

# Need and Development of Scientific Attitude in Teacher Education

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## ABSTRACT

The present study was conducted on 50 B.Ed. Students by random sampling. The main purpose of the study was to examine the Scientific Attitude in them. The Scientific Attitude Scale was developed by Dr. D.N.Dani, which was based on Likert's Scale. The Data was analyzed by taking the Cumulative Percentage on five point SA Scale. By the analysis of the result, it was found that a low percentage of B.Ed. Students possess moderately high SA, majority of them possess neutral SA. Which indicates that there was a need to improve their scientific attitude by their personality development and which can be achieved by B.Ed curriculum improvement.

**Keywords:** Attitude, Scientific Attitude, B.Ed. Students, Secondary school students

## Introduction

The need and importance of development of Scientific Attitude, in B.Ed. Students, is very important because then only they will be able to inculcate that Scientific Attitude, in their school students. Scientific Attitude is the most important aspect of teaching, which enables the children to think rationally and logically. It is the combination of many more qualities and virtues which also reflect through the behavior and action of the child.

The two main components here are attitude and scientific. Attitude is the way a person thinks, feels or behaves.

According to Gordon Allport "attitude is defined as a tendency, set or readiness to respond to some social object". Attitude is defined as mental and neural state of readiness, organized through experience, exerting a directive influence upon the individual's response to all objects and situations with which it relates. According to Micheal Hogg – "an attitude is a negative or positive evaluation of an object which influences human's behavior towards that object".

**Scientific:** means something connected with or involving science. Knowledge involving gradual development of knowledge, based on correlation between observation and result.

Meaning of "scientific" (1) relating to or exhibiting the method or principles of science.

(2) conducted in the manner of science or according to results of investigation by science

**Scientific Attitude:** is that aspect of attitude of a person that involves, amongst others the following (a) enquiring tendency, (b) logical approach, (c) analytical thought pattern, (d) ability to correlate the cause and effect, (e) systematic approach in working, (f) open-mindedness to new ideas, inventions and thoughts, (g) freedom from superstitions, (h) quest for knowledge, (i) objectivity in discussions and decisions, (j) perseverance in attempting, (k) conscientiousness.

**A definition:** Scientific Attitude can be defined as open-mindedness, a or desire for accurate knowledge, confidence in procedures for seeking knowledge and the expectations

that the solution of the problem will come through the use of verified knowledge.

Scientific Attitude is a composition of mental habits or tendencies to react consistently in certain ways in a novel or a problematic situation. Scientific Attitude [described above] helps a student understand, comprehend and reproduce the knowledge imparted in the classroom and also helps him/her in correlating real life observations with the knowledge gained in the classroom leading to a proper understanding of the subject.

This also helps the student in organizing his/her productive life for a better output qualitatively and quantitatively, in addition to utilizing the knowledge earned in solving the real life situations.

The B.Ed. students/Future teachers have to deal with students of all IQ levels and possessing all levels of scientific attitude. So if they are themselves lacking in Scientific Attitude, they might not be able to provide proper guidance to their students of primary and secondary school levels..

**Objectives of the Study:**

To find out the level of Scientific Attitude among B.Ed. Students

**Methods;**

**Sample:** Random sample techniques were used for collection of data. The test-group among the B.Ed. students consisted of 50 students from the MFAA Teachers Training College of the Purnea University.

**Tools of Study:**

Dr. Dani’s scale was used by way of a tool for measuring the Scientific Attitude. The tool is based on Likert type attitude scale. This 5 points scale having different categories of SA levels and cumulative percentage of each category was calculated. Further inferences were drawn in the light of previously obtained results by this author.

**Statistical Treatment:**

Cummulative Percentage were used on five point attitude scale

**Table no;1**

**The cumulative percentage of Scientific Attitude of B.Ed students, on 5 points Scientific Attitude Scale (SAS)**

| <b>Respondents</b> | <b>Number</b> | <b>Very High SA</b> | <b>Moderately High SA</b> | <b>Neutral SA</b> | <b>Moderately Low SA</b> | <b>Very Low SA</b> |
|--------------------|---------------|---------------------|---------------------------|-------------------|--------------------------|--------------------|
| B.Ed. students     | 50            | 0                   | 24%                       | 52%               | 24%                      | 0                  |

Among the sample of B.Ed students, it was found that only 24% have moderately high SA, where as 52% have neutral SA and 24% have moderately low SA. None of them possess very high or very low SA.

**Findings;**

Following are the findings of the study;

1. It was found that a low percentage of B.Ed students possessed moderately high

percentage of SA and an equal percentage had moderately low SA.

2. The majority of B.Ed students possessed Neutral SA.
3. None of them possessed very high SA or very low SA

**Discussion;**

Thus it can be concluded that majority of B.Ed students had neutral Scientific Attitude

and very few had moderately high SA, Which is point of concern in the field of Education and Teacher's Training Colleges. If only the B.Ed students who are the FUTURE Teacher's will have appropriately high or moderately high Scientific Attitude then only they will be able to Inculcate good percentage of Scientific Attitude in their students of primary and secondary school level.

The scientific advancements of today will have a much broader distribution in the 21<sup>st</sup> century and the present day curriculum of B.Ed. needs improvement to fulfill the requirements of tomorrow, especially in terms of computer usage, and computer aided study and self study and an overdose of internet.

### **Conclusion:**

Suitable Modifications in the Curriculum of B.Ed. may be undertaken. Emphasis may be given on training the B.Ed students/Future-teachers to use of Scientific Tools of teaching, proficiency in handling Computer Aided Study materials, Audio-visual Aids and Self-study

Materials, improvisation of apparatus etc. development of a New Module of Creative-teaching, Organizing-Science Exhibitions for science teaching methods, Use Questioning Answer Method by deliberate creation of confusion, use of Project Method frequently and Evaluation Techniques should include Z-scoring and Criteria Reference Tests.

Appropriate Personality Development Methods are needed to be included in B.Ed curriculum to improve the Scientific Attitude of the B.Ed Students/Future teachers . Such improvement are suggested in light of present study.

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