research competency in order to do quality research.

Research competence is an important component of the specialist's professionalism, as well as a condition of its development and implementation, the readiness of the future specialist for professional activity. It is the ability to conduct independent research and contribute for the quality school and teacher education. The importance of the development of research competence urges the task of finding and implementing new effective and modern forms of its organization in the educational process. However, the teaching methods that teachers currently use seem far from reality and do not contribute to the development of research competence. There are certain dimensions of research competency under which this research has been conducted. These dimensions are planning, designing, conducting field work, data analysis and interpretation and reporting and sharing research finding. Every teacher educator must develop these skills and competencies for conducting good quality research.

Rationale of the Study

Teacher education is one of the important areas of research in education as it has potential to contribute for the quality of school and teacher education. Many researchers have attempted to study research on research competency and skills of teachers and educators. Some of the relevant research studies are discussed in the following paragraphs.

Katavev (2023) inferred that 72% of respondents believe research work of teachers is essential for improving the learning process. Abinan (2022) stated that more the teachers' exposure in research, the higher their level of competence and more experienced the teachers, the higher their level of competence. Among and Dagos (2022) reflected that female faculty members are found to be more productive than their male colleagues and younger faculty members are more productive than older ones. Further, it is found that faculty members with lower years of experience almost have the same productivity as those who have longer years of experience. Roman (2021) demonstrated that research competency test shows that there is a need to upgrade the competency level in research in all aspects. Atutubo and Estonanto (2020) demonstrated that faculties perceived their research competency at moderate level. Abu and Rumman (2019) stated that researcher competencies are different from researcher skills. Mendoza et al. (2018) mentioned that research competencies are an attitudinal alternative that imply the understanding and transfer of knowledge, as well as emotional values oriented to significantly stimulate the research potential of a university professor. Cocal and Celino (2017) reported that only 46% of the faculty

members are conducting research, 25% have presented their research paper in national international journal and faculty members were moderately knowledgeable and skilled on different process of research.

Review of research studies revealed that only few studies have been conducted on research competencies of educators at secondary level and the researcher does not found any study on research competency of teacher educators in Jharkhand. Hence, conducting study on research competency of educators in Jharkhand is relevant.

Objective

- To study and compare the research competency of teacher educators in relation to gender, qualification, experience, age and stream.

Hypotheses

1. There will be no significant difference in the research competency of male and female teacher educators.
2. There will be no significant difference in the research competency of teacher educators in relation to qualification.
3. There will be no significant difference in the research competency of teacher educators in relation to experience.
4. There will be no significant difference in the research competency of teacher educators in relation to age.
5. There will be no significant difference in the teaching competency of teacher educators in relation to stream.

Methodology

The researcher adopted the survey method to carry out this research. The population for the study was all secondary teacher educators working in the affiliated and constituent colleges and state Universities of Jharkhand. The sample derived for the study was 200 teacher educators selected randomly from 40 teacher education institutes, five from each college. The tool used to collect data was self-rating scale to measure the research competency of educators. The tool was divided into five sections such as planning, designing, conducting field work, data analysis and interpretation and reporting and sharing research finding. The validity of the tool was ensured by taking advice and comments from experts. The collected data were entered into excel and analysed by using the SPSS software 22 version. The non-parametric statistics were used for data analysis as data were in ordinal scale.

Data Analysis and Interpretation

The analysis of the data was done as per the objectives of the study. The researcher used the non-parametric statistics like Mean Rank, Mann Whitney test, Significance value for analysing the data and interpretation is made accordingly which are discussed in the following paragraphs.

Table-1. Research competency of male and female teacher educators

Variable	N	Mean Rank	Mann Whitney	Z	Sig.	Remarks
Male	113	98.74	4717	.489	.625	NS*
Female	87	102.78				

*not significant

The table-1 indicated that the mean rank of male teacher educator is 98.74 and female teacher educator is 102.78. The Z value of Mann Whitney is .489 and calculated significance .625. Therefore, the null hypothesis there is no significant difference in research competency of male and female teacher educators at 0.05 levels is not rejected. It can be concluded that both male and female teacher educators have same level of research competency.

Table-2. Research competency as per qualification

Category	N	Mean Rank	Kruskal Wallis	df	Sig	Remarks
PG/M.Ed with NET	63	91.90	30.072	2	.000	Significant at 0.01
PG/M.Ed	71	79.21				
Ph.D	66	131.61				

The table-2 pointed that the mean rank of research competency of teacher educator having Ph.D is 131.61, PG/M.Ed. with NET is 91.90 and only master's degree is 79.21. The Kruskal Wallis value is 30.072 and calculated significance is .000. Hence, the null hypothesis there is no significant difference among educators in research competency as per qualification is rejected at 0.01 levels. It can be generalized that teacher educators having Ph.D degree have better research competency.

Table-3. Research competency as per experience

Category	N	Mean Rank	Kruskal Wallis	df	Sig	Remarks
Upto 10 years	155	95.79	8.346	2	.015	Significant at 0.05
11-20 Years	34	126.26				
Above 21 Years	11	87.23				

The table-3 indicated that the mean rank is 126.26 which is highest among teacher educators experience having 11-20 years and 95.79 mean rank of educators having experience upto 10 years. Again, the mean rank is 87.23 among educators having experience of above 21 years. The calculated Kruskal Wallis value is 8.346 and significance value is 0.15. Therefore, the null hypothesis there is no significant difference among educators in

research competency as per qualification is rejected at 0.05 levels. It can be generalized that educators with middle level experience have better research competency.

Table-4. Research competency as per age

Category	N	Mean Rank	Kruskal Wallis	df	Sig	Remarks
Upto 40 Years	139	97.58	3.491	2	.175	NS*
40-50 Years	50	112.46				
Above 51 Years	11	83.05				

*not significant

The table-4 displayed that highest mean rank of teacher educators which is 112.46 covered the age group of 40-50 years, 97.58 mean rank for research competency covers age upto 40 years, and finally, above 50 years educators have mean rank for research competency is 83.05. The value of Kruskal Wallis is 3.491 and significance value is .175. Thus, it can be concluded that “there is no significant difference in research competency of educators as per age” and null hypothesis is not rejected at 0.05 level. Therefore, the age has no impact on research competency of teacher educators.

Table-5. Research Competency as per stream

Category	N	Mean Rank	Kruskal Wallis	df	Sig	Remarks
Arts	123	95.75	2.1555	2	.341	NS*
Science	57	108.06				
Commerce	20	108.18				

*not significant

The table-5 inferred that the mean rank for research competency of Science and Commerce educators is same i.e., 108 and Arts educators have mean rank for research competency is 95.75. The calculated result of Kruskal Wallis is 2.1555 and significance value is .341. It can be said from the table that “there is no significant difference in research competency of educators as per stream” is not rejected at 0.05 levels. Hence, it can be concluded that teacher educators with different streams have similar level of research competency.

Major Findings

- There is no significant difference in research competency of male and female teacher educators at 0.05 levels. It can be concluded that both male and female teacher educators have same level of teaching competency.
- There is no significant difference among educators in research competency as per qualification statistically. But teacher educators having Ph.D degree have better research competency than only post graduate and post graduate with NET.

- There is significant difference among educators in research competency as per qualification at 0.05 level. It can be generalized that educators with more experience have better research competency.
- There is no significant difference in research competency of educators as per age and null hypothesis at 0.05 level. Therefore, the age has no impact on research competency of teacher educators.
- There is no significant difference in research competency of educators as per stream at 0.05 level. Hence, it can be concluded that teacher educators with different streams have similar level of research competency.

Discussion of Results

The findings reflected that there is no significant difference in research competency of male and female teacher educators which is contradicting the findings of Amog and Dagos (2022) as they concluded that female educators are more competent than male. Atutubo and Estonanto (2020) demonstrated that faculties perceived their research competency at moderate level. Further, it is found that teacher educators with high qualification have better research competency and this result is supported by Abinan (2022) who reported that more the teachers' exposure in research, the higher their level of research competence.

Conclusion

Research competency need continuous training, teamwork, and optimal performance of teacher educators to increase the productivity in each area of knowledge and research. It is not enough to take care of elements such as the formulation of the research question, selection of the research method and design, selection of instruments and the evaluation system. One must be digitally literate to be able to use information for the proposed purposes and to develop quality academic texts that can subsequently disseminate and support the expansion of knowledge in the various areas of higher education. This study suggested for conducting more and more capacity building, research methodology workshop, seminar, writing papers, training, self-study, online courses for improving research competency of educators. Because research is the founding block for all quality development of education.

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