The Role of Job Involvement of Primary School Teachers with Study of Scientific Attitude in Related to Teaching Effectiveness: with Reference to Vijayapura District

1. Smt. Nirmala C Gundalli
Ph.D Research Scholar
Department of Studies and Research in Education
Karnataka State Akkamahadevi Women’s University, Vijayapura

2. Prof. B.L. Lakkanavar
Professor, Chairman
Department of Studies and Research in Education
Karnataka State Akkamahadevi Women’s University, Vijayapura

Introduction

The main aim of education is to modify the behaviour of child according to the needs and expectation of the society. Behaviour is composed of so many attributes. The entire personality and development of child is influenced by the nature of his attitudes. Learning of a subject and acquisition of habits, interest and other psychological dispositions are all affected by his attitudes. Therefore it is important for a teacher to understand the meaning and nature of attitudes, the factors responsible for its development in a child.

Attitude: He defined three main features of attitudes
1. It is preparation of readiness for favourable or unfavourable responses.
2. It is organized through experience.
3. It is activated in the presence of all objects and situations with which the attitude is related.

Scientific Attitude:

Science the beginning of the present century science educators has included the development of scientific attitude among the general aims of science education. Some writers label this attitude as “scientific mindedness” (Burnett, 1944) that habit of scientific thinking” (Noll, 1933 or “the spirit of science” (Educational policies commission, 1966) and it is most often characterized by a list of component attitudes such as objectivity, and a willingness to suspend judgment if there is insufficient evidence” (Okay, 1982). The scientific attitude, by tits very name, tends to be associated solely with the area of science. There is a person who has a scientific point of view (1) looks for the nature causes of event; (2) is open-minded toward the work and opinion of other and towards information related to his problem; (3) bases opinions and conclusions on adequate evidence; (4) evaluate techniques and procedures used and information obtained; (5) is curious concerning the things he observes.

Concept of Scientific Attitude:

One of the major aims of science education is to develop scientific attitude among the learners in a proper way in such condition no teacher or person can perform the function of imparting science to the students without understanding the proper meaning and true nature of scientific attitude. In view of some experts scientific attitudes can best be defined as open mindedness or a desire for getting or gaining accurate kind of knowledge. It also implies gaining confidence in procedures for seeking knowledge and the expectations that by making use of verified knowledge, and solutions of all the problems will be find out.

Open mindedness, intellectual honesty and critical mindedness are considered to be some of the main features of such kind of attitudes. A person with scientific attitude keeps himself aware of the latest developments done in the field of science and on the basis of such knowledge makes use of most recent and authoritative method for gathering information relating to the problem.

To develop scientific attitude among pupils the teachers should always remember that without a questioning mind and a spirit of enquiry the attitude cannot be developed. The students should be made to practice and observe science so that they get the opportunity to feel and develop the components of scientific attitude in their minds.
Characteristics of Scientific Attitude:
A person can be described as man of scientific attitude if he possesses the following characteristics.
- He has spirit of curiosity.
- Believes in cause and effect relationship.
- Is open minded and has love for truth.
- Adopts scientific method in his thinking and working.
- Is free from superstitions and prejudices.

Scope Of The Study:
The topic selected for the present research entitled “A Study of Scientific Attitude and Job Involvement of Primary School Teachers in Related to Teaching Effectiveness” is mainly meant for the study of scientific attitude, scientific creativity and scientific interest of job Involvement of Primary School Teachers in Vijayapura District. Science has brought about revolutionary changes in every walk of our life. Its impact is visible everywhere and in every aspect of our existence that is manifested in terms of vocational, social, economic, political, and cultural dimensions. Therefore in every country special attention is being given for the development of science.

Statement Of The Problem:
“The Role of Job Involvement of Primary School Teachers with Study of Scientific Attitude in Related to Teaching Effectiveness: with Reference to Vijayapura District”

Objectives Of The Study:
1. To now the opinion of science teacher about the different characteristics that help in developing scientific attitude among Primary School Teachers in Vijayapura.
2. To study the opinion of science teacher about the role of teaching facilities and training programs in inculcating the scientific attitude among Primary School Teachers in Vijayapura.
3. To compare the opinion of Govt. and Private Aided and Un-aided schools in Vijayapura.

Hypothesis Of The Study:
1. Teacher with scientific temper and scientific bend of mind develops scientific attitude among Primary School Teachers in Vijayapura.
2. Available of teaching facilities and training, programmers enhances teacher’s role in developing scientific attitude among Primary School Teachers in Vijayapura.
3. There is no difference in the opinion of Government of Private schools teachers about the role of developing scientific attitude among the students in Vijayapura.

Variables Of The Study:
Independent Variable
1. Scientific attitude

Dependent Variable:
1. Achievement

Limitations Of The Study
1. The study is limited to Primary School Science Teacher in Vijayapura
2. The study in limited to Government & Private schools (English medium).
3. The study is limited to Vijayapura.

Methodology:
Sample
A sample of 600 science teachers was selected from 300 boys (150 rural, 150 urban), 300 girls (150 rural, 150 urban) schools of Vijayapura District (150 private & 150 Govt. English medium High schools only).

Sampling Technique:
In the present study random sampling method was used which mean that every member of the sample is selected from the total population in such a manner that all members of the population have essentially the same probability selected. It is an unbiased cross section of the population.

Method Of Data Collection:
The researcher personality visited the schools and administered the opinionnaires to each of the respondent, butting the Rapport with them and explained them about the study and clarified their doubts if they had any regarding the opinionnaires.
Table No: 1 Mean, S.D. and Z’ ratio of Rural and Urban Primary School Teachers Scientific Attitude

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Area</th>
<th>Sample</th>
<th>Mean</th>
<th>Standard deviation ratio</th>
<th>‘Z’ Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific Attitude</td>
<td>Rural</td>
<td>81</td>
<td>50.82</td>
<td>33.15</td>
<td>0.056</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>69</td>
<td>50.55</td>
<td>25.9</td>
<td></td>
</tr>
</tbody>
</table>

Table number 1 indicates that the obtained Z’ ratio (0.056) is less than the table value at 0.05 level of significance. Hence the null hypothesis is accepted.

So there is no significant difference in the scientific attitude of rural and urban primary school teachers.

There by it shows rural and urban primary school teachers have same level of scientific attitude.

**Hypothesis :2:**

There is no significant difference in the scientific attitude of government and primary school teachers.

Table no 2 shows the mean S.D. and ‘Z’ ratio of primary school teachers’ Scientific attitude.

The following procedure were used to compute the mean and S.D. and Z’ ratio

**Government Teachers:**

Mean X = \( \frac{\sum fx}{n} \)

\[ X = \frac{4835}{95} = 50.89 \]

S.D = \( \sigma = \sqrt{\frac{\sum fx^2 - (\frac{\sum fx}{n})^2 \times n}{n \times n}} \)

\[ = \sqrt{\frac{3685.13 - (0.45)^2 \times 5}{95 \times 95}} \]

\[ = \sqrt{38.79} = 0.0021x5 \]

\[ = 6.22x5 \]

\[ \sigma = 31.1 \]

**Private Teachers:**

Mean X = \( \frac{\sum fx}{n} \)

\[ = \frac{2770}{55} = 50.36 \]

S.D = \( \sigma = \sqrt{\frac{\sum fx^2 - (\frac{\sum fx}{n})^2 \times n}{n \times n}} \)

\[ = \sqrt{\frac{2101.2 - (0.2)^2 \times 5}{55 \times 55} \times 5} \]
With the help of mean and S.D values, the significance of the difference between Government & private primary school teachers scientific attitude is calculated by ‘Z’ ratio

\[ Z = \frac{X_1 - X_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}} \]

\[ = \frac{50.89 - 50.36}{\sqrt{\frac{31.1^2}{95} + \frac{30.9^2}{95}}} \]

\[ = \frac{0.53}{\sqrt{10.18 + 17.36}} \]

\[ = \frac{0.53}{\sqrt{27.54}} \]

\[ Z = 0.10 \]

Table number 2 indicates that the obtained Z ratio (0.10) is less than the table value at 0.05 level of significance. Hence the null hypothesis is accepted.

So there is no significant difference in the scientific attitude of government and private primary school teachers.

Therefore, it shows that government and private primary school teachers have the same level of scientific attitude.

**Conclusion:**

The researcher found that teachers support that teachers with a scientific approach and a scientific temperament can successfully develop scientific attitude in primary school students. Thus, it can be concluding that the science teacher has an important role to play in molding the child’s scientific attitude, a teacher therefore should be unbiased, broad-minded, non-superstitious, avoid exaggerations, and adapt planned procedures for doing work. Teachers should train the students to transfer their learning to daily life situations and should relate science to other disciplines. Certain reforms should also be made in the present curriculum like.

1. From the mean (50.7) of scientific attitude scores, it is clear that the primary school teachers have scientific attitude out of 150, 73 teachers i.e., 48.6% teachers have the scientific attitude above the mean.

2. There is no significant difference in the scientific attitude of rural and urban, government and private, male and female teachers. This shows that scientific attitude does not differ with respect to sex and locality. It is same in all types of teachers.

3. From the mean (35.6) of scientific interest scores, it is clear that the primary school teachers have scientific interest. Out of 150, 60 teachers i.e., 42.3 teachers have the scientific interest above the mean.

4. There is no significant different in the scientific interest of rural and urban government and private, male and female teachers. This shows that scientific interest...
dies not differ with respect to sex and locality. It is same in all types of teachers.

5. There is relationship between scientific attitude and scientific interest of primary school teachers. The obtained r value (0.43) shows that the relationship attitude and scientific interest of school teachers.

Reference: