CHAPTER-8
RESEARCH SUMMARY, FINDING, CONCLUSION AND SUGGESTIONS

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RESEARCH SUMMARY, FINDING, CONCLUSION
AND SUGGESTIONS

8.1.0 Introduction

Educational research is very important to bring sufficient changes in other fields on the basis of its results. Educational Research helps in finding new concepts, which were neglected earlier or were not considered important. Educational research is also helpful in solution of many educational problems. In the present study, the researcher had constructed and standardized the Spiritual Intelligence Scale. The present chapter deals with the summary of the research work, findings and suggestions for the future research. Educational implications of the Spiritual Intelligence Scale were also discussed in the present chapter.

8.2.0 Summary of Study

The summary of the present research study is as follows:

✦ Statement of the Problem

“CONSTRUCTION AND STANDARDIZATION OF A SPIRITUAL INTELLIGENCE SCALE FOR THE COLLEGE STUDENTS OF GUJARAT STATE”

✦ Objectives of the study

1. To construct and standardize the Spiritual Intelligence Scale.
2. To measure level of the Spiritual Intelligence of college students.
3. To examine the Spiritual Intelligence of Colleges Students in relation to their college level.
4. To examine Spiritual Intelligence of Colleges Students in relation to their gender.
5. To examine the Spiritual Intelligence of Colleges Students in relation to their area of residence.
6. To examine the Spiritual Intelligence of Colleges Students in relation to their category.

✦ Hypothesis of Study

Hypothesis of the present study were as follows:

$H_0$: There will be no significant difference between the mean scores of Spiritual Intelligence of B.Ed. and M.Ed. colleges students.
Ho2 There will be no significant difference between the mean scores of Spiritual Intelligence of male and female students.

Ho3 There will be no significant difference between the mean scores of Spiritual Intelligence of urban area and rural area students.

Ho4 There will be no significant difference between the mean scores of Spiritual Intelligence of general category and reserve category students.

Ho5 There will be no significant difference between the mean scores of Spiritual Intelligence of male and female students of B.Ed. colleges.

Ho6 There will be no significant difference between the mean scores of Spiritual Intelligence of urban area and rural area students of B.Ed. colleges.

Ho7 There will be no significant difference between the mean scores of Spiritual Intelligence of general category and reserve category students of B.Ed. colleges.

Ho8 There will be no significant difference between the mean scores of Spiritual Intelligence of male and female students of M.Ed. colleges.

Ho9 There will be no significant difference between the mean scores of Spiritual Intelligence of urban area and rural area students of M.Ed. colleges.

Ho10 There will be no significant difference between the mean scores of Spiritual Intelligence of general category and reserve category students of M.Ed. colleges.

Ho11 There will be no significant difference between the mean scores of Spiritual Intelligence of male students of B.Ed. and M.Ed. colleges.

Ho12 There will be no significant difference between the mean scores of Spiritual Intelligence of male students of urban area and rural area.

Ho13 There will be no significant difference between the mean scores of Spiritual Intelligence of male students of general category and reserve category.

Ho14 There will be no significant difference between the mean scores of Spiritual Intelligence of female students of B.Ed. and M.Ed. colleges.

Ho15 There will be no significant difference between the mean scores of Spiritual Intelligence of female students of urban area and rural area.

Ho16 There will be no significant difference between the mean scores of Spiritual Intelligence of female students of general category and reserve category.

Ho17 There will be no significant difference between the mean scores of Spiritual Intelligence of urban area students of B.Ed. and M.Ed. colleges.

Ho18 There will be no significant difference between the mean scores of Spiritual Intelligence of male and female students of urban area.
$H_{O_{19}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of general and reserve category students of urban area.

$H_{O_{20}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of rural area students of B.Ed. and M.Ed. colleges.

$H_{O_{21}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of male and female students of rural area.

$H_{O_{22}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of general and reserve category students of rural area.

$H_{O_{23}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of B.Ed. and M.Ed. colleges students of general category.

$H_{O_{24}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of male and female students of general category.

$H_{O_{25}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of urban area and rural area students of general category.

$H_{O_{26}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of B.Ed. and M.Ed. colleges students of reserve category.

$H_{O_{27}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of male and female students of reserve category.

$H_{O_{28}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of urban area and rural area students of reserve category.

$H_{O_{29}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of B.Ed. colleges male students of urban area and rural area.

$H_{O_{30}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of B.Ed. colleges male students of general category and reserve category.

$H_{O_{31}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of B.Ed. colleges female students of urban area and rural area.

$H_{O_{32}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of B.Ed. colleges female students of general category and reserve category.

$H_{O_{33}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of M.Ed. colleges male students of urban area and rural area.

$H_{O_{34}}$ There will be no significant difference between the mean scores of Spiritual Intelligence of M.Ed. colleges male students of general category and reserve category.
$H_{035}$ There will be no significant difference between the mean scores of Spiritual Intelligence of M.Ed. colleges female students of urban area and rural area.

$H_{036}$ There will be no significant difference between the mean scores of Spiritual Intelligence of M.Ed. colleges female students of general category and reserve category.

$H_{037}$ There will be no significant difference between the mean scores of Spiritual Intelligence of urban area male students of B.Ed. and M.Ed. colleges.

$H_{038}$ There will be no significant difference between the mean scores of Spiritual Intelligence of urban area male students of general and reserve category.

$H_{039}$ There will be no significant difference between the mean scores of Spiritual Intelligence of rural area male students of B.Ed. and M.Ed. colleges.

$H_{040}$ There will be no significant difference between the mean scores of Spiritual Intelligence of rural area male students of general and reserve category.

$H_{041}$ There will be no significant difference between the mean scores of Spiritual Intelligence of urban area female students of B.Ed. and M.Ed. colleges.

$H_{042}$ There will be no significant difference between the mean scores of Spiritual Intelligence of urban area female students of general and reserve category.

$H_{043}$ There will be no significant difference between the mean scores of Spiritual Intelligence of rural area female students of B.Ed. and M.Ed. colleges.

$H_{044}$ There will be no significant difference between the mean scores of Spiritual Intelligence of rural area female students of general and reserve category.

**Variables of the Study:**

- **Independent**
  - College level
  - Gender
  - Area of residence
  - Category

- **Dependent**
  - Spiritual Intelligence

**Limitations of the Study:**

1. The scope of present study is limited to Gujarat State.
2. This study is conducted for the college students of Bachelor of Education (B.Ed.) and Master of Education (M.Ed.) degree of Gujarati medium.
Population of the study

Main objective of the study is to construct and standardize the Spiritual Intelligence Scale for the college students of Gujarati medium of Gujarat State. Therefore, students of Bachelor of Education (B.Ed.) and Master of Education (M.Ed.) of Gujarat State (Gujarati Medium) of educational year 2012-13 became the population of the present study.

Sample of the study

Colleges were selected through stratified random sampling method and the students from those selected colleges were selected using cluster sampling method. By using this method total 4455 students of B.Ed. and M.Ed. colleges were selected for the present study. Out of 4455 students 3691 (1236 Male and 2455 female) students were from B.Ed. colleges and 764 (355 Male and 409 female) students from M.Ed. colleges were selected.

Research Tools

The following tools were used for collecting the data of the present study.

1. The Spiritual Intelligence Scale (SIS). This tool was prepared and standardized by the researcher.
2. Spiritual Intelligence Scale prepared by Bhavin D. Shah.
3. Verbal and Non Verbal Intelligence Test prepared by Dr. K.G. Desai and published by Institute of Psychological and Educational Research and Guidance.

Research Method

In the present research the researcher used Survey Method.

Method of Data Analysis :

1. Mean Median, Mode, Standard Deviation
2. Significance of difference of means between groups (t-Value)
3. Skewness and Kurtosis of each group
4. Presentation of graphs as required per group
5. Verification of normal distribution of the scores
6. Establishing the norms, based on the significance of difference of means of the scores, determining their PR and T- scores.

Method for determined Reliability

- Test-Retest Reliability
- Internal Consistency Reliability
Split Half Reliability
- Spearman-Brown
- Rulon / Guttman’s Formula
- Flanagan Formula

Cronbach’s Alpha (α)

Methods of Validity

Face Validity
- The correlation between the scores of Spiritual Intelligence Scale and the score of Spiritual Intelligence Scale prepared by Bhavin D. Shah
- The correlation between the scores of Spiritual Intelligence Scale and the scores of Verbal and Nonverbal Intelligence test prepared by Dr. K.G. Desai and published by Institute of Psychological and Educational Research and Guidance.

Factor Validity

8.3.0 Findings

Major findings regarding Spiritual Intelligence Scale were as follows:

Reliability of the Spiritual Intelligence Scale

Table-8.1

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Methods of Reliability</th>
<th>Sample</th>
<th>( r_{tt} )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Reliability Coefficient</td>
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<tr>
<td>1</td>
<td>Test-Retest</td>
<td>204</td>
<td>0.82</td>
</tr>
<tr>
<td>2</td>
<td>Split-Half</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Spearman and Brown Formula</td>
<td>300</td>
<td>0.95</td>
</tr>
<tr>
<td>B</td>
<td>Rulon /Guttmann’s formula</td>
<td>300</td>
<td>0.96</td>
</tr>
<tr>
<td>C</td>
<td>Flanagan’s formula</td>
<td>300</td>
<td>0.90</td>
</tr>
<tr>
<td>3</td>
<td>Cronbach Alpha (α)</td>
<td>300</td>
<td>0.94</td>
</tr>
</tbody>
</table>
Validity of the Spiritual Intelligence Scale

Table-8.2
Validity of Spiritual Intelligence Scale

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Method of Validity</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Face Validity</strong>:</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Face Validity for the items constructed by the researcher was deliberated by sending the tool the subject experts and by subsequent improvements suggested by the experts.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td><strong>Concurrent Validity</strong>:</td>
<td>0.79</td>
</tr>
<tr>
<td></td>
<td>Correlation between Spiritual Intelligence Scale and Spiritual Intelligence Scale prepared by Bhavin D. Shah</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td><strong>Convergent Validity</strong>:</td>
<td>0.72</td>
</tr>
<tr>
<td></td>
<td>Correlation between Spiritual Intelligence Scale and prepared by Dr. K.G. Desai and published by Institute of Psychological and Educational Research and Guidance.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td><strong>Factor Validity</strong></td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Correlation between dimensions found high. Table given in Chapter-6</td>
<td></td>
</tr>
</tbody>
</table>

Norms of the Spiritual Intelligence were prepared based on according to variable are given in chapter -7

**Findings based on the variables of the study**

1) Half of the students of sample having medium level of spiritual Intelligence.

2) There was no significant difference found between the mean scores of spiritual intelligence of B.Ed. and M.Ed. colleges students. So, college level of students is not effecting on spiritual intelligence.

3) Effect of gender found on spiritual intelligence. Female students were more superior than male students as far as spiritual intelligence concern.
4) Effect of area of residence found on spiritual intelligence. Students of urban area were more superior than students of rural area as far as spiritual intelligence concern.

5) There is no significant difference found between the mean scores of spiritual intelligence of general category and reserve category students. So, Category of students is not effecting on spiritual intelligence.

6) Effect of gender of students of B.Ed. colleges found on spiritual intelligence. Female students of B.Ed. colleges were more superior than male students of B.Ed. colleges as far as spiritual intelligence concern.

7) There is no significant difference found between the mean scores of spiritual intelligence of urban area and rural area students of B.Ed. colleges.

8) There is no significant difference found between the mean scores of spiritual intelligence of general category and reserve category students of B.Ed. Colleges.

9) There is no significant difference found between the mean scores of spiritual intelligence of male and female students of M.Ed. Colleges.

10) Significant difference was found on spiritual intelligence of urban area and rural area students of M.Ed. colleges. M.Ed. Students of urban area were more superior than M.Ed. Students of rural area as far as spiritual intelligence concern.

11) There is no significant difference found between the mean scores of spiritual intelligence of general category and reserve category students of M.Ed. college.

12) There is no significant difference found between the mean scores of spiritual intelligence of male students of B.Ed. and M.Ed. Colleges.

13) There is no significant difference found between the mean scores of spiritual intelligence of male students of urban area and rural area.

14) There is no significant difference found between the mean scores of spiritual intelligence of male students of general category and reserve category

15) Significant difference was found on spiritual intelligence of female students of B.Ed. and M.Ed. Colleges. Female students of B.Ed. Colleges were more superior than female students of M.Ed. Colleges as far as spiritual intelligence concern.
16) There is no significant difference found between the mean scores of spiritual intelligence of Female students of urban area and rural area.
17) There is no significant difference found between the mean scores of spiritual intelligence of Female students of general category and reserve category.
18) There is no significant difference found between the mean scores of spiritual intelligence of students of urban area of B.Ed. and M.Ed. colleges.
19) Significant difference was found on spiritual intelligence of male and female students of urban area. Female students of urban area were more superior than male students of urban area as far as spiritual intelligence concern.
20) There is no significant difference found between the mean scores of spiritual intelligence of general category and reserve category of urban area.
21) Significant difference was found on spiritual intelligence of rural area students of B.Ed. and M.Ed. colleges. Rural area students of B.Ed. college were more superior than rural area students of M.Ed. colleges as far as spiritual intelligence concern.
22) Significant difference was found on spiritual intelligence of male and female students of rural area. Female students of rural area were more superior than male students of rural area as far as spiritual intelligence concern.
23) There is no significant difference found between the mean scores of spiritual intelligence of students general category and reserve category of rural area.
24) There is no significant difference found between the mean scores of spiritual intelligence of students B.Ed. and M.Ed. colleges of general category.
25) Significant difference was found on spiritual intelligence of male and female students of general category. Female students of general category were more superior than male students of general category as far as spiritual intelligence concern.
26) Significant difference was found on spiritual intelligence of urban area and rural area of general category. Urban area students of general category were
more superior than rural area students of general category as far as spiritual intelligence concern.

27) There is no significant difference found between the mean scores of spiritual intelligence of students B.Ed. and M.Ed. colleges of reserve category.

28) Significant difference was found on spiritual intelligence of male and female students of reserve category. Female students of reserve category were more superior than male students of reserve category as far as spiritual intelligence concern.

29) Significant difference was found on spiritual intelligence of urban area and rural area of reserve category. Urban area students of reserve category were more superior than rural area students of reserve category as far as spiritual intelligence concern.

30) There is no significant difference found between the mean scores of spiritual intelligence of B.Ed. colleges male students of urban area and rural area.

31) There is no significant difference found between the mean scores of spiritual intelligence of B.Ed. colleges male students of general category and reserve category.

32) There is no significant difference found between the mean scores of spiritual intelligence of B.Ed. colleges female students of urban area and rural area.

33) There is no significant difference found between the mean scores of spiritual intelligence of B.Ed. colleges female students of general category and reserve category.

34) Significant difference was found on spiritual intelligence of M.Ed. colleges male students of urban area and rural area. M.Ed. colleges male students of urban area were more superior than M.Ed. colleges male students of rural area students as far as spiritual intelligence concern.

35) There is no significant difference found between the mean scores of spiritual intelligence of M.Ed. colleges male students of general category and reserve category.

36) There is no significant difference found between the mean scores of spiritual intelligence of M.Ed. colleges female students of urban area and rural area.
37) There is no significant difference found between the mean scores of spiritual intelligence of M.Ed. colleges female students of general category and reserve category.

38) Significant difference was found on spiritual intelligence of urban area male students of B.Ed. and M.Ed. colleges. Urban area male students of M.Ed. colleges were superior than urban area male students of B.Ed. colleges as far as spiritual intelligence concern.

39) There is no significant difference found between the mean scores of spiritual intelligence of urban area male students of general category and reserve category.

40) There is no significant difference found between the mean scores of spiritual intelligence of rural area male students of B.Ed. and M.Ed. colleges.

41) There is no significant difference found between the mean scores of spiritual intelligence of rural area male students of general category and reserve category.

42) There is no significant difference found between the mean scores of spiritual intelligence of urban area female students of B.Ed. and M.Ed. colleges.

43) There is no significant difference found between the mean scores of spiritual intelligence of urban area female students of general category and reserve category.

44) Significant difference was found on spiritual intelligence of rural area female students of B.Ed. and M.Ed. colleges. Rural area female students of B.Ed. colleges were more superior than rural area female students of M.Ed. colleges as far as spiritual intelligence concern.

45) Significant difference was found on spiritual intelligence of rural area female students of general category and reserve category. Rural area female students of reserve category were more superior than rural area female students of general category as far as spiritual intelligence concern.

8.4.0 Educational Implications

Spiritual Intelligence Scale standardized in the present study may be useful to M.Ed. Students for their research work.
⇒ B.Ed. College may use standardized Spiritual Intelligence Scale in the present study for psychological Testing as part of B.Ed. Syllabus.
⇒ By making use the scores of the Spiritual Intelligence Scale, Students can be given guidance to improve their Spiritual Intelligence.
⇒ Based on the Scores of the students in the Spiritual Intelligence Scale, the students can be categorised into students having Very High Spiritual Intelligence, High Spiritual Intelligence, Very Average Spiritual Intelligence, Low Spiritual Intelligence, Very Low Spiritual Intelligence.
⇒ To improve students’ spiritual intelligence, appropriate counselling with the help of standardized Spiritual Intelligence Scale can be arranged to lift them from a lower spiritual intelligence to higher one.
⇒ Emphasis can be given to those students having excellent spiritual intelligence, rather than lower spiritual intelligence.
⇒ Spiritual Intelligence Scale may be now used by various institutions to find spiritual intelligence of the students as on different variables of the students in research project.
⇒ The present Spiritual Intelligence Scale will become an important psychological tool to measure the level of the spiritual intelligence of the students of Bachelor of Education and Master of Education colleges of Gujarat State (Gujarati Medium).
⇒ Colleges or researchers can classify students of Bachelor of Education and Master of Education colleges as per their level of spiritual intelligence with the help of this Scale for further research and guidance.
⇒ These tools will be helpful to teachers and researchers to do further research in the field of Spiritual Intelligence.

8.5.0 Suggestions for Further Researches

Research is the continuous process it never ends. A research is a cyclic process. The end of any research work suggests directions of new research work. A single person cannot study any problem regarding all the aspects of the problem. So that, every research leads to the new research. Based on the present research, the researcher recommends future researches as highlighted below:

⇒ Construction and standardization of Spiritual Intelligence Scale for College Students of Science Faculty
Construction and standardization of Spiritual Intelligence Scale for College Students of Commerce Faculty

Construction and standardization of Spiritual Intelligence Scale for College Students of Arts Faculty

Construction and standardization of Spiritual Intelligence Scale for College Students of PTC

Construction and standardization of Spiritual Intelligence Scale for Primary Schools Students

Construction and standardization of Spiritual Intelligence Scale for Higher Secondary Schools Students

Construction and standardization of Spiritual Intelligence Scale for college students of English Medium B.Ed. and M.Ed.

Construction and standardization of Spiritual Intelligence Scale for Principal, Professors, Associate Professor and Assistant Professors of different faculties.

A study regarding spiritual intelligence can be conducted taking up different variables such as Socio-Economical Status, Emotional Intelligence, Intelligence, academic Achievements

Comparative study of social intelligence and spiritual intelligence.

A study of Correlation between social intelligence and spiritual intelligence.

A study of government employee’s spiritual intelligence.

A study of non government (NGO) employee’s spiritual intelligence.

A study of Primary schools teacher’s spiritual intelligence.

A study of secondary schools teacher’s spiritual intelligence.

8.6.0 Conclusion

In conclusion, the current study indicated that the Spiritual Intelligence Scale have satisfactory properties to use as a tool to measure the level of the Spiritual Intelligence of the students of colleges of Gujarat state. As a measure, Spiritual Intelligence is very useful for the further research in this field; this tool will provide the facility to measure spiritual intelligence to the future researcher. This tool may be very useful to the teachers, parents and counsellors to guide students for their future.