



**Effect of brain based learning on academic  
success of B.ed. Students With Their Learning Styles**

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**Abstract**

The investigator conducted a study to identify the different learning styles of B.Ed. Students and to know the effectiveness of Brain Based learning on the academic success of B.Ed. Students in the subject of ICT in Education. For this study experimental method with non - equivalent control group of quest experimental type was used. Purposive sampling with the sample 69 for control group from Shahu College of Education, Kalyan and 74 for experimental group of Gurukrupa College of Education and Research Kalyan was selected. In the present study learning styles of students is studied inters of the dimensions by Grasha - RichMann Effect of Brain Based learning was studied by using various Brain Based Learning strategies. The findings of the study revealed that the instructional programme based on brain based learning strategies was effective in increasing Academic success of students with different learning styles. Significant difference was found in the post test scores of Academic success of control and Experimental group. The post test scores of experimental group is significantly greater than of the control group.

**Introduction**

This is a new paradigm which establishes connection between brain function and educational practice. In a nutshell, brain based education states that every activity involves brain. Let's learn more about it and apply that knowledge. Teaching learning are inextricably and elaborately linked to teach well implies learning about students learning and so for a teacher.\

Learning and teaching are constantly interchanging activities one learns by teaching thus one cannot teach except by constantly learning. The challenges of education are to determine what makes an enriched classroom environment Brain research validates that learning should be individually specific and is a natural function of the brain. A careful review of the earlier works carried out in the field indicates that there is Nott much work that has been done in this area of

study. A further analysis revealed that here very little work has been done in India. Hence the investigator realized that any meaningful attempt in this regard will help teachers as well as students to keep them abreast with the research outcomes

#### **SIGNIFICANCE OF THE STUDY:**

The present study is significant to the field of Education it helps the teachers and students to understand various advantages of brain based learning. Teachers can understand the various learning styles of the students and also can identify that the brain based learning approach will serve any particular learning style better than the other.

#### **STATEMENT OF RESEARCH PROBLEM**

“Effect of Brain Based learning on the Academic success of B. Ed students with their learning styles.”

#### **VARIABLES OF THE STUDY:**

Following are the variables of the study –

##### **(A) Independent variable :**

Brain based learning strategies in the experimental group and the lecture method in the control group.

##### **(B) Dependent variable :**

1. Academic success in the subject of I.C.T in Education.
2. Learning styles of the students.

#### **OPERATIONAL DEFINITIONS OF THE TERMS**

##### **BRAIN BASED LEARNING :**

Brain based learning is the purposeful engagement of strategies based on neuroscience.

##### **ACADEMIC SUCCESS:**

Academic success refers to the total scores obtained by an individual as measured on the test constructed by the researcher in the selected topics from the subject of I.C.T in Education of B.Ed. college students.

### **LEARNING STYLES:**

A learning style is defined as a habitual pattern or a preferred way of acquiring knowledge or doing something which includes being –

- A. Independent
- B. Dependent
- C. Avoidant
- D. Participant
- E. Collaborative
- F. Competitive

### **OBJECTIVES OF THE RESEARCH:**

The study is conducted with the following specific objectives:

1. To identify the different Learning Styles of the students.
2. To develop instructional programme based on Brain Based Learning for B.Ed. students.
3. To identify the pre-test scores of control group and experimental group according to different Learning Styles with respect to Academic Success.
4. To identify the between post-test scores of Control group and Experimental group according to different Learning Styles with respect to Academic Success.

### **NULL HYPOTHESIS OF THE RESEARCH:**

1. There is no significant difference in pre- test Scores of control group and experimental group according to different Learning Styles with respect to Academic Success.
2. There is no significant difference in post-test scores of control group and experimental group according to different Learning Styles with respect to Academic Success.

### **SCOPE AND LIMITATIONS OF THE RESEARCH:**

It is extremely necessary to demarcate the scope of a study and to define and identify its limitations and delimitations the study included one experimental and one control group. The present study was restricted only to the students of B.Ed. colleges and did not include students of other colleges. The study is conducted only in two B. Ed colleges. The study included two colleges located in Kalyan, Thane district of Maharashtra state and not any other colleges from other cities of other states. The study included only Brain Based Learning Model based on the interactive teaching elements that emerge from the principles of brain based learning.

The lessons given in the subject of I.C.T. in Education and not any other subject.

### METHODOLOGY OF THE RESEARCH:

The investigator of the present study adopt the Non-equivalent control group design of quasi-experimental type.

The pre-test-post-test Non-equivalent group is descried symbolically as follows-

$O_1 \quad X \quad O_2$

$O_3 \quad C \quad O_4$

Where,

$O_1$  and  $O_3$ : Pre-test Scores

$O_2$  and  $O_4$ : Post-test Scores

And,

X : Experimental Group

C : Control Group

### SAMPLING:

For the purpose of experimentation the study included students studying in B.Ed. colleges from Kalyan city of Thane district. The Colleges which included as a sample have Marathi as the medium of instruction.

B. Ed colleges selected randomly using lottery Method in which one assigned as experimental group and other as control group.

Thus the sample selected by using three stage sampling method processes. At the first stage two colleges selected using simple random sampling technique (lottery method). At the second stage these two colleges assigned as experimental and control groups. At the third stage students selected using purposive sampling technique of two different colleges.

The sample size included in present study is 69 for control group and 74 for experimental group.

### TOOLS OF THE PRESENT RESEARCH:

The following tools prepared by the researcher-

1. Personal Data Sheet.
2. Academic success test to measure the academic success of the students in the subject of I.C.T in Education of B. Ed syllabus.
3. Brain Based Learning strategies.
4. The following readymade tool used by the researcher-
  - Learning style Inventory by Grasha & Richmann.

## Findings

- 1) There is no significant difference in pre test scores of Academic Success Test for experimental and control groups. The probable reason behind this could be that the students in the pre test had not been taught the content. They had to rely on their previous knowledge regarding the questions asked. The understanding and maturity level of both the group at the pretest was the same.
- 2) There is significant difference in the post test scores of control group and experimental group. This shows that the instructional programme based on Brain- based learning was effective in this programme different strategies based on brain based learning was used. Students became active and positive attitude developed among them.
- 3) Brain based Learning is the learning in accordance with the way the brain is naturally designed to learn. The instructional programme based on Brain based Learning might have transformed the learners from passive recipients to active participants. The researcher planned activities keeping in mind Principles of brain based learning. The activities developed demanded students active participating in various forms such collecting information expressing their thoughts and opinions. This in turn might have helped in better achievement.

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