

Chapter 5

Main Findings, Educational implications and suggestions

A. Main Findings:

The main findings of the present study are as under

1. There is significant impact of learning style on the academic achievement of secondary school students.
2. There is significant impact of learning style on the academic achievement of secondary school students with reference to ER, EC, FR, FC, VR, VC learning styles.
3. There is significant impact of learning style on the academic achievement of secondary school students with reference to enactive, figural, verbal, reproducing and constructive learning styles.
4. There is significant impact of learning style on the academic achievement of secondary school male students.
5. There is significant impact of learning style on the academic achievement of secondary school male students with reference to ER, EC, FR, FC, VR, VC learning styles.
6. There is significant impact of learning style on the academic achievement of secondary school male students with reference to enactive, figural, verbal, reproducing and constructive learning styles.
7. There is significant impact of learning style on the academic achievement of secondary school female students.
8. There is significant impact of learning style on the academic achievement of secondary school female students with reference to ER, EC, FR, FC, VR, VC learning styles.
9. There is significant impact of learning style on the academic achievement of secondary school female students with reference to enactive, figural, verbal, reproducing and constructive learning styles.
10. There is significant impact of learning style on the academic achievement of secondary school rural students.
11. There is significant impact of learning style on the academic achievement of secondary school rural students with reference to ER, EC, FR, FC, VR, VC learning styles.

12. There is significant impact of learning style on the academic achievement of secondary school rural students with reference to enactive , figural, verbal, reproducing and constructive learning styles.
13. There is significant impact of learning style on the academic achievement of secondary school urban students.
14. There is significant impact of learning style on the academic achievement of secondary school urban students with reference to ER, EC, FR, FC, VR, VC learning styles.
15. There is significant impact of learning style on the academic achievement of secondary school urban students with reference to enactive, figural, verbal, reproducing and constructive learning styles.

B. EDUCATIONAL IMPLICATIONS

Planning which plays a vital role in every field today is affecting the work of educational planners and policy makers also. The incorporation of opportunities and experiences which may develop the learning styles of children can be taken into consideration while designing the framework of curricular and co-curricular activities.

Curriculum forms the base in every field of education. Curriculum includes all the activities inside and outside the school which the child has to play. It means that it is the runaway or the path which the child has to follow. The curriculum framers should include such activities and experiences in the curriculum which can best fit the learning styles of the students

Books are the main agencies through which the students learn mostly in their academic field. It is the duty of the text book writers that while writing the text books the authors should write such topics and lessons in the text books by which the different types of learning styles of the students can be uplifted.

The teacher should organise the classroom activities in such a way that the students get equal opportunity for participation. Such practices should be encouraged that would help in boosting the learning style of students. The teacher should make use of various types teaching aids in the classroom . Interest oriented activities for enhancing students learning should be the focus of teachers which should suite the learning style of every student.

The parents should provide proper freedom and conducive environment for the expression of the thoughts and feelings of their wards; so that the experience of fearlessness gets reflected in their personalities in terms of high self-concept and the children to learn by the style which fits him best and will be able to express himself fully without any hesitation and that in turn will result in the development of balanced personality.

C. SUGGESTIONS FOR FURTHER RESEARCH

In the light of limitations realized during the course of research work, following research suggestions are put forth:

The present study was conducted on 9th class secondary school students of Jammu district only. Similar type of study can be conducted in the rest of the districts of Jammu and Kashmir and the other states of India. In the present study a sample of 245 students were taken. A similar type of study can be conducted on a sample of larger size. The present study is restricted to only the secondary school students of government schools only. A similar type of study can be conducted on private secondary school students. A comparative type of study can be conducted on the academic achievement and the preferences between students of division Kashmir and Jammu. A comparative type of study can be conducted on the academic achievement and the preferences for the leaning style between the private and the government secondary school students. Present study is limited to the secondary school students, a similar type of study can be conducted on senior secondary or the college level students.

Summary

CONCEPTUAL FRAME WORK

Academic achievement has always been considered to be a very important factor in the educational life of an individual, because good academic record over years predicts future success of a person. Education is unique asset and academic achievement is an essential aspect of it. The educational status of an individual in a society is greatly depicted through the academic achievement. Since time immemorial academic achievement of students has been a great concern to educationist. This trend has been now intensively felt by the academicians, parents and students. Strikingly, academic achievement has become a destructive index in determining a child's future. The prediction of academic achievement has been given greater importance during recent years because of various reasons. One of the reasons is the mushroom growth in student population which has created a lot of problems. The second is that child education has not been found to be commensurable with the efforts and huge expenditure made in this field. The third is concerned with the wastage of great human potentials because it is often found that student perform much below their capacities. Nevertheless, both students and teachers share the same goal i.e to reach optimal learning. Educational programs and courses that are responsive to diverse student populations and their individual differences are essential. The question is why? The psychology of human differences is fundamental to learning and it opposes a one-size-fits-all approach to education. Therefore, for a learning environment to be optimally effective, it should capitalize not only on contextual but also the learner's characteristics. It is good practice to recognize and accommodate individual differences as well as to present information in a variety of ways through more than one modality. Educational institutions in order to capitalize the maximum intellectual resources of our youth; it is time for us to be the champion of individual differences. Educators seeking to effectively prepare qualified professionals should know the differences in how their students learn, recognize their critical thinking abilities (Ferretti, Krueger, Gabel, & Curry, 2007) and then consider how best to optimize the learning process. Unfortunately, educators teach the students as the differences between them do not exist and on the other hand they overlook the impact of the learning process (Paul, Bojanczyk, & Lanphear, 1994). Students, in response,

mostly feel dissatisfied with the learning process and the learning strategies and often perceive learning materials as lacking relevance (**Eyal& Cohen, 2006**)

LEARNING STYLE

Learning style refers to an individual's natural, routine and favored approach(s) of absorbing, processing and retaining new information and skills (**Reid, 1987**). Learning-style theory begins with **Carl Jung (1927)**, who noted the main differences in the way people perceived (sensation versus intuition), the means by which they made decisions (logical thinking versus imaginative feelings), and how vigorous or thoughtful they were while interacting (extroversion versus introversion). Therefore, learning style considers the tendency of an individual towards a particular learning technique. **Keefe (1979)** defines learning style as the "combination of cognitive, affective and physiological factors that serve as comparatively firm indicators of how a learner perceives, interacts with and responds to the learning environment." **Stewart and Felicetti (1992)** define learning styles as those "type of environmental conditions in the class room in which a student learns the most". Every one of us can obtain benefit from a diversity of learning experiences. However, it is true that some ways of performing a task are more competent for one individual and not for the others and when the learners are given an opportunity to choose their best ways of learning and they will learn best than those who are compelled to learn by a style which does not suit them.

ACADEMIC ACHIEVEMENT

Academic achievement is playing a very significant role for determining the learning and the whole educational carrier of an individual. It has become one of the best goals which an individual has to achieve in the educational career of his life. In this present competitive era academic achievement has become a key for determining the future of a child. It is also a major goal, which every individual is expected to achieve in his field of life. Academic achievement is a key index by which an individual learns about his strengths and weakness, abilities and competencies which play an important role for developing career objectives. One of the most important outcomes of any educational set up is achievement of the students. Depending on the level of achievement, individuals are characterized as high achievers, average and low achievers. Taylor (1964) states that the value the student places depends upon his own sound effects of his academic achievement. In an educational institution the academic achievement is taken as any type of learning that is seen in the student's life.

Academic achievement means the knowledge gained and the techniques developed by the pupils in the subjects taught in the schools.

SIGNIFICANCE OF THE STUDY

Today the world is undergoing a change at a every second. Along with the scientific and technological development, complexities of life are increasing every day. In order to meet one's psychological and physiological needs, one has to strive hard to adjust himself in the present competitive world. Academic achievement is the key instrument which helps the students in making better adjustments in life. Good academic achievement is the key to success in personal and professional life. It brings economic security and social respect. It makes a person globally competent individual. Academic Achievement depends on various cognitive and non-cognitive factors like, aptitude, achievement motivation, socio-economic conditions, attendance, personality traits and teaching learning methods

STATEMENT OF THE PROBLEM

On the basis of the above discussion the problem can be stated as under:

Understanding Impact of learning style on the academic achievement; an exploration in context of secondary school students.

DEFINITIONS OF THE KEY TERMS:

LEARNING STYLE:

Learning style refers to the way one internally represents experiences and recalls or processes information. The learning style will be accessed on the basis of scores obtained by subjects on learning style inventory by K.S. Misra. This inventory attempts to measure six main learning styles namely-Enactive Reproducing, Enactive Constructive, Figural Reproducing, Figural Constructive, Verbal Reproducing and Verbal Constructive.

ACADEMIC ACHIEVEMENT:

It can be defined as accomplishment or gain of a performance carried out successfully by an individual or group on the completion of an academic task. In the present study it refers to the percentage of aggregate marks obtained by a particular student of 9th class in first term examination respectively.

SECONDARY SCHOOL:

A secondary school is a school which provides secondary education, typically between the ages of 11-16, after primary school and before higher education

OBJECTIVES OF THE STUDY:

The objectives of the study were written as under:

- 1). To study the impact of learning style on the academic achievement of the secondary school students.
- 2). To study the impact of learning style on the academic achievement of the secondary school students with reference to their.
 - 2.1. Enactive reproducing learning style.
 - 2.2. Enactive Constructive learning style.
 - 2.3. Figural reproducing learning style.
 - 2.4. Figural Constructive learning style.
 - 2.5. Verbal reproducing learning style.
 - 2.6. Verbal Constructive learning style.
- 3) To study the impact of learning style on the academic achievement of the secondary school students with reference to their
 - 3.1. Enactive learning style
 - 3.2. Figural learning style
 - 3.3. Verbal learning style
 - 3.4. Reproducing learning style
 - 3.5. Constructive learning style
- 4). To study the impact of learning style on the academic achievement of secondary school male students
- 5). To study the impact of learning style on the academic achievement of the secondary school male students with reference to their.
 - 5.1. Enactive reproducing learning style.
 - 5.2. Enactive Constructive learning style.
 - 5.3. Figural reproducing learning style.
 - 5.4. Figural Constructive learning style.
 - 5.5. Verbal reproducing learning style.
 - 5.6. Verbal Constructive learning style.

- 6) To study the impact of learning style on the academic achievement of the secondary school male students with reference to their
 - 6.1. Enactive learning style
 - 6.2. Figural learning style
 - 6.3. Verbal learning style
 - 6.4 Reproducing learning style
 - 6.5 Constructive learning style
- 7). To study the impact of learning style on the academic achievement of secondary school female students
- 8).To study the impact of learning style on the academic achievement of the secondary school female students with reference to their.
 - 8.1. Enactive reproducing learning style.
 - 8.2. Enactive Constructive learning style.
 - 8.3. Figural reproducing learning style.
 - 8.4 Figural Constructive learning style.
 - 8.5. Verbal reproducing learning style.
 - 8.6 Verbal Constructive learning style.
- 9) To study the impact of learning style on the academic achievement of the secondary school female students with reference to their
 - 9.1. Enactive learning style
 - 9.2. Figural learning style
 - 9.3. Verbal learning style
 - 9.4 Reproducing learning style
 - 9.5 Constructive learning style
- 10). To study the impact of learning style on the academic achievement of rural secondary school students
- 11). To study the impact of learning style on the academic achievement of the rural secondary school students with reference to their.
 - 11.1. Enactive reproducing learning style.
 - 11.2. Enactive Constructive learning style.
 - 11.3. Figural reproducing learning style.
 - 11.4. Figural Constructive learning style.
 - 11.5. Verbal reproducing learning style.
 - 11.6. Verbal Constructive learning style.

- 12) To study the impact of learning style on the academic achievement of the rural secondary school students with reference to their
 - 12.1. Enactive learning style
 - 12.2. Figural learning style
 - 12.3. Verbal learning style
 - 12.4 Reproducing learning style
 - 12.5 Constructive learning style
- 13).To study the impact of learning style on the academic achievement of urban secondary school students
- 14). To study the impact of learning style on the academic achievement of the urban secondary school students with reference to their.
 - 14.1. Enactive reproducing learning style.
 - 14.2. Enactive Constructive learning style.
 - 14.3. Figural reproducing learning style.
 - 14.4. Figural Constructive learning style.
 - 14.5. Verbal reproducing learning style.
 - 14.6. Verbal Constructive learning style.
- 15) To study the impact of learning style on the academic achievement of the urban secondary school male students with reference to their
 - 15.1. Enactive learning style
 - 15.2. Figural learning style
 - 15.3. Verbal learning style
 - 15.4 Reproducing learning style
 - 15.5 Constructive learning style

1.8 HYPOTHESES OF THE STUDY:

In the light of the above objectives the hypotheses of the study can be formulated as under

- 1). There will be no significant impact of learning style on the academic achievement of the secondary school students.
- 2) There will no significant impact of learning style on the academic achievement of the secondary students with reference to their.
 - I. Enactive reproducing learning style.
 - II. Enactive Constructive learning style.

- III. Figural reproducing learning style.
 - IV. Figural Constructive learning style.
 - V. Verbal reproducing learning style.
 - VI. Verbal Constructive learning style.
- 3) There will no significant impact of learning style on the academic achievement of the secondary school students with reference to their
 - I. Enactive style of learning
 - II. Figural style of learning
 - III. Verbal style of learning
 - IV. Reproducing style of learning
 - V. Constructive style of learning
 - 4). There will be no significant impact of learning style on the academic achievement of the secondary school male students
 - 5). There will no significant impact of learning style on the academic achievement of the secondary school male students with reference to their.
 - I. Enactive reproducing learning style.
 - II. Enactive Constructive learning style.
 - III. Figural reproducing learning style.
 - IV. Figural Constructive learning style.
 - V. Verbal reproducing learning style.
 - VI. Verbal Constructive learning style.
 - 6) There will no significant impact of learning style on the academic achievement of the secondary school male students with reference to their
 - I. Enactive learning style
 - II. Figural learning style
 - III. Verbal learning style
 - IV. Reproducing learning style
 - V Constructive learning style
 - 7) There will be no significant impact of learning style on the academic achievement of the secondary school female students
 - 8). There will no significant impact of learning style on the academic achievement of the secondary school female students with reference to their.
 - I. Enactive reproducing learning style.
 - II. Enactive Constructive learning style.

- III. Figural reproducing learning style.
 - IV. Figural Constructive learning style.
 - V. Verbal reproducing learning style.
 - VI. Verbal Constructive learning style.
- 9) There will no significant impact of learning style on the academic achievement of the secondary school female students with reference to their
- I. Enactive learning style
 - II. Figural learning style
 - III. Verbal learning style
 - IV. Reproducing learning style
 - V. Constructive learning style
- 10) There will be no significant impact of learning style on the academic achievement of the rural secondary school students
- 11). There will no significant impact of learning style on the academic achievement of the rural secondary school students with reference to their.
- I. Enactive reproducing learning style.
 - II. Enactive Constructive learning style.
 - III. Figural reproducing learning style.
 - IV. Figural Constructive learning style.
 - V. Verbal reproducing learning style.
 - VI. Verbal Constructive learning style.
- 12) There will no significant impact of learning style on the academic achievement of the rural secondary school students with reference to their
- I. Enactive learning style
 - II. Figural learning style
 - III. Verbal learning style
 - IV. Reproducing learning style
 - V. Constructive learning style
- 13) There will be no significant impact of learning style on the academic achievement of the urban secondary school students
- 14). There will no significant impact of learning style on the academic achievement of the urban secondary school students with reference to their.
- I. Enactive reproducing learning style.
 - II. Enactive Constructive learning style.

III. Figural reproducing learning style.

IV. Figural Constructive learning style.

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15) There will no significant impact of learning style on the academic achievement of the urban secondary school students with reference to their

I. Enactive learning style

II. Figural learning style

III. Verbal learning style

IV. Reproducing learning style

V Constructive learning style

DELIMITATIONS OF THE STUDY

The study is delimited in the following manner:

1. The study is delimited to Jammu
2. The study is delimited to the students of IX class only.
3. The study took only male –female and rural-urban factors into consideration
4. The present study is delimited to government schools only.
5. The present study has been conducted on 245 students only
6. The investigation has been confined to 9 secondary schools of Jammu district.

RESEARCH GAP

The topic chose should me such as it has not been investigated earlier. From a review of research and after conclusion whatever researches the investigator could come across through his sincere efforts did not find any study which has been done either in the country or abroad, on the present topic the topic being new and have not been investigated earlier, the researcher has received the attention for this topic. Hence the newness of the topic is also one of the reasons for the choice of the present study. The above review reveals that many scholars have studied the different factors which affect the academic achievement of the students. However a comprehensive yet concise research work focusing on those closely related academic achievement and learning style.

VARIABLES STUDIED

The variable which has been studied in the study is as under:

1. Learning style
2. Academic Achievement

SELECTION OF THE TOOL

In every type of research the investigator needs certain instruments to gather certain facts and explore new fields. The instrument thus employed are called tools. Different tools are suitable for collecting various kinds of information for various purposes. In the present study instrument employed for the collection of data is: **Learning Style Tool by K. S. Misra**. The investigator employed learning style inventory developed by K.S. Misra. It consists of 42 items which are having five responses from 1st, 2nd, 3rd, 4th, 5th which were scored in reverse order as 5, 4, 3, 2, 1. The scores were added in an orderly manner as per the different learning styles of the students.

RELIABILITY

The three styles of learning having values of alpha reliability as for verbal style the value is .903, for figural style of learning the value is .742 and for enactive style of learning the value is .682. However the value of N is 150.

VALIDITY

The intrinsic validity was found by product moment method of correlation for the learning styles. The table Z depicts that enactive style of learning is positively correlated to the verbal and the figural styles of learning and positive correlation is found between the verbal and the figural styles of learning. It was found that positive correlation is found between all the styles of learning. The value of N is 100.

FINDINGS

The main findings of the present study are as under

1. There is significant impact of learning style on the academic achievement of secondary school students.
2. There is significant impact of learning style on the academic achievement of secondary school students with reference to ER, EC, FR, FC, VR, VC learning styles.

3. There is significant impact of learning style on the academic achievement of secondary school students with reference to enactive, figural, verbal, reproducing and constructive learning styles.
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