

# An empirical study on effective learning in Gilgit-Baltistan

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**Abstract—** The aim of undertaking this study is to explore ways for provision of effective learning and how is it dependent on exploring the learning-styles of learners. How it is essential to be known as discovery of learning-styles paves way for improved teaching and instructions. Why is it important for people to know about their learning styles and how it helps for their learning to be productive? The study at the end will tell that provision of effective learning necessitates numerous steps including identification of people's likes and dislikes and to believe that the humans are the most complicated entity with individual differences. In a pluralistic society these differences are honored. The learning model of Honey and Mumford was used for this study that categorizes learners in four groups of learning styles including activists, reflectors, theorists and pragmatics. Students from colleges and Karakoram International University of Gilgit-Baltistan of Pakistan were provided these questionnaires for collection of data. Majority seemed to have favored the pragmatist approach as it balances between theory and action. Undoubtedly theory followed practical lasts a perpetual impact on the personality which is called effective learning. However, it is equally important to note that besides the centrality of the learner it also matters in learning that the kind of infrastructure is built, the physical environment provides and the richness of curriculum or material used. Strong institutional setups can surely produce learned and scholars. In the third world including Pakistan weak institutional system has also been a hindrance in effective learning.

## I. INTRODUCTION

After teaching and learning has been institutionalized, it has really been professional, logical and effective. Different researchers are undertaken to find out ways to make the process of learning effective. Research is made to see how an individual learns best? What are circumstances which are viable for an individual for

his/her learning and understanding? What are his/her likes and dislikes? Etc. previously this aspect of learning and teaching was of least importance and generalized educational system prevailed. In the twentieth century it entirely changed and new era of professionalization. Psychologists and researchers including Pavlov and Thorndike even found out prospects of animal learning.

This kind of research opened up new avenues for provision of effective learning as complexes of human natures were somehow unraveled. Educationists and planners developed curriculum and teaching approaches accordingly addressing the individual needs of learners assessing and analyzing their background and experiences.

Ironically, in the third world where there are different layers of educational systems, masses which represent the majority of the population is still deprived of such a professional and scientific developments in education. The Govt and private schools which are prone mainly to financial benefits instead of provision of effective teaching and learning do not take it seriously as how students are dealt and how they learning? Currently a dire need though it is not still felt to be dire unfortunately at policy level is to get considerable changes in the current educational system in Pakistan only through which it can progress and excel. (Bereiter, 1994)

Provision of effective learning can be maintained through various steps that include having sound physical infrastructure, flexible and updated curriculum, efficient and professional faculty, etc. however, at the same time it is equally significant to know in detail and scientifically about the learners who is pivot of all these logistic arrangements and teaching methodology and pedagogy will be shaped only after learners' preferences, likes and dislikes, tendency and aptitude is unfolded. This requires a research to undertake to know about the learning styles of individuals and to buildup teaching methodology accordingly. To know about the learning style of an individual various models have been used to know about the learning tendencies of people as they tend to learn or the mode of teaching that mode effective for their learning. This includes a person's his/her own efforts for learning and also the classroom teaching and learning. Because classroom teaching can be adopted

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accordingly ensuring the learners gain best from the time they spend in an institution. (Davidson, 1990)

Knowing about the learning styles has significantly change the teaching and pedagogical techniques. Educationists are more comparatively more conscious about their obligations.

The model used by Honey, P, & Mumford, A. (2000) probes general behavior tendencies of learners. It finds out four behavioral tendencies including Activists, Reflectors, Theorists and Pragmatists. Activists involve themselves fully and without bias in new learning experiences. They are open-minded, not skeptical, they tend to act first and consider the consequences afterwards. Reflectors like to stand back and ponder experiences are observe them from many perspectives. They collect data and prefer to think about it thoroughly before coming to any conclusion. Theorists adapt and integrate observations into complex but logically sound theories. They think problems through a vertical, step by step, logical way. Pragmatists are keen to try out ideas, theories and techniques to see if they work in practice. They positively search out ideas and take the first opportunity to experiment with applications. They tend to be impatient with ruminating and open-ended discussions (Honey & Mumford, 1992).

### A. Defining learning

In the broadest sense learning occurs when experience cause relatively permanent change in the individual's knowledge of behavior. The change may be deliberate or unintentional, for better or worse, correct or incorrect, and conscious or unconscious (Hill, 2002).

Our definition specifies that changes resulting from learning are in the individual's knowledge or behavior. While most psychologist would agree with the statement, some tend to emphasize the change in knowledge, others the change in behavior. Cognitive psychologists who focus on change in knowledge, behavior is internal mental activity that can not be observed directly. Cognitive psychologists studying learning are interested in unobservable mental activity such as thinking, remembering, solving problems (Scwartz, Wasserman, and Robbins 2002).

Hence according to one definition learning has been defined as a constant change in behavior resulting from experience. The highest characteristic of human is inquisitiveness. This characteristic fuels the human to be prone to investigate and learn. To learn human indulge in life long endeavors and ventures. These efforts at early stage are undertaken through institution and after completion of the formal education it is done informally anywhere as an integral part of life. People learn differently. Some people learn ass they posses good observational power and to ponder and contemplate. Some others mostly rely on books.

Though learning is a life long process however, it is also important to note that as sound and effective as the educational and institutional system would be in a society it will surely last impact on learners accordingly. Education system nourishes creativity and innovativeness in students so that they are into it with zeal and dedication. It also creates in learner quest for learning and they are motivated to make learning an integral component of their personality. Weaker educational systems fail to achieve such goals to create in generations having elevated curiosity for learning. Reason behind it is it mostly emphasizes on the theory and memorization. It remain devoid of the practical aspect of learning which is essentially required to be part of teaching and learning as it results in articulation and increased interest for further learning.

It is also extremely important to learn that if we believe everyone has his or own learning style it needs to be probed and explored as hoe one can best learn some to teach accordingly. In professional and advanced teaching methodology institutional strategies are devised this way. (Phillips, 1995).

### B. Learning Styles

As learning styles is a student's consistent way of responding to and using stimuli in the contest of learning. (Keefe, 1997) defines learning styles as the composite of characteristic cognitive, effective and psychological that serve as relatively stable indicators of how a leaner perceives ,interact with and responds to the learning and environment stewart felicetti(1992)define learning styles as those educational conditions under which a student is most likely to learn. Thus learning styles are not really concerned with what learners learn, but rather how they prefer to learn. Hence we need to believe that there are different learning styles people have and want to be taught the way their personality develops.

On the other it also very important to note that since we deal with humans the most complicated of all creations of the world, it is difficult to know the exact style sometimes to find out the real. The literature basically indicates that there is wide acceptance of the concept of learning styles. However, there is disagreement on how to best measure learning style (Coffield, et.al, 2004) Students can easily become bored and frustrated if the teaching method is only tapping into one types of learning style, as most classes have students with a range of learning style preference.

### C. Objectives

**Objectives behind carrying out this research include:**

- To discover how learning styles pave way for provision of effective in society.
- To explore the learning styles people have

- To find out how effective the learning style is to equip them with the challenges of the time.
- To know about the impact of learning style on instruction

#### D. Literature Review

Provision of effective learning requires a lot to do. From establishment of sound and strong institutional setup and equally strong curriculum to professional faculty available to teach the same is all essential. Within the institutions actions points and steps are always prerogative to have the process of learning effective and productive. In a classroom the sole emphasis on making students more creative and innovative than that of making them merely informative. It is said that some decades before parents wanted their children to be informative now the same parents want their children to be creative.

To make students artistic and innovative he ought to involve in practical work than to indulge mainly in theory and memorization. When we talk of effective learning, it really aims at shaping and adapting the learner more creative.

Humans are heterogeneous and each one possesses characteristics and potential which is actualized only when they are given the opportunity to do so. It is said that genius is ninety- nine percent perspiration and one percent inspiration. The genius actualizes when one strives to do so nevertheless. This process is mainly dependant on the system of education that is prevailing. Through identification of learning styles the propensity of learner is known.

Honey and Mumford (2000) note their debt to Kolb's theory however, they also note that they produced their own Learning styles Questionnaires (LSQ) because they found that Kolb's LSI has low face validity with managers. So rather than asking people have never consciously considered how they really learn.(Honey and Mumford, 2000)

- Reflectors- prefer to learn from activities that allow them to watch, think and review (time to think things over) what has happened. Likes to use journals and brainstorming. Lectures are helpful if they provide expert analysis and explanations. Activities like to stand back to ponder experiences and observe them from many different perspectives. They collect data, both first hand and from others and prefer to think about it thoroughly before coming to any conclusion. The through collection and analysis of data about experience and events is what counts so they tend to postpone reaching definitive conclusions for as long as possible. Their philosophy is to be conscious. They are thoughtful people who like to consider all possible angles and implications before making a move. They prefer to take back seat to

meetings and discussions. They enjoy observing other people in action. They listen to others and get the drift of the discussion before making their on points. They tend to adopt low profile and have a slightly distant., tolerant, unruffled air about them. When they act it is part of a wide picture which include the past as well as the present and other's observations as well as their own. (Honey and Mumfords, 2000).

- Theorists- prefer to think problems through in a step by step manner. Likes lectures, analogies, systems, case studies, models, and readings. Taking to experts is not normally helpful. Theorists adapt and integrate observations into complex, but logically sound theories. They think problems through a vertical step by step logical way. They assimilate disparate facts into coherent theories. They tend to be perfectionists who won't rest easy until things are tidy and fit into a rational scheme. They like to analyze and synthesize. They are keen on basis assumption, principles theories, models and systems thinking. They philosophy prizes rationality and logic. "If it's not good". Question they frequently ask are: how does this fit with what? What are the basic assumptions? They tend to be detached, analytical and dedicated to rational objectivity rather than any thing subjective or ambiguous. Their approach to problems is consistently logical. Their 'mental set' and they rigidly reject any thing that does not fit with it. They prefer to maximize certainty and feel uncomfortable with subjective judgments, lateral thinking and any thing flippant, (Honey and Mumford, 2000).
- Pragmatists- prefer to apply new learning to actual practice to see if they work. Like laboratories, field work, and observations. Likes feedback, coaching, and obvious links between the task-on-hand and a problem. Pragmatists are keen on trying out ideas, theories and techniques to see if they work in practice. They positively search out new ideas and take the first opportunity to experiment with applications. They are sort of people who return from management courses brimming with new ideas that they want to try out in practice. They like to get on with things and act quickly and confidently on ideas that attract them. They tend to be impatient with ruminating and open-ended discussions. They are essentially practical, down to each people who like making very practical decisions and solving problems. The respond to problems and opportunities 'as a challenge'. Their philosophy is "there is always a better way, and

if it works, it's good"'. (Honey and Mumford, 2000)

- Activists- prefer the challenges of new experiences, involvement with others, assimilation and role-playing. Likes anything new, problem solving, and small group discussions. Activists involve themselves fully and without bias in new experiences. They enjoy the here and now and are happy to be dominated by immediate experiences. They open minded, not skeptical, and this tends to make them enthusiastic about anything new. Their philosophy is: 'I will try anything once'. They tend to act first and consider the consequences afterwards. Their days are filled with activity. They tackle problems by brainstorming. As soon as the excitement from one activity has died down they are busy looking for the next. They tend to thrive on the challenges of new experiences but are bored with implementation and longer term consideration. They are gregarious people constantly involving themselves with others, but in doing so; they seek to center all activities on themselves. (Honey and Mumford, 2000).

According to this model to judge the behavioral trait towards learning the terms are used in context i.e. "reflector" for divergers (reflective observation), "theorists" for assimilators (abstract conceptualization), "pragmatists" for convergers (concrete experience), and "activists" for accommodators (active experimentation). In addition, the new labels have slightly different meaning.

At the same time other models are also used for identification of learning style one of them tend to categories learners into following categories: (Babich, Burdine, Albright, and Randol, 1976).

Visual- Numerical: this student has to see number on the board, in a book, or in paper in order to work with them. He or she is more likely to remember and understand math fact if he or she has seen them. He or she does not seem to need as much oral explanation.

Auditory-Language: this is the student who learns from hearing words spoken. You may hear him or her vocalizing or see the lips or throat move as he or she reads, particularly when striving to understand new material. He or she will be more capable of understanding or remembering words or facts that have been learn by hearing.

Auditory- Numerical: this student learns from hearing numbers or oral explanation. He or she may remember phone and locker numbers with ease, be successful with oral numbers, games and puzzles. He or she may do just about as well without a math book, for written materials are not as important. He or she can

probably work problems in his or her head. You may hear this student saying the number aloud or see the lips move as a problem is read. (Noss, 1996).

Auditory- Visual- Kinesthetic: the A/V/K students learn best by experience and self involvement. He or she identifies needs a combination of stimuli. The manipulation of material along with the accompanying sights and sounds (words and numbers seen and spoken) will make a big difference to him or her. This student may not seem able to understand, or keep his or her mind on work unless he or she is totally involved. He or she seeks to handle, touch or work with what is been learned. Sometime just writing or symbolic wriggling of the fingers is a symptom of the A/V/K learner. (Wood Well, 1989).

Social-Individual: this student gets more work done along. He or she thing best, and remember more when he or she learned by alone. He or she cares more for his or her own opinions than for the ideas of others. You will not have much trouble keeping this student from over-socializing during class. (Noat,2004)

Social-Group: this student strives to study with at least one other student and he or she will not get as much done alone. A he or she value other's ideas and preferences. Group interaction increases his or her learning and later recognition of facts. Socializing is important for this student. (Rorty, 1998)

Expressive-Oral: this student prefers to tell what he or she knows. He or she talks fluently, comfortably and clearly. The teacher may find that this learning knows more than written tests show. He or she probably less shies then others about giving reports or talking to the teacher or classmates. The muscular coordination involved in written may be difficult for learner. Organizing and putting thoughts on paper may be too slow and tedious a task for this student.

Expressive-Written: this student can write fluent essays and good answers on tests to show what he or she knows. He or she feels less comfortable, perhaps even stuypid when oral answers are required his or her thoughts are better organized on paper than when they are given orally.

## II. DATA AND METHODS

### A. Data

The data for study was collected through the structured questionnaire which comprises of eighty questions. To undertake this research we adopted the learning styles Questionnaires developed by Honey and Mumford in 2000. Twenty questions aim at investigating the activist style of learning whereas, a similar No of questions have been designed to know about the reflector learning behavior. At the same time twenty questions probe the theorists learning style. Finally, the twenty questions discover the pragmatist's style.

**B. Methods**

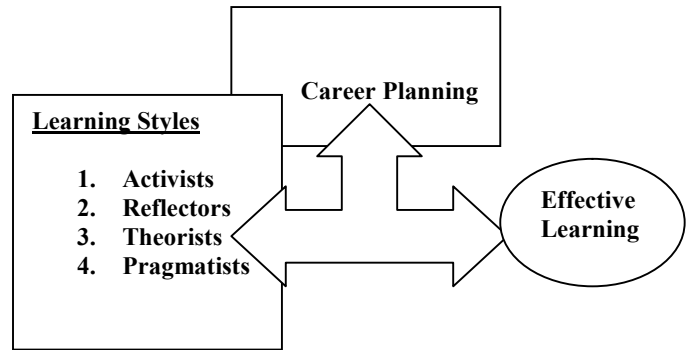
The sample size was forty and sampling techniques adopted was random sampling. 60 questionnaires were distributed out of which 50 were returned. However, 40 were apt to opt for research. The data was subjected for computer analysis by using SPSS. The analysis is divided in following stages:

- 1, Test the correlation between the dependent variable and four independent variables including:
  - a. Activists
  - b. Reflector
  - c. Theorist
  - d. Pragmatists
- 2, Descriptive statistics
- 3, Correlation
- 4, Reliability

**III. Theoretical Framework**

The empirical research seeks to find the significance of the identification of learning styles of learners to make the process of learning effective and increasingly productive. This on the one hand paves the way for the achievement of the objectives and goals of the learner and it brings clarity for systematic efforts for the future on the other. Merely provision of resources without identification of ones desire. Likes and dislikes would mean low and trivial level achievement at the end. The learners require knowing his/her certain style so to have developed strategy for learning accordingly.

**Independent Variable    Intervening    Dependent Variable**



**A. Hypothesis**

The following hypotheses are going to be raised in the study:

H<sup>0</sup>: learning style has no effect on the student’s aptitude.

H<sup>1</sup>: learning style has effect on the student’s aptitude

**IV. RESULTS AND ANALYSIS**

**i. Correlation**

The correlation between effective learning and pragmatists was 74 and correlation between effective learning and reflectors was 66. Likewise, relationship between effective learning and theorists remained 61. Similarly, activists had relationship with effective learning was 54. Through this result we can find that the pragmatists approach is more effective whereas, the reflectors have also strongly found out to be effectively learning however, comparatively they were low than that of pragmatists. This also indicates that the activist learning style seems to be least effective style.

		Ef	Activist	Reflector	Theorist	Pragmatist
<b>Pearson Correlation</b>	<b>Ef</b>	1.000	.542	.661	.615	.746
	<b>Activist</b>	.542	1.000	-.084	.215	.170
	<b>Reflector</b>	.661	-.084	1.000	.325	.496
	<b>Theorist</b>	.615	.215	.325	1.000	.187
	<b>Pragmatist</b>	.746	.170	.496	.187	1.000
<b>Sig. (1-tailed)</b>	<b>Ef</b>	.	.000	.000	.000	.000
	<b>Activist</b>	.000	.	.307	.095	.151
	<b>Reflector</b>	.000	.307	.	.022	.001
	<b>Theorist</b>	.000	.095	.022	.	.127
	<b>Pragmatist</b>	.000	.151	.001	.127	.
<b>N</b>	<b>Ef</b>	39	39	39	39	39
	<b>Activist</b>	39	39	39	39	39
	<b>Reflector</b>	39	39	39	39	39
	<b>Theorist</b>	39	39	39	39	39

	Pragmatist	39	39	39	39	39
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Table 1- Correlation

**ii. The Model of ANOVA**

From the given in the appendix table# 1 it is evident that P- value is less than  $\omega$ . The table rejects the  $H^0$  and concludes that the model is fit for prediction.

Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	.535	4	.088	.	.000
	Residual	.000	34	.000		
	Total	.353	38			

Table 2- ANOVA

**iii. The Reliability Analysis**

The reliability analysis is showing a strong internal consistency among the questions asked in the questionnaire that is the 87.

Cronbach's Alpha	N of items
.876	80

Table 3- Reliability Statistics

**iv. Descriptive Statistics**

Majority of students while tapping the independent variable seem to have been giving highest to have common in students. The lowest was the activist learning as they are prone to have new experience and get bored with its implementation.

	Mean	Std. Deviation	N
Ef	.6849	.09632	39
Activist	.5769	.16735	39
Reflectors	.7487	.14801	39
Theorist	.6718	.12236	39
Pragmatist	.7423	.16284	39

Table 4 – Descriptive Statistics

**V. DISCUSSIONS AND CONCLUSIONS**

The research shows that the effective learning is dependent on many other actions and steps. In the learning the learner has the pivotal role. Whatever, physical resources are allocated but if the learners preferences are disregarded it will hinder the way of achieving the goals of effective and productive learning. Learner is the most complicated being. His/her mysterious disposition requires being unfolded as what kind of learning style one has so to indulge in learning activities accordingly. Pragmatists have comparatively a practical approach towards their activities. Action speaks louder than word; gives an enlightening message that the learning best takes place when the practical aspect of an activity is parallel to theory. Otherwise any knowledge devoid of action results in lower understanding. As in a Chinese proverb “when things are done practically they have lasting impacts on a personality.

**VI. RECOMMENDATIONS**

*Following are the recommendations for the effective learning:*

- The physical infrastructure should be sound particularly in the rural areas.
- Teachers should be trained with child psychology.
- Curriculum should be flexible and rich incorporating the current, updated and sophisticated educational trends.
- Career counseling sessions are needed to be regularly conducted for students so that they have clear future goals.

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