

# RESEARCH AND REFLECTIONS ON EDUCATION

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- *Reflectiveness and Pedagogical Knowledge of B.Ed Students*
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- *A Critical study of the Common VI Standard Syllabus in Tamil Nadu*
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**St. Xavier's College of Education**  
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# RESEARCH AND REFLECTIONS ON EDUCATION

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# RELATIONSHIP BETWEEN REFLECTIVENESS AND PEDAGOGICAL KNOWLEDGE OF B.ED STUDENTS

Research  
Paper

## ABSTRACT

The present study deals with the relationship between reflectiveness and pedagogical knowledge of B.Ed students. The survey method is used for the present study. The investigator used the simple random sampling technique for selecting the sample. The sample consisted of 250 B.Ed students from 8 colleges in Tirunelveli revenue district. In the present investigation percentage analysis, 't' test, ANOVA, chi-square and correlation are used to analyse the data. The study reveals that there is a significant difference between reflectiveness and pedagogical knowledge of B.Ed students.

## INTRODUCTION

The teacher occupies an important place in the society because he brings about the transfer of the intellectual tradition from one generation to the next. The teacher maintains the level of technological skill and keeps the light of civilization burning bright and is expected to help in the silent social revolution that is taking place in the country. The duty of the teacher, does not end in the classroom with his students. He owes a duty to the society and the nation. The teacher should be able to constantly adjust his methods and approach to suit the changing times.

## SIGNIFICANCE OF THE STUDY

Reflectiveness is the framework or pattern within which creative thinking and reasoning takes place as thinking involves extraordinarily complex mental processes. The student teachers who have better reflectiveness, can have good pedagogical knowledge.

Reflectiveness helps the teachers deal with situation. Possessing reflectiveness helps to answer teacher the questions promptly and sharpens rational thinking to deal effectively with society open-mindedly. It helps them in managing everything in every way. Reflectiveness in learning is itself a complex issue.

A teacher must possess pedagogical knowledge which is the core of the professional education. A teacher can be effective when he grasps the content of his own discipline and develops professional knowledge of imparting that content to the students. Here the teacher must be able to reflect on his pedagogy which plays a vital role in classroom teaching.

Reflectiveness and pedagogical knowledge are interrelated and both are necessary for every teacher.

Reflective thinking creates better pedagogical knowledge. So the teachers should develop reflectiveness to develop pedagogical knowledge. The message conveyed by the teacher or educational media may be verbal or visual and the receiver may listen or react. Thus with all his positive behaviour, the teacher could teach a concept. So the investigator decided to find out the relationship between reflectiveness and pedagogical knowledge of B.Ed students.

## OBJECTIVE

1. To find out the level of reflectiveness and pedagogical knowledge of B.Ed. students.
2. To find out the significant difference in the reflectiveness of B.Ed. students with respect to gender and nature of college.
3. To find out the significant difference in the pedagogical knowledge of B.Ed. students with respect to gender and nature of college.
4. To find out the relationship between reflectiveness and pedagogical knowledge of B.Ed. students.

## HYPOTHESES

1. There is no significant difference between male and female B.Ed students in their reflectiveness.

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2. There is no significant difference between male and female B.Ed. students in their knowledge of philosophy and sociology, psychology, curriculum, methodology, techniques, guidance and counselling, technology and evaluation.
3. There is no significant difference among boys', girls' and co-education college B.Ed. students in their reflectiveness.
4. There is no significant difference among boys', girls' and co-education college B.Ed. students in their knowledge of philosophy and sociology, psychology, curriculum, methodology, techniques, guidance and counselling, technology, evaluation and pedagogical knowledge in toto.
5. There is no significant relationship between reflectiveness and pedagogical knowledge of B.Ed. students.

**POPULATION AND SAMPLE**

The investigator adopted the survey method to find out the relationship between reflectiveness and pedagogical knowledge of B.Ed. students. The population for this study consisted of B.Ed. students studying in colleges of education in Tirunelveli revenue district affiliated to TamilNadu Teacher Education University. The investigator used the simple random sampling technique for selecting the sample. The sample consisted of 250 B.Ed. students from randomly selected colleges of education in Tirunelveli revenue district.

**TOOLS USED**

- i. Reflectiveness Questionnaire developed by Vasimalai Raja and Annaraja (2008)
- ii. Pedagogical Knowledge Questionnaire developed by the investigator and the guide.

**STATISTICAL TECHNIQUE USED**

Statistical techniques such as Percentage Analysis, t-test, Chi-square, Correlation and ANOVA were used.

**ANALYSIS OF DATA**

Level of reflectiveness of B.Ed. students.

**Table 1**  
**LEVEL OF REFLECTIVENESS**  
**OF B.ED STUDENTS**

Variable	Low		Average		High	
	N	%	N	%	N	%
Reflectiveness	41	16	173	69.2	36	14.4

It is inferred from the above table that 16.4% of B.Ed. students have low, 69.2% of them have average and 14.4% of them have high level of reflectiveness.

**Level of pedagogical knowledge of B.Ed. students.**

**Table 2**  
**LEVEL OF PEDAGOGICAL KNOWLEDGE**  
**OF B.ED. STUDENTS**

Dimensions of Pedagogical Knowledge	Low		Average		High	
	N	%	N	%	N	%
Philosophy and sociology	88	35.2	162	64.8	0	0
Psychology	74	29.6	176	70.4	0	0
Curriculum	115	46	122	48.8	13	5.2
Methodology	62	24.8	147	58.8	41	16.4
Techniques	110	44	140	56	0	0
Guidance and counselling	65	26	150	60	35	14
Technology	51	20.4	167	66.8	32	12.8
Evaluation	87	34.8	163	65.2	0	0
Pedagogical knowledge	40	16	183	73.2	27	10.8

It is inferred from the above table that 35.2% of B.Ed. students have low, 64.8% of them have average and none of them has high level of knowledge of philosophy and sociology.

It is inferred from the above table that 29.6% of B.Ed. students have low, 70.4% of them have average and none of them has high level of knowledge of psychology.

It is inferred from the above table that 46% of B.Ed. students have low, 48.8% of them have average and 5.2% of them have high level of knowledge of curriculum.

It is inferred from the above table that 24.8% of B.Ed. students have low, 58.8% of them have average and 16.4% of them have high level of knowledge of methodology.

It is inferred from the above table that the 44% of B.Ed. students have low, 56% of them have average and none of them has high level of knowledge of techniques.

It is inferred from the above table that 26% of B.Ed. students have low, 60% of them have average and 14% of them have high level of knowledge of guidance and counselling.

It is inferred from the above table that 20.4% of B.Ed. students have low, 66.8% of them have average and 12.8% of them have high level of knowledge of technology.

It is inferred from the above table that 34.8% of B.Ed. students have low, 65.2% of them have average and none of them has high level of knowledge of evaluation

It is inferred from the above table that 16% of B.Ed. students have low, 73.2% of them have average and 10.8% of them have high level of knowledge of pedagogical knowledge.

Null Hypothesis 1: There is no significant difference between male and female B.Ed. students in their reflectiveness

**Table 3**  
**DIFFERENCE BETWEEN MALE AND FEMALE**  
**B.ED STUDENTS**  
**IN THEIR REFLECTIVENESS**

Variable	Category	N	Mean	SD	Calculated 't' value	Remarks at 5% Level
Reflectiveness	Male	132	89.52	7.009	1.012	NS
	Female	118	90.4	6.774		

(At 5% level of significance, the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between male and female B.Ed. students in their reflectiveness.

Null Hypothesis 2: There is no significant difference between male and female B.Ed. students in their pedagogical knowledge and its dimensions namely philosophy and sociology, psychology, curriculum, methodology, techniques, guidance and counselling, technology and evaluation.

**Table 4**  
**DIFFERENCE BETWEEN**  
**MALE AND FEMALE**  
**B.ED. STUDENTS IN THEIR**  
**PEDAGOGICAL KNOWLEDGE**

Dimensions of pedagogical knowledge	Category	N	Mean	SD	Calculated 't' value	Remark at 5% level
Philosophy and sociology	Male	132	2.81	0.99	0.628	NS
	Female	118	2.89	1.002		
Psychology	Male	132	2.82	1.032	1.064	NS
	Female	118	2.95	0.914		
Curriculum	Male	132	1.69	1.02	0.47	NS
	Female	118	1.75	1.147		
Methodology	Male	132	2.33	1.059	0.351	NS
	Female	118	2.37	1.061		
Techniques	Male	132	2.52	1.015	0.897	NS
	Female	118	2.64	1.099		
Guidance and counselling	Male	132	2.27	1.146	0.129	NS
	Female	118	2.25	1.126		
Technology	Male	132	2.45	1.043	1.432	NS
	Female	118	2.26	0.991		
Evaluation	Male	132	1.88	0.838	0.131	NS
	Female	118	1.86	0.896		
Pedagogical knowledge	Male	132	18.76	4.442	0.38	NS
	Female	118	18.98	4.892		

(At 5% level of significance, the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between male and female B.Ed. students in their knowledge of philosophy and sociology, psychology, curriculum, methodology, techniques, guidance and counselling, technology and evaluation.

Null Hypothesis 3: There is no significant difference among boys', girls' and co-education college B.Ed. students in their reflectiveness.

**Table 5**  
**DIFFERENCE AMONG BOYS', GIRLS' AND**  
**CO-EDUCATION COLLEGE B.ED. STUDENTS**  
**IN THEIR REFLECTIVENESS**

Variable	Source of variation	Sum of squares	df	Mean square	Calculated 'F' value	Remark at 5% level
Reflectiveness	Between	275.386	2	137.693	2.938	NS
	Within	11576.5	247	46.868		

(At 5% level of significance for df (2,247) the table value of 'F' is 3.03)

It is inferred from the above table that there is no significant difference among boys', girls' and co-education college B.Ed. students in their reflectiveness

Null Hypothesis 4: There is no significant difference among boys', girls' and co-education college B.Ed. students in their pedagogical knowledge and its dimensions namely philosophy and sociology, psychology, curriculum, methodology, techniques, guidance and counselling, technology and evaluation.

**Table 6**  
**DIFFERENCE AMONG BOYS', GIRLS' AND CO-EDUCATION COLLEGE B.ED. STUDENTS IN THEIR PEDAGOGICAL KNOWLEDGE**

Dimensions of pedagogical knowledge	Source of variance	Sum of squares	df	Mean Squares	Calculated 'F' value	Remark at 5% level
Philosophy and sociology	Between	0.131	2	0.065	0.066	NS
	Within	246.093	247	0.996		
Psychology	Between	0.618	2	0.309	0.321	NS
	Within	237.782	247	0.963		
Curriculum	Between	1.027	2	0.513	0.438	NS
	Within	289.373	247	1.172		
Methodology	Between	1.776	2	0.888	0.792	NS
	Within	276.948	247	1.121		
Techniques	Between	3.911	2	1.955	1.767	NS
	Within	273.293	247	1.106		
Guidance and Counselling	Between	12.794	2	6.397	5.134	S
	Within	307.782	247	1.246		
Technology	Between	1.068	2	0.534	0.51	NS
	Within	258.532	247	1.047		
Evaluation	Between	1.906	2	0.953	1.279	NS
	Within	183.998	247	0.745		
Pedagogical knowledge	Between	34.434	2	17.217	0.794	NS
	Within	5352.942	247	21.672		

(At 5% level of significance for df (2,247) the table value of 'F' is 3.03)

It is inferred from the table below that there is no significant difference among boys, girls and co-education college B.Ed. students in their knowledge of philosophy and sociology, psychology, curriculum, methodology, techniques, technology, evaluation and pedagogical knowledge in toto. But there is significant difference among boys', girls' and co-education college B.Ed. students in their knowledge of guidance and counselling. While comparing the mean scores of boys' (1.93), girls' (2.03) and co-education (2.45) colleges, the co-education B.Ed. students are better in their knowledge of guidance and counselling.

Null Hypothesis 5 : There is no significant relationship between reflectiveness and pedagogical knowledge of B.Ed. students.

**Table 7**  
**RELATIONSHIP BETWEEN REFLECTIVENESS AND PEDAGOGICAL KNOWLEDGE OF B.ED. STUDENTS**

Dimensions of pedagogical knowledge	Calculated 'γ' value	Remark at 5% level
Philosophy and sociology	0.043	NS
Psychology	0.065	NS
Curriculum	0.027	NS
Methodology	0.080	NS
Techniques	0.112	NS
Guidance and counselling	0.011	NS
Technology	0.100	NS
Evaluation	0.005	NS
Pedagogical knowledge	0.121	S

(At 5% level of significance for df 248, the table value of 'γ' is 0.113)

It is inferred from the above table that there is significant relationship between reflectiveness and pedagogical knowledge of B.Ed students.

**FINDINGS**

1. 14.4% of B.Ed. students have high level of reflectiveness.
2. 16.4% of B.Ed students have high level of knowledge of methodology
3. There is no significant difference between male and female B.Ed. students in their reflectiveness.
4. There is no significant difference between male and female B.Ed. students in their knowledge of philosophy and sociology, psychology, curriculum, methodology, techniques, guidance and counselling, technology and evaluation.
5. There is no significant difference among boys', girls' and co-education college B.Ed. students in their reflectiveness
6. There is no significant difference among boys', girls' and co-education college B.Ed. students in their

**Continued on Page 9**

5. Science group students have better perception of information and Communication Technology than Arts group students.

### IMPLICATIONS OF THE STUDY

The importance of computers and Information and Communication Technology continues to increase in schools and throughout society. Online instruction helps students to learn and to develop computer skills and Information and Communication Technology literacy. Many experts feel that the knowledge, skills and confidence in using computers and Information and Communication Technology are some of the most essential lessons that education can provide. Because these skills are so important, equal access to Information and Communication Technology has become a topic of public debate. Experts feel that society must find ways to make computers and newer technologies available at schools. The present investigation finds that the higher secondary school students have better perception of computers and Information and Communication Technology. Hence educationists should plan to train students in Information and Communication Technology.

It is now a popular option among students. It has both shrunk spaces and enabled higher secondary students to acquire knowledge and skills from their schools.

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### Relationship Between...

knowledge of philosophy and sociology, psychology, curriculum, methodology, techniques, technology, evaluation and pedagogical knowledge in toto. But there is significant difference among boys', girls' and co-education college B.Ed. students in their knowledge of guidance and counselling. While comparing the mean scores of boys' (1.93), girls' (2.03), and co-education college students (2.45), the co-education B.Ed. students are better in their knowledge of guidance and counselling.

7. There is significant relationship between reflectiveness and pedagogical knowledge of B.Ed. students.

### INTERPRETATION

The 'F' test result reveals that co-education B.Ed. students are better than the boys' and girls' college B.Ed. students in their knowledge of guidance and counselling. This may be due to the fact that there is a healthy competition among co-education students. Every student may get exposure about their counterparts. Sharing is possible in co-education institutions. So they are well versed in giving guidance and counselling.

There is positive significant relationship found between reflectiveness and pedagogical knowledge of B.Ed. students. This may be due to the fact that when the reflective capacity increases, the B.Ed. students understand the pedagogy much better. The reflectiveness helps B.Ed. students to be effective in teaching learning process and understand the pedagogical principles which is the core aim of B.Ed. study.

### RECOMMENDATIONS

- 1) ALM can be incorporated with CAI package.
- 2) ABL can be taught using ICT components.
- 3) Training programmes on pedagogy can be given to the students. ICT can be incorporated in the B.Ed. curriculum.
- 4) Problem based teaching method can be insisted on.
- 5) Workshops and seminars on teachers related to pedagogy may be conducted.
- 6) Teachers should encourage the students to develop their reflectiveness.

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