Abstract

This study aims at investigating the effect of using a multiple intelligences (MI) based training program on developing English speaking skills (Level B2 - CEFR) for second-year English major students at Phu Yen University, Vietnam.

Based on the literature review and related studies, a list of ten (10) English speaking skills was prepared and discussed among the teaching staff of the Foreign Languages Department (FLD) at Phu Yen University (PYU) to select the 05 most related speaking skills required at B2 level-CEFR. Tools of the study included: A training program based on Gardner’s MIT, an MI questionnaire, an MI check-list of classroom activities and 03 speaking pre-posttests administered to both experimental and controlled groups before and after the training course. The MI-based training program was taught to students during a fifteen-week period.

Students’ feedback and academic scores were selected and analyzed to measure the effect of the new training program on the student’s English speaking performance. Results revealed that the program had a great effect on enhancing the students’ English speaking skills as there are statistically significant differences between each of the pre and post administration of the tests. The study also proposed some recommendations and suggestions for further research.

Key words: multiple intelligences, classroom activities, motivation, English speaking skills, Level B2-CEFR, Phu Yen University

1. Introduction

1.1. Introducing the Problem

“Every student is unique. Each individual manifests varying levels of these different intelligences”

Gardner, H (1983)

In our modern world, together with the tremendous development of science and technology, there have been more and more methods to identify and measure human intelligence. Jensen, E (2008) confirmed “for a very long time, the official techniques to measure human intelligence are normally the tests on intelligence quotients (IQ), or the multiple-choice quizzes devised by Stanford-Binet, or Weschler”. Through these tests,
human intelligence is assessed and classified at various levels. However, researchers in
education have long expressed their suspicions that the above-mentioned techniques have
missed some important points regarding the all-round assessment on human intelligence.

This research investigates the effectiveness of integrating MI classroom activities in
improving students’ learning motivation and developing their speaking skills (Level B2).

The hypothesis of the research is: there are statistically significant differences
between the mean scores of the experimental group and controlled group in students' performance in their English speaking skills and sub-skills. In order to test the hypothesis, the researcher selected randomly a group of sixty students in the FLD, PYU to be pre-tested and post-tested to verify the effect of implementing the training program.

1.2. The Importance of the research

The research applies MIT in the field of English Language Teaching, which may result in many useful implications for both teachers and researchers. MIT calls for multi-modal teaching strategies in which students are given more chances or options while they are learning and speaking. MIT based instruction helps in involving and reaching more and more students in the learning process because it addresses various types of intelligences (Christison, M.A. 1996).

The major focus of the research is to develop students’ English speaking skills as these skills always play key roles in the students’ learning processes. Furthermore, we also hope that this study will help them develop teaching courses to meet the requirements of the FLD based on Communicative Language Teaching and the learner-centered approach.

1.3. Review of literature

Nowadays English has become an international language. The main function of language use is to achieve communicative purposes. Language learners use language functionally in their daily lives to different extents. However, oral communication skills are viewed as the most difficult to be developed. Using alternative teaching strategies depending on brain-based instruction as well as addressing various abilities and intelligences may help develop speaking skills (Salem, 2013).

Fiona Lawtie (2004) argued that speaking is fundamental to human communication. Conversations normally surpass written communication. However, many English teachers still spend too much of class time on reading and writing practice almost ignoring speaking and listening skills. If the goal of the language course is truly to enable your students to communicate in English, then speaking skills should be taught and practiced more and
more in the language classroom.

Madhumati R. Patil (2007) stated that oral skills and presentation skills are considered one of the best career enhancers and to the single biggest factor in determining a student’s career success or failure.

Sayed (2005) and (2008) regards the speaking skill as a complicated skill as it involves many processes or operations working together. Speaking involve the linguistic, social, psychological and cultural components.

Christison, M.A. (1996) proposed that in language classrooms, students’ intelligences profiles are also in diversity. This is encouraging for language educators.

Some other studies explored the effectiveness of using MI activities in developing English speaking skills. Ibrahim (2007) explored the impacts of using a proposed strategy based on MIT in assessing and developing the oral skills. The sample of the study was third year primary school Arabic native speakers’ students. Instruments of the study included the training program (student's book and a teacher's guide) was an MI scale and a checklist of the study which showed the usefulness of the training program based on MIT.

Another research implemented by Dorgham (2011) investigated the effectiveness of using MI based instruction on developing speaking skills of the preparatory schools first graders. The implementation of a program based on MI proved the usefulness of MI based instruction on developing first year preparatory stage students.

In 2013, Salem, A. M. S applied MIT in investigating the impact of MI-based instruction on developing speaking skills of the pre-service teachers of English. He developed an MI based program to enhance the speaking skills paying a due attention to the individual differences among students. Results of the study proved the effectiveness of MI based instruction in developing speaking skills of the pre-service teachers of English.

1.3.1. Scope of the Study: The current study is limited to the following:
- 60 second-year English major students who were willing to participate in the study at the FLD, PYU. Those second-year students were chosen because they need to develop their English speaking skills through an English speaking training program integrated with MI classroom activities.
- The English speaking skills that should be developed within the English speaking training program are as follow: (a) talking about general topics; (b) comparing pairs of pictures; (c) expressing personal opinions about the contents of a picture; (d) making quick decisions on how to choose something; and (e) persuading other people to agree with your decision.
The content of the English speaking training programme that deals with a combination of the eight types of intelligences.

1.3.2 Definition of Terms

The definitions mentioned below were commonly used in the study.

a. MI classroom activities: Gardner (1983) views MI classroom activities as a tool through which any content area can be conveyed to students by utilizing their different inner capacities, abilities or intelligences. Using this type of instruction addresses many of the students’ intelligences as students are involved in various activities which are based on different types of intelligences.

b. Speaking Skills: In the Oxford Pocket Dictionary of Current English (2015) speaking is defined as the action of conveying information or expressing one's thoughts and feelings in spoken language. Fakhar Naveed (2015) defines speaking skills as an interactive process of constructing meaning that involves producing, receiving and processing information.

In this research, speaking is described as “an interactive process that includes certain skills such as (a) talking about general topics; (b) comparing pairs of pictures; (c) expressing personal feelings / viewpoints about the contents of a picture; (d) making quick decisions on how to choose something; and (e) persuading other people to agree with your decision.

c. English major students

English major students are the second-year students (Course 2014-2018) at the FLD, PYU who are supposed to be trained to become teachers of English after graduation.

1.4. Hypotheses of the Study

Quasi-experimental design is used to test the hypotheses of the study. This research design is suitable for the nature of the study. The following hypothesis was tested:

There are statistically significant differences between the mean scores of the experimental group in students' performance in English speaking skills and sub-skills.

The MIT intervention in this research involves a combination of MI activities, MI materials and MI assessment.

1.5. Questions of the study

The study attempted to answer the following main question: What is the effectiveness of integrating MI classroom activities in developing EFL students’ English speaking skills?

From this main question, the following sub-questions are derived:
1. What are the English speaking skills required for the second-year English major students?
2. What is the actual performance of second-year English major students in speaking skills?
3. What is the MI profile of the second-year English major students?
4. Are students motivated when MI activities are integrated in speaking training program?
5. What is the effect of integrating MI classroom activities in developing the speaking skills of the second-year English major students?

2. Method

In the research, the following steps were used to develop the tools and teaching materials as well as procedures followed in administering the tools to the study subjects. An overall description of how the experiment was conducted was also included in this part.

2.1. The experimental design

This research follows the procedures of a study conducted by Salem, A. M. S (2013), with the one-pre-post experimental design in which only the experimental group was used in the implementation process.

As a matter of fact, the one group pre-posttest design was utilized in the experiment. The study sample was purposefully chosen and assigned to one group from the total number of 2nd year English major students at the FLD, PYU. The participants are 60 2nd year major students who are supposed to be trained at PYU to become English teachers in the future.

2.2. The participants of the study: The participants under investigation were taken from the second year English major students at the FLD, PYU. 60 students were selected according to their willingness to participate in the study.

2.2.1. Sampling Procedures: A total of 30 students were involved in one experimental group which was instructed and trained in order to develop their English speaking skills through an MI-based instruction training program.

The participants were homogenous in terms of their academic level in English and their speaking skills in particular. This was reflected from their scores in the pre-test (English Speaking Test 1, conducted at the beginning of the English speaking training program.)
2.2.2. Validating the tests: After modifying the test according to the suggestions of the Group of speaking specialists, the tests were conducted in order to:

a. Assure the clarity of the test items and instructions.
b. Decide the time needed for the tests.
c. Determine the item difficulty index of tests.
d. Determine the discrimination index of the tests.
e. Determine the tests reliability.

2.2.3. Experimental Manipulations and Intervention

* A Checklist of students’ speaking skills

After reviewing the English speaking courses at the FLD, PYU and going through literature on the speaking skills, a checklist for the TEFL lecturers of the 10 most important English speaking skills for first-year students was proposed. This checklist was submitted to the group of speaking specialists, belonging to the English Major Division in the FLD, to:

a. Determine the most important English speaking skills that second-year English major students need to develop.
b. Modify the linguistic statement of any skill when necessary.
c. Add any other necessary skills students would need to develop.

After some discussions, the following 5 English speaking skills are chosen as follow:

<table>
<thead>
<tr>
<th>Table 1. The speaking skills checklist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaking Skills</td>
</tr>
<tr>
<td>1. Talking about general topics</td>
</tr>
<tr>
<td>2. Comparing pairs of pictures</td>
</tr>
<tr>
<td>3. Expressing personal feelings about the contents of a picture</td>
</tr>
<tr>
<td>4. Making quick decisions on how to choose something</td>
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<tr>
<td>5. Persuading other people to agree with your decision</td>
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</tbody>
</table>

* MI inventory for EFL young adults

An MI Inventory for Adults developed by Thomas Armstrong (2012), consisting of 40 questions, was administered to the experimental group. Through this inventory, the students gained some initial concepts on their preferred intelligences and learning styles, simultaneously, the researcher could establish an MI profile of students. From this, the
researcher designed the activities and tasks catering for the students’ preferred intelligences.

Table 2. Profile of the most dominant intelligences of the participants

<table>
<thead>
<tr>
<th>Types of Intelligences</th>
<th>Percentage</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Verbal-Linguistic Intelligences</td>
<td>82.35%</td>
<td>2.47</td>
<td>0.38</td>
</tr>
<tr>
<td>2 Logical-Mathematical Intelligence</td>
<td>35.29%</td>
<td>1.05</td>
<td>1.37</td>
</tr>
<tr>
<td>3 Interpersonal Intelligence</td>
<td>70.59%</td>
<td>2.12</td>
<td>0.62</td>
</tr>
<tr>
<td>4 Intrapersonal Intelligence</td>
<td>70.59%</td>
<td>2.12</td>
<td>0.62</td>
</tr>
<tr>
<td>5 Bodily/kinesthetic Intelligence</td>
<td>44.12%</td>
<td>1.32</td>
<td>1.19</td>
</tr>
<tr>
<td>6 Visual/Spatial Intelligence</td>
<td>94.12%</td>
<td>2.82</td>
<td>0.13</td>
</tr>
<tr>
<td>7 Musical/Rhythmic Intelligences</td>
<td>23.53%</td>
<td>0.70</td>
<td>1.62</td>
</tr>
<tr>
<td>8 Naturalistic Intelligences</td>
<td>20.59%</td>
<td>0.67</td>
<td>1.68</td>
</tr>
</tbody>
</table>

* The Speaking Pre-Posttests

a. Aim of the tests: 03 English speaking tests were used to develop the above-mentioned English speaking skills for the first-year students.

b. Description of the tests: Each test was divided into 5 parts corresponding with the objectives established in the English speaking training program; they are as follows:

Part (1) Talking about general topics;
Part (2) Comparing pairs of pictures;
Part (3) Expressing personal feelings about the contents of a picture;
Part (4) Making quick decisions on how to choose something;
Part (5) Persuading other people to agree with your decision;

(The total score of each test was 10 points. 02 points were given for each part of the test).

These parts represented the core of the speaking development program for the second year students at PYU (Based on the Common European Framework of References for Language, Level B2, CEFR). Designing the tests was based on reviewing appropriate viewpoints of EFL specialists as well as on related literature.

c. Validity of the English Speaking Skills Pre-post Test: The test was submitted to the group of speaking specialists in the FLD to decide on:

- Clarity of test instructions.
- Suitability of test items for assessing the speaking skills of the second-year major students
- Suitability of test items for the second-year English major students' level.
- Suitability of the proposed scoring techniques.
The group of speaking specialists decided that the test is generally valid to be used in assessing the 2nd year major students’ speaking and oral presentation skills – level B2.

d. Reliability of the test

The researcher used the inter-rater reliability to determine the reliability of the test. Two raters participated in scoring the speaking skills and oral presentation skills by students participating in the oral pre-posttest (each rater was given a separate copy of the test papers to score by himself) after they were instructed in scoring tests using the scoring criteria.

3. Results: Results of implementing the program were tallied and tabulated to decide on the effect of integrating MI classroom activities in developing English speaking skills for the second year major students in terms of their performance in the speaking skills test.

3.1. Statistical procedures: The Statistical Package for Social Sciences (SPSS, version 23.0) was used in the treatment of the results of the study. The T-test formula was employed in analyzing students' scores on the speaking skills test.

3.2. Validating the study hypotheses: In order to validate the study hypotheses, the researcher established a table recording the scores of the English speaking tests administered before, during and after the intervention for both the experimental and controlled groups. Then, these data were input into the Statistical Package for Social Sciences (SPSS) version 22.0 to establish the necessary statistics. From the results obtained from the Statistical Package, the researcher made the simple descriptive statistics to calculate the means of scores and standard deviation. The researcher then calculated the observed t-test in order to compare the means of the scores and subsequently to determine the accurate effect of the proposed program. In order to make sure that the statistical differences between the mean scores are due only to the training program, the effect size is also calculated.

3.3. The Main Research Hypothesis: The main hypothesis of the study was stated as follows: There is a statistically significant difference between the mean scores of the subjects of the study on the speaking skills pre-posttest in favor of the posttest.

Table 3 presents the results of analyzing students' scores in the English speaking skills tests.

| Table 3: Comparison of the Test Scores of the English speaking test 1, 2 & 3 |
It is clear from the data represented in Table 3 that there is a statistically significant difference between the mean scores of the subjects' pre-posttest scores on their performances in the English speaking tests. The difference of the mean score between the 2 groups in the 2nd speaking test is 0.40 (7.10 - 6.70), which shows that the experimental group has better mean score than the controlled group. And once again, such results are reconfirmed in the results of the after-intervention speaking test (3rd test), with the result of 0.6167 (7.4000 – 6.7833). This difference is in favor of the post test, which indicates that the English speaking training program in which MI classroom activities are integrated is beneficial to the students. Therefore, the hypothesis is accepted, i.e. there is a statistically significant difference between mean scores of the subjects of the study in the pretest and posttest on the speaking skills test in favor of the posttest. This result coincides with the studies conducted by Dorgham (2011), Sayed (2005) and Ghazala (2005). All of these studies reveal that integrating MI classroom activities is effective in developing English speaking skills.

4. Discussion

With p = 0.043397, smaller than 0.05 for the 2nd speaking test, we can conclude that the difference of the mean scores between the experimental group and the controlled group is very significant. This difference demonstrate that this result cannot occur randomly, but these changes of test scores have come from the method of integrating MI classroom activities in our English speaking training program.
Simultaneously, the results of the 3rd test, the after-intervention English speaking test, once again, reconfirms our above-mentioned conclusion. With the p value of 0.000930, smaller than 0.001, we can conclude that the differences in the mean scores of both experimental and controlled groups are very significant. Therefore, we accepted the hypotheses, i.e. the integration of MI activities in our English speaking training program has brought about positive effectiveness in term of improving the students’ academic results.

Standard deviation is used to measure the effect size, and the effect size will help us identify the effect size of the intervention. With the formula for SMD:

\[
SMD = \frac{\text{Mean score}_{\text{Experimental}} - \text{Mean score}_{\text{Controlled}}}{\text{Standard deviation}_{\text{Controlled}}} \times \frac{1}{2}
\]

In the 2nd speaking test, we have: \(7.10 - 6.70\) we have the results: \(SMD \approx 0.25\)

\[2 \times 0.79438\]

In the 3rd speaking test, we have \(7.4000 - 6.7833\) we have the results: \(SMD \approx 0.4\)

\[2 \times 0.72734\]

Following Cohen’s scale, the scope of effect size is classified from a very small degree to very large degree based on the value of the effect size. The SMD value in the 2nd test has shown the effect size of the intervention of 0.25 which means a large degree. This signifies that the increase of 0.4 of the mean score in the 2nd speaking test is due to the fact that the integration of the MI classroom activities in the speaking lessons has a large effect size.

The SMD value in the 3rd test also confirms the fact that the effect size of the intervention is 0.4, which belongs to the very large degree in Cohen’s scale. Compared with the 2nd test, in the 3rd test the researcher has made some adjustments to the contents and methods of implementing the MI integrated classroom activities, therefore the results obtained are better for the experimental group, and the effect size is also higher (0.4 > 0.25 following the statistics in Table 3). This signifies and confirms that the increase of 0.3 of the mean score in the 3rd English speaking test is due to the fact that the integration of the MI classroom activities in the speaking lessons has a large effect size.

The main purpose of this study was to investigate the effectiveness of using a program that integrates MI classroom activities in enhancing learning motivation and
developing English speaking skills for the first year English major students (Course 2014-2018) at the Foreign Languages Department at Phu Yen University.

Regarding the students’ learning motivation, all the students participating in our experimental lessons expressed their common opinions that the diversity of MI activities we conducted really brought about their high motivation and involvement. All of the 30 students in the experimental group expressed their opinions that the English speaking lessons integrated with MI activities really brought them chances / opportunities to develop their English speaking skills in terms of helping them become more and more confident in performing such oral skills and their favored intelligences and learning styles were much catered for and improved.

The results of the study showed that there is a statistically significant difference at the significance level (0.01) between the mean scores of the participants on the speaking pre-posttest in favor of the posttest. This might be attributed to the MI classroom activities integrated in the program that brought about improvement in the students’ performance of the English speaking skills (namely, (a) talking about general topics; (b) comparing pairs of pictures; (c) expressing personal feelings / view-points about the contents of a picture; (d) making quick decisions on how to choose something; and (e) persuading other people to agree with your decision).

Consequently, the results of the this research also match with many studies which used MI Theory" in developing and improving many academic skills in the field of foreign language teaching in general (Xie, J.C. et al., 2009) and (Bas, G. 2010), and in the field of English Language Teaching, particularly in developing speaking skills (Sayed, 2005; Dorgham, 2011 & Salem, 2013).

This result agrees with Salem’s study (2013) which investigated the effect of using a MI-based training program on developing the pre-service English teachers’ oral communication skills. Results revealed that the program had a great effect on the pre-service teachers’ oral skills.

The students demonstrated significant improvement in their English presentation skills. This improvement can be attributed to the experimental program as well. The participants were given information about the different techniques that a good presenter uses. Effective use of visuals and commenting on these visuals as well as combining information technology (IT) skills to support presentation skills and other English speaking skills as pair presentation and group presentation. These techniques helped students to be
effective presenters, not only in the classroom but also in their self-study activities. Also, they helped students in other speaking skills such as talking about general topics; comparing pairs of pictures; expressing personal opinions about the contents of a picture; making quick decisions on how to choose something; and persuading other people for agreement.

Students’ English speaking skills in terms of making a conversation based on a ready-given situation can also be promoted remarkable in the way of combining a variety of MI tools such as interpersonal, visual, linguistic, logical and musical intelligences. Based on such a combination of students’ preferred MI, their work of role playing and making conversations has brought about better English speaking products.

In general, the results of the English speaking pre-posttests have shown that the students’ English speaking skills have been promoted as the expectation set out at the beginning of the research. The participants manifested significant achievement in their speaking skills. These achievements can be attributed to the MI classroom activities integrated in the new English speaking training program.

5. Conclusions

The humanistic features of MI Theory are shown in its educational principle that “every student is unique. Each individual manifests varying levels of these different intelligences”. Therefore, if the teacher uses a combination of various classroom techniques in a flexible way, students of different learning styles can be reached, their motivation, participation into the classroom activities will be much improved.

From the results of the study it can be concluded that integrating MI classroom activities is an effective way to enhance students’ learning motivation and develop their English speaking skills through focusing on individual differences among students. It is also concluded that the application of MI theory into EFL classroom contexts has provided many opportunities for both language teachers and students in terms of transitioning from the traditional methods of teaching, learning and assessing the students’ major abilities of verbal-linguistic and logical-mathematical intelligences towards a humanitarian way of all-round training and evaluating students’ learning abilities and outcomes according to their preferential learning styles and intelligences.
MIT has undoubtedly enabled EFL teacher to promote their students’ speaking skills according to the results of this research. Students will be able to demonstrate and share their strengths. Building strengths gives a student the motivation to be a "specialist." This can in turn lead to increased self-esteem. (Chapman, C & Freeman, L - 1998)

REFERENCES
1. Armstrong, Thomas. (2012), Multiple Intelligences Inventory for Adults adapted from Multiple Intelligences Classroom.

14. Salem, A. M. S (2013). The Impact of Multiple Intelligences-Based Instruction on Developing Speaking Skills of the Pre-Service Teachers of English. ISSN 1916-4742 (Print) ISSN 1916-4750 (Online). Canadian Center of Science and Education.

