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## Research Productivity of Teacher Educators

### Abstract

*Research is an effort to bridge theory with practice. It also helps in refining the existing practices. Research must be an integral part of the Teacher Educators' work as educational research has a trickle-down effect that leads to quality at all levels of education. This article documents the research productivity of Teacher Educators and the factors affecting their research productivity. The findings reveal the research productivity of a sample of teachers in Thoothukudi district, Tamil Nadu tabulated on a scale prepared for measuring engagement with research. The findings also throw light on the factors that impact the research productivity of Teacher Educators.*  
*Keywords: Research productivity, Teacher Educators*

### Introduction

The landscape of higher education in the country has been changing tremendously in recent years with significant implications for the work to be done by its faculty members. Higher education teachers are expected not only to deliver lectures in the classroom but to take up research, extend services to the community and more recently, also be familiar with digital pedagogic tools. There has been a sharp increase in the number of private institutions in higher education and there is a noticeable difference in the way teachers perform their roles in private, aided and government institutions. With the growing emphasis on accreditation, global demands on higher education and opening up of the higher education sector to global players, the role of the faculty members keeps transforming every day.

Teacher Education in India is the responsibility of the Department of Education in universities and Teacher Education colleges. Teacher Education has witnessed significant changes in the last decade. NCTE, the chief regulatory

body for Teacher Education institutions, notified revised regulations and norms and standards in 2014. Composite Teacher Education institutions, introduction of four-year integrated programmes, introduction of the B.Ed.-M. Ed. integrated programme and increase in the duration of B. Ed. and M. Ed. programmes to two years were the key features of the revised regulations. There was a change in the accrediting body of Teacher Education institutions from NAAC to QCI in the year 2017 with the development of a new framework for ranking and accreditation. NAAC has now once again taken up accreditation of Teacher Education institutions. All these changes have reverberations on the expected roles of Teacher Educators in universities and colleges of Education.

A rumination of how the role of Teacher Educators in colleges and universities is different from other college and university teachers becomes essential at this point. The minimum qualification for a college or university teacher is a postgraduate degree and National Eligibility Test qualification. To become a Teacher Educator, an additional

post-graduation in Education is required as the Teacher Educator is expected to have not only a strong foundation of a discipline but also a foundation in pedagogy to teach the discipline. The Teacher Educators engage those aspiring to become teachers in planning and implementing instruction in the classroom. In order to prepare teachers, they have to base their knowledge of behavioural sciences to strengthen the conceptual understanding and pedagogical skills of prospective teachers. With continuous and radical transformations in teaching and learning, Teacher Educators have to be involved in research and development activities for better training of prospective and practicing teachers. The research of Teacher Educators may seem to be easy compared to the pure research being done in laboratories. This does not mean that their research is of lesser importance. The research of Teacher Educators has the potential of redefining the way we teach and learn all other disciplines. The scope for community engagement is greater for Teacher Educators as they are engaged not only in guiding and improving school practices but also networking with other informal agencies of education and creating ripples of changes in the society at large. Reflective practice, empirical investigations and action research are more ways in which a teacher educator's engagement with research can be described.

Faculty members with greater volume of research activities are often admired by other faculty and students as being on the cutting edge of their field and are regarded as knowledgeable about recent trends in their field. These faculty members are seen as powerful educators and often serve as a frame of reference for others who are interested in research. Growing trends in research tend to be multidisciplinary drawing inputs from different disciplines. There is a burgeoning interest in STEM-based research worldwide, including our country. The role of university education departments is greater with regard to the quantum of research in Teacher Education.

Those working in universities are driven by the "publish or perish" culture borrowed from the western world. Since scholarly activities and research productivity are used to measure the success of universities, the Teacher Educators from universities prioritise research among other academic responsibilities. With the introduction of new aspects for career advancement that include e-content development and MOOCs, university teachers show interest in relating these to research.

The accreditation framework for colleges of Teacher Education and university Education departments vary in terms of weightage given to research. More weightage for research is given to university departments and the need for research work in colleges of Teacher Education has been stressed recently for a better institutional score. Given the predominance of teaching, practicum components and intensive teaching practice, colleges of Teacher Education find it hard to find time for research related activities. Being pulled in different directions, it is challenging for colleges of Education to satisfy all the requirements of the accreditation framework and the one that is all the more demanding is research.

Research Competence and Research Productivity are two aspects that gravitate greater attention. Research Competence refers to the possession of knowledge and skills for doing research. Research competence is a prerequisite for any kind of research activity. A competent researcher makes use of research knowledge and skills to formulate questions and seek answers that either explain the existing realities or find ways to improve the existing conditions. Research performance refers to the accomplishment of the set goals of the research being pursued. Research performance is usually used interchangeably with research productivity to refer to the quality and quantity of research outputs. (Li Bai, 2010). Although there are different operational definitions of research productivity, the majority of studies measure research productivity in terms of



research publications. Research productivity is, therefore, a more tangible manifestation of research work in the form of research outputs like publications, research grants and patents. The research competence, performance and productivity of Teacher Educators are variables that need to be explored.

Scholarly work of Teacher Educators in the form of research products is imperative as it not only enhances individual and institutional reputation but also serves as a precondition for quality in education at large. The research outputs of Teacher Educators serve to bring in changes in the entire education system of the country and its benefits trickle down to all levels of education. The Interim Report of the British Educational Research Association and The Royal Society for the Encouragement of the Arts, Manufacturing and Commerce (2014) explains that education systems such as those in Singapore and Finland that consistently 'come out on top' develop capacity from the bottom-up, and rely heavily on methodologically rigorous, research-based knowledge to inform their practice. Smith (2015) argues that practice-oriented research by Teacher Educators, which is useful to the practice field and can lead to changes in schools and Teacher Education, is of great relevance to the Teacher Education community, school teachers and leaders, and policymakers. Therefore, understanding the research ecosystem that prevails in the Teacher Education system needs greater attention in our country.

### **Review of Related Literature**

There are a number of studies done to explore the research productivity of the faculty in higher education systems of different countries. The studies that have been undertaken have focussed on two areas: development of models to assess and conceptualise research productivity of academics and examination of predictors or factors that relate to research productivity of academics.

Bezley (2010) built a conceptual model of research performance by collecting data from a structured survey in which academics elaborated on eight different attributes of high-performing researchers. The data from 295 teaching academics from Australian universities were analysed using NVivo software and a conceptual model of research performance was proposed. Research performance was seen to comprise two basic components, with six secondary level dimensions and a range of potential indicators. Four essential (necessary and sufficient) dimensions, relating to the research activity component of research performance were: engagement, task orientation, research practice and intellectual processes. Two alternative dimensions (of which at least one is necessary) relating to the performance, or making research visible, component of research performance were: dissemination and collegial engagement. Research performance was seen to occur within conditions provided by an institutional context (education and training; opportunity and resources), and to bring about a range of outcomes (product, impact and reputation).

Jung (2012) studied the faculty research productivity in Hong Kong across academic disciplines. The individual and institutional factors that contribute to productivity and compare determinants of productivity across academic disciplines were explored. Data were taken from The Changing Academic Profession (CAP) project conducted in 2007. It was found that Hong Kong academics were highly internationalised in terms of research activities. Moreover, research productivity was influenced by a number of factors, including personal characteristics, workload, differences in research styles, and institutional characteristics. In addition, considerable variation existed regarding the determinants of research productivity across disciplinary categories.

Gilavand (2017) analysed the research productivity of Humanities faculty members in universities of Ahwaz, Southwest of Iran. The data was collected from a sample of

100 faculty members through a researcher made questionnaire. The research score was derived from the data based on Regulations for the Promotion of the faculty members of the Educational and Research Institutions, No. 8727.9.15.89 dated 22.2.2011 in Iranian Ministry of Science, Research and Technology. The research productivity was then calculated by dividing the research score by the number of years of service. The mean index of research productivity of humanities faculty members employed at universities of Ahvaz was 9.94 and the median was 7.30, indicating that the research point of 50 per cent of the faculty members was less than 7.30 annually. There was a significant difference among different groups of faculty members in terms of academic degree and academic rank. However, there was no significant difference between them in terms of gender, the university employed at and length of service.

Nasser-Abu Alhija & A. Majdob (2017) examined the relationship between Teacher Educators' research productivity and their background and professional characteristics, attitudes, motives, obstacles and time devoted to research. The sample included 161 Teacher Educators from four Teacher Education colleges in Israel. The volume of RP was calculated using a combination of Fox's (1992) formula and the weights proposed in HLS/APT (2000) guidelines. A questionnaire with subsections to measure Teacher Educators' attitudes towards research, motives for engaging in research and perceptions of obstacles to practicing research. The findings indicate the significance of five variables for predicting research productivity: academic degree, rank, administrative position, desire to develop new knowledge and learn from research findings and perceived insufficient research competence and self-confidence.

The present study focuses on the development of an index to measure research productivity of Teacher Educators and also to ascertain the personal factors and environmental factors that affect research productivity of Teacher Educators.

## Need for the Study

Teaching in higher education includes four components namely teaching, evaluation, research and extension. Of these the teaching and evaluation components are taken care of adequately in Teacher Education institutions. The extension component receives a certain degree of attention as it has been a criterion of accrediting bodies. The research component, although being a criteria for accreditation, remains poorly attended to, especially in colleges of education. This is primarily because Teacher Educators in colleges of education find it hard to take up research with limited resources at their disposal. It poses a challenge for them to make visible any research that they do amidst their teaching, training and administrative loads. The research publications of Teacher Educators, especially those working in colleges, are fewer and very few Teacher Educators publish papers in journals of national and international repute. A culture of research is the missing element in Teacher Education colleges. An enquiry into the factors that contribute to the research productivity is required to strengthen the research component. Therefore, the study of the factors affecting the research productivity of Teacher Educators is intended by the researcher.

## Operational Definition of the Key Terms

### Research Productivity

It is defined in terms of the research product and research effort a researcher produces (Williams, 2003). In this study, research productivity refers to the number of research degrees, research publications, research guidance and research projects of a researcher.

### Teacher Educators

It refers to the faculty working in the department of Education in universities, affiliated colleges of Teacher Education and

District Institutes of Education and Training. In this study, Teacher Educators refer to faculty of colleges of education.

### Objectives of the Study

1. To find the research productivity of Teacher Educators
2. To ascertain the factors affecting the research productivity of Teacher Educators

### Methodology

For the purpose of conducting this study, the survey method was used which attempts to describe the prevailing conditions. The population of the study was Teacher Educators from Thoothukudi district in Tamil Nadu. Stratified random technique was employed. The population was divided into strata on the basis of aided and private colleges in the district. Sixty-four Teacher Educators from Thoothukudi district formed the sample.

### Research Tools

1. The following tools were used for the study:
2. Research Productivity Index

Factors Affecting Research Productivity Scale

Both the tools were developed by the researcher. The Research Productivity Index was developed on the following dimensions namely research degrees, research publication, research projects and research guidance. Generally, research productivity is measured in terms of publications. There are many other efforts put forth by academics for research purposes. In order to take into account all those largely invisible dimensions, research degrees, research projects and research guidance have also been considered. As research publications and research projects are matters of individual and institutional prestige, they are given higher scores than research degrees and research guidance. The weightage given to the various dimensions of the Research Productivity Index are as follows:

Table 1: Dimensions of Research Productivity Index

S. No.	Dimensions of Research Productivity Index	Weightage
1	Research degree	2
2	Research publication	3
3	Research projects	3
4	Research guidance	2
	Total	10

The description of the weightage given to different research degrees is as follows:

Table 2: Weightage to Research Degrees

S. No.	Research Degree	Status of Research Degree	Score
1	M.Phil.	Completed	0.25
2	M.Phil.	Pursuing	0.10
3	Ph.D.	Completed	0.75
4	Ph.D.	Pursuing	0.35
5	Post-doctoral	Completed	0.75
6	Post-doctoral	Pursuing	0.35
7	Any Other	Completed	0.25
8	Any Other	Pursuing	0.10

Doctoral and postdoctoral degrees are given more weightage than M. Phil and other degrees like Post Graduate Diploma in Higher Education (PGDHE) that require completion of a research project.

The description of the weightage given to research publications is as follows:

Table 3: Weightage to Research Publications

S. No.	Type of Publication	No. of Publication	Score
1.	Regional refereed	Less than 5 5 to 10 Above 10	0.3 0.4 0.5

2.	National refereed	Less than 5 5 to 10 Above 10	0.5 0.6 0.75
3.	International refereed	less than 5 5 to 10 Above 10	1 1.2 1.5
4.	Seminar/Conference Proceeding	Less than 5 5 to 10 Above 10	0.15 0.2 0.25

Publications in International Refereed journals are given the highest weightage as they make the research more visible. Publications in seminar/conference proceedings are given lesser weightage.

The description of the weightage give to research projects is as follows:

Table 4: Weightage to Research Projects

S. No.	Projects	No. of Projects	Score
1.	Completed/ongoing	Less than 3 3 to 6 Above 6	2 2.5 3

The weightage is greater for more research projects.

The description of the weightage given to research guidance is as follows:

Table 5: Weightage to Research Guidance

S. No.	Level/Degree for which research is guided	No. of scholars guided / being guided	Score
1.	Post Graduate (M.Ed.)	less than 5 5 to 10 Above 10	0.1 0.2 0.25
2.	M.Phil	less than 3 3 to 6 Above 6	0.5 0.6 0.75
3.	Ph.D.	Less than 3 3 to 6 Above 6	0.6 0.8 1.0

The weightage for Ph.D. research guidance is greater as it requires more time and effort.

A maximum score of 10 could be obtained in the Research Productivity Index.

Factors Affecting Research Productivity Scale consisted of 18 statements, 9 each for the dimensions personal factors and environmental factors. The personal factors covered the following aspects:

- Research Knowledge
- Research Skills
- Research Confidence
- Time for Research
- Research Interest
- Motivation
- Statistical Knowledge
- Expert Advice
- Data Collection Assistance

The environmental factors covered the following aspects:

- Administrative Responsibility
- Research Culture
- Institutional Support
- Research Funds
- Resources
- Teaching Load
- Monetary Benefits
- Research Workshops
- Research Performance Assessment

Each of the items in the scale was responded to on a four-point scale that expressed the occurrence of the factors.

## Results

### Research Productivity of Teacher Educators

Table 6: Research Productivity Index of Teacher Educators

Score Category	Number	Percentage
Low (below 4)	47	73.4
Moderate (4 to 6)	13	20.3
High (Above 6)	4	6.3
Total	64	100

Personal Factors Affecting Research Productivity of Teacher Educators

Table 7: Personal Factors Affecting Research Productivity

S. No.	Personal Factors	Degree of Favourable Affect							
		To a great extent		To a certain extent		To a small extent		Not at all	
		N	%	N	%	N	%	N	%
1.	Research Knowledge	24	37.5	22	34.38	15	23.44	3	4.69
2.	Research Skills	2	3.13	18	28.13	25	39.06	19	26.69
3.	Research Confidence	26	40.63	17	26.56	18	28.13	3	4.69
4.	Time for research	11	17.19	18	28.13	22	34.38	13	20.31
5.	Research Interest	7	10.94	9	14.06	26	40.63	22	34.38
6.	Motivation	11	17.19	24	37.5	22	34.38	7	10.94
7.	Statistical Knowledge	19	26.69	24	37.5	15	23.44	6	9.38
8.	Expert Advice	2	3.13	20	31.25	19	29.69	23	35.94
9.	Data Collection Assistance	26	40.63	23	35.94	9	14.06	6	9.38

Environmental Factors Affecting Research Productivity of Teacher Educators

Table 8: Environmental Factors Affecting Research Productivity

S. No.	Environmental Factors	Degree of Favourable Effect							
		To a great extent		To a certain extent		To a small extent		Not at all	
		N	%	N	%	N	%	N	%
1.	Administrative Responsibility	7	10.94	16	25	27	42.19	14	21.88
2.	Research Culture	21	32.81	19	29.69	16	25	8	12.5
3.	Institutional Support	1	1.56	12	18.75	14	21.88	37	57.81
4.	Research Funds	10	15.63	16	25	19	29.69	19	29.69
5.	Resources	3	4.69	10	15.63	13	20.31	38	59.38
6.	Teaching Load	19	29.69	22	34.38	16	25	7	10.94
7.	Monetary Benefits	15	23.44	21	32.81	14	21.88	14	21.88
8.	Research Workshops	28	43.75	18	28.13	12	18.75	6	9.38
9.	Research Performance Assessment	6	9.38	16	25	16	25	26	40.63

## Findings

- 73.4 per cent of Teacher Educators have low research productivity, 20.3 per cent of them have moderate and 6.3 per cent of them have high scores on research productivity.
- The personal factors that are perceived to positively affect research productivity to a great extent are research confidence and data collection assistance. The personal factors perceived by Teacher Educators to be the least favourable are research interest and lack of expert advice.

3. 'Opportunities to participate in research workshops' was the environmental factor that was perceived to be favourable to a great extent by Teacher Educators. 'Resources for research' and 'institutional support' were the environmental factors that were perceived to be least favourable by Teacher Educators.

## Interpretation

73.4 per cent of Teacher Educators have low scores in their research productivity. This is due to the helplessness of Teacher Educators in colleges of education who are burdened with many professional responsibilities that leave them with little or no time for research. They also have limited or no access to digital resources for research. Moreover their limited exposure to emerging trends in research places them in a disadvantaged position in terms of research productivity. There are very few private colleges of education that promote a culture of research and majority of them are obsessed with admission and fee collection and it is pathetic to find teachers being engaged in promotional activities. The finding that research productivity of Teacher Educators is low supports the finding of Nasser M. Fadia, Alhija Abu, Majdob Arin. (2017) that research output of Teacher Educators is negatively skewed.

The personal factors that positively affect the research productivity of Teacher Educators to a great extent are research knowledge, research confidence and assistance for data collection. The finding that research confidence positively affects the research productivity of Teacher Educators supports the research conducted by Kotrlik, Bartlett, Higgins and Willaims (2002) in which they reported that research confidence explained a major proportion of the variance in faculty research productivity. Teacher Educators have research knowledge and confidence but lack in research interest and research skills. Moreover the non-availability of expert advice while engaged in research makes them disinterested to do research.

The environmental factors that positively affect the research productivity of Teacher Educators to a great extent are opportunities to participate in research workshops and a research culture in Teacher Education institutions. Although there are a number of educational research workshops conducted for Teacher Educators, the institutions do not provide enough infrastructural resources and support to apply the knowledge gained from such workshops. Although a culture of research seems to be present in government Teacher Education colleges and a very few private Teacher Education colleges, the research carried out is often for the sake of career advancement and better job prospects and the real purpose of educational research becomes lost in the race for better career status. The research culture if not supported with supportive practices will lead to decreased research productivity. This is stressed by Griffith, Thompson and Mryniewicz (2009) who reported that there was a need for entitlement to and protection of research time and a range of supportive measures to develop the research identities of Teacher Educators. The findings of this study also indicate that institutional support and resources are not perceived as favourable to research productivity. This is similar to one of the findings by Nasser M. Fadia, Alhija Abu, Majdob Arin. (2017), who reported that Teacher Educators rated lack of resources to be the highest obstacle to research productivity.

## Conclusion

The investigation shows that the research productivity of Teacher Educators is low. This shows that the research component has to be strengthened in all Teacher Education colleges. Teacher Education colleges should strive to establish a culture of research where research is done with an intention to contribute to societal development. The impact that educational research can make in terms of policy making and research-informed teaching should be made known to the Teacher Educators. An orientation on





research must be given to the new entrants and the experienced Teacher Educators must share their knowledge in research with the newly recruited Teacher Educators and encourage them to take up research work. It is high time that Teacher Education colleges realise the need for research activities to maintain the standard of Teacher Education institutions in India.

The institutional support for research of Teacher Educators has to be strengthened in Teacher Education colleges. Infrastructural

resources have to be improved for research activities. Library resources for research has to be paid more attention and expert advice must be made available for research. The administrative responsibilities of Teacher Educators have to be reduced so that they get more time for research. Efforts must be made to foster the research interests of Teacher Educators so that research in education can revolutionize the ways in which teaching and learning is being carried out in educational institutions.

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