

# A Study on Differential Aptitude and Teaching Competency of Student Teachers in Kancheepuram District

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#### Abstract

The investigator studied the differential aptitude and teaching competency of student teachers in kancheepuram district. The sample consisted of 300 student teachers drawn by questionnaire through quota sampling technique from SRM School of Teacher Education and Research and Muthukumaran College of Education. It was found that student teachers having higher level of differential aptitude possessed greater teaching competency.

### INTRODUCTION

The educational process is defined as continual recognition, reconstruction and transformation of experience. Education is an instrument of social change and national development. The basic assumption and education learning are that they prepare the youth to meet the challenge of today and tomorrow and help to develop human values among the students. Educational Psychology is the systematic study of the development of the individual within the educational setting. Aptitude is expressed in interest and is reflected in current performance which is expected to improve over time with training. It helps to assess a candidate's proficiency in various basic as well as specialized skills. Numerical aptitude is used to measure an individual's ability of solving numbers. Verbal tests are the most commonly used psychometric tests for appraising the candidates potential. Vocabulary tests helps to test the vocabulary levels of the candidate, often through various grammar and language exercises like synonym antonym exercises, reading comprehension and essay writing. Mathematical tests are those, which test the basic math abilities of the candidates. Analytical tests for evaluating the candidate's overall reasoning abilities are a sound way to check the logical thinking process of the candidate. Teaching competency is the skill to teach effectively in explaining activities, demonstration activities, order maintaining activities, record keeping activities, assignment making activities, curriculum planning activities and many kinds of activities.

# REVIEWS OF RELATED STUDIES: Differential Aptitude and Teaching Competency

**Subramnyam (1991)** investigated the differential characteristics of high and low achievers in secondary schools. Sample of the study consisted of 370 students studying VII Std in eight secondary schools. The findings of the study were that high achievers possessed high level of mental ability, creative talents, better reading skills and low achievers possess low intelligence.

**Choudhari (1985)** made a factorial study of the teaching competency of teachers teaching English at the secondary school level. The sample of the study consisted of 178 teachers from pune and indoor districts. The findings of the study were that the pedagogical domain of teaching competency in English consisted of 12 competencies which were independent of each other. Teacher's intelligence and attitude were found to be associated with some of the competencies.

#### **OBJECTIVES**

To find out the significant difference in differential aptitude and teaching competency of student teachers on the basis of gender and type of family.

To find out the relationship between differential aptitude and teaching competency of student teachers.

#### **HYPOTHESES**

There is no significant difference in differential aptitude and teaching competency of student teachers on the basis of gender and familytype of student teachers.

There is no significant relationship between differential aptitude and teaching competency of student teachers.

#### **METHODOLOGY**

The sample for the pilot study is drawn from 60 student teachers in Cholan College of Education, Kancheepuram district for the validation of the tool. The David Battery's differential aptitude tool and validated teaching competency scale is applied to a sample of 300 student teachers studying in SRM School of Teacher Education and Research and Muthukumaran college of Education by applying Quota sampling technique.



## RESULTS AND FINDINGS GENDER WISE COMPARISON

Difference Between Men and Women on Differential Aptitude

Variable	Gender	N	Mean	S.D.	t	L.S
Differential Aptitude	Men	129	29.86	4.27	0.64	NS
	Women	171	29.49	5.25		
Teaching Competency	Men	129	210.75	26.73	2.18	S
	Women	171	203.63	29.04		

It is inferred from the above table, the calculated 't' value (0.64) is less than the table value (1.96) at 0.05 level of significance. Therefore, there is no significant difference between men and women student teachers in differential aptitude. Null hypothesis is accepted. The calculated 't' value for teaching competency of student teachers based on gender is greater than the tabulated value (1.96) at 5% level of significance. Hence, there is significant difference between men and women student teachers in teaching competency. It shows that men are better adjusted as compared to Women student teachers because men may be well brought up and guided by their elders from childhood itself. Also they are quite decent and cooperative by nature, hence, the null hypothesis is rejected.

#### **COMPARISON OF FAMILY TYPES**

Difference Between Joint and Nuclear Family of Student Teachers on Differential Aptitude

Variable	Family Type	N	Mean	S.D.	t	L.S
Differential	Joint	15	30.60	5.21	0.77	NS
Aptitude	Nuclear	285	29.60	4.84		
Teaching	Joint	15	211.93	12.41	0.74	NS
Competency	Nuclear	285	206.42	28.82		

It is inferred that from the above table , the calculated 't' value (0.77) is less than the tabulated (1.96) value at 5% level of significance. Therefore, there is no significant difference between joint family and nuclear family in differential aptitude. Hence, the null hypothesis is accepted. It indicates that student teachers living in joint family are having same level of differential aptitude comparing to student teachers living in nuclear family. It is inferred from the above table , the calculated 't' value (0.64) for teaching competency based on type of family is less than the table value (1.96) at 0.05 level of significance. Therefore, there is no significant difference between joint family and nuclear family in teaching competency. Hence, the null hypothesis is accepted. This mean value indicates that performance of students from joint family is better and this may be due to more care and concern given to the student teachers by their parents at home.

# RELATIONSHIP BETWEEN DIFFERENTIAL APTITUDE AND TEACHING COMPETENCY OF STUDENT TEACHERS

Variable	Differential Aptitude	Teaching Competency
Differential Aptitude	1.00	0.17
Teaching Competency	0.17	1.00

From the above table , there is low positive relationship between differential aptitude and teaching competency of student teachers . It was found that differential aptitude of the student teachers was less correlated with their general teaching competency. It shows that eventhough Verbal Aptitude and Reasoning Skill of student teachers are high , it is not enough to teach effectively.

# CONCLUSION

Student teachers having higher level of differential aptitude along with other teaching skills possessed high teaching competency. Opportunities are provided to students to develop cognitive and emotional support of student teachers. It encourages the students to practice their reasoning skills in many ways . Teaching competency is improved by providing instructional practices. It helps student to use their enriched knowledge and skills to promote instructional techniques that enhance all students' linguistic , academic and cognitive development.

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