Variation of Multiple Intelligences of Elementary School Students with gender

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Abstract:
A study was conducted to investigate multiple intelligences of elementary school students. A sample of total 635 students was taken in which elementary classes were included. Teele inventory of multiple intelligences was applied and profiles of multiple intelligences were generated. The profile indicated that students display variety of intelligences. When multiple intelligences were compared on the basis of gender it was found that girls scored higher than the boys in linguistic, spatial, musical and interpersonal intelligence while boys scored higher than the girls in logical mathematical and bodily kinesthetic intelligence. In case of intrapersonal intelligence both boys and girls showed almost similar mean scores.

Introduction:
Education is a process of human enlightenment and empowerment for the achievement of a better and higher quality of life. Sound and effective system of education results in the enfoldment of learner's potentials, enlargement of their competencies and transformation of their interests, attitudes and values. Empowering of students may be achieved through community engagement in schools, entrepreneurship classes, career and life skills and professional networks for students. Identifying and assessing students’ abilities and providing appropriate learning opportunities is the prerequisite for all round development of students.

Need and Importance of the Study:
It is known that students have different potentials, interests and skills unlike each other. Thus all of them learn in many different ways. So educators must provide learners different learning opportunities. This situation requires that the student should be known well. Determining the students’ multiple intelligences is important in terms of students and curriculum. Results of kinds of these studies may provide source to develop curricula and to form instructional designs in which individual differences, interests, and skills are regarded, students’ multiple intelligences are allowed to develop and contemporary instructional methods are used. This study of multiple intelligences of elementary school students is a humble attempt by the researcher to put forth assessment of varying and multiple abilities of students.

Statement of the Problem:
Outcomes of determining students’ MI studies may be useful for students, curriculum and instruction. In a nutshell the present research problem is stated as: “Variation of Multiple Intelligences of Elementary School Students with gender”

Objective of the Study: The main objective of the study was to assess the multiple intelligences of
Operational Definition of Variables:

Multiple intelligences:

According to Gardner, everyone has all the intelligences, but in different proportions. One intellectual capacity has many different intelligences including linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal and intrapersonal. Multiple Intelligences in the present study are operationally defined as the scores obtained by the elementary school students in each of the seven intelligences measured by the Teele Inventory for Multiple Intelligences by Sue Teele, 1992 (Revised in 1993-94, 1995, 1997, 2002 and 2008)

Elementary school students:

A child’s formal school education from first grade to eighth grade is termed as elementary education. For the present study the elementary school students are considered as the students studying in classes from 1st to 8th.

Method of the Research: The study aims to assess students’ intelligences and explore how these intelligences vary with gender. Cross-sectional survey is used in this study as it is less time consuming. For the present study a total of 635 elementary school students are selected from six Kendriya Vidyalayas of Bhopal region (M.P.) out of which 276 are girls and 359 are boys.

Tool used in the study:

Teele Inventory for Multiple Intelligences:

The Teele Inventory for Multiple Intelligences (TIMI) developed by Sue Teele in 1992 was specifically designed to examine the dominant intelligences of students from kindergarten through the twelfth grade, and acts as an indicator as to whether students in different grade levels possess different intelligences or not.

The investigator personally visited all the schools and collected the data. On the completion of the data collection the responses of the subjects recorded in the answer sheets were scored following the instructions given in the manual and with the help of scoring key provided for the purpose. Profiles were generated for the students and means and standard deviations were calculated for all the seven dimensions of multiple intelligences for boys and girls. Table 1 shows mean scores of multiple intelligences of boys and girls.

<table>
<thead>
<tr>
<th>Intelligences</th>
<th>Boys</th>
<th>SD</th>
<th>Girls</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linguistic</td>
<td>4.47</td>
<td>1.524</td>
<td>4.76</td>
<td>1.402</td>
</tr>
<tr>
<td>Logical-mathematic</td>
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<td>1.935</td>
<td>3.58</td>
<td>1.820</td>
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<tr>
<td>Spatial</td>
<td>4.36</td>
<td>1.509</td>
<td>4.48</td>
<td>1.529</td>
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<tr>
<td>Bodily-kinesthetic</td>
<td>4.36</td>
<td>1.437</td>
<td>3.87</td>
<td>1.543</td>
</tr>
<tr>
<td>Musical</td>
<td>3.92</td>
<td>1.627</td>
<td>4.40</td>
<td>1.563</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>3.95</td>
<td>1.516</td>
<td>4.26</td>
<td>1.586</td>
</tr>
<tr>
<td>Intrapersonal</td>
<td>2.66</td>
<td>1.577</td>
<td>2.65</td>
<td>1.614</td>
</tr>
</tbody>
</table>

Multiple intelligences profile of elementary school students is shown in the figure below.

**Fig. 1 Multiple Intelligence Profiles of Boys and Girls**
Major finding of the Study:

Figure 1 shows that girls scored higher than the boys in linguistic, spatial, musical and interpersonal intelligence while boys scored higher than the girls in logical mathematical and bodily kinesthetic intelligence. In case of intrapersonal intelligence both boys and girls showed almost similar mean scores. Mean scores of multiple intelligences obtained by boys and girls indicate their respective dominant intelligences. Four dominant intelligences shown by the boys are linguistic (4.47), bodily-kinesthetic (4.36), spatial (4.36) and logical-mathematical (4.28) while the girls exhibited linguistic (4.76), spatial (4.48), musical (4.40) and interpersonal (4.26) as their dominant intelligences.

Conclusion:

Results showed that different multiple intelligences are being exhibited by boys and girls. Girls and boys showed significant difference in five intelligences out of the total seven intelligences namely linguistic intelligence; logical-mathematical; bodily kinesthetic intelligence; musical intelligence; and interpersonal intelligence. It can be concluded that sex differences play role in the development of some of the intelligences whereas others are independent of sex differences. Dominant intelligences of boys are linguistic, bodily-kinesthetic, spatial and logical-mathematical while the girls displayed linguistic, spatial, musical and interpersonal as their dominant intelligences. This shows that both girls and boys have capacities in various fields.

Recommendations:

Students displayed variety of profiles of MI on the basis of gender. There is a need to assess students’ profiles of multiple intelligences. Such assessment of students’ profiles of MI could be useful in delineating students’ strengths as well as their weaknesses and teachers who are sensitive to students’ profiles of multiple intelligences could help students strengthen their well-developed and less developed intelligences through learning activities congruent with these intelligences. The assessment of multiple intelligences of students thus will move us closer to providing personalized learning experiences to students taking into consideration students’ individual needs, interests and strengths and weaknesses in specific intelligences. Students’ awareness of the MI profile may help both themselves and teachers.

Gender plays a crucial role in determining multiple intelligences of elementary school students hence interventions should be planned for both the gender accordingly. An assessment of male and female students based on MI intelligence strategy should be implemented and recorded. Further the feedback should be given to each student. As variety of intelligences is shown by boys and girls, it requires special attention both by parents as well as teachers. As they have more potential in particular aspects, if they are encouraged and motivated, they can be made more able to recognize their potential and can reach the stage of maximum utility of their talent in that particular field. They can become famous people in their field like M. S. Dhoni (Bodily-kinesthetic intelligence), Lata Mangeshkar (Musical intelligence), Mandira Bedi (Interpersonal intelligence), Osho (Intrapersonal intelligence), Vishwanathan Anand (Logical-mathematical intelligence), M.F. Hussain (Spatial intelligence), Kiran Desai (Linguistic intelligence).

References

