



Construction and Application of Reasoning Ability of Secondary Teachers' Trainees

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Abstract:

The Present paper explains the reasoning ability of Secondary teachers' trainees in context of Gender of teachers' trainees, the area of their belonging and the types of colleges in which they study. This particular study is very important because the responsibilities of Secondary teachers are more compared to the other level teachers, as child education or say Secondary education is very much important for the overall development of child. The responsibility of creating responsible citizen lies in the hand of Secondary teachers; this is an endeavor of a researcher in this process.

Keyword: Reasoning ability

1. Introduction

In the time of science and technology, research & tools, knowledge has no limit or we can say that sky is the limit as far as knowledge is concerned. In this era a role of teacher become special and unique. According to pestology "Education is the natural harmonious and progressive development of men's innate power."

In education of child Secondary level is very much important, as interest, attitude, mental power etc. are developed during this period. Thus the responsibilities of Secondary teachers are more compared to the other level teachers. To do their duty with knowledge and tactics Secondary teachers' training plays an important role. To measure aptitude of Secondary teacher trainees', numeric ability, reasoning ability and other tests should be conducted. In all that tests verbal and non verbal reasoning ability is one of the aptitude. With the development of reasoning the speed of thinking increases & accordingly the teacher can peruse the student well. In this research also the researcher has tried to measure reasoning ability of the Secondary teacher trainees.

2. Objectives of the Study

- 1) To construct the reasoning ability test for the trainees of Secondary teacher training Colleges.
- 2) Try out this test on Secondary teacher trainees.
- 3) To study the reasoning abilities of Secondary teacher trainees in context of Gender (Male and Female), Area (Urban and Rural) and type of College Administration (Self Finance and Granted).

3. Hypothesis

1. To study the three independent variables on dependent variables reasoning of Secondary teacher trainees the following null hypothesis were formulated and tested.
2. There will not be any significant difference between the mean value of scores obtained by male and female trainees on reasoning ability test.
3. There will not be any significant difference between the mean value of scores obtained by the rural and urban trainees on reasoning ability test.

4. There will not be any significant difference between the mean value of scores obtained by the trainees from granted and self finance Colleges on reasoning ability test.

4. Population and Sample

- In the present study the second years' trainees of PTC college of Ahmadabad city were included as the universe of the study.
- By stratified random sampling method three PTC colleges were selected from these colleges and 140 trainees were selected as the sample.

5. Research Tools

The required data was collected with the help of reasoning test. The research tool was constructed by Manisha Patel in Gujarati language. It consists of 120 verbal and non verbal questions. In piloting study with the help of item analysis 70 questions were selected for final reasoning test.

6. Research Method

The main purpose of this study is to study reasoning ability of the students on the basis of their gender, residential area and types of Administration of college. Keeping in mind the purpose and sample of the survey method was used in this study.

7. Reliability and Validity

The reliability of reasoning test by test- retest method was 0.78. Where split half reliability for test was 0.81. The validity of the test was 0.74.

8. Data Collection and Its Analysis

In the present study the researcher has gone to the PTC colleges after taking prior permission for administering the reasoning test. Based on the responses of the Secondary teacher trainees on reasoning ability test the obtained score was calculated.

Statistical calculation such as mean, standard deviation, standard error and t- ratio was calculated with the help of computer program SPSS and hypothesis were checked.

9. Testing of Null Hypothesis

Table 1 Total Scores, Mean and SD of reasoning ability of male and female trainees :-

| GROUP | N | MEAN | SD | SEd | t- value | Remark |
|--------|----|-------|------|------|----------|------------|
| Male | 80 | 63.30 | 8.13 | 1.09 | 4.87 | 0.01 Level |
| Female | 60 | 67.85 | 8.18 | | | |

Table 1 shows the total mean and SD of the scores on reasoning ability of Male and Female trainees. The Mean of Male and Female are 63.30 and 66.85 respectively. Here the t-ratio is 4.87, the table value of 0.01 level is 2.58. The value of computed "t" ratio is more than table value at 0.01 level. Therefore the null hypothesis is not accepted here. There is significant difference in reasoning ability between Male and Female Trainees.

Table 2 Total Scores, Mean and SD of reasoning ability of urban and rural trainees

| GROUP | N | MEAN | SD | SEd | t- value | Remark |
|-------|----|-------|------|------|----------|------------|
| Rural | 70 | 61.50 | 5.66 | 1.89 | 2.63 | 0.01 Level |
| Urban | 60 | 66.12 | 6.14 | | | |

Table 2 shows the total mean and SD of the scores on reasoning ability of Rural and Urban trainees. The Mean of Rural and Urban are 61.50 and 66.12 respectively. Here the t-ratio is 2.63, the table value of 0.01 level is 2.58. The value of computed "t" ratio is more than table value at 0.01 level.

Therefore the null hypothesis is not accepted here. There is significant difference in reasoning ability between Rural and Urban trainees.

Table 3 Total Scores, Mean and SD of reasoning ability of trainees of Granted and Self finance Colleges

| GROUP | N | MEAN | SD | SEd | t- value | Remark |
|------------------|----|-------|-------|------|----------|--------|
| Granted Colleges | 60 | 66.38 | 5.98 | 1.58 | 0.69 | NS |
| Self Finance | 80 | 72.66 | 77.10 | | | |

Table 3 shows the total mean and SD of the scores on reasoning ability of trainees of Granted and Self finance Colleges. The Mean of Granted and Self finance Colleges are 66.38 and 72.66 respectively. Here the t-ratio is 0.69, which is less than table value therefore the null hypothesis is accepted here. There is no significant difference in reasoning ability between trainees of Granted and Self finance Colleges.

10. From the data analysis in this study has following findings

- 1.The reasoning ability of Female Trainees is higher than that of Male Trainees.
- 2.The reasoning ability of Urban Trainees is higher than that of Rural Trainees.
- 3.The reasoning ability of Granted and Self Finance Colleges are equal, there is no significant difference found.

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