A STUDY OF COGNITIVE STYLES AND PERSONALITY NEEDS IN RELATION TO CENTRAL SCHOOL STUDENTS

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Abstract

Children vary not only in their ability to learn and their level of achievement, but also in how they learn. Every child evolves a personal way of processing information acquiring knowledge and learning concepts. That is, each child perceives, thinks & remembers according to his or her own unique style. Cognitive style affects how pupils learn and how they interact in the classroom with peers and teachers. It also influences personality and behavior; it relates to cognitive processes modes of problem solving, attitudes, values and social interaction. The present study has covered 500 samples with Belgaum and Bidar districts of the Karnataka in central school students in relation to academic achievements in the central schools. Achievements are similarly changes in the two central schools. The present study reveals that there is significance difference between high achievers with respect to cognitive styles, personality needs and its dimensions as compared with academic achievements. It can be concluded that high achievers are possessed with high level cognitive styles and personality needs along with its dimensions as compared with academic achievements.

Keywords: Cognitive Styles, Personality Needs, Relation, Academic Achievements

Concept of Cognitive Style

Cognitive styles represent dimensions of individual differences in cognitive sphere which includes the process of perception, thinking, reasoning, and understanding, problem solving and remembering. It describes habitual processes of perceiving and thinking which are qualitatively distinct. Bolles (1937) describes a ‘basic of pertinence’ exhibited by children within a Goldstein frame work that defines the children’s performances on a continuum from a functional concrete attitude to an abstract attitude. Hester and Tagata (1971) in an experiment classified their subjects into two cognitive styles, viz. global and analytic. They found that in a series of conceptual tasks, analytic subjects were initially more efficient than the other groups.
Terms of the study

➢ **Cognitive style**- The control process or style which is self-generated, transient, situational determined conscious activity that a learner uses to organize and to regulate, receive and transmit information and ultimate behaviour. Cognitive style or "thinking style" is a term used in cognitive psychology to describe the way individuals think, perceive and remember information.

➢ **Personality needs**-"Personality is the sum of activities that can be discovered by actual observation over a long enough period of time" - watson.

➢ **Academic** - It pertains to school subjects or to fields of liberal arts or to the sphere of ideas and abstraction (Chaudary, 2004).

➢ **Achievement** - It is denoted by knowledge attained or skills developed by pupils usually in the schools, measured by test scores or by marks assigned by teachers (Chaudhary, 2004).

➢ **Academic achievement**- The acquired knowledge and skills as a result of interaction between the learner and the learning environment.

**Different Cognitive Styles**

↔ **Problem statement**: the most essential ones for the organization of differentiated learning process in STEM fields were defined in the previous works

↔ **Field dependence/field independence**: - This cognitive style characterizes the ability of the subject to tune out the periphery of the field of perception. The field dependent people are guided by the external visible field of perception, and experience difficulties overcoming its influence.

↔ **Impulsivity/reflectivity**:-Impulsivity/reflectivity characterizes individual differences in the tendency to make decisions quickly or slowly. Most evidently it can be seen in the multiple-choice situations.

**Most referred cognitive styles**

❖ **Field Dependence - Field Independence**: refers to the extent to which a learner perception is influenced by environment or context (Witkin, Moore, Good enough & Cox). Field dependent students experience difficulties to find the information they are looking for because other contextual stimuli tend to impede it. Field independent learners easy distinguish the relevant information from surrounding it components.
Serialist – Holist: Holist/Serialist cognitive style has been defined according to the two different ways of selecting and organising information in learning complex subject matter: building an overview of the topic itself or building concrete operations (Pask). Holist prefers a global approach to a material using broad descriptions.

Impulsivity – Reflectivity: Impulsivity/Reflectivity distinguishes the people according to the tendency of postponing initial response and reflecting on it before answering rather than the tendency of quick, impulsive response (Kagan). Impulsive people, by rule, respond faster and make more mistakes, while reflectors answer slower but commit fewer performance errors.

Verbaliser / Visualizers: Cognitive style measures the preference of people to attend and organise visual or verbal information (Kirby, Moore & Schofield). Some people learn better from diagrams, graphics and pictures, while others prefer to process information by reading or listening.

Myers-Briggs: Conception of style is a rather popular. It is a revival of the idea of psychological types of Karl Jung and temperament's types of Hippocrate, Kretschmer and Adler. The main dispositions of the Myers-Briggs styles are Extraversion/Introversion, Sensing/Intuition, Thinking/Feeling, and Judging/Perceiving.

Kersey: On the line of the same theoretical perspective identified by the Temperament Sorter 32 mixed types, which are clustered to four temperament types. Metaphorically, they sound like Appolo, Dionysus, Prometheus, and Epimetheus.

Sternberg: Introduced the cognitive construct of thinking styles as an intersection between intelligence and personality. Thinking style is not ability, but rather a preferred way of expressing or using one or more abilities.

Analytic style: This style is also called field independent or descriptive cognitive style. According to Zarour&Panaouri – Kilariotis (1997), individuals in analytic mode associate stimuli on the basis of their overt physical attributes like part or whole.

Relational Cognitive Style: According to Zarour&Panaouri – Kilariotis (1997) “individual with relational and contextual orientations group together stimuli that are interdependent or functionally related. Onwn&Asuzu (1986) defined relational style as a mode to associate objects or events on the basis of features establishing a relational link between them.
Inferential Cognitive Style:

Onwu & Asuzu (1989) defined inferential style as the tendency to associate objects or events on the basis of superordinate features which are not directly discernible but are inferred. It is an imaginative tendency.

Importance of Studying Cognitive Style:

Students play a vital role in the education system. It is abundantly clear that a wide range of individual differences exists among students. It is clear that individual differences in cognitive functioning also exist. In an increasingly specialized society the development of more specialized cognitive skills and personality needs seems demanded. Education in the structure should become more diversified, identifying early a greater range of potential cognitive styles and providing a variety of educational environment to match them. The considerable stress in recent years upon the development of educational practices which take cognizance of individual differences within a struggle learning environment, which has however posed an important task for educational psychology.

Students with different cognitive styles and personality needs differ in their information processing and hence in their learning styles too. One way to make the educational experience more effective and relevant to students would be to examine the effects of playing students in classrooms according to their cognitive styles and personality needs. The second way is to improve teaching by providing feedback to teachers regarding their pattern of interacting with specific students. Finally, it is illuminating to consider how much of our educational effort is directed towards the transmission of knowledge and skills, and how little of it is concerned with helping the child, understand and shape his own pattern of thinking and categorization. It is impossible that research into cognitive styles provide valuable painting in this area keeping this in view. The present study was taken up to investigate the cognitive styles and personality needs of students.

Concept and Nature of Personality Needs:

"Personality is the ultimate reality that organizes and controls his observable behaviour" - Marton Prince.

Personality is an individual's unique constellation of consistent behavioural traits. A personality is a durable disposition to behave like honest, moody, impulsive and friendly in a way in verity of situations”. The term personality has been derived from
the Latin word “Persona” which was associated with Greek theater in ancient times. The Greek actors commonly used to wear masks on their faces during their performances on the stage. The mask worn by the actors was called persona. Personality was thought to be the effect and influence which the individual wearing a mask left on the audience.

Personality is a whole rather than a sum of parts. We cannot identify the personality of a person on the basis of his physique or his intellectual level or his character. But the all these elements put together are made to function in harmony which makes his personality. The conduct, behaviour, activities, movements and everything else concerning the individual are known as personality. It is the way of responding to the environment. The way in which an individual adjusts with the external environment is personality.

Characteristics of Personality: (i) Each individual personality is unique, (ii) Personality is one’s total integrated behaviour, (iii) It is all that a person is (iv) personality is a dynamic concept (v) Personality exhibit self-consciousness, (vi) Personality is a social concept.

Important personality traits are:

- **Openness** refers to traits, such as how inclined someone is to conform to societal or cultural norms, how concretely or abstractly someone thinks about things, and how open or resistant someone is to change. A person who is a creative thinker and always looking for ways to do things better would likely score high on measures of openness.

- **Neuroticism** is a personality characteristic that describes how nervous or anxious a person tends to be, as well as the degree of self-confidence and self-contentment he or she possesses. Individuals who score high on levels of neuroticism will often be preoccupied with the 'what ifs' of life. They tend to be worrisome and preoccupied with things that might not be within their control.

- **Agreeableness** takes into account how kind, dependable, and cooperative a person is. People who score high on scales of agreeableness are typically more interested in doing things for the common good, as opposed to fulfilling their own self-interests.

- **Conscientiousness** has to do with a person's degree of organization, level of discipline, and how prone he or she is to taking risks. The college student who never misses a class and has a 4.0 GPA would probably prove to have a high degree of conscientiousness as measured on a personality assessment.

- **Extraversion** is a personality characteristic that describes things like how social a person is or how warm and loving they tend to be. Extraverts are people who would
typically prefer to go out to a party with lots of friends, as opposed to stay in and watch a movie with one or two friends.

**Need and Significance of the Study**

Cognitive styles, and personality needs are all encompasses the higher mental processes of human beings including how people know and understand the world. These factors are very much associated with enhancing academic achievement of learners. It is matter of common experiences and observation of many teachers, parents and investigators that there is need for investigation in the field of Secondary Education level student’s psychological related characters, their academic achievement which helps to improve and to update their achievement level. From the review of previous studies can be concluded that the findings of a previous studies were conclusive, contradicting or conflicting. Some of the studies have revealed mixed results; some of the practices have shown facilitating effects and others non-facilitating effects of the variables. The investigator has taken up the challenging task of preparing and standardising text required for data collection by using systematic procedure of development of text. The present study emerges as a venture in this direction. The investigator hopes that the findings of the study would help in the process of teaching, learning and other administrative part of the classroom intern which helps in fostering the academic performance of students of central schools.

**Review of Related Literature** The investigate has reviewed previous investigations where following referred are as follows

**Srinivas and Gangadhar (2015)** observed that the high school Biological Science teachers possess three types of cognitive styles, namely, split cognitive style, undifferentiated cognitive style and integrated cognitive style.

**Srinivas and Nagaraju (2014)** indicated that the high school Mathematics teachers possess three types of cognitive styles, namely, split cognitive style, integrated cognitive style and undifferentiated cognitive style and also found that there was a significant difference in cognitive styles of teachers based on variation in their gender and types of management of their schools.

**TabeBordbar and Fariba (2013)** conducted a study on academic performance of virtual students based on their personality traits, learning styles and psychological well being. The study revealed that the correlation between personality traits and learning styles which could lead learners to a higher level of learning.

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Nabiollah Sadeghi, Zalina Mohd Kasim, Bee Hoon Tan, Faiz Sathi Abdullah (2012), Findings are on Personality - Types and/or Traits, Personality and Learning Styles, Personality, Learning Performance and Styles. Current research on learning styles, personality types and L2 performance showed that there is a relationship between personality types of the learners, the way they establish their learning styles and their success in language learning. On the other hand, both theoretical and empirical studies showed the relationship and the effect of personality on reading comprehension. However, the results of empirical research in this area is not that congruent; different studies led to different incongruent findings.

Sharma Parveen, Neetu (2012) in a research entitled “A Study of Learning-Thinking of Secondary School Students in relation to their academic achievement” concluded that learning-thinking style and academic achievement of secondary school students are positively and significantly related to each other. Students having high academic achievement are better for teaching. It can be said that academic achievement is a factor which influence the learning-thinking style of secondary school students. It can also be concluded that male and female secondary school students are not different in respect to their academic achievement whereas they are different in respect to their learning-thinking style.

Vijay Amirtharaj and Jesudoss (2010) conducted a study on learning styles and academic achievement of X standard students. The findings revealed that the level of learning styles and their dimensions in X standard students with regard to sex was average. There was no significant difference between boys and girls in their musical and interpersonal learning styles. There was significant difference between boys and girls in linguistic, logical, spatial, bodily and intrapersonal. There was no significant difference between rural and urban students in their learning styles in the dimensions such as linguistic, logical, spatial, bodily, intrapersonal and interpersonal. There was significant difference between rural and urban students in their learning style.

Kaia Laidra, Helle Pullmann, Juri Allik (2006) conducted a study on Personality and intelligence as predictors of academic achievement. General intelligence and personality traits from the 5 factor model was studied as predictors of academic achievement in a large sample of Estonian school children from elementary to secondary school. A total of 3618 students from all over Estonia attending grades 2, 3, 4, 6, 8, 10 and 12 participated in this study. Intelligence, as measured by Raven’s Standard Progressive Matrices, was found to be
best predictor of student’s grade point average in all grades. Interactions between predictor variables and age accounted for only a small percentage of variance in GPA, suggesting that academic achievement relies basically on the same mechanisms through the school years.

**Kammers (2005)** conducted study on the Gender differences and cognitive styles in the use of digital games amongst advanced level biology students. It is an elaboration on previous work exploring the relationship between Cognitive Style and academic performances in biology, at advanced level. The study reveals that cognitive styles of 581 (212 Male and 369 Female) advanced biology students was correlated with their academic perfect in 5 subjects. The verbal imaginary dimension, wholistic analytic dimension and Gender were not correlated. Regression Analysis showed that none of the style dimension combination had a significant effect on performance of the subject.

**Astington (1996)** studied the personality traits of both boys and girls by taking a sample of 345 students of ninth class and found that boys with the best relative academic achievement received higher rating in persistence, independence and interest and considered themselves less extraverted and less sociable than did their fellow students who performed less well academically.

**O’Brien and Terrance (1994)** studied Cognitive Style and Academic Achievement in secondary education. The research analysed difference in Academic Achievement related to Cognitive Style, Gender, Grade and Age found that concrete sequential students had the highest grade point averages and females out performed males and Achievement varied by grade level.

**Entwistle (1985)** studied relationship of neuroticism and school attainment and found that neuroticism showed significant correlation with school attainments; children with high neuroticism scores were less successful in their school attainment than those with low neuroticism scores.

**Overview of the Literature**

Review of the studies cited above reveals and concluded that there was no effort made to understand the relation and effect of personality needs and cognitive style of secondary school students of central schools. Investigator hopes that the findings of study would help the educational system in taking up measures for enhancing the academic achievement of secondary school students along with the improvement of better personality needs and better cognitive styles.

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Studies related to the cognitive styles about the Strategy Index to determine the student’s levels of cognitive styles, reading styles inventory named Index of paper folding, card rotation skills, personality styles and nonverbal ability on academic achievement of high school pupils. Awareness is frequently related to better performance in learning. There were no Studies conducted on central school students of cognitive styles and personality needs, and academic achievements. Thus, it is evident the number of researches on students, in relation to variables like such as cognitive style and its dimensions (i.e. paper folding and card rotation). Personality and its dimensions (Psychotism, Neurotism, Extroverts, Live score). Therefore, the investigator undertook this study on cognitive styles and personality needs of central school students. The investigator has made a humble attempt to fill up the research gap by undertaking the present study on cognitive styles and personality needs of central school students of academic achievements.

**Objectives of the Study:** Objectives of the studies are as follows

- To study whether there is no significance difference between students of Belgaum and Bidar central schools with respect to cognitive style and its dimensions (i.e. paper folding and card rotation).
- To study whether there is no significance difference between Students of Belgaum and Bidar central schools with respect to Personality and its dimensions (Psychotism, Neurotism, Extroverts, Live score).

**Hypothesis:** In pursuance of above stated objectives following hypothesis were formulated

1. There is no significance difference between students of Belgaum and Bidar central schools with respect to their academic achievement.
2. There is no significance difference between students of Belgaum and Bidar central schools with respect to cognitive style and its dimensions (i.e. paper folding and card rotation).
3. There is no significance difference between Students of Belgaum and Bidar central schools with respect to Personality and its dimensions (Psychotism, Neurotism, Extroverts, Live score).

**The Methods of Research:** The survey method of research use for the present study

**Statistical Techniques Used for the Study:** To achieve this hypothesis, the one-way ANOVA test and t-test techniques was used. Interpreted all data and inferences were drawn.
Tools Used for the Study:– constructed and developed by Minnesota tool was used to assess the Cognitive style of the Central School Students. The cognitive Scale has threedimensionssuch cognitive style, paper folding and card rotations which are all found to be significantly inter related each other. The final version of the scale consists of 64 graphical statements of which some are negative and positive statements. the Investigator has computed reliability and validity quotients which are found to be significant. The personality scale was constructed and developed by the Investigator by using systematic procedure for the construction of Tools. The personality scale consist of 4 dimensions such as Psychotism, Neurotism, Extroverts, Live score which are all found to be significantly inter related each other.

Limitations of the Study: The present study has following the limitations

- The study is restricted to the students of central schools of Bidar and Belgaum district of the Karnataka
- The study is restricted to assess the cognitive styles and personality needs
- The study is restricted to only English medium students of central school

Sample of the Study: The sample of this present study involves 500 students of central schools of the Bidar and Belgaum districts.

Data Analysis and Interpretation

Table No.: Summary of Multiple Linear Regression Analysis: Independent Variables on Academic Achievement of Central School Students

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Reg Coeffi.</th>
<th>SE of Coeffi.</th>
<th>t-value</th>
<th>p-level</th>
<th>Signi.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-1.4278</td>
<td>15.2303</td>
<td>-0.0937</td>
<td>0.9253</td>
<td>&gt;0.05,NS</td>
</tr>
<tr>
<td>Cognitive style (X1)</td>
<td>4.0920</td>
<td>0.3030</td>
<td>13.5046</td>
<td>0.0001</td>
<td>&lt;0.05,S</td>
</tr>
<tr>
<td>Personality (X2)</td>
<td>2.3658</td>
<td>0.3540</td>
<td>6.6828</td>
<td>0.0001</td>
<td>&lt;0.05,S</td>
</tr>
</tbody>
</table>

R=0.9528, R²=0.9078,F(3,496)=1628.9 p<0.05, S, Std.Error of estimate: 19.382

From the results of the above table it can be seen that,

- The combined effect of Cognitive style (X1) on academic achievement of central school students is found to be positive and significant at 0.05 level of significance. It means that, the academic achievement of central school students is influenced by Cognitive style (X1).
- The combined effect of Personality (X2) on academic achievement of central school students is found to be positive and significant at 0.05 level of significance. It means that, the academic achievement of central school students is influenced by Personality (X2).
Therefore, the multiple linear regression equation predicting the academic achievement of central school students (Y) in terms of Cognitive style (X1), and Personality (X2) was found to be under:

\[
\text{Academic achievement (Y) = -1.4278 + 4.0920X1 + 2.3658X2}
\]

The multiple R of the linear regression equation is 0.9528. For testing multiple correlation coefficients the F-ratio (1628.9) was found to be significant at 0.05 level. Thus, the null hypothesis is rejected and alternative hypothesis is accepted. Significant R suggests that estimation of academic achievement of central school students on the basis of the predictor’s i.e. Cognitive style (X1), and Personality (X2). Further, the regression equation shows that Cognitive style (X1), and Personality (X2) can be used to prediction of academic achievement of central school students.

The coefficient of multiple determination of R² is 0.9078. It can be therefore, be said that nearly 90.78 percent of the variation in academic achievement of central school students accounted for whatever is measured by Cognitive style (X1), and Personality (X2) are taken together. The SEest for the regression equation is 19.382. This means that each time the regression equation for the sample is used to predict academic achievement of central school students, the chances are predicted academic achievement of central school students will not miss the actual academic achievement of central school students by more that ±19.382.

Table: 2 Resultsof t-Test between Students of Belgaum and Bidar Central Schools with respect to Cognitive Style and its Dimensions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Districts</th>
<th>Mean</th>
<th>SD</th>
<th>SE</th>
<th>t-value</th>
<th>p-value</th>
<th>Signi.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive style</td>
<td>Belgaum</td>
<td>53.17</td>
<td>9.10</td>
<td>0.58</td>
<td>7.6446</td>
<td>0.0001</td>
<td>&lt;0.05, S</td>
</tr>
<tr>
<td></td>
<td>Bidar</td>
<td>47.36</td>
<td>7.84</td>
<td>0.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper Folding</td>
<td>Belgaum</td>
<td>24.48</td>
<td>4.36</td>
<td>0.28</td>
<td>6.4710</td>
<td>0.0001</td>
<td>&lt;0.05, S</td>
</tr>
<tr>
<td></td>
<td>Bidar</td>
<td>22.11</td>
<td>3.84</td>
<td>0.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Card rotation</td>
<td>Belgaum</td>
<td>28.68</td>
<td>6.62</td>
<td>0.42</td>
<td>6.2545</td>
<td>0.0001</td>
<td>&lt;0.05, S</td>
</tr>
<tr>
<td></td>
<td>Bidar</td>
<td>25.25</td>
<td>5.61</td>
<td>0.35</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the results of the above table, it can be revealed the following,

- The students of Belgaum and Bidar central schools differ significantly with respect to cognitive style (t=7.6446, p<0.05) at 0.05 level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the students of Bidar central schools have significant lesser cognitive style as compared to students of Belgaum central schools.
- The students of Belgaum and Bidar central schools differ significantly with respect to dimension of cognitive style i.e. paper folding (t=6.4710, p<0.05) at 0.05 level of significance.
significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the students of Bidar central schools have significant lesser paper folding as compared to students of Belgaum central schools.

- The students of Belgaum and Bidar central schools differ significantly with respect to dimension of cognitive style i.e. card rotation (t=6.2545, p<0.05) at 0.05 level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the students of Bidar central schools have significant lesser card rotation scores as compared to students of Belgaum central schools.

The mean of the cognitive style and its dimensions are also presented in the following figure.2

Table:3 Results of t-Test Between Students of Belgaum And Bidar Central Schools with respect to Personality Scores and its Dimension

<table>
<thead>
<tr>
<th>Variable</th>
<th>Districts</th>
<th>Mean</th>
<th>SD</th>
<th>SE</th>
<th>t-value</th>
<th>p-value</th>
<th>Signi.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personality</td>
<td>Belgaum</td>
<td>80.28</td>
<td>6.04</td>
<td>0.38</td>
<td>8.7167</td>
<td>0.0001</td>
<td>&lt;0.05, S</td>
</tr>
<tr>
<td></td>
<td>Bidar</td>
<td>75.44</td>
<td>6.38</td>
<td>0.40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychotism</td>
<td>Belgaum</td>
<td>24.77</td>
<td>4.20</td>
<td>0.27</td>
<td>5.4846</td>
<td>0.0001</td>
<td>&lt;0.05, S</td>
</tr>
<tr>
<td></td>
<td>Bidar</td>
<td>22.50</td>
<td>5.03</td>
<td>0.32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neurotism</td>
<td>Belgaum</td>
<td>20.28</td>
<td>3.33</td>
<td>0.21</td>
<td>4.6674</td>
<td>0.0001</td>
<td>&lt;0.05, S</td>
</tr>
<tr>
<td></td>
<td>Bidar</td>
<td>18.76</td>
<td>3.93</td>
<td>0.25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Extroverts | Belgaum | 19.06 | 2.23 | 0.14 | 2.8613 | 0.0044 | <0.05, S
 | Bidar | 18.45 | 2.54 | 0.16 | | | |
Live score | Belgaum | 16.17 | 1.81 | 0.11 | 2.6193 | 0.0091 | <0.05, S
 | Bidar | 15.73 | 1.94 | 0.12 | | | |

From the results of the above table, it can be observed that

- The Students of Belgaum and Bidar central schools differ significantly with respect to personality \((t=8.7167, \ p<0.05)\) at 0.05 level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the students of Belgaum central schools have significant higher personality as compared to students of Bidar central schools.

- The Students of Belgaum and Bidar central schools differ significantly with respect to dimension of personality i.e. psychotism \((t=5.4846, \ p<0.05)\) at 0.05 level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the students of Belgaum central schools have significant higher psychotism as compared to students of Bidar central schools.

- The Students of Belgaum and Bidar central schools differ significantly with respect to dimension of personality i.e. neurotism \((t=4.6674, \ p<0.05)\) at 0.05 level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the students of Belgaum central schools have significant higher neurotism as compared to students of Bidar central schools.

- The Students of Belgaum and Bidar central schools differ significantly with respect to dimension of personality i.e. extroverts \((t=2.8613, \ p<0.05)\) at 0.05 level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the students of Belgaum central schools have significant higher extrovert’s as compared to students of Bidar central schools.

- The Students of Belgaum and Bidar central schools differ significantly with respect to dimension of personality i.e. live score \((t=2.6193, \ p<0.05)\) at 0.05 level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the students of Belgaum central schools have significant higher live score as compared to students of Bidar central schools.
The mean of the personality and its dimensions are also presented in the following figure.

From the results of the above table it can be revealed the following:

→ The students of Bidar central schools have significant lesser academic achievement as compared to students of Belgaum central schools.

→ The students of Bidar central schools have significant lesser cognitive style as compared to students of Belgaum central schools.

→ The students of Bidar central schools have significant lesser paper folding as compared to students of Belgaum central schools.

→ The students of Bidar central schools have significant lesser card rotation as compared to students of Belgaum central schools.

→ It means that, the students of Belgaum central schools have significant higher personality as compared to students of Bidar central schools.

→ The students of Belgaum central schools have significant higher psychotism of personality needs as compared to students of Bidar central schools.

→ The students of Belgaum central schools have significant higher neurotism of personality needs as compared to students of Bidar central schools.

→ The students of Belgaum central schools have significant higher extrovert’s of personality needs as compared to students of Bidar central schools.
The students of Belgaum central schools have significant higher live score as compared to students of Bidar central schools.

**Educational Implications of the Study:**

The study is aimed to study the cognitive styles, personality needs and its dimensions are associated with academic achievements of the central school students. The factors are contributing with academic achievement. The study may be useful to students to foster the cognitive styles, personality needs and its dimensions, in turns it helps in improving the academic achievement of learners. From the study, it is found that independent variables are influencing the academic achievement of students of central schools. Hence the students should be given training and awareness programme through co-curricular and curricular experiences to improve their cognitive styles, personality needs and its dimensions which are major contributing factors to academic achievement of central school students. The students should also be encouraged and motivated to take up all school subjects confidently. They should be taught to imbibe good study habits and favourable attitude towards school in turn which promotes their cognitive styles, personality needs and its dimensions.

Based on the personal teaching experience of the researcher, findings of the present study, the students should be counselled to overcome the examination fear and general phobia about the different school subjects. Student should be made active participation in teaching learning process and not nearly passive listeners and students should be made to understand clearly the objectives of the different school subjects.

**Conclusion:**

Performing good academic achievements by Belgaum central school students incognitive styles and it’s all dimensions, and also the Bidar central school students achieved lesser academic achievements in personality needs and it’s all dimensions. Need more awareness and performance in the field of teaching learning process effectively through cognitive styles and personality needs and its all dimensions of Central school students.

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