Profile of Cognitive Styles of High School English Teachers

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Abstract: The main purpose of the current investigation is to profile the cognitive styles of high school English teachers. This study is based on data collected from 60 high school English teachers. Simple random sampling technique has been used to collect the sample. The Cognitive Style Inventory (CSI) has been used as tool to collect the data. Results from the investigation reveal that the high school English teachers possess three types of cognitive styles, namely, integrated cognitive style, undifferentiated cognitive style, and split cognitive style. It has also been found that there exists difference in cognitive styles of teachers based on their age and religion.

Keywords: Cognitive Style, Systematic cognitive style, Intuitive cognitive style, Integrated cognitive style, Undifferentiated cognitive style, Split cognitive style, high school English teacher.

I. Introduction

The term cognition is used to describe the mental activity through which human beings acquire, remember and learn to use knowledge. Cognition refers to a division for processing of information, application of knowledge, and modifying preferences. Cognition is a combination of mental processes that includes awareness, perception, reasoning and judgment. Cognitive style is described as a personality dimension which influences attitudes, values and social interaction. It is need-based. Herman Witkin (1950) introduced the term ‘cognitive style’ to describe the concept that individuals consistently exhibit stylistic preferences for the ways in which they organize stimuli and construct meanings for themselves out of their experiences and further suggested that these styles include variables within single dichotomy like global-holistic versus focus-detailed, field dependent versus field independent.

It is a fact that these two styles have gained lots of popularity in terms of perceptual processes of persons. Paivio (1971) indicated that cognitive style assesses whether an individual tends to think in verbal terms, using sequential processing of information, or in visual terms, using parallel processing. Cornett (1983) described cognitive style as a predictable pattern of behaviour within a range of individual variability. Messick (1984) indicated that cognitive style deals with the manner in which people prefer to make sense out of their world by collecting, analyzing, evaluating, and interpreting data. Srinivas Kumar (2011) defined that cognitive style has to be considered as a wholistic process of cognition that begins with the perception, and mediated by information processing, and the resultant retrieval; it varies from person to person and it is affected by various personality factors, such as, previous information, heredity and environment, interest, thinking, attitude, value system, intelligence, creativity, social and economic status and so on.

It is a fact that human beings are curious about themselves and their environment – right from birth to death. There exist individual variations among persons in the context of their ways of perception, understanding, and retrieval etc processes. Teachers form an important part of the human population. They form the backbone of any nation. Their role is significant as transmitters of culture and agents of social change to the new members of the society. Another notable aspect is that the English language is a foreign language for Indians. It is taught as second language in some secondary schools and as first language in English medium schools. It is well known fact that the ‘cognition’ is incidental and the ‘learning’ is goal-directed. These are complementary to each other. Hence, an attempt is made in the current investigation to prepare a profile of cognitive styles of high school English teachers for facilitating better learning for themselves and for the students. By exploring the cognitive styles of English teachers, it is presumed that their thought processes could be gauged. Societal-specific and culture-specific terms need to be embedded in sentence construction for bringing nativity in usage of a particular language. This aspect is applicable to the usage of scientific terms also. Thinking in mother language (any Indian language) and putting such ideas into a different language (for example, English) may not communicate the same meaning which it is intended to give. Keeping in view all these aspects, the objectives of the current research are stated as under.
II. Objectives

1. To explore the patterns of cognitive styles that exists among secondary school English Teachers.
2. To find out the cognitive styles among secondary school English teachers due to variation in their age, gender, place of living, type of family, and religion.

Keeping in view the objectives of the investigation, the following hypotheses have been formulated.

III. Hypotheses

1. There is no significant difference in cognitive styles of secondary school English teachers due to variation in their gender.
2. There is no significant difference in cognitive styles of secondary school English teachers due to variation in their age.
3. There is no significant difference in cognitive styles of secondary school English teachers due to variation in their place of living.
4. There is no significant difference in cognitive styles of secondary school English teachers due to variation in their type of family.
5. There is no significant difference in cognitive styles of secondary school English teachers due to variation in their religion.

IV. Method

Survey method has been used in the present investigation to describe the features of the English teachers. The ‘simple random sampling technique’ has been used for selection of sample of 60 English teachers working in high schools located in Kuppam and Gudupalli mandals located in Chittoor district of Andhra Pradesh State. The Cognitive Styles Inventory (CSI) has been used as a tool in this investigation. The CSI is standardized for Indian population by Praveen Kumar Jha (2001). It is a self-report measure of the ways of thinking, judging, remembering, storing information, decision making, and believing in interpersonal relationships. The CSI comprises 40 statements from which 20 statements are related to Systematic Style and the other 20 statements to Intuitive Style and are to be responded on five-point scale running from ‘Strongly Agree’ to ‘Strongly Disagree’ with three middle responses of ‘Agree’, ‘Undecided’, and ‘Disagree’. It enables to assess the five styles, namely, systematic style, intuitive style, integrated style, undifferentiated style, and split style.

- **Systematic Style:** An individual who typically operates with a systematic style uses a well defined step-by-step approach while solving a problem; looks for an overall method or pragmatic approach; and then makes wholistic plan for problem solving.

- **Intuitive Style:** An individual with intuitive style uses an unpredictable ordering of analytical steps when solving a problem, depends on experience pattern characterized by universalized areas or hunches and explores and abandons alternatives quickly.

- **Integrated Style:** A person with an integrated style is able to change styles quickly and easily. Such style changes seem to be unconscious and take place in a matter of seconds. The result of this ‘rapid fire’ ability is that it appears to generate energy and a proactive approach to problem-solving. In fact, integrated people are often referred to as ‘problem-seekers’ because they consistently attempt to identify potential problems as well as opportunities in order to find better ways of doing things.

- **Undifferentiated Style:** A person with such style appears not to distinguish or differentiate between the two style extremes, that is, systematic and intuitive, and therefore, appears not to display a style. In a problem-solving situation, he/she looks for instructions or guidelines from outside sources. Undifferentiated individuals tend to be withdrawn, passive and reflective and often look to others for problem-solving strategies.

- **Split Style:** A person with split style shows fairly equal degrees of systematic and intuitive characteristics. However, persons with split-style do not possess an integrated behavioural response; instead they exhibit each separate dimension in completely different settings using only one style at a time based on the nature of the tasks. In other words, they consciously respond to problem-solving by selecting the most appropriate style.

V. Results and Discussion

Upon analyses of the data gathered from the said sample of English teachers, it has been noticed that the high school English teachers appears in a major way to possess the Split Cognitive Style (61.66%). It is also interesting to note that another chunk of high school English teachers possess Integrated Cognitive Style (29.98%). Small portion of said teachers fall under Undifferentiated Cognitive Style category (8.33%). Further, the following results have been obtained in respect of cognitive styles, in terms of Systematic Style, Intuitive Style, Integrated Style, Un-differentiated Style, and Split Style, due to variation in gender, age, place of living, type of family, and religion. Chi-square test has been used for testing the hypotheses set for the study.
Table 1: Showing the Chi-square test value for the Cognitive Styles among High School English Teachers (N=60) due to variation in Gender.

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>Systematic Style</th>
<th>Intuitive Style</th>
<th>Integrated Style</th>
<th>Undifferentiated Style</th>
<th>Split Style</th>
<th>Chi-square test value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>1</td>
<td>21</td>
<td>2.68*</td>
</tr>
<tr>
<td>Female</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>4</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

The table value is 9.488 at 0.05 level for df = 4 @ not significant
The chi-square value from table-1 indicates that it is not significant. It reveals that there is no influence of gender on cognitive styles of English teachers. Education might have shown some effect on this feature, that is, all English teachers possess similar qualifications irrespective of their gender. It appears that education played a key role in this regard.

Table 2: Showing the Chi-square test value for the Cognitive Styles among High School English Teachers (N=60) due to variation in Age

<table>
<thead>
<tr>
<th>Age (in years)</th>
<th>N</th>
<th>Systematic Style</th>
<th>Intuitive Style</th>
<th>Integrated Style</th>
<th>Undifferentiated Style</th>
<th>Split Style</th>
<th>Chi-square test value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 35</td>
<td>28</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>18</td>
<td>9.85*</td>
</tr>
<tr>
<td>Below 35</td>
<td>32</td>
<td>0</td>
<td>0</td>
<td>13</td>
<td>0</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

The table value is 9.488 at 0.05 level for df = 4 * significant at 0.05 level

As could be seen from the above table (table-2) that the chi-square value is significant at 0.05 level. Such feature may be attributed to the factor of age difference between English teachers working in high schools. As is observed from the said table, the English teachers having below 35 years age are greater in number (13) than that in the group of above 35 years of age (5). It may be concluded that the English teachers possessing less that 35 years seem to have both Intuitive and Systematic features which made them to fall under the Integrated style category.

Table 3: Showing the Chi-square test value for the Cognitive Styles among High School English Teachers (N=60) due to variation in their Place of Living

<table>
<thead>
<tr>
<th>Place of Living</th>
<th>N</th>
<th>Systematic Style</th>
<th>Intuitive Style</th>
<th>Integrated Style</th>
<th>Undifferentiated Style</th>
<th>Split Style</th>
<th>Chi-square test value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>45</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>4</td>
<td>32</td>
<td>8.92*</td>
</tr>
<tr>
<td>Urban</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>1</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

The table value is 9.488 at 0.05 level for df = 4 @ not significant
Chi-square value shown in the above table (table-3) is not significant as per the standard chi-square table value. The reason for such happening points towards the aspect that there is no variation in cognitive styles due to variation in place of living of the English teachers. It is a fact that English is a foreign language for Indians. It is usual that the family members communicate in their own native language including the families of English teachers. It is similar in case of the families in the neighbourhood. In view of this factor, there may not be any apparent effect of place of living on cognitive styles of high school English teachers.

Table 4: Showing the Chi-square test value for the Cognitive Styles among High School English Teachers (N=60) due to variation in their Type of Family

<table>
<thead>
<tr>
<th>Type of Family</th>
<th>N</th>
<th>Systematic Style</th>
<th>Intuitive Style</th>
<th>Integrated Style</th>
<th>Undifferentiated Style</th>
<th>Split Style</th>
<th>Chi-square test value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuclear</td>
<td>41</td>
<td>0</td>
<td>0</td>
<td>13</td>
<td>3</td>
<td>25</td>
<td>0.53*</td>
</tr>
<tr>
<td>Joint</td>
<td>19</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

The table value is 9.488 at 0.05 level for df = 4 @ not significant
From the chi-square value indicated in the above table (table-4), there is no influence of type of family on high school English teachers. Neither nuclear family nor joint family has any significant influence on cognitive styles of English teachers.

Table 5: Showing the Chi-square test value for the Cognitive Styles among High School English Teachers (N=60) due to variation in their Religion

<table>
<thead>
<tr>
<th>Religion</th>
<th>N</th>
<th>Systematic Style</th>
<th>Intuitive Style</th>
<th>Integrated Style</th>
<th>Undifferentiated Style</th>
<th>Split Style</th>
<th>Chi-square test value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hindu</td>
<td>56</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>5</td>
<td>37</td>
<td>9.97*</td>
</tr>
<tr>
<td>Muslim</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

The table value is 9.488 at 0.05 level for df = 4 *significant at 0.05 level
Chi-square test value from table-5 indicates that the religion has shown effect on the cognitive styles of English teachers. This may be attributed to the English teachers’ religious beliefs, practices, perceptions, thinking processes etc in teaching-learning of English.

VI. Conclusion

The study provides interesting results. It may concluded that the high school English teachers possess three cognitive styles, that is, split cognitive style, integrated cognitive style, and undifferentiated cognitive style. It is dramatic that systematic and intuitive styles are not found among high school English teachers. In a major way these teachers are found to possess split cognitive style which is indicative of a combination of intuitive and systematic style qualities among them. This feature points towards their ability to perceive and operate in a situation-based manner either systematic or intuitive. Another interesting aspect is the presence of integrated cognitive style among next major portion of English teachers. It shows that certain English teachers who possess such style have the ability to change the styles very rapidly between systematic and intuitive. It also indicates their problem-seeking and problem-solving ability. A small chunk of English teachers are categorized under the undifferentiated cognitive style.

References