LEARNING STYLE OF HIGHER SECONDARY COMMERCE STUDENTS

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ABSTRACT

This research article focuses its attention on the learning style of higher secondary commerce students and its influence on the academic achievement. For achieving this, the researcher adopted survey method and learning style inventory developed by Asa Grant Hilliard (1989) was the tool used for data collection. 903 higher secondary commerce students were taken as the sample of the study using simple random sampling technique. Mean, SD and ‘t’ test were used for analysing the data. The study revealed that the higher secondary commerce students with global and analytical learning style differ significantly in their academic achievement. The higher secondary commerce students with analytical learning style have better academic achievement.
INTRODUCTION

Individuals are members of the society and their action affect the society favorably or adversely. Commerce carefully studies this individual action, which is injurious to the society as a whole and recommends the methods of their prevention. There are certain commerce issues, which are of direct interest to the society. The problem of money is protection, incidence of taxation, import-export, the development of agriculture, industries and the like affect the society as a whole. Commerce education carefully studies these problems in the light of social welfare and gives its biased opinion.

Commerce education is the backbone of business. The success in business depends upon the quality of manpower. Commerce education should keep pace with changing trends. It has a crucial role to play in our society including various political parties, religious organizations, where expertise in commercial knowledge is required. The commerce degrees are intended for acquiring a conceptual knowledge and managerial skills in the wide spectrum of business and industry and to provide highly qualified and smart commerce graduates. Hence, it is essential to shape and mould the commerce students to suit the global changes.

LEARNING STYLES

Learning is something that takes place inside a person’s brain, and it is known to be an enormously intricate and complex process. Knowledge about learning can be accumulated by scientific methods and when such knowledge is adequately verified, it can be expressed as learning principles. Learning is a process, which enables the teachers to recognise that learning has taken place when they note a behavioural change in the learner and also when they note the persistence of this change.

Learning happens in stages, and at each stage students learn in different ways. Difficulties that arise in schooling are often due to differences in learning styles. Children's academic performance and success in life depend on the thinking and problem solving skills, they develop in early childhood. By the time students reach the upper grades, their reading speed is sufficient for them to learn. But speed is not everything. Sometime, especially with textbooks, the tendency is to see the words, but not really read what is seen.

Sarah Church defines ‘Learning Style’ as it is the way a person processes, internalizes, and studies new and challenging material. The cornerstone of this theory is that most people learn in their own unique ways of mastering new and difficult subject matter (Dunn, 2000, Pp. 3 – 22). Sarah says, Students perk up when you teach them the way they learn best. Learning to spot their general processing style (where they are on the global - analytical continuum), their preferred modalities (kinesthetic, tactile, auditory, visual), and their needs with respect to authority and structure, can speed up learning and clarify their practice (Teresa Dybvig, 1998).

MODELS OF LEARNING STYLE

Students have different learning styles – characteristic strengths and preferences in the ways they take in and process information, functioning effectively in any
professional capacity, however, requires, working well in all learning styles. If teachers teach exclusively in a manner that favours their students less preferred learning style modes, the students discomfort may be great enough to interfere with their learning. An objective of education should be to help students build their skills in both their preferred and less preferred modes of learning. Learning style models make sure that the learning needs of students in each category are met at least part of the time.

a) The Myers-Briggs Type Indicator (MBTI)

This model classifies students according to their preferences on scales derived from psychologist Carl Jung’s theory of psychological types. Students may be (i) Extroverts or introverts; (ii) Sensors or intuitors; (iii) Thinkers or feelers; and (iv) Judgers or perceivers. The MBTI type preferences can be combined to form 16 different learning style types.

b) Kolbs Learning Style Model

According to Kolb (1990), there are four stages of learning: the concrete experience, the reflective observation, the abstract conceptualization, and the active preferences based on their personal experiences, personality differences, environmental factors and prior educational factors.

This model classifies students as having a preference for (i) concrete experience or abstract conceptualization and (ii) active experimentation or reflective observation. The four types of learners in this classification scheme are:

Type – 1 (Concrete, Reflective) : A characteristic question of this learning type is ‘Why?’ Type – 1 learners respond well to explanations of how course material relates to their experiences, their interests and their future careers. Here the instructor should function as a motivator.

Type – 2 (Abstract, Reflective) : A characteristic question of this learning type is ‘What?’ Type – 2 learners respond to information presented in an organised, logical fashion and benefit if they have time for reflection. To be effective, the instructor should function as an expert.

Type – 3 (Abstract, Active) : Here the question is ‘How?’ Type – 3 learners respond actively on well-defined tasks and to learn by trial-and-error in an environment that allows them to fail freely. Here the instructor should be a coach.

Type – 4 (Concrete, Active) : Here the question is ‘What if?’ Type – 4 learners like applying course material in new situations to solve real problems. Here the instructor should stay out of the way.

c) Hermann Brain Dominant’s Instrument (HBDI)
This method classifies students in terms of their relative preference for thinking in four different modes based on the task specialised functioning of the physical brain. The four modes or quadrants are

- Quadrant – A (Left Brain, Cerebral) – Logical, analytical, factual, critical
- Quadrant – B (Left Brain, Limbic) – Sequential, organised, planned, detailed, structured
- Quadrant – C (Right Brain, Limbic) – Emotional, interpersonal, sensory, kinesthetic, symbolic
- Quadrant – D (Right Brain, Cerebral) – Visual, holistic, innovative

d) Felder-Soloman Learning Style Model

This model classifies students as
- Active learners or reflective learners.
- Sensing learners or intuitive learners.
- Visual learners or verbal learners.
- Sequential learners or global learners.

**Active and Reflective Learners**

1. Active learners tend to retain and understand information best by doing something active with it - discussing or applying it or explaining it to others. Reflective learners prefer to think about it quietly first.
2. “Let’s try it out and see how it works” is an active learner’s phrase; “Let’s think it through first” is the reflective learner’s response.
3. Active learners tend to like group work more than reflective learners, who prefer working alone.
4. Sitting through lectures without getting to do anything physical but take notes is hard for both learning types, but particularly hard for active learners.

Everybody is active sometimes and reflective sometimes. One’s preference for one category or the other may be strong, moderate, or mild. A balance of the two is desirable. If he always acts before reflecting he can jump into things prematurely and get into trouble, while if he spends too much time reflecting he may never get anything done.

**Sensing and Intuitive Learners**

1. Sensing learners tend to like learning facts, intuitive learners often prefer discovering possibilities and relationships.
2. Sensors often like solving problems by well-established methods and dislike complications and surprises; intuitors like innovation and dislike repetition. Sensors are more likely than intuitors to resent being tested on material that has not been explicitly covered in class.
3. Sensors tend to be patient with details and good at memorizing facts and doing hands-on (laboratory) work; intuitors may be better at grasping new concepts and are often more comfortable than sensors with abstractions and mathematical formulations.
4. Sensors tend to be more practical and careful than intuitors; intuitors tend to work faster and to be more innovative than sensors.
5. Sensors don’t like courses that have no apparent connection to the real world; intuitors don’t like “plug-and-chug” courses that involve a lot of memorization and routine calculations.

Everybody is sensing sometimes and intuitive sometimes. Their preference for one or the other may be strong, moderate, or mild. To be effective as a learner and problem solver, they need to be able to function both ways. If they overemphasize intuition, they may miss important details or make careless mistakes in calculations or hands-on work; if they overemphasize sensing, they may rely too much on memorization and familiar methods and not concentrate enough on understanding and innovative thinking.

**Visual and Verbal Learners**

Visual learners remember best what they see - pictures, diagrams, flow charts, time lines, films, and demonstrations. Verbal learners get more out of words - written and spoken explanations. Everyone learns more when information is presented both visually and verbally.

In most college classes very little visual information is presented: students mainly listen to lectures and read material written on chalkboards and in textbooks and handouts. Unfortunately, most people are visual learners, which means that most students do not get nearly as much as they would if more visual presentation were used in class. Good learners are capable of processing information presented either visually or verbally.

**Sequential and Global Learners**

1. Sequential learners tend to gain understanding in linear steps, with each step following logically from the previous one. Global learners tend to learn in large jumps, absorbing material almost randomly without seeing connections, and then suddenly ‘getting it’.
2. Sequential learners tend to follow logical stepwise paths in finding solutions; global learners may be able to solve complex problems quickly or put things together in novel ways once they have grasped the big picture, but they may have difficulty explaining how they did it.

Many people who read this description may conclude incorrectly that they are global, since everyone has experienced bewilderment followed by a sudden flash of understanding. What makes you global or not is what happens before the light bulb goes on. Sequential learners may not fully understand the material but they can nevertheless do something with it (like solve the homework problems or pass the test) since the pieces they have absorbed are logically connected. Strongly global learners who lack good sequential thinking abilities, on the other hand, may have serious difficulties until they have the big picture. Even after they have it, they may be fuzzy about the details of the subject, while sequential learners may know a lot about specific aspects of a subject but may have trouble relating them to different aspects of the same subject or to different subjects.
NEED AND SIGNIFICANCE OF THE STUDY

According to educationists, learning was considered as the “third eye” of man giving him an insight into all affairs and teaches him / her to act, that leads them to salvation. Learning style differs from one to another. Hence, there is no universal style of learning as such. Each and everyone should be conscious of his own learning style. Then only, he can learn the lessons easily, quickly and clearly. Using that style, students should possess theoretical knowledge of different types of learning styles. Then only, they can select suitable learning style for a particular lesson.

Teachers also have to take care of different learning styles adopted by their students for learning a particular subject. Accordingly, they take steps to modify their teaching to suit the learning styles of their students and employ ways and means to promote better learning style among their students. There is no right or wrong learning style and that there seems no connection between learning style and intelligence. One style may be dominant in one student. It does not mean that other learning styles are totally absent in that student.

Different learning styles on the part of the students require the teacher to take up different steps to improve the learning of different school subjects by their students at higher secondary level. Being a commerce teacher, the investigator has the responsibility to become familiar with the learning styles of her students. Then only, she can assess the type of learning style the students have and whether it should be changed or improved for attaining the high level achievement. Under these circumstances, the present investigation is undertaken.
TITLE OF THE STUDY

LEARNING STYLE OF HIGHER SECONDARY COMMERCE STUDENTS

OPERATIONAL DEFINITIONS

Learning Style

By this, the investigator means the score obtained in learning style inventory developed by Asa Grant Hilliard (1989).

Higher Secondary Commerce Students

By this, the investigator means the students studying in commerce group at the higher secondary level.

OBJECTIVES

1. To find the type of learning style of the higher secondary commerce students.
2. To find the level of academic achievement of higher secondary commerce students.
3. To find the level of academic achievement of higher secondary commerce students with global and analytical learning styles.
4. To find the significant difference between the higher secondary commerce students with global and analytical learning styles in their academic achievement.
5. To find the significant difference between the higher secondary commerce students with global and analytical learning styles in their academic achievement with regard to class, birth order, and locality of residence.

METHOD IN BRIEF

The investigator adopted the survey method as the suitable form of research for collecting data. The investigator took 903 higher secondary commerce students studying in the higher secondary schools in Tirunelveli District, using simple random sampling technique. Learning style inventory developed by Asa Grant Hilliard (1989) was used as the tool. For measuring the academic achievement, the quarterly marks of the students were taken. Mean, SD and ‘t’ test were used for analysing the data.
DATA ANALYSIS

1. The higher secondary commerce students are having global learning style.

Table – 1

<table>
<thead>
<tr>
<th>Learning Style of Higher Secondary Commerce Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>Learning Style</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

From the above table, it is found that 63.79% of higher secondary commerce students have global learning style and 36.21% of them have analytical learning style.

2. The level of academic achievement of higher secondary commerce students is high.

Table – 2

<table>
<thead>
<tr>
<th>Level of Academic Achievement of Higher Secondary Commerce Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Academic Achievement</td>
</tr>
</tbody>
</table>

From the above table, it is found that 18.72% of higher secondary commerce students have low academic achievement, 63.46% of them have average academic achievement and 17.83% of them have high academic achievement.

3. The level of academic achievement of higher secondary commerce students with global and analytical learning styles is high.

Table – 3

<table>
<thead>
<tr>
<th>Level of Academic Achievement of Higher Secondary Commerce Students with Global and Analytical Learning Styles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Style</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Global</td>
</tr>
<tr>
<td>Analytical</td>
</tr>
</tbody>
</table>

From the above table, it is found that 72.24% of higher secondary commerce students with global learning style and 47.09% of higher secondary commerce students with analytical learning style have average academic achievement.

4. There is no significant difference between the higher secondary commerce students with global and analytical learning styles in their academic achievement.

Table – 4
Difference between the Higher Secondary Commerce Students with Global and Analytical Learning Styles in their Academic Achievement

<table>
<thead>
<tr>
<th>Learning Style</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Calculated ‘t’ Value</th>
<th>Table Value</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>576</td>
<td>818.03</td>
<td>112.12</td>
<td>19.39</td>
<td>1.96</td>
<td>S</td>
</tr>
<tr>
<td>Analytical</td>
<td>327</td>
<td>989.41</td>
<td>135.62</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the above table, it is found that the calculated ‘t’ value is greater than the table value for 901 degrees of freedom at 5% level of significance. Hence, the null hypothesis is rejected.

5. There is no significant difference between the higher secondary commerce students with global and analytical learning styles in their academic achievement in terms of class.

Table – 5

<table>
<thead>
<tr>
<th>Class</th>
<th>Learning Style</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Calculated ‘t’ Value</th>
<th>Table Value</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>XI</td>
<td>Global</td>
<td>364</td>
<td>821.13</td>
<td>110.15</td>
<td>13.86</td>
<td>1.96</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>Analytical</td>
<td>217</td>
<td>982.25</td>
<td>148.61</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XII</td>
<td>Global</td>
<td>212</td>
<td>812.73</td>
<td>115.51</td>
<td>14.97</td>
<td>1.96</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>Analytical</td>
<td>110</td>
<td>1003.54</td>
<td>104.61</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the above table, it is found that the calculated ‘t’ values are greater than the table values for 579 and 320 degrees of freedom at 5% level of significance. Hence, the null hypothesis is rejected.

6. There is no significant difference between the higher secondary commerce students with global and analytical learning styles in their academic achievement in terms of birth order.

Table – 6

<table>
<thead>
<tr>
<th>Birth Order</th>
<th>Learning Style</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Calculated ‘t’ Value</th>
<th>Table Value</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Global</td>
<td>176</td>
<td>818.95</td>
<td>111.09</td>
<td>9.82</td>
<td>1.96</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>Analytical</td>
<td>128</td>
<td>973.85</td>
<td>151.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td>Global</td>
<td>197</td>
<td>815.19</td>
<td>113.47</td>
<td>11.09</td>
<td>1.96</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>Analytical</td>
<td>95</td>
<td>995.44</td>
<td>137.38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last</td>
<td>Global</td>
<td>203</td>
<td>820.00</td>
<td>112.20</td>
<td>13.65</td>
<td>1.96</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>Analytical</td>
<td>104</td>
<td>1003.05</td>
<td>110.66</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
From the above table, it is found that the calculated ‘t’ values are greater than the table values for 302, 290 and 305 degrees of freedom at 5% level of significance. Hence, the null hypothesis is rejected.

7. There is no significant difference between the higher secondary commerce students with global and analytical learning styles in their academic achievement in terms of locality of residence.

<table>
<thead>
<tr>
<th>Locality of Residence</th>
<th>Learning Style</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Calculated ‘t’ Value</th>
<th>Table Value</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>Global</td>
<td>231</td>
<td>840.34</td>
<td>106.87</td>
<td>10.21</td>
<td>1.96</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>Analytical</td>
<td>140</td>
<td>994.46</td>
<td>158.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>Global</td>
<td>345</td>
<td>803.10</td>
<td>113.23</td>
<td>17.44</td>
<td>1.96</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>Analytical</td>
<td>187</td>
<td>985.63</td>
<td>116.39</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the above table, it is found that the calculated ‘t’ values are greater than the table values for 369 and 530 degrees of freedom at 5% level of significance. Hence, the null hypothesis is rejected.

**FINDINGS**

1. 63.79% of higher secondary commerce students have global learning style and 36.21% of them have analytical learning style.
2. 18.72% of higher secondary commerce students have low academic achievement, 63.46% of them have average academic achievement and 17.83% of them have high academic achievement.
3. 72.24% of higher secondary commerce students with global learning style and 47.09% of higher secondary commerce students with analytical learning style have average academic achievement.
4. The higher secondary commerce students with global and analytical learning styles differ significantly in their academic achievement. The students with analytical learning style have better academic achievement.
5. The higher secondary commerce students with global and analytical learning styles differ significantly in their academic achievement with regard to class. The students with analytical learning style have better academic achievement.
6. The higher secondary commerce students with global and analytical learning styles differ significantly in their academic achievement with regard to birth order. The students with analytical learning style have better academic achievement.
7. The higher secondary commerce students with global and analytical learning styles differ significantly in their academic achievement with regard to locality of residence. The students with analytical learning style have better academic achievement.
CONCLUSION

From the findings of the present study, it is observed that the students with global and analytical learning styles differ significantly in their academic achievement. While studying in terms of their class of study, birth order and locality of residence, the same significant difference is observed. The students with analytical learning style have better academic achievement. Hence, it is concluded that the analytical learning style has its own significant influence on the academic achievement of higher secondary commerce students.

REFERENCES