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ENG

**VARIATION IN INDIVIDUAL  
LEARNING STYLE PREFERENCE**



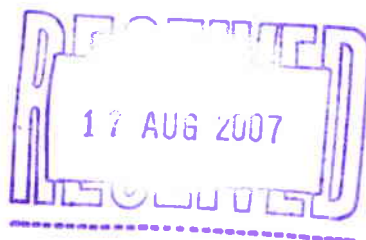
By

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**Thesis Submitted to the Asit Roy Choudhury, Chair, Department of  
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**August, 2007**

**EAST.WEST.UNIVERSITY**



## **DEDICATION**

I would like to dedicate my paper first of all to Almighty. I also like to dedicate the paper to my parents as without their blessings and supports it would never be possible for me to reach upto this point of life.

## PREFACE

I undertook the research in order to fulfill the requirements for the degree of MA in English while doing a number of courses on ELT and Applied Linguistics it crossed my mind that an interesting study could be done on Variation In Individual Learning Style Preference. I discussed the topic with my guide and he encouraged me with the ideas on how to proceed on this work. The outcome is the humble dissertation.

## ACKNOWLEDGEMENT

I like to extend my gratitude firstly to my Chair and my Supervisor for his constant support and counsel. It would not be possible for me to complete my dissertation paper without his help and guidance.

I am thankful to Chair of BBA Department, CSC Department, Economics Department since they permit me to continue my survey in their respected departments.

I also like to thanks to those teachers who allow me to do my survey and interview in their classes.

Lastly, I also grateful to those students who help me in my research through the surveys and interview.



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# Chapter-I

## INTRODUCTION

This chapter indicates the statements of the problem, the research questions, the purpose of the study, delimitations, limitations, and the definition of key terms.

### 1.1 Problem statement :

The purpose of the study is to examine the impact on learners for not judging or examining their learning style preferences. In Bangladesh, learners' learning style preferences are not accurately judged. It highly affects learning style. As a results, students do not feel motivated. Learning style preferences vary from learners to learners. Some students prefer individual learning and others prefer group learning. Similarly, some students prefer auditory learning whereas some of them prefer visual learning. Again, the students who prefer auditory style cannot be visual learner. Some learners are kinesthetic or tactile learners.

### 1.2 Purpose statement :

Learner's learning style preferences has great importance in the teaching and learning process. It is necessary to judge individual learner's learning style preferences. The present research will help our policy makers to develop curriculum and learner's motivation for learning. Through this curriculum the teachers will be able to motivate and encourage the learner's in their learning process.

### **1.3 Research questions :**

- ◆ Whether learner's learning style preferences are group learning or individual learning.
- ◆ Whether there is more kinesthetic or tactile learners.
- ◆ Whether Bangladeshi learners are auditory learners or visual learners.

### **1.4 Significance :**

Through the researcher, the policy makers, teachers, course designers will realize **why** it is necessary to consider learners' learning style preferences. As a result, **they will** judge learners' learning style preferences and recommend their sense in **language** learning style.

### **1.5 Delimitations :**

- ◆ Researcher will get only six months. So, there is time-constrain.

### **1.6 Limitations :**

- ◆ The researcher intended to do the survey on 150 students, but ended up **with** 137 students.
- ◆ **Due** to time limitation, she had to end up her interview process with 5 students. **Indeed**, she wanted to take interview of 10 students.
- ◆ **The** researcher wanted to proceed her paper with S.S.C, H.S.C levels and **with** also some other departments of tertial level. But, due to time-constrained

problem she had to finish her paper with English, BBA, CSC, and Economics departments of East West University.

## **1.7 Operational Definitions :**

### **1.7.1. Major visual learning style (score performance) :**

In **visual** learning style preferences, learners learn through words in books, on the chalkboard and in work books. Here, oral explanation is not much needed.

### **1.7.2. Major auditory learning style (score performance) :**

When learners learn through learning words and oral explanations, it is called auditory learning style preference.

### **1.7.3 Major kinesthetic learning style (score performance) :**

Those learners who prefer to learn by experience are called kinesthetic learner. Learners learn through several activities, such as field works or role playing in the classroom.

### **1.7.4 Major tactile learning style (score performance) :**

“Tactile” learners learn through “hands-on” activities. Examples: Experiments in a laboratory.

### **1.7.5 Major group learning style (score performance) :**

When learners prefer to learn with others, they are called group learner.

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**“Tactile”** learners learn through “hands-on” activities. Examples: Experiments in a **laboratory**.

#### **1.7.5 Major group learning style (score performance) :**

When learners prefer to learn with others, they are called group learner.

#### 1.7.6 Major individual learning style (score performance) :

When learners prefer to learn individually, they are called individual learner.

#### 1.7.7 Minor learning style (score performance) :

A minor learning score performance indicates those areas where a learner can function well as a learner.

#### 1.7.8 Negligible learning style (score performance) :

A negligible score performance indicates that, a learner may have difficulty in learning process.

#### 1.7.9 Field dependence :

Field dependence occurs in classroom setting.

#### 1.7.10 Field independence :

Field independence comes in natural setting.

#### 1.7.11 Questionnaire/Survey :

Questionnaire/Survey refers to the process of asking question to have information regarding learning style preferences of the learners or of the students. In learning style the importance of survey is paramount. Through survey students learning style matches as mismatches are brought into consideration.

#### 1.7.12 Interview :

It refers to examining learners' learning style preference. In interview, the interviewer or the researcher or the teacher is to meet each group or each student as per schedule. Interview is a successful way of scoring a students' ability in the clearest possible time.

## Chapter-II

### Literature Review

Regarding the present topic, the researcher has found a number of research works and theories. Among them, Cheng & Banya, Joy Reid, Rebecca & Christine, Ellis, Tyacke, Ehrman, Nunan, Call, Torkelson, Harthill & Busch and lastly Md. Shahidullah's works are the most prominent and significance ones. Hence, let us analyze them one by one:

2.1 In the article entitle *Bridging Gap between Teaching Style & Learning Style* Cheng and Banya (Reid:1998:80) say that, according to Ellis (1989) "learning and teaching style are the result of both nature and nurture". Among them, there some are biological and stable as the individuals response to sound, light and temperature. Others develop mental and flexible such as perceptual, preference, motivation and reflectivity. It is suggested in the research that, most people have only 6 to 14 strongly preferred learning style though at least 21 have been categorized.

In addition, learning styles are influenced by such factors as subject matter, context, age, prior-knowledge, gender, motivation and ethnicity. For instance, in a formal learning setting where the target language is learned as a foreign language and linguistic accuracy is the main focus, students tend to be more visual. On the



other hand, in an informal learning situation where communicative fluency is the major concern, students are generally found to be more kinesthetic or auditory.

It is also hinted in the research that, cultural background plays an important role in learning style preference. For example, Asian students are mainly visual learners. On the other hand, Hispanics are frequently auditory and many Non-Westerners are tactile and kinesthetic learners. By and large, a teaching style can have great impact on learner learning style preference.

However, teachers need to make the following conscious effects to improve the teacher and student conflict mismatches:

- ◆ Teachers have to be conscious of the students' learning styles as well as their own teaching or learning styles.
- ◆ Multiple opportunities should be given to students' by teachers to identify their learning styles.
- ◆ Teachers have to take risks to integrate more teaching styles into their class.
- ◆ Teachers should encourage their students to vary their learning styles.
- ◆ Students should adopt the purse-based learning styles.
- ◆ There should be co-operation between teachers and learners to match teaching and learning styles.
- ◆ Students should be more tolerant in the complex situations of foreign language learning.

◆ Students should be more autonomous in their learning.

Lastly, it can be stated that, both teacher and students will be comfortable in class if the teaching styles match the learning styles.

2.2 Marian Tyacke (Reid:1998) says many teachers and researchers recommended that students should be encouraged to experiment with styles they do not prefer in order to be more flexible learners. But, the results of some projects indicate that, adaptability and flexibility may be key factors in successful language learning. Specific combinations of style characteristics may promote flexibility. The willingness and the ability help students to switch to a different style to suit a particular situation. This process may be risky for students, which in turn is typical of some styles but not others. Marian Tyacke recommended that, it is important to maximize the effect of the styles and strategies which the individual can already consciously and comfortably use, while at the same time increasing the awareness of the effects (positive and negative) of those styles and strategies.

2.3 It is found in the study of Ehrman (Reid:1998) that, every natural experience exists of a great range of perceptions namely auditory, visual, kinesthetic, olfactory and so on. In fact, all of us have ability to discriminate and to focus on a stimulus which is important to us such as a physical object, a certain sound, an idea, or a grammar rule. The term "field independence" means

discrimination and focus that is “at least a pretence and at most an ability”. It is related to an ability to distinguish and isolate sensory experiences focus the surrounding sensory input.

The theme of FI seemed to be attractive to researchers and teachers in second language acquisition for years”. The term “field dependence” has been also originated relevantly. This term can mean a relative absence of field independence either as a behavioral tendency or as a lack of an ability. When FI and FD are measured, it is invariably through tests of FI. The term FD is also used to indicate responsiveness at some level to the surrounding background of a language learner. Thirdly, there emerges the term “field sensitivity” which suggests that learners have a positive way of skills not just deficiencies. In the ‘global’ rubric researchers have suggested that, such positive learning quantities as the ability to guess from context.

2.4 Ellis (Ellis:1985) finds that, field independence and field dependence play vital role in individual learners learning style preferences. Regarding field independence and field dependence Ellis says in his *Understanding Second Language Acquisition* that :

Field dependence	Field independence
1. Personal orientation i.e. reliance on external frame	1. Impersonal orientation i.e. reliance on external frame

of reference in procession information	of reference in processing information
2. Holistic i.e. perceives a field as a whole; parts are fused with background	2. Analytic i.e. perceives a field in terms of its component parts; parts are distinguished from background
3. Dependent i.e. the self-view is derived from others	3. Independent i.e. sense of separate identity
4. Socially sensitive i.e. greater skill in interpersonal/ social relationships	4. Not so socially aware i.e. less skilled in interpersonal/social relationships

However, according to him (Ellis:104), learner's learning style differ from each other for several reasons :

- ◆ Age ,
- ◆ Aptitude,
- ◆ Cognitive style ,
- ◆ Motivation and
- ◆ Personality (extrovert & introvert).



2.5 In the research of Reid (Reid:1998) it is found that, classroom teachers have always been always researchers. It is their regular activity to intercept data such as test scores, lesson plans and student evaluations students progress, class discussion etc. These data are used by them to improve teaching and learning process. Based on their interpretations', they integrate their new knowledge into their classroom. It is stated that the teachers' research functions are individual professional development.

The history of the perceptual learning style preference (PLSP) says that Joy Reid developed it in 1984. This allowed ESL students to self identity their preferred learning styles arrange six categories (a) Visual (b) auditory, (c) Kinesthetic (d) tactile (e) group and (f) individual learning. The survey in intensive English language program in United states showed that :

- ◆ Most ESL students studying English in U.S proved strong major learning. style preference for kinesthetic and tactile learning.
- ◆ A negative learning style for group learning was noticed in ESL students
- ◆ Most ESL students had their own choice of major minor and negative leaning styles.
- ◆ Specific leaning styles preferred by ESL students.

It was generally proved that, the ESL Students be come less tactile and more auditory.

It is Reid's finding that, many teachers- researchers have used the PLSP in formally to help their students identify their individual learning styles in many other countries other than USA. In fact, teacher's adherence of PLSP will benefit the students to form knowledge about individual learning styles.

2.6 In the research of Rebecca and Christine (Reid:1998) it is agreed by most investigators that, a "learning disability" means some sort of deficit in learning. It means that, a person's learning difficulties are related to one or more aspects of learning but not necessarily with all aspects of learning. For example – it may be possible for a person to be learning disabled in reading and not in arithmetic's or vice versa.

They say that, according to Joy Reid "Learning style" refers to a person's general approach to learning and problem solving". Further, Ehrman and Lavine (1991) say "Many successful learners are aware of their preference for learning styles which are ones they find the most comfortable and easy to use".

However "Learning Strategy" is a technical phrase which means any specific consciousness activity or behavior a student or learning takes to improve his or her own learning. Choice of learning strategy is often related to preferred learning styles. An example may clear the point - A learner or student having a strongly visual learning style tends to use the strategies of taking notes and outlining. On

the other hand, an auditory learner may use the strategies of recording lectures and listening to them when the class ends. Therefore, learning styles vary learners who have an analytic leaning style often like to use strategies that involve breaking materials down into small pieces. However, the learning strategies accepted globally help a learner to grasp the main idea quickly without going into detail of what is to be read or learnt.

It is, however, believed that learning strategies are among a large group of factors that influence language development in learning disabled students and 'normals' in the same way or rate. Learning styles and strategies are not the only explanatory or diagnostic factors. They do not represent a total explanation. For many linguists, affective and social factors are implicated in learning disabilities too. In a psychology class, Louise stressed leaning style and learning strategies along with affective factors like motivation and anxiety. In her learning history essay, Louise felt secure enough to give suggestions to teaching dealing with learning disabled students. She emphasizes on breaking broader concept into small manageable units.

2.7 It is the finding of David Nunan (Reid:1998) that, the teachers transmit knowledge to the students who are expected to absorb this knowledge and reproduce in the examinations. This system makes students passive. In this situation they expect their university teachers to tell them what to learn and how to learn. They can not take the responsibility of their own learning. This situation is more clearly noticed to students studying English (whose mother tongue is not

English) whose motivation is generally low while most of them have had many years of English institution in school, the institution itself is often poor. And their competence is not as high as it should be. This is more particularly true in the productive skills of writing and reading. David Nunan has developed a course for integrating styles and strategies training with intent based instruction to achieve language content objectives. Later, he modified some of the materials into a self study course which students could complete in their own time may at home or in the English center. The center contains audio, video, computer, and print materials that students can use for independent language study. The self study materials encourage students to develop independence and responsibility. However, the program comprises four-task based modules each focusing on a different dimension in the learning process. The modules are :

- ◆ Module A : - Learning style
- ◆ Module B : - Developing listing and note-taking skill.
- ◆ Module C: - Developing reading and note taking skills
- ◆ Module D: - Strategies for improving language skills.

Module 'A' is designed to encourage learners to start thinking about some of the general processes focusing learning process, 'B' and 'C' tend to teach learners direct strategies for developing listening, speaking, reading and writing for university purposes.



If the modules are turned into different tasks, they can be headed in the following ways:-

- ◆ Task A : Information sharing
- ◆ Task B : Decision making and problem solving
- ◆ Task C : Grammar practice
- ◆ Task D : Dialogue practice.
- ◆ Task E : Authentic reading
- ◆ Task F : Gap filling
- ◆ Task G : Small group discussion
- ◆ Task H : Role play

In fact, the modules share above allow students to select according to their need.

2.8 According to Kristina Torkelson Gray (Reid:1998), ESL or EFL instructors want to learn about their students while at the same time helping the students learn about themselves and about their own study. Although the students in this lesson plan are in an ESL setting of immigrant adult students attending in a Virginia community college, this lesson plan was used in other universities of different countries. She found one thing in common : they are interested in discovering more about themselves. It has been her experiment that about EFL or ESL students have not been exposed to learning styles research in their prior educational settings.

2.9 It is found by Jerry Call (Reid:1998) in the research work that, Japanese language speakers are shy, quiet, reticent, and therefore introvert. They are quite willing to participate in class by listening, but they are extremely passive with respect to speaking. This is probably a result of two characteristics of Japanese culture - 1. concern for precision and 2. keeping face. Students are culturally to value group membership which teaches them a face-saving attitude and individualism has less importance to them.

A teacher of English as a foreign language ( EFL) in Japan might find that, learners are group oriented. Individual opinion is not valued in the EFL classroom. And in the classroom a teacher or tutor should not praise any single student repeatedly.

In fact, Japanese learners employ analytic style. And they are usually left-brain learners. A short analysis of Japanese students as learners may help us to find the following style preferences :

- ◆ analytic rather than global,
- ◆ reflective rather than impulsive,
- ◆ left-brained rather than right-brained and
- ◆ thinking type rather than feeling type.

2.10 In the study named *Teaching Modals to Multistyle Learners* Harthill and Busch (Reid:1998) said that, the multistyle learners study show that there are so many basic learning styles. They are –

◆ Divergent Learning Style :

In this style the student :

1. Learning through concrete experience and reflective observation.
2. has greater imaginative ability.
3. view concrete situations from many perspectives.
4. emphasizes observation rather than action.
5. is interested in people.
6. tend to be feeling oriented.

◆ Assimilative learning style :

The student :

1. Learns through abstract conceptualization and reflective observation (AC/RO).
2. [her/his) greatest strengths are inductive reasoning and the ability to create theoretical models by assimilating disparate observations into an integrated explanation.
3. Is more concerned with ideas and abstract concepts than with people.

4. Values soundness and precision of ideas and theories rather than their practical value.

◆ Conversant learning style :

The student

1. Learns through abstract conceptualization and active experimentation (AC/AE.)
2. [her/his] greatest strengths are problem-solving, decision-making and the practical application of ideas.
3. Does best in situations like conventional intelligence tests where there is a single correct answer or only one solution to a question or problem.
4. Relies on deductive reasoning for problem-solving.
5. Is controlled in expression of emotion.
6. Prefers dealing with technical tasks and problems rather than social and interpersonal issues.

◆ Accommodative learning style :

The student

1. Learns through concrete experience and active experimentation (CE/AE).

2. [her/his] greatest strengths are doing things, carrying out plans and tasks, and getting involved in new experiences.
3. Emphasizes opportunity-seeking risk-taking and action.
4. Is good at adapting her/himself to changing immediate circumstances.
5. Is willing to discard plan or theory when it does not fit the facts.
6. Solves problems in a trial and error manner, relying heavily on other people for information rather than her/his own analytic ability.
7. Is at ease with people and is sometimes seen as impatient and pushy.

Whatever may be, it is important to keep in mind that, the inventory only measures a preference towards one or more learning styles, it does not aim to stereotype a student as one rigid unalterable learning type. In fact, all students use a wide variety of learning tactics and they may change and broaden it in courses of time. It varies from group to group, individual to individual.

It is found that, in ESL class room learning type preference are often influenced by culture. On the other hand, RO style tends to predominate in high context cultures in which relationship are highly valued.

However, as in most cases learning type performs are often influenced by culture, teachers become more aware of the reasons that their ESL students respond difficulty in class.

In terms of learning style, the assimilative learner who process information reflectively and seemed especially motivated by the video, probably because the act of watching primarily an internal process that requires active listening and observation.

Lastly, it can be said that, the gradual movement from low to high risk activity is crucial for the divergent and assimilative languages.

2.11 According to Shahidullah (Asiat.Soc:2003), many studies show that optimum or effective learning occurs when teaching method or style match with learners' learning style preferences. These styles vary from culture to culture, context to context and even from person to person. So, it is necessary to find out learners learning style preference in a particular context.

He has done his research on two basis. They are :

◆ Traditional.

◆ Progressive or innovation.

However, his explanation of traditional and progressive or innovative teaching and learning are given below :

<b>Traditional</b>	<b>Progressive</b>
Teacher teaches	Teacher does not teach; he/she initiates, organizes, guides and monitors learning activities
Teacher controls and manipulates the class	No teacher control and manipulation in the class.
Teacher corrects most of the students errors	Teacher overlooks learners' errors but gives feedback at the end of the lesson
Students are passive listeners	Students are active learners
Students have no role in decision making	Students work independently of the teacher
Students are teacher dependent	Students work independently of the teacher
Learning is not the learners'	Learning is the learners' responsibility

responsibility	
Lecture is the major source of learning	Learners are encouraged to learn through student-centered activities
Little or no student interaction; no group/pair work	Maximum student interaction; maximum group/pain work
No real-life task	Uses real-life type activities such as role play and simulation

Indeed, he has used two different type of questionnaires for traditional and progressive modes of teaching and learning. These questionnaires are given below :

<b>Questions/Statements(Traditional)</b>
I learn better when the teacher lectures
I prefer to learn things by heart
I like the teacher to guide and help me
I like the teacher to tell me what to do
I like to teacher to do everything for my learning
I like the teacher to tell me how long I should spend on an activity
I like the teacher to decide why I should do an activity
I need the teacher to tell me how I am progressing

:



Questions/Statements(Progressive)
I prefer to learn by doing something in the class
I learn better when I work alone
I learn better when I participate in performing roles in dramatized real life type situation (for example, role of a railway passenger at a railway station where you enquire about the arrival time and platform no. Of your train) or reading a play aloud.
I learn better by working in-groups and pairs than by listening to lectures.
I like to work independently of the teacher and select materials and methods by myself.
I want to take initiative myself for my own learning.
I prefer to choose for myself what I want to learn.
I like to follow my own plan for pursuing my own goal of achievement.



## **CHAPTER-III**

### **METHODOLOGY**

This chapter provides a basis of methodology of the research and discusses issues related to the research design, theoretical framework, sampling, setting, research instrument, method of data collection and data analysis procedure.

#### **3.1 Research Design :**

The researcher has tried to set up her research design chronologically, systematically, and precisely. For this research, She has used same questionnaires for both interview and survey ( See Appendix-1). She focused on “Tertiary level” for the research.

#### **3.2 Theoretical Framework :**

Though there is no particular theories for this research, the researcher has used some questionnaires for sampling.

#### **3.3 Sampling :**

In this learning style preference research, the researcher has applied both survey and interview patterns. For a successful learning method, the tertiary level was selected and that is “University Honours Level”.

The place of survey was “East West University” located at Mohakhali in Dhaka.

All the students, participating in the surveys and in the interviews belonged to undergraduate classes of different sessions and departments.

### 3.3.1 English Department :

In survey, there were 32 students and in interview there were 5 students.

The survey was carried on 4 courses: Eng-155, Eng-208, Eng-245 and Eng-330. In Eng-155, there were 4 students, in Eng-208, the total participants were 26, in Eng-245 and Eng-330 there were only one student in each group. Interview was taken on Eng-208 and Eng-245 and within them four students were from Eng-208 and one student was from Eng-245.

In Eng. – 155 & 208 there was a single teacher and he was Md. Shariar Haque. In Eng-245 the teacher was Mr. Shafikur Rahman and in Eng-330 the instructor was Ms. Zahida Rahman. Time duration for the survey was two hours. Eng-208 started at 10.10 A.M. and ended at 11.40 A.M. (1.30 minutes).

But interview has taken with only 4 students, it took the researcher only half an hour instead of a whole class i.e. 1.30 hours (11.50-01.20 PM). Her survey was a continuous process because some student entered the classroom later.

### 3.3.2 BBA Department :

Here, in the survey of Bus-361, there were 28 students and in the survey of HRM-414, there were 30 students. Indeed, there were 58 students of BBA department in total.

In Bus-361, the instructor was Mr. Abdul Razzak. He was also the instructor of HRM-414. The time duration for both the case were 30 minutes. Bus-361 began at 11.50 a.m and ended at 12.20 p.m. On the other hand, HRM-414 started at 10.10 a.m and finished by 10.40 a.m. Hence, her survey was a on going process as a few students came later in the classroom.

### 3.3.3 CSC Department :

In CSC department, there were only 17 students. The research was carried on CSC-350. Here, the instructor was Ms. Mahin Islam. The time limitation for the course was 20 minutes. So, it has been done from 1 p.m to 1.20 p.m.

### 3.3.4 Economics Department :

In case of Economics department, there were a number of students comparable to CSC department. The total number of students in Economics department were 32. The survey was done in Eco-102. Indeed, the instructor was Dr. Forusuddin. The time duration for this course was 20 minutes like CSC-350. Hence, the research has carried from 4.30 p.m to 4.50 p.m.

### **3.4 Setting :**

The place of survey and interview were “East West University” located in Dhaka.

Survey have included four departments. They are :

- ◆ English Department.
- ◆ BBA Department.
- ◆ CSC Department.
- ◆ Economics Department.

But, interview has involved one department. That is :

- ◆ English Department.

### **3.5 Research Instrument :**

For this research, the researcher has used several instruments. Such as :

- ◆ Questionnaires.
- ◆ Voice-recorder.
- ◆ Scripts and
- ◆ Pen/Pencil.

### **3.6 Data Collection Procedure :**

First of all, the researcher had to take authority's permission. After getting that, she went to the selected place, explained the questionnaires to the students and collected data from the classroom of different departments .

In case of interview, the researcher first took the permission of selected interviewee. After getting the permission researcher asked question-1, explained it to the interviewee and on the basis of interviewee's answer or comment, she has put the score. In this way, the researcher has asked all the thirty questions, explained and got results one after another from each interviewee of different departments separately.

However, for a successful research, she has selected close-ended questions for both survey and interview because it was time-convenient and easy for students as well as researcher.

### **3.7 Data Analysis Procedure :**

The researcher has used same data analysis procedure for both survey and interview. So, at first, the researcher had to add the total number of auditory, visual, kinesthetic, tactile, group and individual learning style preferences separately. Then, she had to multiply them by two and divide them by the total number of students separately. By this way, ultimately, the researcher has got the

average score of each. For instance, the following procedure would clear the method :

addition of total number of each leaning style x 2

= AVERAGE SCORE

---

Total students

however, there are mainly three types of learning style performances. They are :

- ◆ Major Learning style performance.
- ◆ Minor Learning style performance.
- ◆ Negligible Learning style performance.



## CHAPTER-IV

### FINDINGS & ANALYSIS

Findings and Analysis are important parts of any research. Hence, in this chapter the researcher has discussed them. Finally, the findings are explained in terms of research questions.

#### 4.1 English Department :

##### RESULTS (SURVEY)

Learning Style	Average Score	Major/Minor
Auditory	40.75	Major
Visual	36.56	Minor
Kinesthetic	43	Major
Tactile	40.12	Major
Group	39.06	Major
Individual	38.12	Major

NOTE : Major Learning style performances (s)      Score : 38-50  
Minor Learning style performances (s)      Score : 25-37  
Negligible Learning style performances (s)      Score : 0-24

(See Appendix no - 2)



## RESULTS (Interview)

Learning Style	Average Score	Major/Minor
Auditory	43.2	Major
Visual	34.8	Minor
Kinesthetic	39.6	Major
Tactile	39.2	Major
Group	35.2	Minor
Individual	35.2	Minor

NOTE : Major Learning style performances (s)      Score : 38-50  
 Minor Learning style performances (s)      Score : 25-37  
 Negligible Learning style performances (s)      Score : 0-24

(Look Appendix no - 3)

Considering above charts, , according to survey, it can be said that, the average score of auditory learning styles is 40.75 whereas according to interview, it is 43.2. Again, there are much differences in case of visual learning style as - survey indicates that it is 36.56 while interview indicates that it is 34.8.

In accordance with survey it is seen that the average score in kinesthetic is 43 and in accordance with interview it is 39.6. The average score in tactile according to survey is 40.12 whereas according to interview it is 39.2.

Again, survey result shows that, average score for group is 39.06 while interview shows that it is 35.2. Similarly, there are differences in survey and interview results of individual learning style. Survey shows that it is 38.12 while interview shows that it is 35.2.

So, from the survey and interview results, it becomes clear (from the charts shown above) that the number of auditory learners is greater (40.75 & 43.2) than visual learning style (36.56 & 34.8). Similarly, the data show that, kinesthetic and tactile learners are equal in number unlike auditory and visual learning. In kinesthetic and tactile learning style learners pay some importance on experience. At the same time, the survey shows that, both group and individual learning style preferences have equal importance, while in interview we find that group as well as individual learning style preferences are of less importance.

Therefore, it is finally found that, most of the learners prefer auditory, kinesthetic and tactile learning style.

#### **4.2 BBA Department :**

##### **RESULTS (SURVEY:BUS - 361)**

Learning Style	Average Score	Major/Minor
Auditory	35.75	Minor

Visual	35	Minor
Kinesthetic	38.64	Major
Tactile	37.79	Minor
Group	35.2	Minor
Individual	36.92	Minor

NOTE : Major Learning style performances (s) Score : 38-50

Minor Learning style performances (s) Score : 25-37

Negligible Learning style performances (s) Score : 0-24

(See Appendix no - 4)

#### RESULTS (SURVEY:HRM - 414)

Learning Style	Average Score	Major/Minor
Auditory	38.87	Major
Visual	34.93	Minor
Kinesthetic	40.6	Major
Tactile	38.4	Major
Group	38.13	Major
Individual	35.06	Minor

NOTE : Major Learning style performances (s) Score : 38-50

Minor Learning style performances (s)      Score : 25-37

Negligible Learning style performances (s)      Score : 0-24

(Look Appendix no - 5)

If the researcher consider the above charts of BBA department, she will find that, the average score of learning style in Bus-361 is 35.75 whereas it is 38.47 in HRM-414. Again, there are differences in case of visual learning because the survey of Bus-361 shows that it is 35 while the survey of HRM-414 shows that it is 34.93.

In Bus-361, it is found that, the average score of kinesthetic is 38.64 and in HRM-414 it is 40.6. Similarly, it is seen that, tactile's average score in Bus-361 is 37.79 whereas in HRM-414 the average score of tactile is 38.4.

Again, the survey results of Bus-361 indicates that, the score for group is 35.2 while the survey results of HRM-414 indicates that, the score for group is 38.13. Like previous learning styles, there are also differences in the individual learning style score of Bus-361 and HRM-414. In Bus-361, it is 36.92 and in HRM-414 it is 35.06.

Indeed, the charts present that, the number of kinesthetic learners are greater than other learning styles learning in BBA department.

### 4.3 CSC Department :

#### RESULTS (SURVEY: CSC-350)

Learning Style	Average Score	Major/Minor
Auditory	36.48	Minor
Visual	36.59	Minor
Kinesthetic	40.59	Major
Tactile	38.48	Major
Group	39.64	Major
Individual	36.23	Minor

NOTE : Major Learning style performances (s)      Score : 38-50  
Minor Learning style performances (s)      Score : 25-37  
Negligible Learning style performances (s)      Score : 0-24

(See Appendix no - 6)

Looking at the above table of CSC department, it can be said that, the number of auditory learner is 36.48 where the number of visual learner is 36.59. So, auditory learner is more than visual.

Again, the average score of kinesthetic learners are 40.59 but the average score of tactile learners are 38.48. Here, the researcher finds more kinesthetic learner.

Similarly, group learner is 39.64 on the contrary individual learner style is 36.23.

So, group learning comes under major learning score.

Hence, judging all of them, it is to say that CSC learners are mainly kinesthetic and group learners.

#### 4.4 Economics Department :

##### RESULTS (SURVEY: ECO-102)

Learning Style	Average Score	Major/Minor
Auditory	36.19	Minor
Visual	34.8	Minor
Kinesthetic	38.1	Major
Tactile	35.25	Minor
Group	36.6	Minor
Individual	33.9	Minor

NOTE : Major Learning style performances (s)      Score : 38-50  
Minor Learning style performances (s)      Score : 25-37  
Negligible Learning style performances (s)      Score : 0-24

(Look Appendix no - 7)

Following the above data, it is found that, in Economics department the average score of auditory learning style is 36.19 but the average score of visual learning style is 34.8. That's why, auditory learners are greater than visual learners.

Similarly, the data of kinesthetic learning style shows that, it is 38.1 and the data of tactile learning style proves that this is 35.25. Here, like other departments, kinesthetic learners are more.

In case of group learning style, , the number of group learner is 36.6 in converse the number of individual learner is 33.9. So, the number of group learner is more comparing to individual learner.

However, it can be said that, most of the Economics learners are kinesthetic and group learners like CSC learners.



## CHAPTER-V

### DISCUSSION & SUGGESTION

The current chapter analyse the findings and relates them with the previous theories. Nevertheless, On the basis of this analysis and relations the research provides necessary suggestions.

#### 5.1 Discussion :

5.1.1 According to Ellis, **Age** is one of the factors which causes the differences among learners' style preferences. For instance, through the survey of BBA department, it is found that, group learning style score is less in Bus-361 (35.2) than in HRM-414 ( 38.13). It indicates that, there are more group learner in HRM-414 than Bus-361. Here, it is important to mention that, HRM-414 is 4<sup>th</sup> year level course whereas Bus-361 is 3<sup>rd</sup> year level course. So, it is seen that, Age changes the preferences of learners' learning style.

5.1.2 According to Cheng and Banya, **Asian**, that is, Bangladeshi learners are mainly Visual. But, through the survey of different departments, it can be argued that, **Asian**, that is, Bangladeshi learners are mainly Kinesthetic, not visual.



5.1.3 They also say that, a situation in which **Communicative Fluency** is the main concern there students found to be more Kinesthetic and Auditory. And by the different surveys the researcher finds the same results.

5.1.4. **Harthill & Busch** say that, there can have individual differences within same group. Similarly, this research also finds some differences. Like, from the survey of HRM-414, it is found that, group learning (38.18) is more than individual learning whereas from the survey of Bus-361, it is found that, the number of group learner is less than individual learning (36.92). So, here are both extrovert and introvert learners.

5.1.5 **Marian Tyacke** argues that, by keeping in mind learners' learning necessity both the teacher and material's willingness can help learners switching from one style to another. In this regard, from the current research, it is found that, in a same course or class learners use Auditory learning style at one time and in another time they use Kinesthetic learning style.

5.1.6 Both Ehrman and Ellis emphasis the impact of **Field Independence (FI)** and **Field Dependence (FD)** in learners learning style preferences. In FI situation learners prefer analytical materials and tasks, that is, materials and tasks which can be learned by experiences and experiments. Considering this, it can be said that, students have FI situation here as there is more Kinesthetic and Tactile learners.

1.7. The research of **Reid** says that ESL learners have negative learning style for group learning. But, the present research shows totally the opposite view. Here, the most all departments' students prefer group learning.

5.1.8. Reid also points out that, **individual learners** have own **choice** of major, minor, and negative score of learning style. Indeed, in this research the researcher finds the similar case.

5.1.9. In accordance with Dr. Shahidullah, learning style differs from **context to context**. In this research, it is seen that, the context of BBA differs from Economics. Similarly, the context of English distinct from the context of CSC.

5.1.10. Ellis also points out that, **Personality** can change learners' learning style preferences. There are two types of personality : Extrovert and Introvert. And the research got the evidence of personality in case of all departments.

There is individual pattern or mood of each department. For instance, in case of English department students prefer group learning (39.06) whereas CSC department prefer individual learning (39.64). This indicates that, English department's students are more extrovert while CSC department department's students more introvert.



5.1.11. Rebecca and Christine say that each learning style has distinct **Learning Strategy**. So, auditory learner will prefer recording lectures and listening to them whereas Kinesthetic learner will prefer experienced and experimental based materials and activities.

## 5.2 Suggestions :

Nevertheless, after going through deeply upto this point, the researcher has come up with the following Suggestions :

- ☛ Learners age differences should be considered.
- ☛ Both group and individual learning should be emphasized. But, indeed, group learning should be highlighted more as through it learner will able to be more extrovert learner.
- ☛ There should have more scope for practical and experimental learning. For instance, example can be survey, taking class, or any kind of internship or project work, seminar, field work.
- ☛ Must have to concern the educational and cultural background considering the majority of the learners in a class or course.
- ☛ Should motivate and encourage for almost all learning style so that they can accustom themselves for other situation later on.
- ☛ Should have FI learning situation as it provides a platform for practical and advance learning and teaching.
- ☛ Learner should have enough opportunities for choosing their learning style.

- The teacher has to be conscious of the students' learning styles including their own teaching or learning styles.
- The teacher has to take risks to integrate more teaching styles into their class.
- There must be co-operation between teachers and learners so that the teaching and learning styles of them can be maintained and matched.
- Students have to be more active and competent in the complex situations of foreign language learning.
- Students must have to be more autonomous in their learning.



## CHAPTER-VI

### CONCLUSION

This chapter involves a gist of the whole research upto this point and proceed with the conclusion. The conclusion explained in term of general findings. Lastly, the chapter ends through emphasizing the importance of analyzing and considering learners' style preferences.

#### **Conclusion :**

Generally, in Bangladeshi context, learning style is not upto the mark from the point view of learners. Learning style here is a bit far from reality. Here, teacher dominates classroom, materials even sometimes learners' learning style preferences . The four basic styles of learning namely - listening, speaking, reading and writing are not available here. In the learning process, students are not allow to excise their own opinions or choose their own learning styles.

Indeed, learning style is of great importance in the context of applied linguistics and ELT. But, learning style differs from group to group, or country to country, or even person to person. A proper learning style motivates and influences both the teacher and the learner to teach and to learn more successfully.

Last but not the least, considering and analyzing each and every aspects as well as points of present research work, it is just to say that, tertial or undergraduate

level learners are mainly kinesthetic, group and auditory learners. But, it is important to highlight and mention that, an appropriate learning style in a specific context and group provides a basis and a platform which help to implement appropriate learning strategies as well as teaching methodologies.

## REFERENCES

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Reid, J. *Understanding Learning Style in the Second Language Classroom*. USA: Prentice Hall Regents.

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## APPENDIX - 1

Name:  
Subject:

Id No:  
Date:

**Please read and respond to the following statements**

STRONGLY DISAGREE	DISAGREE	UNDECIDED	AGREE	STRONGLY AGREE
[1]	[2]	[3]	[4]	[5]

<i>STATEMENTS</i>	<i>RESPOND</i>
I. When the teacher gives me the instruction, I understand better.	
II. I prefer to learn by doing something.	
III. I can do more work done, when I work with others.	
IV. When I discuss with a group, I learn more.	
V. I learn best when I work with others in the classroom.	
VI. I learn better what the teacher writes on the chalkboard.	
VII. When someone guides me how to do something in class, I learn it better.	
VIII. I learn better, When I do practical things in class.	
IX. I remember things better which I hears in class than I reads.	
X. When I read instructions, I remember them better.	
XI. When I can make model, I learn more.	
XII. When I read instructions by myself, I understand better,.	
XIII. When I study individually, I remember things better.	
XIV. I learn more, when I do something for a class project.	
XV. I enjoy learning when do experiments in class.	



XVI. WHEN I MAKE STRATEGY FOR MY STUDY, I LEARN BETTER.	
XVII. When the teacher gives a lecture, I learn better.	
XVIII. When I work by myself, I learn better.	
XIX. In classroom when I participate in role-playing, I understand better.	
XX. When I listen to someone in classroom, I learn better.	
XXI. I enjoy doing assignment with classmates.	
XXII. When I read according to my plan, I can remember better what I learned.	
XXIII. I like group studies.	
XXIV. I learn better when I read than listen to someone.	
XXV. I enjoy doing class project.	
XXVI. When I participates in related activities, I learn best.	
XXVII. In class, I work better when I work alone.	
XXVIII. I prefer working on projects by myself.	
XXIX. I learn more, I read textbooks than listen to a lecture.	
XXX. I prefer to work by myself.	

Survey

SL.	Auditory				Visual				Kinesthetic				Tactile				Group				Individual									
	TL		TL.		TL.		TL.		TL.		TL.		TL.		TL.		TL.		TL.		TL.									
	7	9	17	20	6	10	12	24	29	2	8	15	19	26	11	14	16	22	25	3	4	5	21	23	13	18	27	30	TL.	
1	5	4	5	5	24	3	4	4	5	4	20	4	4	4	5	5	4	23	3	3	3	4	3	16	5	5	5	5	25	
2	4	3	4	5	4	20	5	3	4	3	18	4	5	3	5	5	4	20	3	4	4	4	4	19	2	4	2	4	16	
3	4	2	5	5	21	2	2	4	3	2	13	2	4	5	3	6	20	13	4	4	5	2	4	19	5	5	5	5	25	
4	4	4	5	5	3	21	4	3	3	1	12	5	4	5	5	5	24	4	4	4	4	4	21	4	4	4	2	2	15	
5	5	4	3	5	3	20	5	5	4	2	18	4	5	4	3	3	19	2	4	2	4	2	15	5	5	4	4	5	23	
6	4	4	5	4	4	21	5	4	5	4	18	5	5	4	2	5	21	5	4	5	5	1	20	2	4	4	4	2	16	
7	4	4	3	4	5	22	5	4	5	2	18	4	4	5	5	3	24	5	4	5	4	5	24	4	4	2	4	5	19	
8	4	4	4	4	3	19	4	4	4	4	20	5	4	4	4	3	20	3	4	4	4	4	18	4	3	4	4	4	19	
9	3	3	3	4	4	17	4	4	3	2	15	5	4	4	4	4	21	3	4	4	4	4	19	2	3	4	1	3	13	
10	5	2	5	5	2	19	3	4	4	5	17	4	4	4	3	4	19	3	4	5	4	4	3	13	4	5	5	5	24	
11	5	3	3	5	3	19	4	3	4	3	5	4	5	3	4	4	21	5	5	3	4	4	5	20	4	3	3	4	3	17
12	5	4	4	4	3	20	3	5	5	4	2	19	5	5	4	5	24	5	3	3	4	4	5	20	3	4	3	4	4	18
13	5	4	5	5	5	24	5	4	5	4	1	19	5	5	5	4	24	4	5	3	4	4	20	5	5	5	4	5	14	
14	4	5	5	5	4	20	4	5	4	3	4	4	5	5	4	4	23	3	5	3	4	4	19	5	4	4	4	5	22	
15	4	5	5	5	4	23	4	4	4	3	22	4	4	4	2	4	18	4	5	5	4	4	22	4	5	3	5	3	21	
16	5	4	4	5	4	22	4	5	5	5	3	23	5	4	5	4	23	5	4	5	4	4	22	4	5	4	5	4	20	
17	4	3	1	4	3	15	4	3	4	5	3	19	5	5	5	4	24	5	5	5	4	4	25	5	5	2	5	4	20	
18	4	5	5	5	5	24	5	3	5	5	23	4	3	4	5	4	20	2	3	4	4	4	21	5	5	5	5	5	22	
19	4	2	4	4	3	17	3	3	5	4	3	18	5	5	2	4	21	3	5	3	4	2	17	1	3	2	2	2	10	
20	4	4	5	4	4	21	3	3	4	4	4	18	5	4	5	3	4	21	4	5	4	4	4	21	4	4	4	5	25	
21	4	5	5	4	4	22	5	2	3	2	3	15	4	5	3	4	21	4	5	4	4	4	17	3	2	3	4	5	21	
22	4	2	4	4	4	18	4	4	4	4	1	17	4	5	3	4	23	5	4	2	3	5	19	5	5	3	5	3	18	
23	4	3	3	5	4	19	3	4	3	5	4	19	4	5	3	4	23	5	4	4	4	4	21	4	2	5	5	4	23	
24	4	5	5	5	5	24	5	4	4	2	17	5	5	5	5	4	21	5	4	4	4	4	17	5	5	5	5	4	15	
25	3	4	5	5	4	14	5	4	3	2	2	16	4	5	4	4	20	3	4	5	4	4	21	5	5	2	1	2	5	15
26	4	4	4	4	3	19	2	4	4	3	3	16	5	2	4	4	20	4	5	5	5	4	20	4	5	5	5	5	13	
27	4	5	5	5	4	23	5	5	4	2	2	18	5	5	4	5	24	2	5	5	4	4	19	5	3	3	3	4	18	
28	5	4	5	4	4	22	5	4	4	4	5	22	5	4	1	5	20	5	5	4	5	5	22	2	2	2	2	2	9	
29	4	4	5	5	5	23	5	4	4	5	3	21	5	5	4	2	21	5	3	5	4	2	19	4	3	2	3	5	24	
30	4	4	4	2	4	18	4	4	4	2	2	16	5	4	4	4	18	4	5	4	5	2	19	4	3	2	3	5	25	
31	4	4	4	4	4	20	5	4	4	5	2	16	5	4	4	4	21	5	2	4	5	2	18	4	5	2	2	4	12	
32	5	5	4	4	3	21	4	4	3	4	4	19	5	4	4	3	17	5	3	4	3	4	17	4	4	4	4	4	18	

$\frac{31X2}{32} = 40.75$

$\frac{585X2}{32} = 36.56$

$\frac{685X2}{32} = 43$

$\frac{64.2X2}{32} = 40.12$

$\frac{625X2}{32} = 39.06$

$\frac{610X2}{32} = 38.12$

# Appendix - 3

## Interview

SL.	Auditory			TL.	Visual			TL.	Kinesthetic			TL.	Tactile			TL.	Group			TL.	Individual			TL.								
	1	7	9		17	20	6		10	12	29		29	2	8		15	19	26		11	14	16		28	25	3	4	5	21	23	13
1.	5	5	5	4	24	5	3	5	4	2	3	5	4	2	5	19	2	5	3	4	4	18	2	2	2	4	12	5	5	5	5	25
2.	3	5	4	3	3	5	2	2	4	2	4	2	2	4	5	17	4	2	2	2	5	16	4	4	4	5	22	4	2	2	2	12
3.	4	5	5	2	5	4	2	2	2	2	4	5	5	5	4	23	4	5	5	3	5	21	4	4	5	4	22	2	2	2	2	10
4.	5	4	5	3	5	3	5	5	4	3	2	8	3	5	3	21	4	5	5	5	4	23	1	3	1	3	9	5	5	5	5	25
5.	4	5	2	5	5	3	5	4	5	3	3	3	3	5	5	19	5	3	2	4	5	19	5	5	5	3	23	4	1	1	2	13

$$\frac{108X}{5} = 43.2$$

$$\frac{87X2}{5} = 34.8$$

$$\frac{99X2}{5} = 39.6$$

$$\frac{98X2}{5} = 39.2$$

$$\frac{88X2}{5} = 35.2$$

$$\frac{88X2}{5} = 35.2$$



**APPENDIX - 4**

SL.	Auditory					Visual					Kinesthetic					Tactile					Group					Individual								
	1	7	9	17	20	6	10	12	29	29	2	8	15	19	26	11	14	16	22	25	3	4	5	21	23	13	18	27	28	30	TL.	TL.	TL.	TL.
1	4	3	4	3	4	14	4	3	2	3	16	4	3	3	3	17	4	4	5	4	4	2	2	1	9	3	4	4	4	19				
2	1	2	3	1	1	8	5	3	5	2	20	4	3	2	4	15	2	4	5	4	5	2	1	5	2	13	3	5	2	2	19			
3	5	2	4	4	3	18	3	5	3	4	18	5	4	3	4	21	4	4	5	5	4	4	3	4	4	19	4	4	4	5	21			
4	4	4	5	4	4	21	5	4	4	3	18	2	5	4	4	19	4	4	4	3	4	5	4	4	5	22	3	4	3	3	17			
5	3	3	3	2	3	14	4	3	4	2	17	4	3	1	4	15	4	4	4	4	4	2	3	2	3	14	4	3	4	3	18			
6	4	4	5	5	4	22	4	4	4	3	18	5	4	4	4	22	3	4	4	4	3	2	3	4	3	15	5	3	5	5	23			
7	4	5	3	3	4	19	3	4	4	3	17	4	3	3	4	17	3	4	4	4	3	5	5	5	25	4	3	3	3	16				
8	4	3	3	4	4	18	3	4	4	3	17	4	4	4	3	19	4	4	4	3	4	4	4	4	4	20	4	3	3	4	16			
9	5	2	3	4	3	17	5	3	4	5	19	4	4	4	4	20	3	4	3	3	4	3	4	3	4	19	4	4	3	3	17			
10	4	4	4	4	5	21	5	4	5	4	22	5	4	5	3	21	4	4	4	5	4	5	4	5	21	3	5	3	4	20				
11	4	5	4	4	4	21	4	4	5	2	19	5	5	4	4	24	3	5	4	3	2	4	3	2	2	13	5	5	5	5	25			
12	4	3	5	1	4	17	1	4	3	2	15	4	4	4	4	20	5	4	5	5	4	5	5	2	4	21	4	2	4	4	22			
13	3	5	5	4	3	20	4	4	4	5	22	5	4	4	5	21	5	3	1	5	2	16	2	4	4	18	5	5	5	5	25			
14	3	3	4	4	3	17	2	4	4	4	16	5	4	4	2	19	3	3	4	4	4	5	4	4	5	23	2	4	2	3	15			
15	4	2	4	4	2	16	4	4	3	4	17	4	5	4	4	19	3	5	4	3	5	3	2	2	2	14	4	3	3	4	18			
16	4	3	3	3	4	17	4	3	4	3	17	5	3	3	5	19	5	3	3	3	3	3	3	3	3	14	3	3	3	3	15			
17	4	2	4	2	1	13	3	3	3	2	13	4	5	3	4	20	2	4	4	2	4	2	1	3	3	13	3	4	2	4	17			
18	3	2	3	4	3	15	3	4	4	3	16	4	4	3	3	17	4	3	3	5	2	17	3	4	4	18	4	4	2	3	15			
19	4	4	3	4	3	18	4	2	2	3	13	5	4	3	2	17	4	3	3	2	2	14	3	4	4	18	3	4	4	2	15			
20	4	5	4	4	3	20	3	4	4	3	18	4	5	3	4	19	5	4	3	5	3	20	3	4	3	15	5	4	4	4	21			
21	5	4	3	4	3	19	5	4	4	3	20	5	4	4	3	19	4	4	3	4	2	17	3	5	3	16	5	4	3	5	22			
22	4	4	5	3	1	17	5	3	4	3	17	5	4	4	4	22	4	4	2	4	4	22	5	3	5	4	4	4	2	3	15			
23	3	7	5	4	3	22	4	4	4	4	19	5	5	5	4	24	4	4	4	4	4	20	5	4	4	21	5	5	4	4	22			
24	3	5	4	3	1	16	4	2	4	4	19	5	4	4	4	21	3	4	5	5	4	21	4	1	3	15	4	4	2	1	15			
25	4	5	4	4	3	20	4	4	3	4	19	4	5	3	4	21	5	4	5	3	2	19	3	4	4	18	4	4	4	5	21			
26	4	4	4	4	3	19	4	4	4	1	17	1	3	3	4	14	4	3	4	4	3	18	3	4	4	19	3	4	1	3	15			
27	4	3	4	4	3	18	3	4	3	4	17	4	4	3	4	14	4	4	3	3	4	18	3	4	4	19	3	3	4	3	16			
28	4	3	2	4	4	17	4	4	2	2	14	4	4	4	4	20	4	4	4	4	4	20	4	4	4	10	3	4	2	4	17			

$$\frac{448X2}{28} = 35.75$$

$$\frac{499X2}{28} = 35.00$$

$$\frac{541X2}{28} = 38.64$$

$$\frac{529X2}{28} = 37.79$$

$$\frac{493X2}{28} = 35.02$$

$$\frac{517X2}{28} = 36.92$$

## Auditory

## Visual

## Kinesthetic

## Tactile

## Group

## Individual

SL.	1	7	9	17	20	TL.	6	10	12	24	29	TL.	2	8	15	19	26	TL.	11	14	16	22	25	TL.	3	4	5	21	23	TL.	13	18	27	28	30	TL.
1	4	3	4	5	4	20	4	4	5	3	2	18	4	5	4	4	4	4	21	3	4	4	3	18	3	4	2	4	4	17	5	5	3	3	4	20
2	4	5	3	4	4	22	4	4	4	3	3	18	4	5	5	4	4	4	22	5	4	5	5	23	3	4	4	4	3	18	4	5	3	3	3	18
3	4	3	4	4	3	18	4	3	4	5	5	21	4	5	3	4	4	4	20	3	4	3	4	18	3	5	3	3	5	19	3	4	4	3	5	19
4	4	4	4	4	4	25	4	3	3	4	2	16	4	4	4	4	5	5	21	4	4	3	3	17	4	4	4	4	4	19	3	3	2	2	3	13
5	5	4	2	4	2	17	2	4	4	4	2	16	4	5	2	2	4	4	17	4	4	4	4	20	4	4	4	4	4	20	2	4	2	2	4	14
6	4	3	2	4	3	16	5	3	5	5	2	20	5	4	5	4	4	4	23	4	4	5	4	21	4	4	4	4	4	20	5	4	5	5	5	24
7	4	3	5	4	3	19	2	4	4	4	1	15	5	5	5	4	5	5	24	3	5	3	5	21	3	4	3	5	20	4	3	3	4	3	17	
8	4	4	5	4	4	21	5	4	4	2	5	20	5	4	3	4	5	4	21	4	5	4	5	22	4	1	3	1	12	5	4	5	3	4	21	
9	5	5	4	4	5	23	5	5	4	3	4	21	4	4	4	5	4	4	21	5	4	4	4	29	5	4	4	3	4	20	4	4	2	4	3	17
10	5	5	5	4	4	23	4	3	3	4	4	18	4	4	3	3	5	5	19	4	5	4	4	19	5	5	4	5	3	22	3	2	3	2	3	13
11	5	5	5	4	4	23	3	3	2	2	1	11	5	5	2	3	5	5	20	3	3	2	4	3	15	4	4	5	5	23	1	4	1	1	1	8
12	4	4	5	3	3	19	4	4	3	3	1	15	4	5	4	4	4	5	22	4	4	5	4	21	4	4	3	2	4	17	3	4	3	3	4	17
13	4	1	4	4	3	16	3	3	4	4	3	17	5	5	4	4	4	4	22	4	2	4	4	17	5	5	5	5	25	3	4	4	3	1	15	
14	5	3	4	4	3	19	5	3	3	3	2	16	4	4	2	3	3	3	16	4	4	4	5	21	4	4	5	2	18	5	4	4	3	4	4	20
15	4	2	5	5	3	19	4	3	1	3	2	13	4	4	3	2	4	4	17	3	2	4	4	15	4	5	3	4	21	2	3	4	3	4	3	15
16	4	3	4	4	3	18	4	4	4	4	2	18	4	3	3	2	3	3	15	4	3	5	4	18	2	4	2	3	13	5	4	2	4	2	4	18
17	4	4	4	4	4	20	3	4	4	4	4	19	5	4	3	4	4	4	20	4	4	4	4	20	5	5	4	5	24	2	3	2	3	2	3	13
18	4	4	4	4	4	20	5	4	4	2	3	18	5	5	5	5	5	5	25	5	4	4	4	21	3	5	3	4	20	4	5	3	2	5	3	16
19	4	5	5	4	4	22	4	4	4	4	4	20	5	4	4	5	4	4	23	4	5	4	4	19	4	5	4	4	21	4	5	4	3	4	3	17
20	4	3	3	2	4	16	2	4	4	5	5	20	5	4	4	4	4	4	21	3	4	3	4	18	2	4	4	3	17	3	4	4	2	4	4	17
21	4	4	3	5	4	20	5	3	4	2	1	15	5	4	4	4	4	4	21	5	5	5	4	23	4	4	3	4	16	4	5	3	5	5	4	21
22	5	1	5	5	5	21	1	5	5	3	1	15	5	5	3	5	3	3	21	5	3	5	3	21	5	5	5	5	25	5	5	5	5	5	5	25
23	4	1	3	4	1	13	5	4	3	4	3	19	1	4	2	4	4	4	15	4	5	5	5	21	5	5	4	4	21	4	3	2	2	4	15	
24	4	4	2	3	4	19	3	3	3	4	3	16	5	5	5	4	4	4	23	3	4	3	4	18	5	5	5	5	24	4	4	4	4	2	4	19
25	4	4	5	5	4	22	4	4	4	3	2	17	5	5	5	4	4	4	23	4	4	4	4	20	2	4	4	1	15	5	4	4	4	2	4	19
26	4	1	5	5	1	16	3	3	1	4	2	13	3	4	3	2	1	13	2	4	4	4	2	16	2	4	5	3	17	3	1	3	4	1	12	
27	4	5	3	4	4	20	5	4	5	4	3	21	5	4	5	3	5	5	22	5	4	5	4	21	2	3	4	2	14	4	4	5	4	5	22	
28	4	5	5	4	2	20	5	4	3	1	5	18	4	5	5	4	5	4	23	5	4	3	3	16	3	5	3	4	17	4	3	3	2	4	19	
29	4	4	3	4	3	18	3	4	3	4	4	18	5	4	4	4	4	4	21	4	4	4	4	19	5	5	1	3	17	4	4	4	4	4	5	21
30	4	4	2	4	4	18	5	5	5	3	4	22	5	3	4	3	4	4	19	3	2	4	5	18	5	4	4	3	20	5	5	5	3	3	4	20

$$\frac{583X2}{30} = 38.87$$

$$\frac{524X2}{30} = 34.93$$

$$\frac{609X2}{30} = 40.6$$

$$\frac{576X2}{30} = 38.4$$

$$\frac{572X2}{30} = 38.13$$

$$\frac{526X2}{30} = 35.06$$

**APPENDIX - 6**

SL.	Auditory					Visual					Kinesthetic					Tactile					Group					Individual										
	1	7	9	17	20	6	10	12	24	29	TL.	2	8	15	19	26	TL.	11	14	16	22	25	TL.	3	4	5	21	23	TL.	13	18	27	28	30	TL.	
1	4	4	4	4	4	4	3	4	4	4	19	3	5	4	2	4	18	3	4	3	4	4	18	4	5	4	3	5	21	3	3	3	4	4	17	
2	4	2	4	4	2	16	3	3	2	1	12	4	3	1	5	3	16	1	2	4	4	1	12	4	4	2	1	5	16	4	5	2	3	3	17	
3	3	4	4	5	2	18	4	4	3	4	19	4	4	4	3	5	20	3	4	4	7	4	19	5	4	3	4	4	20	4	4	2	2	5	17	
4	4	5	4	4	2	19	4	3	2	4	15	4	4	3	4	5	20	3	4	3	4	3	17	3	4	3	4	2	16	3	4	4	2	2	15	
5	4	3	5	3	4	19	2	3	4	4	17	2	1	2	4	4	13	4	4	4	4	3	19	4	4	5	4	4	21	3	4	4	4	4	4	19
6	5	4	4	5	4	22	4	4	5	4	21	5	5	4	4	4	22	4	4	4	5	4	21	4	5	5	4	5	23	4	5	4	4	4	4	21
7	4	4	4	5	3	20	4	4	4	3	23	4	4	5	5	4	22	4	5	4	4	4	22	3	4	4	4	4	19	5	5	3	2	3	18	
8	4	2	2	4	2	14	4	4	4	3	15	2	5	4	4	2	17	2	4	3	5	3	17	5	5	2	3	4	19	2	3	2	2	2	11	
9	5	2	5	5	4	21	5	3	2	3	17	5	5	5	4	5	24	2	5	4	5	5	21	4	4	4	5	4	21	4	5	5	5	5	5	24
10	3	4	4	4	2	17	4	3	2	4	17	5	4	5	2	4	20	3	5	5	4	4	27	5	5	4	4	5	23	2	2	5	5	5	4	18
11	3	4	2	3	5	17	3	5	4	5	22	4	4	4	4	5	21	4	4	4	4	4	20	5	4	5	5	4	23	5	4	5	2	4	20	
12	3	2	4	2	4	15	3	2	4	4	15	5	5	5	4	2	21	5	4	2	5	1	17	2	1	1	1	9	5	5	4	4	5	23		
13	3	2	5	2	2	14	3	5	5	4	22	5	5	4	4	5	23	5	4	4	5	2	20	3	5	5	2	4	19	5	4	5	4	5	23	
14	4	4	2	3	4	17	4	3	2	3	16	5	4	4	3	2	18	4	3	3	4	4	18	3	5	3	4	5	20	3	4	2	2	2	13	
15	3	5	5	4	4	21	4	5	5	4	23	4	5	5	5	5	24	4	4	4	4	4	20	5	5	3	5	5	23	3	4	3	4	4	18	
16	3	4	4	3	3	17	3	4	5	2	17	4	5	5	4	3	21	4	5	5	4	3	21	4	4	3	4	4	19	5	4	2	4	4	5	20
17	4	4	5	5	5	35	5	5	5	1	21	5	5	5	5	5	25	5	5	5	4	5	24	5	5	5	5	5	25	2	5	1	2	4	14	

$$\frac{310X2}{17} = 36.48$$

$$\frac{311X2}{17} = 36.59$$

$$\frac{345X2}{17} = 40.59$$

$$\frac{327X2}{17} = 38.48$$

$$\frac{337X2}{17} = 39.64$$

$$\frac{308X2}{17} = 36.23$$

