

**PEDAGOGY OF LEARNING (POL)**

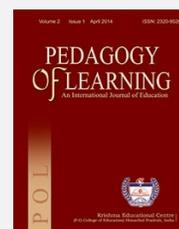
International Refereed Journal of Education

E-ISSN: 2395-7344, P-ISSN: 2320-9526

*Abstracted and indexed in:* Google Scholar, Research  
Bib, International Scientific Indexing (ISI), Scientific  
Indexing Services (SIS), WorldCat, Cite Factor,  
Impact Factor: 0.787(GIF),

**UGC (India) Approved Journal**

Journal Homepage: <http://pedagogyoflearning.com>



## Teaching Competencies among Secondary School Teachers of Sikkim

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### Article History:

Received 05 January 2017

Received in revised form 12 January 2017

Accepted 25 January 2017

Published online 28 January 2017

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### Abstract

The paper aimed to study teaching competency among secondary school teachers in relation to gender, subjects, educational qualification and teaching experience variations. Normative survey method was used for conducting the study. A sample of one hundred secondary schools teachers (N=100) were selected from Sikkim through random sampling technique. The sample for the study had been stratified under gender, teaching subject, educational qualification and teaching experience. A tool developed by Mohapatra (1988) was employed for collection of data. It was revealed from the study that there was significant difference in teaching competencies among secondary school teachers in relation to gender and teaching experience, where as difference in teaching competencies among such teachers teaching science and non-science subjects was not significant. Similarly, difference was not significant between teachers who had B.Ed. general and B.Ed. secondary qualification.

**Keywords:** Teaching Competencies, Teaching Profession, Intellectual Ability etc.

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## INTRODUCTION

One of the major tasks of a teacher is to teach effectively so that the learners get the best from the teacher. In order to teach effectively, teaching competency is a must. Competency over the task of teaching is the essence of a successful educational system. Quality of teaching determines the quality of education. The teacher's personal qualities, attitude and dedication towards teaching profession, content knowledge and professional skills play a vital role in education. Achievement of effective education can be brought about by the efforts of a team of high quality teachers. Therefore, the role of a teacher is pivotal in arousing enthusiasm and inspiring a person for learning and sharpening one's intelligence and wisdom. The teacher has to layout a strong foundation for stable preparation of a person to fit into society by enabling him to earn his livelihood. How an individual learn and how a school performs are largely determined by the competence and effectiveness of teachers.

The development of teaching competency among teachers requires a clear understanding of the term as well as the method for its assessment. Rama (1979) defines teaching competency as "the ability of a teacher manifested through a set of overt teacher classroom behavior which is a resultant of the interaction between the presage and the product variables of teaching within a social setting. Teaching competencies include the acquisition and demonstration of the composite skills required for student's teaching like introducing a lesson, fluency in questioning, probing questions, explaining, pace of lesson, reinforcement, understanding child psychology, recognizing behavior, classroom management and giving assignment. Competency development must be a continuous process in the organization. Encyclopedia Dictionary of Education (vol.1: 1997) describes teaching competency as the state of having demonstrating skills, abilities or aptitudes in the satisfactory execution of a learning task. Encyclopedia of teacher training and education (vol.ii 1998) defines teaching competency as suitable or sufficient skill, knowledge and experience for teaching purpose, properly satisfied. As defined by Passi and Lalita (2005), 'teaching competency means an effective performance of all observable teacher behavior that brings about desired pupil outcomes'. Teaching Competency is any single knowledge, skill or professional expertise which (i) a teacher may be said to posses and (ii) the possession of which is believed to be relevant to the successful practice of teaching. According to National Council for Teacher Education (1998) to sustain commitment every teacher requires acquisition of certain competencies and the willingness to perform with a sense of devotion and dedication for the benefit of the learner. The International Encyclopedia of Teacher and Teacher Education classified teaching competencies into six classes: Cognitive based teaching competencies; Performance based teaching competencies; Consequence based teaching competencies; exploratory competencies; Managerial teaching competencies and Affective teaching competencies. In the consultations initiated by NCTE at several national seminars, the following ten inter related categories of competencies have emerged quite prominently: Contextual competencies; Conceptual competencies; Content competencies; Transactional competencies, Competencies related to other educational activities; Competencies to develop teaching learning material; Evaluation competencies; Management

competencies; Competencies related to working with parents and Competencies related to working with community and other agencies.

Being a teacher at any level requires a significant amount of knowledge and skill. Paying attention to the core competencies helps to ensure that all teachers and others who work in education are prepared to make school a positive experience for students and their families. The following are the core competencies required to be a competent teacher: Interacting with students; Create a Learning Environment; Good at Lesson Planning; Able to employ varied Teaching Strategies; Use assessment well; Able to identify Student Needs; Able to collaborate; Maintaining a Professional Appearance and Demonstrating a Commitment to the profession.

### **REVIEW OF RELATED LITERATURE**

Widyoko (2005) carried out a research on Competence of teacher's teaching. It showed that most teachers teaching different subjects have an average level of competency. That study demonstrated that teaching experience has a positive impact on teachers' Competency level. In addition to this factor, abilities to integrate modern technology and manage classroom effectively were found to be problems for some teachers. Passos (2009) conducted her research on Teacher Competence and its Effect on Pupil Performance in Upper Primary Schools. The study revealed all the above mentioned factors of teaching competency influenced the pupil performance; the most important influence was that of pre-existing pupils' characteristics. Hamdan (2010) conducted a study of Teacher Competency among Malesian School Teachers. The study revealed that all the teachers were competent and there existed a significant relationship of gender, teaching experience and specialization with their competency, where as academic qualification had no significant influence on their teaching competence. Titus (2011) conducted study on Teaching Competency of Secondary Teacher Education students in relation to their Meta-cognition. It was found that there was no significant difference between male and female secondary teacher education students in their teaching competency except in their interest in profession. Anbuthasan & Balakrishnan (2013) studied on teaching competency of teachers in relation to gender, age and locality. It was also concluded that there is no significant difference in age group of school teachers in their teaching competency. Parvathi (2013) carried out research on meta-cognition, teaching competency and attitude towards teaching profession of prospective Mathematics teachers. There was significant positive correlation between teaching competency and meta-cognition of prospective mathematics teachers and meta-cognition and attitude of prospective mathematics teachers towards teaching profession. Kaur & Talwar (2014) conducted study on Teaching Competency of Secondary School Teachers in relation to Emotional Intelligence. The findings of the study revealed a significant positive relationship between teachers' teaching competency and their emotional intelligence. Choudhury (2015) conducted a study on Teaching Competency of Secondary Teacher Educators in relation to their Meta-cognition Awareness. The study also revealed that there is significant difference between male and female secondary teacher educator in their teaching competency as well as in their Meta-cognition awareness. Rajkhowa (2015) studied on Competency of Teaching English in Indian Context: A Situational Analysis. It was found that the teachers all over the country are not clear about the aim of teaching English.

## **RATIONALE OF THE STUDY**

Teachers' competencies are highly important in both implementing the current curricula effectively and training people for future by developing these curricula. Teachers who are responsible from the training of the individuals of future need to be well equipped in order to fulfill this responsibility. Pre-service and in-service teacher education should focus on understanding and application of teachers' competencies required for becoming a competent teacher. For this it is very important to study the existing competency level of the teachers in the field. Teachers teaching different subjects may have different competency level. There may be a good set of competent language teachers but low competent science teacher. Therefore it is important to find out whether there exists difference in competency level among teachers teaching different subjects. Therefore the present study is being undertaken by the researcher to find answers to the following questions regarding the teaching competencies among teachers teaching at the secondary level: Do gender variable influence the teaching competency; Is there any difference in competency level among teachers teaching science and non science subjects; Does educational qualification affect teaching competency and Will there be any difference in teaching competency in terms of teaching experience variation?

## **OBJECTIVES OF THE STUDY**

1. To study teaching competency among teachers in relation to gender variation.
2. To study whether the teaching competency among teachers teaching science and non science subjects differ at the secondary level.
3. To study whether the educational qualification of teachers makes significant difference in teaching competency at the secondary level.
4. To study whether the teaching experience makes significant difference in teaching competency among teachers at the secondary level.

## **HYPOTHESES OF THE STUDY**

- HO<sub>1</sub>: There is no significant difference in mean teaching competency score of secondary schools teachers in relation to their gender.
- HO<sub>2</sub>: There is no significant difference in mean teaching competency scores between science and non-science secondary school teachers.
- HO<sub>3</sub>: There is no significant difference in mean teaching competency scores of secondary schools teachers in relation to their educational qualification.
- HO<sub>4</sub>: There is no significant difference in mean teaching competency scores of secondary schools teachers in relation to their teaching experiences.

## **METHODOLOGY OF THE STUDY**

Normative survey method was followed for carrying out the study. A sample of 100 secondary school teachers (N=100) was selected through simple random sampling technique. The 100 samples taken for the study were stratified under gender, teaching subject, Educational qualification and teaching experience. To measure the teaching competencies among teachers, tool developed by Mohapatra (1988) was used for data

collection. This tool consisted of two sections. There were 20 items in General Teaching Competency and 50 items in Specific Teaching Competency. It is in 4 point scale format illustrating the competencies of the teachers in classroom transaction process. The score for General Teaching Competency lie between maximum of 80 and minimum 20. The score for Specific Teaching Competency lie between maximum of 200 and minimum 50.

## RESULTS AND DISCUSSIONS

### *Descriptive measures of teaching competency of the total sample*

In order to study the normality in distribution of scores on teaching competency of secondary school teachers, the descriptive measures of mean, median, mode, standard deviation and percentile of score were calculated and presented in table 1.

**Table 1: Descriptive measures on Total Teaching Competency of secondary school teachers of the total sample**

Variables		No. of Sample	Mean	Median	Mode	SD	P <sub>10</sub>	P <sub>25</sub>	P <sub>75</sub>	P <sub>90</sub>
Total Teaching Competency	GTC	100	64.4	65.1	66.5	5.06	56.4	62.0	67.7	70.7
	STC	100	142.5	143.2	144.6	9.9	127.2	135.3	154.3	161.3
	TTC	100	206.5	206.0	205	13.2	187.3	196.7	216.5	225.9

In above table the total mean of the score had been calculated as 206.5 and the median as 206.0. The class interval of 200 - 209 contains the highest percentage (31%) which is treated as the model class interval. The scores were not normally distributed. Since the values of median and mode was greater than the mean, it was negatively skewed. For the General Teaching competency the calculated Skewness was - 0.12 and the Kurtosis was 0.209. From this information it can be concluded that the score was negatively skewed and leptokurtic. For the specific teaching competency the calculated value of Skewness was - 0.21 and Kurtosis as 0.293. From this information it can be concluded that the graph was negatively skewed and platykurtic. For the total teaching competency, the calculated skewness was 0.204 and kurtosis as 0.256. From this information it can be concluded that the score was positively skewed and leptokurtic.

### *Differential Analysis of the secondary school teachers' teaching Competency sub-sample wise*

The sub sample wise analysis was attempted to check the hypotheses framed. The level of significance for the test has been selected and the data were subjected to the test of significance on the basis of 't' value or 'f' value for the corresponding degrees of freedom.

### *Gender wise differential analysis on teaching competency*

In order to check if there exist any difference in teaching competency of male teachers and female teachers teaching at the secondary schools, the test of significant difference

between the means of the two sub sample through 't' test was calculated. The detail of the result had been presented in table 2.

**Table 2: Gender wise differential analysis**

Sections	Contrast	No. of sample	Mean	SD	SE <sub>D</sub>	't'	Remarks
General Teaching Competency	Male	50	63.4	4.5	0.98	2.14	Significant at 0.05 level but not at 0.01 level
	Female	50	65.5	5.3			
Specific Teaching Competency	Male	50	139.3	9.1	1.89	3.38	Significant
	Female	50	145.7	9.8			
Total Teaching Competency	Male	50	202.6	10.9	2.77	3.10	Significant
	Female	50	211.2	13.96			

(Level of significance at 0.05 level)

From the above table, it was revealed that the 't' ratio in specific teaching competency and total teaching competency due to gender variation was found to be significant at 0.01 level and 0.05 level corresponding to the table value of 2.63 and 1.98 respectively at 98 degrees of freedom. However, in case of General Teaching Competency it was significant at 0.05 level but not at 0.01 level. Therefore the null hypothesis  $H_{01}$  that "There will be no significant difference in teaching competencies of teachers in relation to gender variation" is rejected. The mean of the female teachers in all three categories of competency was greater than the male teachers. Hence it was concluded that the female teachers are more competent than the male teachers. The finding was in conformity with the study conducted by Choudhary (2015) and Anbhuman and Balakrishnan (2013).

#### **Teaching Subject wise differential analysis in teaching competency**

In order to check if there exist any difference in teaching competency of teachers teaching science subjects and teachers teaching non-science subjects at the secondary schools, the test of significant difference between the means of the two sub sample through 't' test was calculated. The result had been presented in table 3.

**Table 3: Teaching Subject wise differential analysis**

Sections	Contrast	No. of sample	Mean	SD	SE <sub>D</sub>	't'	Remarks
General Teaching Competency	Science	50	63.7	5.3	0.99	1.41	Not significant
	Non science	50	65.1	4.6			
Specific Teaching Competency	Science	50	143	10.2	1.98	0.3	Not significant
	Non science	50	142.4	9.6			
Total Teaching Competency	Science	50	206.8	13.5	2.64	0.11	Not significant
	Non science	50	207.1	12.9			

(Level of significance at 0.05 level)

From the above table, it was revealed that the 't' ratio of (1.41, 0.3 and 0.11) in general teaching competency, specific teaching competency and total teaching competency respectively due to teaching subject variation was found to be not significant at 0.01 level and 0.05 level corresponding to the table value of 2.63 and 1.98 respectively at 98 degrees of freedom. Therefore the null hypothesis  $H_{02}$  that "There will be no significant difference in teaching competencies among teachers teaching science subjects and non-science subjects" is accepted. In general teaching competency, the value of 't' is slightly higher than specific teaching competency and total teaching competency. From the above finding it can be concluded that there is no significant difference in teaching subject. The finding was in conformity with the study conducted by Widyoko (2005).

**Educational Qualification wise differential analysis in teaching competency**

In order to check if there exist any difference in teaching competency of teachers, teaching in secondary school in relation to educational qualification, the test of significant difference between the means of the two sub sample through 't' test was calculated. The result had been presented in table 4.

**Table 4: Differential analysis in relation to educational qualification variation**

Sections	Contrast	No. of sample	Mean	SD	SE <sub>D</sub>	't'	Remarks
General Teaching Competency	B.Ed. Sec.	50	64.6	5.76	1.01	0.29	Not significant
	B.Ed. Gen.	50	64.3	4.24			
Specific Teaching Competency	B.Ed. Sec.	50	143.7	10.24	1.97	1.27	Not significant
	B.Ed. Gen.	50	141.2	9.45			
Total Teaching Competency	B.Ed. Sec.	50	208.3	14.07	2.63	1.06	Not significant
	B.Ed. Gen.	50	205.5	12.2			

(Level of significance at 0.05 level)

From the above table, it was revealed that the 't' ratio (0.29, 1.27 and 1.06) in general teaching competency, specific teaching competency and total teaching competency respectively due to Educational qualification variation was found to be not significant at 0.01 level and 0.05 level corresponding to the table value of 2.63 and 1.98 respectively at 98 degree of freedom. Therefore the null hypothesis  $H_{03}$  that "There will be no significant difference in teaching competencies among teachers in relation to educational qualification" is retained. From the above finding it can be concluded that there is no significant difference in educational qualification (B.Ed. General and B.Ed. Secondary) of teachers teaching in secondary school. The finding was in conformity with the study conducted by Hamdan (2010).

**Teaching experience wise differential analysis in teaching competency**

In order to check if there exists any difference in teaching competency of teachers teaching in secondary school in relation to teaching experience, the test of significant

difference between the means of the two sub sample through 'f' test was calculated. The result is presented in table 5.

**Table 5: Differential analysis in relation to teaching experience variation**

Sections	Contrast	No. of sample	Mean	SS <sub>t</sub>	SS <sub>b</sub>	SS <sub>w</sub>	'f'	Remarks
General Teaching Competency	< 5 years	25	63.2	2408.3	180.6	2227.7	3.89	Significant
	5 - 10 years	45	63.6					
	> 10 years	30	66.7					
Specific Teaching Competency	< 5 years	25	139.5	9840.6	881.7	8958.9	4.92	Significant
	5-10 years	45	140.8					
	> 10 years	30	147.4					
Total Teaching Competency	< 5 years	25	202.8	17175	1849.3	15326	5.79	Significant
	5-10 years	45	204.4					
	> 10 years	30	214.1					

The above table revealed that the 'f' ratio of (3.89, 4.92 and 5.79) in general teaching competency, specific teaching competency and total teaching competency respectively due to Teaching Experience variation was found to be significant at 0.01 level and 0.05 level corresponding to the table value of 3.09 and 4.82 respectively at 97 and 2 degrees of freedom. Therefore the null hypothesis  $H_{04}$  that "There will be no significant difference in teaching competencies in relation to teaching experience variation" is rejected. From the above finding it was concluded that there was significant difference in teaching experience of teachers teaching in secondary school. The teachers having more than 10 years of experience has the highest mean followed by the teachers having 5 to 10 years experience in all three categories. From here it was concluded that more experienced teachers have higher level of teaching competency. The finding was in conformity with the study conducted by Mustafa (2013).

#### MAJOR FINDINGS OF THE STUDY

- i. There was significant difference in teaching competencies in relation to gender variation. The mean of female teachers was found higher than the male teacher. From this it was concluded that the female teachers have better teaching competency than the male teachers.
- ii. There was no significant difference in teaching competencies among teachers teaching science and non-science subjects at the secondary school.
- iii. There was no significant difference in teaching competencies among teachers who had B.Ed. General and B.Ed. secondary educational qualification.

- iv. There was significant difference in teaching competencies in relation to teaching experience variation. The mean of the teachers having more than 10 years of teaching experience was the highest compared to teachers having less than 5 years teaching experience and teachers having 5 to 10 years of experience. It was concluded that teachers having longer teaching experience had higher teaching competency.

### **IMPLICATIONS OF THE STUDY**

Based on the findings the following recommendations were made.

- i. To improve the teaching competency of teacher short in-service courses should be provided to orient on latest skills and strategies in teaching.
- ii. Teachers should be provided training on use of ICT in teaching, which will not only children's learning but also saves time.
- iii. From the findings that female teachers have higher teaching competencies, more ladies should be encouraged to join in the teaching profession.
- iv. The teaching competencies of longer teachers were higher than the lesser experienced teachers. Therefore proper recognition should be given to the experienced teachers.
- v. To retain experienced teachers in the teaching profession, better incentives and allowances should be provided to experienced teachers.
- vi. Every teacher should have required academic qualifications and educational qualifications to have better teaching competencies.

### **CONCLUSION**

Teaching competencies include the acquisition and demonstration of the composite skills required for student's teaching like introducing a lesson, fluency in questioning, probing questions, explaining, pace of lesson, reinforcement, understanding child psychology, recognizing behavior, classroom management and giving assignment. Competency development must be a continuous process in the organization. Since teaching is a prime component in any educational programme, evaluation of teaching is a necessary step to be contemplated upon. It is very challenging to find the appropriate tool to measure teaching competency. The teaching competency is very much influenced by the emotional status. A competent teacher of today may become very incompetent tomorrow. Therefore care must be taken when measuring the teaching competency of teacher. To get the reliable teaching competency level of any teacher it is important that the teacher is observed for a longer period of time on various components applicable inside and outside the classroom. It is risky to generalize the teaching competency of any teacher by one or two periods of classroom observation.

The teaching competency of teachers is vital. This is because teachers with high teaching competency are able to help the students not only to get the excellent result in the academics, but also they can teach students how to learn in the appropriate way to become the holistic students. Therefore, the ministry of education and schools should have clear policy and long term program to maintain and upgrade the teaching competency of teachers.

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