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AN EMPIRICAL RESEARCH ON THE EFFECTIVENESS OF MULTIPLE INTELLIGENCES THEORY-BASED-TEACHING APPROACH IN THE SUBJECT OF ENGLISH AT SECONDARY LEVEL

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ABSTRACT

Every individual is different from each other inheriting different capabilities and abilities. Therefore, teaching and assessing them in the same way is unfair with their learning abilities and future success. The Multiple Intelligences theory (MI) by Howard Gardner uplifted different teaching techniques and assessment tools to be used in the classroom especially in second language, such as English. The major purpose of the study was to investigate the effectiveness of MI-theory based teaching approach in the subject of English at secondary level. The objectives of the study were: to identify the effects of Traditional teaching approach in the subject of English at secondary level; to investigate the effectiveness of MI theory-based-teaching approach in the subject of English at secondary level; and to compare significance of MI theory-based-teaching approach with Traditional teaching approach on students' academic achievement. Population of the study consisted of all female students of GGHS at secondary level in Peshawar. Sample comprises 02 GGHS, each in the rural and urban areas of District Peshawar. Total No. of students were 160 i.e., 80 from rural school and 80 from urban school. It was a quasi-experimental study that further used non-equivalent control group design. The pretest and posttest were used for data collection before and after the experiment. Data was collected through classroom teaching and was analysed through t-test for significance difference. This experiment was composed of two variables, Comparison variable and Experimental variable and experimental group received an experimental teaching of 2 weeks. The results showed no significant effects of traditional teaching approach in a diverse classroom in the subject of English and indicated that MI- theory based teaching approach is an effective teaching approach to entertain all the multiple intelligences of students in the subject of English and provide productive results in their academic achievement. It is highly recommended that while constructing an educational program or lesson plan teachers must consider multiple intelligences of students. Moreover, curriculum and policy makers should provide all the resources of MI-theory based teaching materials and make it compulsory to implement MI-based teaching approaches in public sector institutes.

Keywords: Howard Gardner, multiple intelligences, English language

1. INTRODUCTION

Pakistani educational systems are in need of creative, effective and productive teaching, learning and assessment methods in which teachers acknowledge all the intelligences of students. It is assumed that most of the Pakistani schools are practising and encouraging rote learning; ignoring the consequences of this type of teaching methodology. The most visible fault of rote learning is the reduction of students' social, physical and intellectual abilities. To fix this major error, Gardner (1983) presented the theory of Multiple Intelligences (MI), in which he discussed the various intelligences of children and also suggested teaching each child accordingly. Intelligence is a psychological concept which is linked with one's learning and decision-making process in a cultural setting (Gardner & Hatch, 1989; Khamis et al., 2004). Gardner (1983) suggested nine types of intelligences: verbal linguistic intelligence, logical mathematical intelligence, musical intelligence, visual spatial intelligence, bodily kinaesthetic intelligence, interpersonal intelligence, intrapersonal intelligence, naturalist intelligence and existential/metaphysical intelligence. Gardner believes that individuals possess variations in levels of their intelligences for example an individual having an elevated linguistic intelligence might have a very minimal musical intelligence (Shearer, 2004). Contrary to the theory of MI, teachers at secondary level in Khyber Pakhtunkhwa teach the entire class with the same methodology without catering the individual needs of students. Every student in the class possesses a significant culture, ethnicity, conviction and a different state of mind (McFarlane, 2011), and if a teacher does not align his/her pedagogical approaches rendering to the learning desires of the students, it may affect the students' performance negatively and make them tedious and distracted, perform poorly in academic assessments, and lose interest in academics (Gul & Rafique, 2017). This theory can be implemented in the class of English subject because the activities based on multiple intelligences theory help students to overcome their difficulties in learning and studying English. Learners can increase and decrease their intelligence and can learn better if they are engaged in such activities in an educational setting where they have various choices of learning activities according to their abilities. Therefore, teachers must acknowledge learners' all intelligences (Tyler, 2011; Gardner, 2004).

Today's educational systems are in need of creative, effective and productive teaching, learning and assessment methods in which teachers acknowledge all the intelligences of students because strong and effective learning can be achieved only by taking into account the individual's particular needs and fostering interest of the learners individually. Therefore, by the implementation of multiple intelligences techniques, teachers can provide different kind of activities and experiences to the learners through which they can produce positive and fruitful outcomes by displaying their understanding towards the subject of English (Diaz-Lefebvre & Finnegan, 1997; Carrol, et al. 2009; Perkins, 1995).

According to Khaled (2017) Multiple intelligence theory plays a key role in the improvement of reading and writing skills of students and with better critical reading skills in English students are able to understand, synthesise, evaluate, find the cause of effect, and use their ideas in solving many problems.

Urooj and Khatoon (2012) stated that if teachers don't acknowledge their students' learning abilities, cognitive process and learning difficulties, even the major teaching innovations will remain unproductive. Therefore, every parent and teacher should assess their child's all intelligences in order to strengthen the weakened intelligences that play a major part in the learning process.

2. LITERATURE REVIEW

2.1. *Multiple intelligences in general description*

Intelligence is an instrument and a skill by which people can change their surroundings according to their needs and can produce new ideas and act wisely in critical situations in their cultural settings (Gardner, 2000, Sternberg, 2002).

Gardner's (1983:1993:2000) prolonged review of different case studies explains that intelligence is the ability to solve problems and also represent individual differences; however the main purpose of the revision was to understand how the mind works and how different parts of the brain dominate while processing different intellectual activities. The case studies included individuals having different cognitive abilities such as normal, talented, weak and mentally disabled.

There are eight types of intelligences including musical–rhythmic, visual–spatial, verbal–linguistic, logical–mathematical, bodily–kinesthetic, interpersonal, intrapersonal, and naturalistic and people have all these intelligences and each individual has their own fusion of intelligences (Gardner, 1983). Mantzaris, (1999) proposed that the theory of multiple intelligences can be exercised in scenarios like education, career growth, counselling and self-development. Likewise, Armstrong (2000) suggested that teachers can enhance their teaching methodologies to make their teaching process more effective with the help of this theory.

Multiple intelligence theory has become the most significant theory in the field of education and being applied by teachers in educational settings because it focuses on an individual's unique development and provides different new ways of learning (Komulainen & Tirri, 2002; Kallenbach, 1999; Shore, 2004).

2.2. *Implication of multiple intelligences theory in the classroom*

According to Gardner (2000) Teachers have been taught students with same traditional styles keeping the concept in mind that all the students were the same having same intellectual abilities ignoring the reality that individual possess different intelligences, therefore it is necessary to provide teaching aids and classroom activities that suit their intelligence in order to develop and boost their learning.

Researchers and educators considered multiple intelligences theory to be the solution of Teachers' most significant challenge today, that is to provide an effective program of study which fulfils aspirations of those learners who were not able to exhibit their knowledge towards a second language and faced learning difficulties. Every learner has all intelligences some are prominent while others are not and teachers can enhance and polish these intelligences by applying careful planning and multiple intelligences-based instructions and also develop those minimised intelligences (Klien, 1997; Noble, 2004; Nolen, 2003; Smith, 2001).

2.3. *Multiple intelligences theory in research context*

According to Armstrong (2009) many intelligence researchers like L.L Thurstone rejected the factor theory and its representation of “g” as significant feature of intelligence while on the other hand Morgan (1996) claim that Gardner's multiple intelligence theory is not new for the world because many theorist already expressed their opinion of intelligences but Gardner's multiple intelligences theory changed the perception of people towards intelligence therefore, many theorists and researchers in the psychometric discipline choose different structures recommended by Gardner as individual's capabilities.

Marefat (2007), Mohseni and Zarei (2012) proposed that Interpersonal, intrapersonal, kinesthetic and existential intelligences were the best medium for writing scores. These four types of intelligences proved to be the indicators of grammar accuracy and writing accuracy of learners' in learning language. Furthermore, Panahi (2011) also points out that there is a significant relationship between multiple intelligences of students and their grammar understating in learning language.

Moreover, Carrol et al., (2009) and Mahasneh's (2013) investigations in self-efficacy showed that there was a significant positive correlation between academic self-efficacy and self-regulatory of students with academic achievement and nine multiple intelligences, which are bodily-kinesthetic, intrapersonal, interpersonal, mathematical-logical, visual-spatial, musical, existential, and verbal-linguistic intelligences.

klassen et al., (2009) articulate that teachers' capabilities of processing the reinforcement of their behaviors within their environment or within themselves plays a significant positive role in classrooms where they face multicultural environments.

Hence, Cakar and Ikiz (2010) claimed that multiple intelligence theory helps the teachers to arrange such programs which assist students to develop awareness for their self-knowledge, self-efficacy and capabilities in the improvement for their educational success.

2.4. *Multiple intelligences theory in teaching subject of English*

People with great learning capabilities, especially learning more than one language are considered as gifted people who acknowledge different languages and can use their understanding in different situations.

In the beginning Multiple intelligences theory was designed for educational purposes and language teachers were practising this theory in their classrooms without having any knowledge about this theory but later curriculum designers, educationalists, resource managers and teacher considered multiple intelligence theory best to be implemented in English language classrooms because it helps teachers to apply different approaches such as audio-lingual, rote repetitions and drills and students can improve verbal-linguistic intelligence by these methods (Abdulaziz & Ulinawa, 2008; Sinder, 2001).

In an educational institutes students learn differently and possess different traits of interests and need teaching aids and instructions according to their mentioned possessions and for that, application of integrated educational programmed provide various effective method such as games in the classroom, playing music with stories, showing videos and pictures and also helps teachers to plan a creative and flexible lesson in order to enhance learner's innate gifts (Gardner, 1983:1999; Zhang, 2011:2004).

Arnold and Fonesca (2004) claimed that application of multiple intelligence theory in English language classroom can foster the learning by initiating musical, visual-spatial, bodily-kinesthetic, interpersonal, intrapersonal, logical-mathematical and naturalistic capabilities of learner's as these intelligences work differently on the same kind of language task. Furthermore, it enables students to gain knowledge in their own best ways and eliminate the typical boredom which students face in the language classes and keep the learning sustained.

2.5. *Review of Recent Relevant Research Studies*

Every individual has their own learning styles and intelligence teachers must plan their lessons according to individual's learning styles by adding more activities, strategies and interesting information so that individuals undiscovered intelligences appears and acknowledged (Cokcalistan & Sener, 2018)

According to Hanafin (2014) MI-theory-based teaching approach's main goal is to value those students who are maltreated, neglected and ignored throughout their lives that results in low self-esteem individuals unaware of their hidden talents, abilities and potentials.

Logical questions play significant role in learning process because when individuals start asking logical questions about life, death and reason of their lives it indicates that they are acknowledging their self-worth, so, teacher should encourage students to ask questions for the sake of enhancing their ability to think over things that are beyond their cognitive horizons (Nur, Winarti & Yuanita, 2019).

According to Tsai (2016) Girls are more profound in their linguistic, spatial, music, interpersonal, and existential intelligences than boys while boys are expert in their logical-mathematical intelligence than girls.

3. Research Objectives

The objectives of the study are to:

1. Identify effects of Traditional teaching approach in a classroom in the subject of English at secondary level
2. Investigate effectiveness of MI theory-based-teaching approach in the subject of English at secondary level
3. Compare significance of MI theory-based-teaching approach with Traditional teaching approach on students' academic achievement

4. Research Hypotheses

- H₀: MI theory-based-teaching approach does not make significant difference in a diverse classroom in the subject of English in the selected GGHS.
- H₀: There is no significant difference between MI theory-based-teaching approach and Traditional teaching approach.

5. Rationale of The Study

Pakistan being one of the developing countries and having English as an official language is struggling hard to reach up to the standards of advanced educational systems and teaching methodologies. The researcher being the product of that educational setting has faced schools in which teachers are practising and encouraging rote learning and ignoring its consequences. The most visible fault of rote learning is the reduction of students' social, physical and intellectual abilities. To fix this major error, Gardner (1983) presented the theory of Multiple Intelligences (MI) in which he discussed various intelligences of children and also suggested teaching each child accordingly. Contrary to the theory of MI, teachers at secondary level in Khyber Pakhtunkhwa teach the entire class with the same methodology without catering the individual academic and/or learning needs of students. This could be due to the large number of students in the class or teachers' ignorance of Multiple Intelligences. To make teaching more effective, first it is pertinent for teachers to understand the academic and/or learning needs of the individuals. To ensure the effectiveness of MI-based teaching approaches and its role in the development of learning abilities of the students, such study is conducted.

6. Limitation of the Study

Due to cultural sensitivities and to ensure maximum participation of the researcher during experiments, this study is delimited to government girls high schools in district Peshawar only. Besides, the initial experiments were supposed to be conducted on the classes 9th and 10th; however, at the time of experimentation and/or data collection process class 10th had already left the schools due to their academic and examination schedule. The available classes were 8th and 9th; hence the researcher conducted the experiment for data collection on classes 8th and 9th. The procedures of the experiments remained the same and no changes were made in the entire process of data collection, and this shift did not affect the results of the experiments in any way.

7. METHODOLOGY / Research design

It was a quasi-experimental study that further used non-equivalent control group design. An experimental design is a strategic plan which involves checking the subjects through experiments on different stages and carrying out relevant statistical analysis accordingly (Kirk, 1995).

Loewen and Plonsky (2016) stated that experimental and quasi- experimental research design are the cause and effect variable method, in which the independent variable is the cause to apply various effects on the dependent variable. In simple words, this research design investigates whether there is any causal connection between dependent and independent variables.

7.1. Nonequivalent Control Group Design

According to Bryk and Weisberg (1977) from both of the groups pretest and posttest data is obtained in the nonequivalent control group design. Statistical procedures carried out to correct posttest comparisons, based primarily on pretest data.

7.2. Population

Best and Kahn (2008) stated that population is such a group of units in which characteristics of research are focused. All female students that are 6737 at secondary level in district Peshawar comprise the population of the study. According to EMIS (2017-18) there are 149 high schools in which 64 are girls' schools in District Peshawar. A total of 25 schools are in the urban area and 39 schools in rural areas; hence the population is

64 Govt. Girls high schools (GGHS).

Table 7.2. Population of the study (EMIS, 2017-18)

| | Schools | Students |
|-------------------|-----------------------------|----------|
| Population | 64 (both rural & urban) | 6737 |
| Sample | 2 (1 in rural & urban each) | 160 |

7.3. Sample size

Sample is representative of the total population (Polit et al, 2001). Sample comprises 02 GGHS, one each in the rural and urban areas of District Peshawar. Schools were selected on the basis of cluster sampling in addition to the permission granted by the DEO (female) Peshawar to carry out research in these schools. The experiments were carried out in the subject of English in class 8th and 9th of each school on the experimental groups only. Moreover we selected class 8th students as our sample on the basis of availability of students in the schools.

Table 7.3. Sampling details

| | Schools | Classes | Students |
|--------------|---|--------------------------------|------------------------------------|
| Urban | GGHS Islamia collegiate school Peshawar | 8 th (two sections) | 80 (40 students from each section) |
| Rural | GGHS Palosi Maghdarwai School Peshawar | 9 th (two sections) | 80 (40 students from each section) |

7.4. Research instrument

The pretest and posttest were used for data collection before and after the experiment. They were “Self-made” tests made by the teacher, who taught the particular course, content/chapter of English subject to both groups with a traditional teaching approach. The content of the pretest-posttest was from a particular chapter of the English textbook of the Khyber Pakhtunkhwa board that the teacher had taught before and taught again during the experiment. The pattern of pretest-posttest was as per school’s academic policy having open ended questions. Assessment was done by the English teacher herself.

7.4.1. Pilot testing of pre-test and post-test

The tests were made by the experts, English teachers of the schools. The content of the tests were as per schools’ academic policy but still before collecting the data, the tests were analysed by the researcher’s supervisor and another language teacher in IER, University of Peshawar and upon approval the tests were administered. The tests were analysed for its content, weightage of the content, number of chapters, scoring, total marks, marking procedure, grammar, number of questions, types of questions, nature of the test, and format of the test.

7.4.2. Pre-test and Post-test of Class 8th

The tests were prepared and assessed by the English teacher herself from chapter “Someone who works hard to earn” in the English textbook KP for class 8th. The main theme of the lesson was “labour work” including dialogues between a shopkeeper and customer. Both tests pre-posttest consisted of two items i.e. 1) write down the main idea of the lesson in your own words? 2) What have you learned from this lesson? The test was of ten marks, five marks for each question.

7.4.3. Pre-test and Post-test of class 9th

The tests were prepared and assessed by the English teacher herself from the poem “Hope is the thing with feathers” by Emily Dickinson in the English textbook KP of class 9th. The main theme of the poem is “Hope”. The pretest consisted of the second stanza of the poem while the posttest comprised of two items i.e. 1) what is the theme of the poem? 2) Do you like this poem and why? Both the tests were of 05 marks.

7.4.4. Data collection

Data was collected through real time classroom teaching and was further analysed through t-test for significance difference. The notion of this experiment is proposed by Campbell and Stanley (1963) and is as follow:

| N/n | E | O1 | X | O2 |
|-----|---|----|---|----|
| | C | O3 | | O4 |

N/n= Population/sample, E= Experimental Group, O1=Pretest, O2= Posttest C= Comparison Group, O3= Pretest, O4= Posttest, X= Treatment.

7.4.5. Validity of the experiment

Threats to internal and external validity of the experiment were taken care by assigning treatment and observation to the experimental groups. As the researcher was the observer and helper during the experiments, she managed to avoid all types of internal and external threats to the experiment i.e. helping the teacher in conducting the experiment on exactly 80 female students.

7.4.6. Data analysis

Data was collected through classroom teaching and was analyzed through t-test for significance difference. Two groups (N=160) each from experimental groups from two different classes i.e., class 8th and 9th having same English subject textbooks, resource materials, and teachers, were experimented to compare the traditional teaching approach with MI-theory based teaching approach in the classroom in the subject of English. The Experimental groups from both the classes 8th and 9th received the MI-theory based treatment (experiment/teaching) for English subject while on the other hand comparison group received no treatment and taught English subject with the same traditional teaching approach. A ‘self-made’ test was made according to the school’s academic policy, conducted and assessed by the same English teacher. The experiment lasted for 2 weeks for each paired-samples t-test was conducted to compare MI-based teaching approach with traditional teaching approach in the classroom in the subject of English.

8. Results and findings

Table 8.1: Paired Samples test of comparison group of class 8th

| | Mean | Std. deviation | Std. Error Mean | T | Df | sig. (2 tailed) |
|--------------------------|------|----------------|--------------------|-------|----|--------------------|
| Pair 1 Pretest- posttest | .375 | 1.485 | .322 | 1.365 | 39 | .220 |

According to Table 8.1 the pre-test (M=.375, SD=1.485) conducted on the comparison group (N=40) was before providing the traditional teaching to check our first null hypotheses, the post-test (M=3.55, SD=1.797) after providing traditional teaching, showed no progress in the scores ($p=0.220$) means there was no significant difference in the scores.

finding no. 1 : According to the results of pre-test($M=3.83$, $SD=1.738$) and post-test ($M=3.55$, $SD=1.797$) of comparison group of class 8th in the subject of English, the mean of both test were before the conventional teaching and after the conventional teaching showing no progress in the performance and scores of the students, resulting that there is no significant effects of traditional teaching approach in the subject of English at secondary level.

finding no. 2: Due to the results of probability value ($p=.220$) of comparison group of class 8th which is $t(39) = 1.365$, $p>0.005$, the null hypothesis is rejected, that MI theory-based-teaching approach does not make significant difference in a diverse classroom in the subject of English in the selected GGHS.

Table 8.2: Paired samples test of experimental group of class 8th

| | Mean | Std. deviation | Std. Error Mean | T | Df | Sig. (2 tailed) |
|------------------|-------|----------------|-----------------|--------|----|-----------------|
| Pair 1 | -4.12 | 1.652 | .261 | -15.79 | 39 | .000 |
| Pretest-posttest | 5 | | | 7 | | |

In Table 8.2 the experimental group ($N=40$) showed highest scores in the post-test ($M=8.43$, $SD=1.259$) indicating the effectiveness of MI-theory based treatment that was provided by the English teacher keeping all the important aspects of individual's unique and different multiple intelligences and indicates the significance of difference ($p=0.000$) exists between MI-based teaching approach and traditional teaching approach.

finding no. 1: The results of pre-test ($M=4.30$, $SD=1.856$) and post-test ($M=8.43$, $SD=1.259$) of experimental group of class 8th in the subject of English, showed a huge difference in the mean after the providence of MI-theory based treatment to the experimental group. They showed great progress in scores in the post-test resulting in a significant effect of MI-theory based teaching approach in the classroom in subject of English at secondary level.

finding no. 2: The probability value ($p=0.000$) of experimental group of class 8th $t(39) = -15.797$ which is $p<0.005$ resulting from the fact that there is a significant difference between traditional teaching approach and MI- theory based teaching approach. Hence, hypothesis there is no significant difference between MI theory-based-teaching approach and Traditional teaching approach is hereby rejected.

Table 8.3: Paired samples test of comparison group of class 9th

| | Mean | Std. deviation | Std. Error Mean | T | Df | Sig. (2 tailed) |
|------------------|------|----------------|-----------------|------|----|-----------------|
| Pair 1 | .275 | 1.396 | .221 | 1.24 | 39 | .220 |
| Pretest-posttest | | | | 6 | | |

The observed t-values and significance levels in the Table 8.3 stipulates that traditional teaching approach is a non-productive approach, showing no progress in the scores which leads to the idea that traditional teaching approach is a danger for our young generation's academics and their overall achievements. So, based on the results indicates that hypotheses MI theory-based-teaching approach does not make significant difference in a diverse classroom in the subject of English in the selected GGHS. Hereby, rejected.

finding no. 1: The probability value ($p=0.220$) of comparison group of class 9th which is $t(39)$

=1.246, $p>0.005$, concluded that, there is a significant difference between MI-theory based teaching approach and traditional teaching approach. Therefore, the hypothesis there is no significant difference between MI theory-based-teaching approach and Traditional teaching approach is hereby rejected.

finding no. 2: In the results of pre-test ($M=3.83$, $SD=1.738$) and post-test ($M=3.55$, $SD=1.797$) of comparison group of class 9th in subject of English, no improvements in scores are detected before and after providing the traditional teaching, giving the idea that there is no significant effects of traditional teaching approach in the classroom in the subject of English.

Table 8.4: Paired samples test of experimental group of class 9th

| | Mean | Std. deviation | Std. Error Mean | T | Df | sig. (2 tailed) |
|----------|-------|----------------|--------------------|--------|----|--------------------|
| Pair 1 | -2.17 | .903 | .143 | -15.24 | 39 | .000 |
| Pretest- | 5 | | | 0 | | |
| posttest | | | | | | |

Table 8.4 showed that the post-test ($M= 3.55$, $SD=1.797$) of comparison group includes no progress, while the experimental group after receiving MI-theory based teaching approach showed ($M=6.50$, $SD= .641$) great progress and ($p=0.00$) revealed a significant difference between traditional teaching approach and MI-theory based teaching approach resulting that MI-theory based teaching approach showed better positive and productive result.

finding no. 1: The probability value ($p=0.220$) of comparison group of class 9th which is t (39) =1.246, $p>0.005$ indicates that MI theory-based-teaching approach does not make significant difference in a diverse classroom in the subject of English in the selected GGHS. hereby, rejected.

finding no. 2: It is evident in the study that MI-theory based teaching approach has a great impact on the overall performance of students because there is a great difference between the results of pre-test ($M=2.33$, $SD=.917$) and post-test ($M=4.50$, $SD=.641$) of experimental group of class 9th in English subject. Students showed huge progress in the scores after availing MI-theory based treatment.

finding no. 3: According to the probability value ($p=0.000$) of experimental group of class 9th t (39) = -15.240 which is $p<0.005$ resulting the fact that, there is a significant difference between traditional teaching approach and MI- theory based teaching approach. Hence hypothesis is being rejected.

9. DISCUSSION

In line with the hypotheses 1) MI theory-based-teaching approach does not make significant difference in a diverse classroom in the subject of English in the selected GGHS, the results of pre-tests ($M=3.83$, $SD=1.738$) and post-tests ($M=3.55$, $SD=1.797$) of comparison group of class 8th and the pre-test ($M=3.83$, $SD=1.738$) and post-test ($M=3.55$, $SD=1.797$) of comparison group of class 9th doesn't showed any effects before and after the traditional teaching hence rejects the null hypothesis of this study and approving the fact that practice of traditional teaching approach is waste of time both for teachers and students because there are no academically, intellectually and physically growth and productive skills are found. These results came in line with the results of Alqatanani (2017) and Mohammad (2009) who reported that there are no significant effects of traditional teaching in a language class. The hypothesis 2) there is no significant difference between MI-theory based teaching approach and traditional teaching approach, the significance of the means of both experimental groups.

I.e. the pre-test ($M=4.30$, $SD=1.856$) and post-test ($M=8.43$, $SD1.259$) of experimental group of class 8th and pre-test ($M=2.33$, $SD=.917$) and post-tests ($M=6.50$, $SD=.641$) of experimental group of class 9th with

the probability value ($p=0.000$) of experimental group of class 8th $t(39) = -15.797$ which is $p<0.005$ and the probability value ($p=0.000$) of experimental group of class 9th $t(39) = -15.240$ which is $p<0.005$ rejected this null hypothesis of this study indicating the significance of MI-theory teaching approach. The results came a line with the results of Gaines & Lehmann (2002), Lowe et al. (2001) and Christison (2005), study's results which concluded that MI-teaching approach provides different new ways to explore and utilize individual's multiple intelligences and individuals can enhance their learned intelligences in solving new tasks showcasing better academic results.

The results showed a clear picture of the consequences of neglecting students' multiple intelligences by their teachers in a traditional teaching approach. It is now evident that a fault exists and an action must be taken to fix that fault in order to save the Pakistani education system. Much research has been developed on the role of MI-theory on students' academic performance and reading skills but no study found on the comparison of effectiveness of traditional teaching approach and MI-theory based teaching approach in Pakistan. This study's results give a statistical picture of KP's educational progress of female students at secondary level. The researcher believes that since this research is limited to only female students of GGHS Peshawar that might affect this study and can be insufficient to give a depth overview of the potential effects of MI-theory based teaching approach in KP, Pakistan.

10. CONCLUSION

Learning a second language or studying with more than one language is viewed as a work of multiple intelligences i.e. in Pakistan many languages are being taught but English language for its originality, officially and popularity made it a compulsory subject in Pakistan's Education system. This study concludes that students lack understating, confidence and interest in the subject of English because of teacher's negligence of students' multiple intelligences. During the experiment it was found that bodily kinesthetic, spatial, logical, and existential intelligences were the dominant among the students and remaining were the recessive. It is evident now that conventional teaching methodologies are of no use because there are no improvements found and being suggested by any other studies. This study concludes that by adding variations based on multiple intelligences theory in the lesson plan, teachers can provide a productive teaching process which leads to the enhancement of students' multiple intelligences. It is also concluded from this study that multiple intelligences-based teaching approaches can provide such teaching strategies which entertain all the multiple intelligences of an individual, not only linguistic and logical unlike conventional teaching approaches. Moreover, this study concludes that not only students, teachers can also enhance their multiple intelligences by taking benefits from MI-theory based teaching approach and can perform better in teaching learning process. The differences in the means of the tests between both groups revealed that students can learn better and give productive results when they are being taught with MI-theory based teaching approach, while traditional teaching approach was ineffective.

11. Recommendations

1. Recommendations include flexibility in curriculum because teachers can implement MI-based techniques to make the teaching-learning process more effective. Furthermore, there may be teachers training programs both pre- and in-service in which techniques to apply MI-theory based teaching approach in the classroom should be highlighted.
2. MI theory may be integrated into the curriculum which includes lesson design, interdisciplinary units, students' projects and assessments. MI theory is applicable on all genders, ages, levels and subjects' classrooms because when you provide different ways for learning to students then they enjoy learning and succeed.
3. Keeping diversity in the mind, teachers need to create an environment of acceptance. Teachers may

embrace students' weaknesses because their weaknesses will point out the spot where flexibility needed the most in the teaching methodology. Moreover, curriculum and policy makers may provide all the resources of MI-theory based teaching materials and make compulsory to implement MI-based teaching approach in public sector institutes through pre and in service trainings.

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