Relation of Multiple Intelligences with Participation of the Students of Elementary Level

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Declaration

I hereby declare that this thesis is the presentation of my original research work. Wherever contributions of others are involved, every effort is made to indicate this clearly with proper and due references and acknowledgement. This paper has not been submitted anywhere, either in a part or a whole, for a degree or an award, in this or any other university.

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Rumana Sharmin

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Dedication

The researcher would like to dedicate the thesis to her beloved husband-- Imam Gazzali, whose affection and encouragement have always been a great source of inspiration.

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With the immeasurable blessings of Almighty Allah, it has been possible for the researcher to complete this dissertation. He gave determination and strength to carry out the research and complete on time.

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Abstract

Conventionally, it is seen that in a class some students always participate more than the others. Some students face problems in class participation and discussions. Lack of participation can be a sign that the tasks are not allowing the students to using their intelligences. It affects their performance in the examination. The lack of implementation of proper intelligence considering the particular group of learners can be considered to be one of the most significant reasons behind their participation impairments. As, rarely, learners receive proper scope and opportunities of applying and developing their intelligences in the English language classroom (Hirsch, 1994, p. 11). The elementary level students are given textbooks, which gives opportunities to acquire linguistic intelligence through regular practice (Hirsch, 1994, p.12). However, other intelligences are left out since no examinations contain questions focusing on those (ibid). In order to widen their participation and gradually competence, identification and implementation of appropriate intelligences is significant.

This thesis attempts to set the relation of intelligences with student participation. It mainly focused on the students of elementary level. The study could cover 90 students, who are from four different schools. At the beginning, the study presents a brief introduction to establish the aim, limitations and the research questions of the study, which are what is the most and least preferred intelligence of the students, do students involve in the tasks when it is based on their least preferred intelligence and is there any relationship between intelligence and participation. Studies and findings on the theory of multiple intelligences of Gardner (1983) are discussed to explain individual difference,

background, outcome and benefits of multiple intelligences. It also illustrates the relationship between student progress with multiple intelligences and in the end, the description is narrowed down to the interpersonal intelligence in the form of group work and pair work to indentify and explain the participation impairments. After that, there is a discussion on the methodology that is employed to collect and analyze the empirical data of the study. Two sets of questionnaires had been used to conduct the surveys, according to Likert Scale. It is useful to measure latent constructs, which are generally thought of as unobservable individual characteristics, meaning that there is no concrete, objective measurement but cause variations in behavior. First questionnaire depicts the least and most preferred intelligence. Then the students had to do tasks on their least prefer intelligence, which is designed by the researcher. After completing the tasks through second questionnaire their level of participation had been measured. The results are explained with qualitative and quantitative analysis that shows the relation between these two. By addressing dissimilar activities in the classrooms, the study shows students' demotivation in participation that helps the researcher to draw conclusions. It considers the implication of the research and provides suggestions to overcome the limitations, which were found during the research. For example, there are some left out intelligences specially, spatial, kinesthetic, musical, and interpersonal. They are becoming the marginal skills in Bangladeshi context, which should be focused in our education program so that students do not face problems to choose and shine in their carrier.

Table of Contents

List of Tables

List of Figures

Chapter 1

Introduction

1.0 Introduction

Do all students really think the same? Do they need to do the same assignments that are graded in the same manner? All students do not think the same and at times it may be the best practice to let students choose their assignments based on their intelligences' need (Gardner, 1993). Howard Gardner's work on multiple intelligences has had a profound impact on thinking and practice in education (Smith, 2008, p. 1). Even though Gardner has never endorsed MI based curriculum, he is quoted in the *TIME* magazine article by James Collins (1998), "there are lots of different intelligences and kids differ in their profiles". An education approach that pays attention to this is going to be more effective than the one that denies it (p.1). In a second language learning classroom, it has been observed that all students do not participate equally. The rate of participation gradually varies the level of success. The reason behind such occurrence is the different characteristics of different individuals. Numerous factors, such as motivation, aptitude, personality, age, culture, intelligence affect individuals' second language learning. The focus of this research is on the influence of different types of intelligence on students' involvement in the classroom activities. This is an effort to analyze how multiple intelligences hold students' concentration, which is necessary to increase the ability of retention. For example, focusing on interpersonal intelligence among the eight various types cannot foster communicative competence of the learners who do not have extrovert personality. This study examined how students perform on tasks or assignments that are geared towards their non-preferred intelligence domain.

1.1 Problem Statement

Multiple intelligences affect the acquisition of second language when it is learned in a formal manner, in a classroom setting rather than acquired naturally outside the classroom. The students whose intelligence falls in the linguistic domain do not mind to write papers and write very well. On the other hand, students, who are more kinesthetic, do not perform well on assignments that are centered on writing. This results in a number of negative things. First, the students suffer academically. When students do not take part in classroom discussion, it results in a lower score, thus affecting their overall GPA (grade point average). Another negative side is that students sometime display poor conduct when they are not interested or motivated to participate. This easily becomes a distraction for other students who might typically display good behavior.

1.2 Purpose of the Study

The aim of this research is to find out whether multiple intelligences can gear up students' contribution or not. As it is assumed that students participate more if the particular intelligences are focused. The present study attempts to find out which intelligence has more impact on the students of elementary level.

1.3 Central Research Questions

The research questions that guided the study are:

1. Which type of MI is most and least preferred by the students?
2. Do students get involved in the tasks when it is not based on their preferred intelligences?
3. What is the relationship between students' least preferred intelligence and participation?

1.4 Significance of the Study

It seems important to find out the relationship between MI factors with student participation as it is a vital issue on second language acquisition. The study sheds light on the use of intelligences in increasing participation at elementary level. Language teachers can be concerned to use all intelligences equally as the research shows poor scores on the intelligences apart from verbal intelligence. It shows the lacking of traditional classroom activities that should be overcome in the teaching practice.

1.5 Delimitation

The study focuses on the relation of multiple intelligences with participation of the elementary learners of standard four. They are from four English medium schools that follow national curriculum. All the schools are in Dhaka city.

1.6 Limitations

a) The research was not free from time constraints. The number of schools could not be increased that could give more radical scenario and strong findings.

b) The researcher had to conduct the survey with a limited number of participants, which was the major limitation of the survey. The findings would have been more reliable, authentic and powerful if the number of participants of this study could be increased.

c) This study focused on the schools located in Dhaka city. Thus it would have been better if it could have covered several schools all over Bangladesh.

d) The expansion of the statements in the survey form might depict statistically more strong and dependable result.

1.7 Operational Definitions

1.7.1 Multiple Intelligences: It refers to a learner-based philosophy that characterizes human intelligences as having multiple dimensions that must be acknowledged and developed in education (Richards and Rogers, 2001, p.115). There are eight kinds of intelligence. They are:

Linguistic Intelligence: The ability to use language effectively and creatively.

Logical Intelligence: The ability to think rationally, to see abstract patterns and numbers well.

Spatial Intelligence: The ability to create mental images and sensitivity to shape, size and color.

Naturalist: The ability to understand and organize the patterns of nature.

Musical Intelligence: The ability to sense tonal patterns, rhythm, pitch, melody etc.

Kinesthetic Intelligence: The ability to well coordinate and use one's body to express oneself.

Interpersonal Intelligence: The ability to interact with people and recognize others' mood, intentions, feelings, emotions, needs and motivations.

Intrapersonal Intelligence: The ability to understand oneself, weakness, and talents. (Larsen and Freeman, 2000, p.169-170).

1.7.2 Student Participation: Classroom participation means to communicate with the teacher or with the peers and to engage in the tasks. It can be relate to the interpersonal activity that arises during face to face interaction. However, it can also be

referred to the intrapersonal activity involved in mental processing while doing the classroom activities (Ellis, 1999, p. 3). Furthermore, Ellis (1999) noted “interpersonal and intrapersonal are closely connected with regard to the acquisition of the language” (p. 3).

1.7.3 Verbal Material: The linguistic materials that are developed based on language and used in written or spoken form.

Chapter 2

Literature Review

2.0 Introduction

Researchers are working on the establishment of a new belief exactly reverse of the behaviorist eras. What the researchers have found on this regard is intelligence has multiple dimensions, which are quite independent of each other and each intelligences has its own strengths and constraints on human cognition and learning (Genesee, 1976, p. 268). Accessible classroom materials and articles can encourage profound meta-cognitive comprehension. By using MI theory teachers can explain at intrapersonal and interpersonal levels (Christison, 1996, p.11). Multiple Intelligences come from individual differences.

2.1 What is Individual Differences?

Individuals possess dissimilar characteristics that make them unlike from each other. Characteristics are unique for every individual and success of a second language acquisition varies greatly from person to person. For example, many teachers think that extroverted learners who interact without inhibition in their second language learning become more successful than learners who are more introverted and do not interact that much willingly (Hoerr, 1992, p. 67). From the early days, psychologists have been trying to explore this uniqueness of individual mind. This has been called individual difference research. Individual differences (IDs) are those characteristics because of which individuals differ from each other (Dornyei, 2005, p.1-2). Learners of second language who possess these IDs have a supportive or hindered effect on their language acquisition. Individual differences are of several types among which IDs like intelligence, language

aptitude, motivation, and personality influence second language acquisition a lot. Along with the environment where the language is taught, these different factors affect second language learning (Harley, 1990, p.67). Richards and Rogers (2001) argue that all these intelligences are manifested in all human beings, but the way they are expanded can vary from individual to individual in different proportions (p.115).

2.2 What is Multiple Intelligences?

According to Richards and Rogers (2001), Multiple Intelligence (MI) is "a learner based philosophy that characterizes human intelligence as having multiple dimensions that must be acknowledged and developed in education" (p.115). They defined MI based on the seminal work of Gardner (1983) whose research findings are considered as one of the glorious penetrate on this regard and termed as `paradigm shifter' by Smith (1994). His works bring frontward the concept that "human intelligence does not possess a single dimensions that remains unchanged throughout the life, but has several dimensions and is dynamic" (Harvest, 2008, p.148). Gardner (1983) suggests the "Multiple Intelligence Model" as a view of natural human talents should be adopted in general education, especially in language education (as cited in Hirsch, 1994, p. 11). According to him intelligence is "the capacity to solve problems or to approach to solutions" (Gardner & Hatch, 1989, p. 171). These intelligences represent how we take in and process information in our brain. Each person has an individual intelligence profile, consisting of different capacities (Harvest, 2008, p.149).

2.3 The Background of Multiple Intelligences

Since the theory of multiple intelligences sort of diminishes the trend of using traditional language teaching theory, Howard Gardner's MI theory has been not accepted

at first with a great pleasure within academic psychology. Numerous questions were aroused on this regard like- It is difficult to teach one single intelligence; what would be the situation if seven new are to be included (Hoerr, 2002, p. 181). Gardner (1993) clarifies this issue that these seven more kinds of intelligences can be handled through new seven ways of teaching instead of just relying on one (p. 6). It has eventually got a strong positive reaction from many educators and been praised by an enormous number of educational theorists (Smith, 1994, p. 89).

In the course of its positive response, many teachers and policy makers of various North American schools have adopted this theory into practice by structuring curricula according to the intelligences and designing classrooms, even the entire schools. This allows students to explore receiving and communicating information in ways that may suit them best (Coustan, 2005, p. 120). Educators could see ways in which students learned most easily, enjoyably, and efficiently and they could assume that they corresponded with students' strongest intelligences. Applying MI theory does not in fact replace the direct instruction and memorization of facts entirely from the teaching-learning process. It is rather an approach of `child or learner centered' environment of learning (Gardner, 1993, p. 23).

Hoerr (2002) has sorted out reasons or features of theory of multiple intelligences for which educators mostly select this theory to be implemented in the class. It is when teachers offer different pathways for students to learn in spite of just filtering all information and learning through the "scholastic intelligences", more students find success in school rather than boredom (p. 172). Perceptions shared by both Leslie Owen Wilson (1998) and most of her students regarding the most common reasons why student

educators or both current and future teachers arc so much inspired in using MI are expounded at the following:

• Teachers using MI easily experience creating more personalized and diversified instructions for individual learners.

• Teachers can aid students in empowering their learning by extending and promoting cognitive bridging techniques based on the seven intelligences.

• Teachers need to be insightful to access students' natural talents (p.18).

2.4 The Outcome of Multiple Intelligences

Wilson (1998) teaches courses in educational psychology, theories of learning, curriculum, and creativity. She has made a use of Gardner's MI concepts into two of her university courses for seven years. One is in graduate program called theories of learning and the other is in undergraduate sections called educational psychology. Among the students who were the practicing teachers raised a strong voice for the MI theory. Moreover, most students consistently choose to illustrate the impact of MI in their graduate exam in response of the questions, which seemed helpful in either changing their teaching practices, or in fostering a better understanding of learners' differences (p.21). Just the way MI theory deals with natural talents of students by tapping their intrinsic levels of motivation, it helps teachers to construct self-motivating educational experiences and promote this stream of concepts in the classroom (Dornyei, 2001, p. 169).

MI theory transfers the role of the teacher as traditionally teachers completely rely on textbooks, pens, pencils and other mandated curriculum materials provided by the authority. These materials are purchased from the commercially available sources whose

designers do not have time to think about the multifaceted intellectual faculty of the individuals (Prabhu, 1990, p .165). Moreover, Prabhu (1990) think in those classroom situations the interest or pleasure of leaning is submerged by the pressure of scoring well on standardized tests. But, teachers using MI theory in class have to act out depending on the lessons or theme of particular class. Often they participate in the game item, in conversation and sometime they simply monitor when learners become comfortable in doing tasks by themselves (p. 167-168). In this way MI theory builds a friendly environment in class. Most teachers went into this profession because they enjoy working with children and playing a role in a child's growth (Dornyei, 2001, p. 169-170). In other words, teachers following MI theory relish the identification of a way to reach the learners and to make a comfort zone, which is very important for the development in learning. As MI creates an opportunity for teachers to get closer to learners, it allows the students to face their fear and to have pleasure in classroom interaction. It helps a learner to believe in his or herself. Precisely, it provides students with a more extensive conceptualization of giftedness (Christison, 1996, p. 13).

Campbell (1994) has mentioned an action research project undertaken during the 1989-1990 school year and the objective was to investigate student reactions to a multiple intelligences-based instructional model. Student behavior, attitudes, and abilities were observed on the basis of some non-traditional ways of teaching such as with music, movement, visual arts and cooperation. After testing the collected observations twice, the data were modified and refined, which achieved a status of hypothesis for using it in future analysis. Ten hypotheses were formed based on this procedure and they were:

1. Independence, responsibility and self direction were shown by the students over the course of the year.

2. Students were observed to overcome their behavioral problems in great extent.

3. Skills involving cooperation with others have improved significantly throughout the duration of the year.

4. Since students had to work in group to make their classroom reports using three-five intelligences concurrently, an improvement was also observed in their ability of facing presentations.

5. Specifically, the kinesthetic students benefited from the active process of moving from center to center on every fifteen to twenty minutes.

6. Most students who felt shy in presenting something in the class, showed leadership abilities in the Music Center, Art Center and particularly in the Working Together Center.

7. Children were showing an interest towards the school lessons and eventually the attendance reached the peak.

8. A higher proportion of the students were capable of retaining most of the important school information, which was practiced through using music and movement techniques.

9. Most significant thing is, the role of the teacher transformed throughout the year from a less directive and less of a taskmaster to a more facilitative, more diversified, and more of a resource person and guide.

10. Finally students seemed proficient in working effectively in this unique and nontraditional classroom format. (p. 113-116).

2.5 Relation of Student Progress with Multiple Intelligences

Coustan and Rocka (2005) have referred to several studies conducted in different parts of the world, which reveal that MI theory is a very successful way of developing students' performance in leaning a L2 for the following reason:

- Teacher attempts to explore the full potential of the learners as it places the learners at the center of the entire learning process.

- Teacher enhances learners' motivation.

- Teacher breaks the monotony of an ESL class as a wide variety of activities are used (p.123).

According to Levin's (1974) estimation up to 25 percent of the population of a class, the mode of instruction does make a difference in their success as learners (as cited in Larsen and Freeman, 2000, p.169). Language learning process can be a success if these differences in learners are acknowledged, analyzed and accommodated in teaching. Properly designed materials, training and guided practice can assist to enhance intelligences. While performing a task learners use more than one intelligence at a time. For example, some students learn better if they are shown visuals than they listen to the teachers. Often the learners learn better if they read the given material instead of simply listening to it. However, there can be some learners who learn equally well in either way (Richards and Rogers, 2001, p.115).

Richards and Rogers (2001) state MI theory consists of "a group of instructional perspective that focuses on differences between learners and on the need to recognize learners' differences in teaching so that students' motivation can be increased" (p.115). Learners' motivation has an extremely essential function to play in the second language

learning process, negligence in identifying learners' diverse learning styles might end up with creating de-motivated learners (Dornyei, 2001, p.168).

Nowadays both educators and researchers have recognized the need for treating the learners as individuals to make an ESL class effective. MI considers the learning styles of learners and emphasizes the ways in which their mind work best (Tomlinson, 1998, p.119). Individualization involves the organization of learning and teaching in such a way that allows the abilities, interests and needs of the individual learner to be enhanced as effectively as possible (Brumfit and Roberts, 1983, p. 193). In MI theory traditional notion of "average student" and "aiming for the middle" in teaching is abandoned (McDonough and Christopher, 1993, p.209).

Since in modern days the major focus of learning a second language is being able to communicate competently, it would be effective to focus interpersonal intelligence that significantly meets up the communicative needs of second language learners. It enables people to communicate with others proficiently and successfully beyond constrains of written form (Christison, 1998, p.6). Gardner (1993) says this is the intelligence type that should be exercised and developed while teaching second language in a large extent as it creates the capacity to understand the intentions of other people (as cited in Richard and Roodgers, 2001, p.119). Interpersonal intelligence can be increased through students' participation in group work and pair work. In these tasks based learning learners are required to share their views and knowledge not only with the teacher but also with their classmates. Learners can ask questions and give explanations to each other than always to the teachers (Scrivener, 1994, p. 86). Harmer (2003) suggests pair work fosters students talking time in class, which is necessary to be competent in interaction in second or target

language. He also lists some benefits of group work such as group work has more advantage than pair work in terms of the amount of student talk time in the class and learners' involvement (p. 117). Addition to that, there are more people engaged in group work, the problem of personal relationships raised in pair work get minimized. Several learning tasks, for instance- story telling, role play, presentation and group decision that require more people than a pair known as group activities (ibid). Harmer (2003) suggests small groups of around five learners provoke greater involvement and participation than a whole class. Though groups of six or more learners do not represent the real interpersonal interaction adequately, learners can be encouraged to progress their communication skills in small groups of five or less (p.118).

2.6 Conclusion

As we each have a unique intelligence profile, we should aim to build in variety in the ways we assess the learning materials. Strengths can be used to lever out the development in learning a second language (Gardner, 1993). MI is one theory of intelligence that looks at a range of approaches. Exposure of intelligence to the full range is needed to fully develop ourselves (Christison. 1996, p. 13). MI consciously directs young people to work with their strengths, especially when they are dealing with new, challenging and problematic learning. It should efficiently used by the teachers to encourage young learners to think of themselves as intelligent and to shift their previous experience in class participation (ibid). In other words, the MI model is a tool that helps teachers to think broadly about their students so that low motivation rate in classroom involvement can be revised (Hoerr, 1992, p. 67).

Chapter 3

Methodology

3.0 Introduction

The methodological basis for this research and instruments used for data collection are described in this chapter. Also, the methods of analysis are discussed and the limitations of study are outlined.

3.1 Research Design

The data are gathered from direct sources rather than from secondary sources. It is a small scale survey that is trying to measure the impact of intelligence on the participation of the ESL/EFL students at primary level.

3.2 Theoretical Framework

Howard Gardner's (1983) "Multiple Intelligence" theory is used in this study to analyze the data. Besides, the reference from various authors, researchers, for instance, McLaughlin (1987), Christison (1996), Cambell (1994), Hoerr (2002) etc, who have research on the impact of multiple intelligences in classroom is used to verify the fact that without focusing or practicing intelligence adequate amount of student participation cannot be achieved. On the other hand, to understand the extent of relationship between participation and intelligence, the survey questionnaires are made on "Likert Scale". Likert (1932) scales use fixed choice formats, developed the principle of measuring attitudes, opinions, feelings by asking people to respond to a series of statements about a topic, in terms of the extent to which they agree with them (Bowling, 1997; Burns, & Grove, 1997).

3.3 Sampling

Though the theory of multiple intelligences suggests incorporating all the intelligences from the primary level in learning second language (McLaughlin, 1987, p.171), the researcher chose students of 09-10 years instead of the secondary learners. The participants of this study were primary level students of fourth standard. The researcher visited four schools. One class had been observed in each of the school. The schools were selected according to the convenient, as all of them were in the same area where the researcher lives. The researcher also had to get permission to conduct the survey, as some schools did not allow it. As the researcher wanted to visit only standard four, the school authority chose it among their several sections of standard four.

3.4 Setting

The study was conducted in four schools of Dhaka city, where the medium of instruction was English. The students' first language was Bangla. They are learning English as a second language. Their acquisition of English was satisfactory in a sense that they have enough exposure to the language in the school from the teachers and peers. It allows them to learn from interaction.

3.5 Instrumentation

Two sets of survey questionnaire have been used. Some tasks (see appendix B) on intelligences were prepared to observe the participation of the participants by the researcher. Researcher did not follow any syllabus that the students follow while choosing the tasks.

In the first set of questionnaire, there are 24 statements on intelligences. There are three statements under each intelligence type. Each statement has five options and each option

has particular score. The options were always, sometime, once in a while, rarely and never, ranking from 5 to 1 point according to "Likert Scale". In the second questionnaire there are ten statements on participation. Those also have five options and each option has particular score. The options were strongly agree, agree, neutral, disagree and strongly disagree, ranking from 5 to 1 point. To make the students understood, statements included in the questionnaires are simplified as per their language proficiency level because their first language is Bangla and they have not yet mastered the target language.

It was like a multiple-choice test consisting of some options or answers that require students to choose the best. MCQ is now considered as one of the most useful test of all objective item types. The advantage of using multiple-choice test is that, it can be done without consume much time (Heaton, 1975, p.14).

3.6 Data Collection Procedure

It has been gathered in two segments. At first through the first questionnaire (appendix A) the researcher located a most preferred intelligence and a least preferred intelligence. Students were told to tick the option that they think goes perfectly with their characteristics. As there were three statements under each intelligence type, for example the first three were on linguistic intelligence, the second three were on mathematical intelligence, and the next three were on spatial intelligence, the three scores of each of the intelligences are averaged to have a single score. The intelligence that has the high score dictates students' most preferred that intelligence and the intelligence that has the low score suggests the opposite. The groups had 45 minutes to complete the survey form.

The next segment, which is related with the score of previous segment, is held in the next day, because the researcher had to calculate the previous scores, which is little time consuming. In the two segments there were the same groups of students. Particular group of students were given two tasks on their particular non preferred intelligence, which is found on day 1. They had 30 minutes to finish both the tasks. After the tasks, they participate in the second survey. Students were told to tick their feelings that they felt while performing the tasks so that the researcher can distinguish whether they performed in the tasks or not. The scores of the statements were averaged to have a single score. The higher score shows positive participation and the lower score shows the opposite. The researcher provided help whenever the students asked for explanation to understand the questions and tasks properly.

3.7 Data Analysis Procedure

The score of least preferred intelligence and the average score of participation is compared with each other. In other words, the relation between poorer intelligence and participation was interpreted by using the interpretation scale (Seligar & Shohamy, 1989, p.214). If the scores were close to each other, then it is assumed that there was a strong relation. On the other hand, if the scores were far from each other, it is assumed there was no such relation.

A correlation chart is made so that the readers can see the relation visually. Positive correlation means if one variable increases another variable will also increase and vice versa whereas negative correlation means if one variable increases another variable will decrease or vice versa (Hornberger and Corson, l997, p. 57). To determine the relationship between two variables using correlation is necessary because it explains the

relationship in terms of numerical values (ibid). Therefore, the researcher used correlation to determine the relation between multiple intelligences and students' participation.

However, tables with rows and columns were employed to display the data. The research falls under qualitative and quantitative category as the results of the surveys have been analyzed in terms of numerical data. Mackey & Gass (2005) say that "quantitative research generally starts with an experimental design where numerical data is carried out in order to analyze the gathered information" (p.2).

3.8 Obstacles Encountered

The class time was not enough. It was only 45 minutes. There was a hurry to finish the tasks. Participants presented the assigned tasks in front of the researcher in a limited time. The observation could be better if there was at least 60 minutes. There was a lack of infrastructure, for instance, computer or tape recorder to play the music. In addition to that, there was not enough space to perform tasks on kinesthetic intelligence. Execution of group work was problematic, as the setting arrangement was fixed. The researcher could not make a circle for a flawless discussion. On the other hand, some students were trying to be clever as they were acting to be attentive, to give a good impression to the guest teacher but later it was found that they did not complete the task at all.

Chapter 4

Findings and Discussion

4.1 Findings from Pre Task Survey on Intelligence

The tables below show the result of survey 1, which attempts to find out the most and least preferred intelligence by the students. In the questionnaire (see appendix A) there are some statements that have five choices. Respondents are instructed to choose the option that goes well with their individuality and qualities so that the utmost accurate result may derive. The obtained data are tabulated and analyzed in terms of frequency counts and means.

In each box the number on the top indicates the number of the students that click on that particular option and the number at the bottom indicates the score after conversion into mathematical figures. In addition to that, the bottom ones are calculated to find out mean scores. For instance, in the first group, 9 students chose always (so 9*5), 4 students sometimes (4*4), 3 students once in a while (3*3), 2 rarely (2*2) and on one chose never (0*1), in the first statement (I enjoy reading poetry), which is on linguistic intelligence and the mean score of the statement is 4 (total number divided by total number of students). The mean scores of particular intelligence are also averaged to have a single and more exact result. For instance, mean scores of linguistic intelligence is 4, 3.33, 4.17 so the final mean score is 3.83 (the sum of the mean scores divided by the number of mean score).

Table 4.1.1: Mean Score of Intelligences of First Group

(Number of students 18)

Name of the Intelligence	Statement No	Always (5)	Sometime (4)	Once in a while (3)	Rarely (2)	Never (1)	Mean score	Mean Score of the Intelligence
Linguistic/Verbal	1	9 45	4 16	3 9	0 0	2 2	4	3.83
	2	4 20	3 12	8 24	1 2	2 2	3.33	
	3	9 45	3 12	6 18	0 0	0 0	4.17	
Logical /Mathematical	4	9 45	4 16	2 6	1 2	2 2	3.94	3.35
	5	8 40	7 28	0 0	1 2	2 2	4	
	6	0 0	1 4	5 15	7 14	5 5	2.11	
Spatial/Visual	7	3 15	3 12	7 21	1 2	4 4	3	2.50
	8	3 15	0 0	2 6	8 16	5 5	2.33	
	9	2 10	1 4	3 9	4 8	8 8	2.17	
Naturalist	10	5 25	3 12	5 15	1 2	4 4	3.22	2.70
	11	4 20	0 0	3 9	3 6	8 8	2.39	
	12	2 10	3 12	2 6	6 12	5 5	2.5	
	13	4	3	6	2	3	3.12	

Musical/Rhythmic		20	12	18	4	3		2.72
	14	2	0	1	6	9	1.89	
		10	0	3	12	9		
	15	4	2	7	3	2	3.17	
		20	8	21	6	2		
Kinesthetic/ Body	16	4	1	0	3	10	2.22	2.72
		20	4	0	6	10		
	17	7	2	4	1	4	3.39	
		35	8	12	2	4		
	18	3	2	3	4	6	2.56	
		15	8	9	8	6		
Interpersonal	19	6	5	2	1	4	3.44	2.63
		30	20	6	2	4		
	20	0	1	3	7	7	1.89	
		0	4	9	14	7		
	21	2	3	4	3	6	2.56	
		10	12	12	6	6		
Intrapersonal	22	8	3	4	1	2	3.78	3.28
		40	12	12	2	2		
	23	0	3	5	4	6	2.28	
		0	12	15	8	6		
	24	9	1	5	1	2	3.78	
		45	4	15	2	2		

The outcome is the mean score for linguistic intelligence is 3.83, for logical intelligence 3.35, for spatial intelligence 2.50, for naturalist 2.70, for musical 2.72, for kinesthetic 2.72, for interpersonal 2.63, and for intrapersonal 3.28. It means the students are good at linguistic intelligence. They score lowest in spatial intelligence.

Table 4.1.2: Mean Score of Intelligences of Second Group

(Number of students 22)

Name of the Intelligence	Statement No	Always (5)	Sometime (4)	Once in a while (3)	Rarely (2)	Never (1)	Mean score	Mean Score of the Intelligences
Linguistic/Verbal	1	8 40	7 28	2 6	3 6	2 2	3.72	3.62
	2	5 25	6 24	7 21	2 4	2 2	3.45	
	3	7 35	7 28	4 12	2 4	2 2	3.68	
Logical /Mathematical	4	5 25	10 40	4 12	2 4	1 1	3.72	3.51
	5	6 30	9 36	4 12	0 0	3 3	3.68	
	6	4 20	5 20	6 18	4 8	3 3	3.14	
Spatial/Visual	7	8 40	3 12	0 0	3 6	8 8	3	2.91
	8	4 20	5 20	4 12	2 4	7 7	2.86	
	9	3 15	4 16	7 21	3 6	5 5	2.86	
Naturalist	10	6 30	3 12	9 27	1 2	3 3	3.36	3.13
	11	8 40	4 16	2 6	2 4	6 6	3.27	
	12	3 15	3 12	6 18	6 12	4 4	2.77	
Musical/Rhythmic	13	7 35	4 16	5 15	3 6	3 3	3.41	3.09
	14	6 30	3 12	3 9	3 6	7 7	2.91	

	15	5 25	3 12	7 21	0 0	7 7	2.95	
Kinesthetic/ Body	16	5 25	1 4	4 12	2 4	10 10	2.50	2.74
	17	6 30	2 8	6 18	3 6	5 5	3.04	
	18	2 10	5 20	5 15	4 8	6 6	2.68	
Interpersonal	19	7 35	7 28	2 6	3 6	3 3	3.54	3.03
	20	6 30	1 4	3 9	7 14	5 5	2.81	
	21	4 20	1 4	8 24	3 6	6 6	2.73	
Intrapersonal	22	10 50	3 12	4 12	3 6	2 2	3.73	3.21
	23	3 15	3 12	5 15	6 12	5 5	2.68	
	24	4 20	5 20	7 21	4 8	2 2	3.23	

The result reveals that the mean score for linguistic intelligence is 3.62, for logical intelligence 3.51, for spatial intelligence 2.91, for naturalist 3.13, for musical 3.09, for kinesthetic 2.74, for interpersonal 3.03, and for intrapersonal 3.21. It means the students prefer to perform in linguistic intelligence. They score lowest in bodily intelligence.

Table 4.1.3: Mean Score of Intelligences of Third Group

(Number of students 23)

Name of the Intelligence	Statement No	Always (5)	Sometime (4)	Once in a	Rarely (2)	Never (1)	Mean score	Mean Score of the

				while (3)				Intelligences
Linguistic/Verbal	1	8 40	2 8	5 15	5 10	3 3	3.30	3.30
	2	5 25	5 20	7 21	3 6	3 3	3.26	
	3	6 30	3 12	9 27	3 6	2 2	3.35	
Logical /Mathematical	4	10 50	4 16	3 9	3 6	3 3	3.65	3.27
	5	8 40	7 28	5 15	1 2	2 2	3.78	
	6	0 0	3 12	8 24	7 14	5 5	2.39	
Spatial/Visual	7	4 20	2 8	5 15	6 12	6 6	2.65	2.23
	8	0 0	2 8	4 12	10 20	7 7	2.04	
	9	3 15	0 0	4 12	6 12	10 10	2	
Naturalist	10	1 5	8 32	5 15	5 10	4 4	2.78	2.61
	11	3 15	1 4	2 6	5 10	12 12	2.04	
	12	4 20	5 20	4 12	7 14	3 3	3	
Musical/Rhythmic	13	2 10	3 12	7 21	2 4	9 9	2.49	2.20
	14	3 15	0 0	2 6	8 16	10 10	2.04	
	15	0 0	3 12	8 24	4 8	8 8	2.26	
	16	2	5	4	5	7	2.57	

Kinesthetic/ Body		10	20	12	10	7		2.61
	17	3 15	4 20	4 12	4 8	8 8	2.74	
	18	2 10	3 12	7 21	4 8	7 7	2.52	
Interpersonal	19	1 5	5 20	6 18	6 12	5 5	2.61	2.39
	20	3 15	0 0	5 15	7 14	8 8	2.26	
	21	3 15	2 8	3 9	6 12	9 9	2.30	
Intrapersonal	22	3 15	0 0	9 27	8 16	3 3	2.65	2.97
	23	5 25	3 12	5 15	4 8	6 6	2.87	
	24	10 50	0 0	5 15	5 10	3 3	3.39	

The mean score of group 3 for linguistic intelligence is 3.30, for logical intelligence 3.27, for spatial intelligence 2.23, for naturalist 2.61, for musical 2.20, for kinesthetic 2.61, for interpersonal 2.39, and for intrapersonal 2.97. It means the students practice linguistic intelligence than the others. They score lowest in musical intelligence.

Table 4.1.4: Mean Score of Intelligences of Fourth Group

(Number of students 27)

Name of the Intelligence	Statement No	Always (5)	Sometime (4)	Once in a while (3)	Rarely (2)	Never (1)	Mean score	Mean Score of the Intelligences
	1	18	2	0	3	4	4	

Linguistic/Verbal		90	8	0	6	4		3.26
	2	2 10	5 20	8 24	10 20	2 2	2.81	
	3	9 45	8 32	10 30	0 0	0 0	3.96	
Logical /Mathematical	4	7 35	7 28	4 12	5 10	4 4	3.30	3.27
	5	0 0	0 0	6 18	10 20	11 11	4.15	
	6	1 5	2 8	10 30	7 14	7 7	2.37	
Spatial/Visual	7	3 15	5 20	6 18	7 14	6 6	2.70	2.52
	8	4 20	0 0	6 18	7 14	10 10	2.30	
	9	2 10	0 0	5 15	15 30	5 5	3.56	
Naturalist	10	4 20	9 36	9 27	3 6	2 2	3.37	3.02
	11	0 20	9 36	8 24	8 16	2 2	2.89	
	12	0 0	10 40	7 21	5 10	5 5	2.81	
Musical/Rhythmic	13	3 15	4 16	9 27	5 10	6 6	4.07	3.10
	14	2 10	0 0	10 30	6 12	9 9	2.26	
	15	6 30	4 16	5 15	7 14	5 5	2.96	
Kinesthetic/ Body	16	0 0	0 0	19 57	8 16	0 0	2.70	2.61
	17	2 10	3 12	4 12	14 28	4 4	2.44	

	18	3 15	2 8	12 36	6 12	4 4	2.78	
Interpersonal	19	3 15	6 24	7 21	7 14	4 4	2.89	2.32
	20	0 0	3 12	8 24	8 16	8 8	2.22	
	21	0 0	0 0	5 15	13 26	9 9	1.85	
Intrapersonal	22	3 15	8 32	12 36	2 4	2 2	3.30	3.16
	23	0 0	7 28	2 6	12 24	6 6	2.37	
	24	8 40	11 44	5 15	1 2	2 2	3.81	

In the last group the mean score for linguistic intelligence is 3.26, for logical intelligence 3.27, for spatial intelligence 2.52, for naturalist 3.02, for musical 3.10, for kinesthetic 2.61, for interpersonal 2.32, and for intrapersonal 3.16. They are pretty well in mathematical intelligence. They score lowest in interpersonal intelligence.

4.2 Findings from Post Task Survey on Participation

After identifying the least preferred intelligence, each group was provided with two tasks (see appendix B) that were on that particular least concerned intelligence. For instance, as the first group shows least interest in spatial abilities, they had to do tasks that fall under spatial intelligence. After finishing the tasks, survey with second questionnaire (see appendix C) was conducted to know about participants' thoughts regarding their participation or performance on the tasks. For example, in the survey form there was a statement "I enjoyed the tasks". A student agrees on it, it reflects, that student

was happy to participate in the tasks. Another students disagrees it, it indicates he was reluctant to participate. This time the researcher wants to see whether there is any improvement in the scores of the learners from the previous survey.

In the questionnaire (appendix C) the respondents have to tick an appropriate one from five options for each item. For analysis the responses are converted into mathematical figure as follows- Strongly agree = 5, Agree =4, Neutral = 3, Disagree = 2, Strongly disagree = 1. The obtained data are tabulated and analyzed in terms of frequency counts and means that are presented below. In each box the number on top indicates the number of students that click on that particular option and the number at the bottom indicates the score after conversion into mathematical figures. Furthermore, the bottom ones are calculated to find out the mean score. For instance, in the first group, 2 students strongly agree (so 2*5), 4 students agree (4*4), 4 students were neutral (4*3), 4 were disagree (4*2) and rest 4 were strongly disagree (4*1), in the first statement (I enjoyed the task) and the mean score of the statement is 2.77 (total number divided by total number of students).

Table 4.2.1: Responses and Mean Score of Participation of First Group

(Number of students 18)

Statement	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Mean Score
1. I enjoyed the task.	2 10	4 16	4 12	4 8	4 4	2.77
2. I was involved in the tasks more than	1 5	4 16	1 3	5 10	7 7	2.27

the tasks I usually do.						
3. I think these types of tasks will help me to comprehend the lesson better.	2 10	2 8	5 15	3 6	6 6	2.5
4. I can remember lectures well if these types of activities are given.	2 10	2 8	6 18	4 8	4 4	2.5
5. I want to do this type of tasks in future.	2 10	4 16	4 12	2 4	6 6	2.66
6. I finished the task on time.	6 30	6 24	3 9	1 2	2 2	3.72
7. To me the tasks were not difficult at all.	5 25	4 16	6 18	2 4	1 1	3.55
8. I could not understand the instruction.	11 55	2 8	2 6	1 2	2 2	4.0
9. I feel motivated while doing the tasks.	3 15	5 20	1 3	4 8	5 5	2.8
10. I am satisfied with my performance.	0 0	4 16	7 21	3 6	4 4	2.61

The average of the participation is	2.98

Table 4.2.2: Responses and Mean Score of Participation of Second Group

(Number of students 22)

Statement	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Mean Score
1. I enjoyed the task.	2 10	5 20	5 15	5 10	5 5	2.73
2. I was involved in the tasks more than the tasks I usually do.	2 10	3 12	6 18	4 8	7 7	2.50
3. I think these types of tasks will help me to comprehend the lesson better.	1 5	4 16	5 15	6 12	6 6	2.45
4. I can remember lectures well if these types of activities are given.	2 10	6 24	6 18	4 8	4 4	2.91
5. I want to do this type of tasks in future.	3 15	3 12	4 12	6 12	6 6	2.59
6. I finished the task on time.	6 30	6 24	2 6	6 12	2 2	3.36
7. To me the tasks were not difficult at	4 20	5 20	5 15	2 8	6 6	3.14

all.						
8. I could not understand the instruction.	9 45	1 4	3 9	6 12	3 3	3.32
9. I feel motivated while doing the tasks.	3 15	4 16	2 6	8 16	5 5	2.64
10. I am satisfied with my performance.	2 10	4 16	9 27	3 6	4 4	2.86
The average of the participation is						2.85

Table 4.2.3: Responses and Mean Score of Participation of Third Group

(Number of students 23)

Statement	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)	Mean Score
1. I enjoyed the task.	4 20	5 20	5 15	4 8	5 5	2.96
2. I was involved in the tasks more than the tasks I usually do.	3 15	4 16	3 9	5 10	8 8	2.52
3. I think these types of tasks will help me to comprehend the lesson better.	2 10	3 12	7 21	4 8	7 7	2.52
4. I can remember	4	4	6	4	5	2.91

lectures well if these types of activities are given.	20	16	18	8	5	
5. I want to do this type of tasks in future.	2 10	4 16	8 24	3 6	6 6	2.70
6. I finished the task on time.	4 20	4 16	6 18	5 10	4 4	2.96
7. To me the tasks were not difficult at all.	4 20	4 16	7 21	2 4	6 6	2.91
8. I could not understand the instruction.	9 45	2 8	4 12	6 12	2 2	3.43
9. I feel motivated while doing the tasks.	4 20	4 16	6 18	4 8	5 5	2.91
10. I am satisfied with my performance.	5 25	4 16	7 21	3 6	4 4	3.13
The average of the participation is						2.89

Table 4.2.4: Responses and Mean Score of Participation of Fourth Group

(Number of students 27)

Statement	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Mean Score

1. I enjoyed the task.	2 10	6 24	7 21	7 14	5 5	3.11
2. I was involved in the tasks more than the tasks I usually do.	3 15	6 24	3 9	6 12	9 9	2.56
3. I think these types of tasks will help me to comprehend the lesson better.	3 15	3 12	7 21	7 14	7 7	2.56
4. I can remember lectures well if these types of activities are given.	2 10	3 12	10 30	4 8	8 8	2.52
5. I want to do this type of tasks in future.	4 20	4 16	9 27	4 8	6 6	2.85
6. I finished the task on time.	6 30	6 24	8 24	4 8	3 3	3.30
7. To me the tasks were not difficult at all.	7 35	5 20	7 21	3 6	5 5	3.22
8. I could not understand the instruction.	10 50	3 12	5 15	4 8	5 5	3.33
9. I feel motivated while doing the	1 5	6 24	4 12	7 14	9 9	2.37

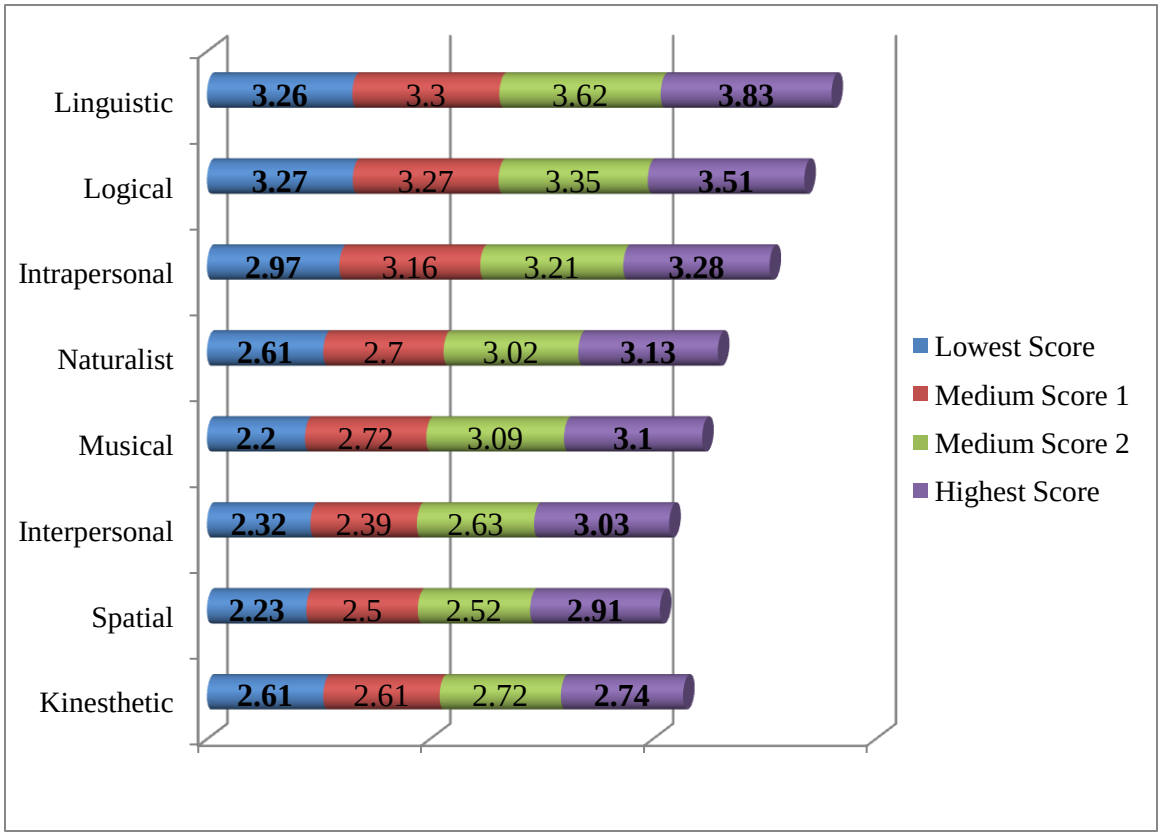
tasks.						
10. I am satisfied with my performance.	4 20	4 16	12 36	3 6	4 4	3.04
The average of the participation is						2.88

4.3 Answer of the Central Research Question

As the statements in the survey forms based on central research questions, its results depict the answers that are given below:

4.3.2 Answer to the Research Question 1

Chart 4.3.1: Overall Range of the Intelligences



The result of all four groups is analyzed together. It is seen that almost all the students are good at linguistic intelligence. In this intelligence the score was quite high compared to the other intelligences. It indicates students' most preferred intelligence is linguistic intelligence. The range of linguistic intelligence is 3.26 to 3.83 whereas the range of the other crucial intelligences, for example, musical, naturalist, intrapersonal intelligences failed to show a satisfactory score as it starts from 2.2 and ends poorly at 3.28. In addition to that, the highest score of spatial and interpersonal is 2.91 and 3.03, which are also a degrading score. Especially kinesthetic intelligence always portrays a poor score among the other intelligences as none of the groups could reach point 3 for this intelligence. The other intelligences could touch point 3 at least for one group. The range of kinesthetic intelligence was between 2.32 to 2.74, which is at the lowest range among the other intelligences. It means students' least preferred intelligence is kinesthetic intelligence.

4.3.2 Answer to the Research Question 2

It deals with the fact that whether students like to participate in their least preferred intelligence or not. The scores of second questionnaire are analyzed to come across the answer.

In the first statement (I enjoyed the tasks) the scores were 2.77, 2.73, 2.96, and 3.11. It means most of them did not enjoy participating in the tasks as among the four scores, three scores are under point 3.

In the second statement (I was involved in the tasks more than the tasks that I usually do) the scores were 2.27, 2.5, 2.52, and 2.56. It indicates students did not like to involve in the tasks as all the four scores are very poor.

In the third statement (I think these types of tasks will help me to comprehend the lesson better) the scores were 2.5, 2.45, 2.52, and 2.56. It indicates students did not think they can comprehend the lessons if these types of tasks are provided as all the four scores could not reach point 3. It can be interpreted that, lack of participation made them feel that the lessons can be difficult to comprehend if these types of tasks are given.

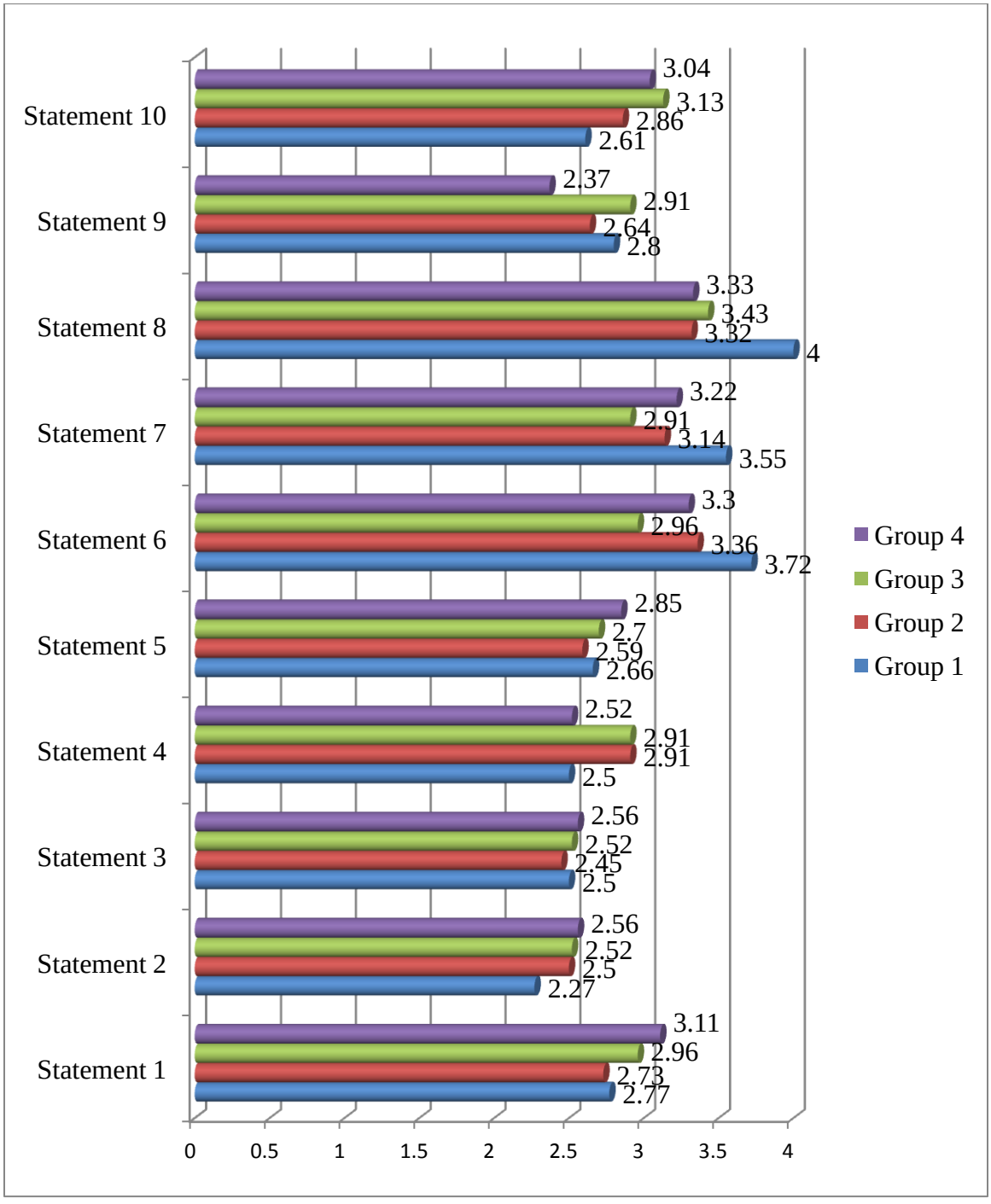
In the fourth statement (I can retain the lectures well if these types of activities are given) the scores were 2.5, 2.91, 2.91, and 2.52. It shows students did not consider the tasks to be useful in remembering the lectures, as all the four scores are not very good as well. In other words, it is very obvious that as students do not participate in the tasks, remembering lesson becomes difficult for them.

In the fifth statement (I want to do these types of tasks in future) the scores were 2.66, 2.59, 2.70, and 2.85. It reveals students were reluctant to do the tasks, as all the four scores are below 3.

In the sixth statement (I finish the tasks on time) the scores were 3.72, 3.36, 2.96, and 3.3. It indicates students more or less complete the tasks on time, as among the four scores, three are above point 3. It can be assumed that, though they did not enjoy the tasks or involve less than the tasks they usually do, they have the capacity to perform on their least preferred intelligence. As, it is usually not focused in the classroom by their teacher, they have one kind of negligence towards these activities, which can be reduced if the

teacher can make the students practice on the intelligences, apart from only linguistic intelligence.

Chart 4.3.2: Overall Responses on Participation



In the seventh statement (To me the tasks were not difficult at all) the scores were 3.55, 3.14, 2.91, 3.22. It indicates students did not find the tasks very difficult, as the four scores, fall under a medium range and one score crossed the bar of 3.5, which is quite a good score. It signifies students have capacity to carry out different tasks and, as the research discussed in the statement number sixth, due to lack of opportunity they become inattentive and distracted towards non-traditional classroom activities.

In the eighth statement (I could understand the instructions) the scores were 4, 3.32, 3.43, and 3.33. It point outs students could easily understand, what they are required to do. The four scores were quite good compared to the other scores as none of them were below 3 and one score is 4, which the other statements could not achieve.

In the ninth statement (I feel motivated while doing the tasks) the scores were 2.8, 2.64, 2.91, and 2.37. It implies students are not encouraged to so such activities, as the scores were again very poor.

In the tenth statement (I am satisfied with my performance) the scores were 2.61, 2.86, 3.13, and 3.04. It suggests students are not very happy with their performance. It also portrays that they know what a good performance is, because may be they perform satisfactorily well in the typical tasks they do on linguistic intelligence. As they did not feel motivated and enjoyed the tasks, their performance went low.

Students' non preferences were reflected in the responses. Though they understand the instruction, do not think the tasks were very difficult and finish the tasks on time as these categories show a good score, they were not curious and satisfied enough to explore the new learning process as these categories show a poor score relatively. They are not

encouraged to exercise the other intelligences. The researcher finds out that most of the learners were not motivated while performing the tasks. It has been pointed out that students do not feel comfort in participating in the new line of intelligence. In the classes there are few faces who eager to participate and pleased to involve in the discussion.

4.3.3 Answer to the Research Question 3

Is there any relation of least preferred intelligence with students' participation, was the sole concern of research question 3. An interpretation scale (Seligar & Shohamy, 1989, p.214) is used to interpret the score of participation, with the score of least preferred intelligence as follows-

a) 1.00 – 2.25 : Strongly disagree/ Never

b) 2.26 – 3.00 : Disagree/ Rarely

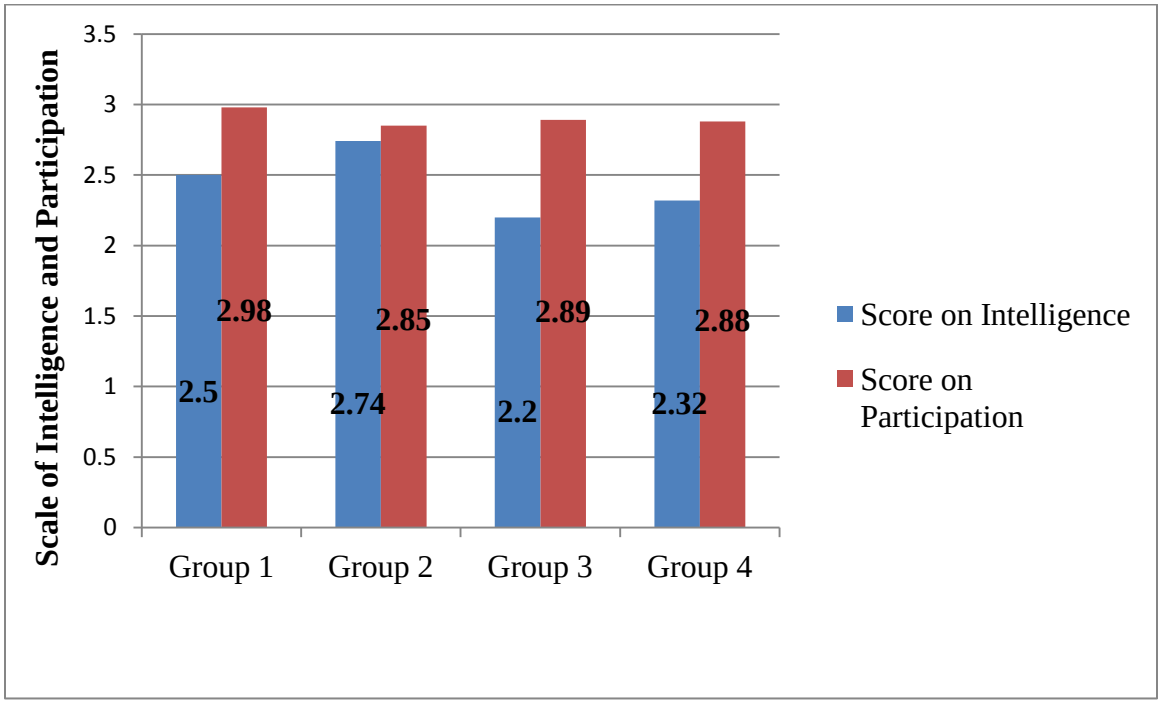
c) 3.01 – 3.75 : Agree/Sometimes

d) 3.76 – 5.00 : Strongly agree/ Always

In terms of participation the average of the mean scores of group 1 is 2.98. It indicates "disagree" in the interpretation scale that signifies students are not interested in doing the tasks that do not satisfy their intelligence. The score is very high in the scale of "disagree". This group of students shows less interest in spatial abilities. The score was 2.5 that falls in the middle of the same scale, which is "rarely".

The lowest intelligence score of group 2 is 2.74 and the averaged participation score is 2.85. It signifies they also disagree and rarely pleased to involve in the tasks. However the scores are quite high in the range of "disagree" and "rarely".

Chart 4.3.3: Relation of Least Preferred Intelligence with Participation



The score of the lowest intelligence is 2.20, which at the peak of the range "never", in case of group 3. Students disagree with the statements, which are not showing their enthusiasm in taking part in the activities as the mean score is 2.89.

In case of group 4 both the scores, 2.32 and 2.88 for intelligence and participation respectively fall in the same array, which is " disagree" and " rarely", where the participation score is quite high in the scale of "disagree" and intelligence score is in the low level of the scale .

The scores on participation are very close with the scores of least preferred intelligence. The scores could not enter the range of "agree"/ "sometime" and "strongly agree"/ "always". Apart from group 3, both the scores come under the same range that pointed out without focusing particular intelligence for particular group of learners, participation

cannot be increased. Least preferred intelligences hamper the level of student participation.

4.4 Relating Findings with the Theories

Apart from verbal intelligence, the range of the intelligences start from the scale of 2.2 and could not go beyond the level of 3.3, which is definitely an alarming sign because Gardner (1989) added there should be a minimum capacity in all skills among the students to achieve success in long run and long term (as cited in Larsen and Freeman, 2000, p.172). It seemed participants are usually familiar with verbal activities. They are not taught to improve all their skills to the fullest. The reason behind this could be in the schools the materials are mostly based on the verbal intelligence. In addition to that, perhaps, most of the cases teachers are not allowed or trained to adopt materials considering their learners' need and motivation. There are numerous opportunities to get feedback on verbal skills whereas other abilities are not often measured. As a consequence, day by day among the learners the linguistic intelligence is increasing and other seven types of intelligences are decreasing. McLaughlin (1987) says when only verbal material is taught in classroom setting, students only learn to use verbal intelligence in the acquisition of the language (p. 171). In this regard, Gardner's (1989) conception is that intelligences are not fixed for life time. It can be improved or reduced through proper guidance and practice. The school needs a program rich in visual and musical arts, to adequately address the full range of intelligences (p.8-9). MI should be treated as one of the many "tools", which is undoubtedly a means of fostering high-quality student work (ibid).

On the other hand, from the low scores of participation, it can be assumed that teachers are not recognizing the new practices that are most likely to support diverse learners as it could be possible that there was no atmosphere of "choice" in the process of learning and teaching within the school that allows meaningful options for curriculum and assessment of student learning. An array of choice creates opportunities for students to realize and apply their intelligence strengths because sometimes it was not possible to define students' intelligence profiles (Richards and Rodgers, 2001, p.135). However, it is not feasible to deal with all the intelligences in one lesson and there is no such necessity to design every lesson considering eight intelligences altogether. In that case teachers can smartly revolve different activities to fulfill the objective of teaching different intelligences (Richards and Rodgers, 2001, p.136). Teachers can easily think of activities based on linguistic, interpersonal and intrapersonal intelligences in a language class but teachers have to self-monitor to keep track of the tasks related to the other intelligences (Larsen - Freeman,2000, p.169-170).

To summarize, according to the view of Gardner (1983), it can be said that as knowledge and skills in language and mathematical areas are essential for surviving and thriving in the world, the six kinds of intelligence are important to fuller human development and almost everyone has ability to gear it up. The strongest skills of many children lie in these other six areas, which are frequently undervalued in the traditional schools (as cited in Richards and Rodgers, 2001, p. 117-118). The fact is that when children have an opportunity to learn through their strengths, they may become more successful in learning all subjects—including the basic skills (as cited in Richards and Rodgers, 2001, p. 120). That is why to draw an equal participation, which is very necessary to make a

good result of all of the students, implementing intelligences for particular group of learners is crucial. Reflecting a consensus in the literature, intelligence disparity must be reduced in the classrooms to contribute to development and distractions reduction (Gardner and Hatch, 1989, p. 162).

Chapter 5

Conclusion

5.0 Introduction

In order to make the MI approach successful in reaching the apex of student participation, teachers need to be careful in utilizing activities and materials (Larsen and Freeman, 2000, p. 168). Creating a rich, nurturing, and stimulating environment filled with interesting materials, toys, games, and books lays the foundation for healthier, happier, brighter and attentive children (ibid). It is true that in Bangladesh, MI theory has not yet been recognized. However, its relation with participation can be assumed by considering its advantages and disadvantages.

5.1 Summary of the Findings

The identified set of findings can be hospitable in establishing a MI teaching environment. First, students do not want to participate in their least preferred intelligence. "Readiness", an awareness in the faculties, and administrators is absent. Second, as the curriculum is too rigid and the system of assessment is too narrow, the spirit of multiple intelligence teaching is remaining undone.

5. 2 Contributions to the Research

Teachers can use this survey forms and tasks to identify their learners' strongest and weaker intelligences so that remarkable steps can be taken to improve their intelligences and participation. In addition to that, researchers can use this study to trace the faults in the materials as it only increases verbal intelligence.

5.3 Practical Implementation

The paper shows how other intelligences decrease when they are not focused, which is not expected to acquire a good result of all of the students in the class. So, the paper can be helpful to the language teachers to realize that fact that all intelligences should be equally followed in teaching so that learners can build and utilize their capacities to develop the process of learning.

5.4 Recommendations

There is a general notion among the teachers throughout the world that if new curriculum and instructional approaches are put forward, they need to adopt the proposed method of teaching as widely as possible since every new approach is established by replacing the old methods with something new (Gardner, 1989, p.4). But applying MI theory is something different. It does not require disposing activities of ongoing teaching methods, which are proven as effective for both teachers and students in teaching and learning of second language. Rather it suggests a new ground by enhancing the previous activities in a wider range and by creating an opportunity for the administrators of language institutions to think about the learners individually and differently (ibid).

It can be recommended to the teachers for establishing the use of multiple intelligences in their teaching practice. Interested teachers should first read, study, and learn more about MI theory and practices. Study groups with other teachers can be a good way to explore new ideas, compare results, and articulate questions and concerns. Visiting classrooms or networking with other schools, which already employ MI practices and attending

professional development conferences and seminars can be a useful way to plan and launch MI based activities and programs.

Educational planning should be an ongoing process with both short and long term goals being set. With proper information and careful planning, teachers, parents, and schools can ensure that learners are obtaining an outstanding education. There should be centers that offer fee services and in depth testing of intelligences for students, which can be performed on site or over the telephone.

5.5 Further Studies

The reflections on class participation allow the researcher to think and study about the next steps to make the other intelligences unfolded as applying MI in the classroom did not cause to abandon activities that had previously been used, but rather to enhance them, and to think differently about the students. A research on the relation of most preferred intelligence with participation can be done to compare and confirm the relationship among these two variables.

5.6 Conclusion

Knowing as much as possible about own strengths and interests in all areas is important to utilize the qualities and gain success. Though, ability is a relatively enduring trait, and the scores are momentary snapshots of it and may be affected by other factors as well (such as influences that affect health, disturbances and distractions during the testing, inefficient test taking strategies, etc.), we should try to increase students' abilities and interests so that they can be appropriately challenged and maximally motivated to participate and learn.

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Appendix A

Survey Questionnaire on Intelligence (for day 1)

Duration: 45 minutes

Instructions: Read each statement carefully. Choose one of the five buttons for each statement indicating how well that statement describes you.

5 = Things that you do **always**

4 = Things that you do **sometimes**

3 = Things that you do **once in a while**

2 = Things that you do **rarely**

1 = Things that you do **never**

	5	4	3	2	1
1. I enjoy reading poetry.	○	○	○	○	○
2. I love to write story in my free time.	○	○	○	○	○
3. I enjoy learning new words and do so easily.	○	○	○	○	○

4. Remembering numbers and numerical symbol is easy for me.

5. Math has been one of my favorite classes.

6. I enjoy doing puzzles.

7. My drawings are admired by others.

8. I understand maps and directions.

9. I can use charts and tables to explain something.

10. The world of plants and animals is interesting to me.

11. I enjoy caring for my house plants and pets.

12. I like learning about nature.

13. I can remember the tune of a song when asked.

14. I enjoy playing instrument and

singing.

15. I love to listen to music as it makes me relax.

16. I feel good about doing physical works, for example, exercise.

17. I take pride in my sport accomplishments held in school.

18. I look forward to play outdoor games.

19. I like the excitement of team competition.

20. I think about the solutions of the problems of my society.

21. I love to meet new people.

22. I feel comfortable when I am alone in my room.

23. I know what makes me happy and tensed.

24. I like to work individually. ○ ○ ○ ○ ○

Appendix B

Classroom Activities (for day 2)

Duration: 30 minutes

Interpersonal Activities:

- Write five sentences about your last class party with your partner.
- With your partner read, discuss, and understand the lesson.

Intrapersonal Activities:

- Set personal goals.

Bodily/Kinesthetic Intelligence:

- Act out the scene of the story.
- Teach the lesson as if you are a teacher.

Visual/Spatial Intelligence:

- Paint a picture that represents the story.
- Make a map from your home to your school.

Musical Activities:

- Sing a song to the class that inspires you. Or recite a nursery rhyme
- Tap the musical pattern or count the number of beats of the song.

Naturalist Activities:

- Identify and learn the names of flowers and leafs.

Logical/Mathematical Intelligence:

- Compare and contrast two or more objects.
- Make a graph to represent data.

Verbal/Linguistic Intelligence:

- Listen to the lecture and take notes.
- Give a dramatic reading the story.

The lesson below is used in the tasks on kinesthetic and spatial intelligence.

there, and so too was her sister, Neetu, her brother, Ranjan, and even Aunty Anu.

It was six o'clock in the morning, on Sunday. Deepa did not have to go to school, so there was no need to rise at six. But Deepa was not annoyed. Yesterday, she had been given some good news. She had come first in her class! She was now delighted to be up. The family had promised her some presents, and here they were.

'Wake up, sleepy head!' shouted Neetu, jumping up and down at the bottom of her bed.

Ranjan stepped forward and handed her a large parcel.

'Well done, Deepa,' he said, and added, 'Open this one first. I wrapped it myself.'

'What is it?' asked Deepa excitedly, taking the parcel from him.

'Open it, and find out,' said Ranjan. 'And before you say anything, I bought it with my own money. I knew you would come first, so I have been saving up for months and months and months and ....'

'Yes, yes,' interrupted Dad. 'Mum and I know how much you saved. Don't tell Deepa how much you owe the bank!'

'But Dad,' wailed Ranjan. 'I did save a lot, didn't I? I only borrowed a little bit from you.'

Deepa was not listening. She was busy unwrapping the parcel.

'A doll!' she exclaimed, when the paper was off. 'How lovely! Thank you, Ranjan!'

'It's no ordinary doll,' said Ranjan, quickly, just in case she thought it was. 'It works on batteries, and it talks. Let me show you how it ....'

'Let her do it on her own, Ranjan,' said Mum, gently holding Ranjan back. 'It's her big day, and her present, so let her make it work.'

'I was only going to help her with the cells,' complained Ranjan. 'It won't work without them. And putting them in is complicated.'

annoyed feeling angry or bothered
delighted extremely pleased; filled with delight

interrupted halted the flow of a speaker, with a question or remark
wailed made a long, loud, high-pitched sound; cried

The lesson below is used in the task on interpersonal intelligence.

2

High June

Fiddle-de-dee!
Grasshoppers three,
Rollicking over the meadow;
Scarcely the grass,
Bends as they pass,
So fairy-light is their tread, O!

Said Grasshopper One,
'The summer's begun,
This sunshine is driving me crazy!'
Said Grasshopper Two,
'I feel just like you!'
And leapt to the top of a daisy.

'Please wait for me!'
Cried Grasshopper Three,
'My legs are ready for hopping!'
So grasshoppers three,
Fiddle-de-dee,
Raced all the day without stopping.

C. A. Morin

fiddle-de-dee nonsense (here used to show a carefree attitude, and to keep the rhythm of the lines)
rollicking having fun, especially in a loud, rowdy way
scarcely only to the slightest degree
tread step

20

Appendix C

Survey Questionnaire on Participation (for Day 2)

Duration: 15 minutes

1. I enjoyed the tasks.
    a) Strongly Agree
    b) Agree
    c) Neutral
    d) Disagree
    e) Strongly Disagree
2. I was involved in the tasks more than the other tasks that I usually do.
    a) Strongly Agree
    b) Agree
    c) Neutral
    d) Disagree
    e) Strongly Disagree
3. I think these types of tasks will help me to comprehend the lesson better.
    a) Strongly Agree
    b) Agree
    c) Neutral
    d) Disagree
    e) Strongly Disagree
4. I can retain the lectures well if these types of activates are given.
    a) Strongly Agree

b) Agree

c) Neutral

d) Disagree

e) Strongly Disagree

5. I want to do this type of tasks in future.

a) Strongly Agree

b) Agree

c) Neutral

d) Disagree

e) Strongly Disagree

6. I finished the task on time.

a) Strongly Agree

b) Agree

c) Neutral

d) Disagree

e) Strongly Disagree

7. To me tasks were not difficult at all.

a) Strongly Agree

b) Agree

c) Neutral

d) Disagree

e) Strongly Disagree

8. I could understand the instructions.

a) Strongly Agree

b) Agree

c) Neutral

d) Disagree

e) Strongly Disagree

9. I feel motivated while doing the tasks.

a) Strongly Agree

b) Agree

c) Neutral

d) Disagree

e) Strongly Disagree

10. I am satisfied with my performance.

a) Strongly Agree

b) Agree

c) Neutral

d) Disagree

e) Strongly Disagree