

THE RELATIONSHIPS AMONG THE MULTI-SENSORY APPROACH, PERSONAL FACTORS, AND SECOND LANGUAGE LEARNING OUTCOMES AT IELE OF ASSUMPTION UNIVERSITY OF THAILAND

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Abstract. This study was conducted mainly to investigate the relationships among the multi-sensory approach, personal factors and second language learning outcomes at IELE of Assumption University of Thailand. One hundred fifty-seven students were selected as a sample from the university population to complete the questionnaires. The selected students were from classes which use the Multi-sensory approach to teach English as a Second Language. The research questions of this study were particularly addressed to the students' perceptions about the multi-sensory approach; the students' perceptions about personal factors under the multi-sensory approach; the students' perceptions about the second language learning outcomes using the multi-sensory approach.

Results indicated that according to students' perceptions, most visual, auditory and kinesthetic-tactile strategies were used frequently by the teachers in IELE, except those high-tech related strategies such as video clips, computer graphics, and audiotapes. The multi-sensory approach had positive correlations with second language learning outcomes regarding speaking, reading, writing and listening. Compared to visual and auditory strategies, kinesthetic-tactile strategies had a less positive correlation with speaking. Situational anxiety had a very low correlation with reading and had a negligible correlation with listening. Both intelligence and language aptitude have large positive correlations with second language learning outcomes.

Background of the Study

As the first international university in Thailand, Assumption University employs English as its medium of instruction. English learning is essential to the study of Assumption University (ABAC) students. In order to enhance the English proficiency of ABAC students and fulfill different students' learning needs, there are two English institutes in ABAC, the Department of English and the Institute for English Language Education (IELE). Both of them contribute to improving the English teaching and learning process of ABAC.

Beginning with English I of semester II, 2006, a randomly selected group of students in IELE were chosen to participate in a multi-sensory approach to the acquisition of English as a second language. The purpose of this multi-sensory approach project was to record and track improvement in the selected students regarding their ability to retain their English language skills. This project was also a part of a continuing effort to improve the quality of the retention of English language abilities within Assumption University's student population after they complete their English language requirements. Through the multi-sensory approach to teaching and learning, the IELE seeks to develop an understanding of the cross-cultural aspects of language teaching and learning in such a way as to help all involved lead more meaningful lives through the use of the English language in an Asian context.

Research indicates that some of us are visually oriented, some are auditory, some are kinesthetic (action oriented), and some are tactual. Most of us can process information in any mode but learn best in one or two preferred modes (Gardner, 1991). Carbo's (1987) research indicates that whenever learners process new or difficult information, they should be introduced to the activity using their primary perceptual strength. Learning should be reinforced using the secondary perceptual strength. If you are primarily an auditory learner, your first encounter with something new should ideally be in an auditory mode. If you are also a tactual learner, you should reinforce it with a hands-on activity. If your secondary strength happens to be visual, reinforce your learning by viewing a picture, diagram, or even better, the real thing.

Therefore, based on different student learning styles theory and experiential learning theory, IELE designed its unique multi-sensory approach, which mainly contains three critical strategies: a visual strategy, an auditory strategy, and a kinesthetic-tactile strategy. The multi-sensory approach, to be used as a creative teaching method and which uses two or more senses, can dramatically improve language skills and learning outcomes. The multi-sensory approach of IELE delivers sensory-related, individualized activities, which are related to the brain's learning process. There are three main strategies under the multi-sensory approach of IELE, namely, visual strategy, auditory strategy, and kinesthetic-tactile strategy. Visual strategy includes teaching activities such as storyboards, pictures, video clips, computer graphics, and posters. Auditory strategy includes teaching activities such as interviewing, debating, oral reporting, oral discussions, tapes, and music. Kinesthetic-tactile strategy includes teaching activities such as drawing, games, role-plays, and touching objects.

Second Language Acquisition

In the field of second language acquisition, Krashen (1982) warned that attitudinal factors, such as motivation, self-confidence, and anxiety, play crucial roles in determining the kinds and amount of the intake from the input given to learners. In the social-educational model (Gardner, 1988), the most influential factors in second language acquisition are the four individual differences: intelligence, language aptitude, motivation, and situational anxiety. In this study, the writer classified these individual differences as personal factors which could affect second language learning outcomes.

The most common measurement indicators of language learning outcomes are speaking, reading, writing, and listening (Cox, 2002). In IELE, these four learning outcomes are assessed through class projects and class activities rather than simply using comprehensive exams. IELE teachers would like to see how students apply their language in real situations rather than to see a “dead” grade only. Therefore, through class activities and class projects, students could feel to what extent their language proficiency has improved.

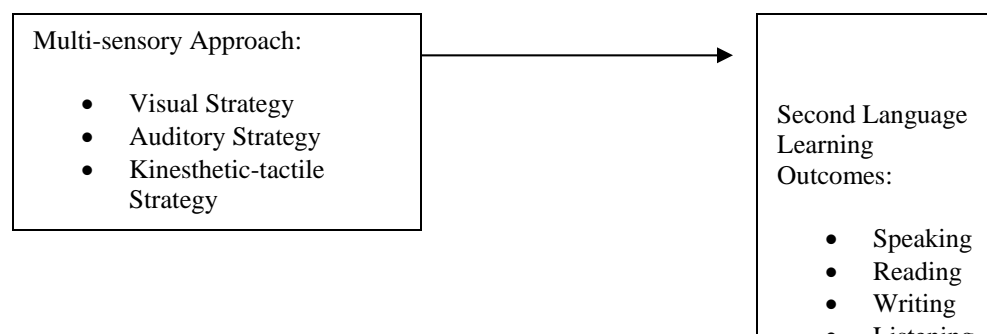
The IELE multi-sensory approach was designed for the purpose of improving students' English learning outcomes. This specific study found relationships between the IELE multi-sensory approach (visual strategy, auditory strategy, and kinesthetic-tactile strategy), students' personal factors (intelligence, language aptitude, motivation, and situational anxiety), and second language learning outcomes (speaking, reading, writing, and listening).

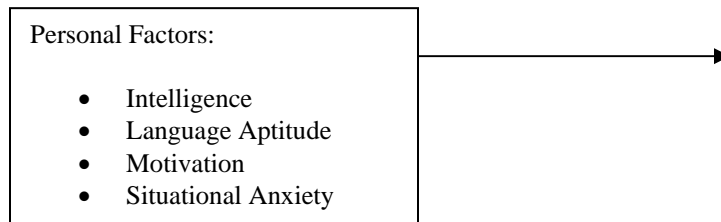
Research Objectives

1. To determine the extent to which the multi-sensory approach is used in teaching English as a second language as perceived by IELE students at Assumption University.
2. To determine the extent to which students' personal factors impact the multi-sensory approach in the teaching and learning process as perceived by IELE students at Assumption University.
3. To determine the relationships between the multi-sensory approach and second language learning outcomes as perceived by IELE students at Assumption University.
4. To determine the relationships between the personal factors and second language learning outcomes as perceived by IELE students at Assumption University.

Research Hypotheses

1. There is a positive linear relationship between the multi-sensory approach and second language learning outcomes as perceived by IELE students at Assumption University.
2. There is a positive linear relationship between the personal factors and second language learning outcomes as perceived by IELE students at Assumption University.





The subjects for this study were students whose second language was English randomly selected, from two hundred sixty one students enrolled in IELE classes, 2nd semester, 2006 at Assumption University. The sample consisted of seventy-five male students and eighty-two female students. The ages were mainly from 18 to 24, and their nationality was mainly Thai. The key criteria for the subject selection was the students' participation in IELE multi-sensory classes. Based on Krejcie and Morgan's (1970) guidelines, a population of 261, requires a sample size of 157. In other words, it meant that the researcher had to proportionally choose the subjects from each class of the population. The proportion was 157 divided by 261, which was 0.6. The simple random sampling technique was applied in the manner that 0.6 of students in each class would be randomly selected.

Conclusions

This research had been conducted using a sample group of students who were 18 to 24 years old and whose nationality was Thai. The percentages of male and female students were almost equal.

Based on students' perceptions, most visual strategies are used frequently by the teachers in IELE, such as storyboards, pictures and real objects. However, high-tech related strategies are seldom used by the teachers in IELE, such as video clips and computer graphics. A similar situation applies to auditory strategies. Most auditory strategies are used by teachers in IELE such as interviewing, debating, and oral discussion. However, a high-tech related strategy such as audiotapes was seldom used by IELE teachers. Besides record machines, song singing strategy is also seldom used by the teachers. In terms of kinesthetic-tactile strategies, all strategies are used frequently by the teachers in IELE, including drawing, touching real objects, acting out a poem, drama rewrite, role-plays and body movements.

According to students' perceptions, the multi-sensory approach has quite a positive correlation with intelligence, which is one of the personal factors of second language acquisition. From prior work, the researcher could see the students' ability to accumulate vocabulary, their comprehension ability, and their summarization ability enhanced by using the multi-sensory approach. In terms of language aptitude, the abilities of pronunciation and memorization have been improved by using the multi-sensory approach. The multi-sensory approach is also believed to be able to provide a way to enhance language learning skills. However, the multi-sensory approach was perceived by students as not having a strong correlation with learning grammar. Regarding learning motivation, students rated it as average, which means that the multi-sensory approach has a medium correlation with students' motivation. Students felt that they enjoyed doing the multi-sensory approach activities; they felt more competent in English by doing multi-sensory approach activities; they felt that they were part of the activities when they were doing multi-sensory approach activities. In terms of situational anxiety, the multi-sensory approach provides a very good interactive environment for language learning. In a multi-sensory approach environment, students would like to put more effort into language learning. However, the multi-sensory approach does not help much in reducing students' nervousness and shyness during the teaching and learning process.

From this research, it was expected that the multi-sensory approach would have positive correlations with second language learning outcomes regarding speaking, reading, writing and listening. Both visual and auditory strategies have substantial positive correlations with speaking, which means that the more these two strategies are used, the better students could speak English. However, the kinesthetic-tactile strategy has a less positive correlation with speaking compared to the visual and auditory strategies.

On the other hand, there are low positive correlations between the visual strategy and reading, writing and listening. Also both auditory and kinesthetic-tactile strategies have moderate correlations with reading, writing, and listening, however the correlation between kinesthetic-tactile strategies and speaking is quite low.

According to the research results, situational anxiety has a very low correlation with reading and has a negligible correlation with listening. Both intelligence and language aptitude have large positive correlations with English learning outcomes in terms of speaking, reading, writing and listening. However, compared to these two, except for the correlation with listening, motivation has a less strong positive correlation with speaking, reading, and writing.

Discussion

Based on students' perceptions, high-tech related strategies are seldom used by the teachers in IELE. By the time this study was conducted, the Assumption University Board was considering an increase in the budget for IELE, which was aimed at adding more facilities and equipment for use with the multi-sensory approach. Therefore, the reason for the lack of use of high-tech related strategies was mainly due to insufficient resources at IELE. Resources should be multi-sensory: visual materials such as books, films, filmstrips, study prints and computer graphics; auditory materials such as tapes, records, cassettes, and movies; tactile materials such as task cards, learning circles, and games (Dunn & Dunn, 1978).

From the results of this study, the multi-sensory approach at IELE does not have a strong correlation with learning grammar. The IELE multi-sensory approach is normally conducted as a task-oriented learning process. It expects that learners could improve their grammar through activities and tasks. This kind of program design is based on the assumption that the target learners are university students who already understand basic English grammar rules. Another possible reason is that the multi-sensory approach designers in IELE do not give much attention to analytic learners, who focus on details and are logical. They are phonetic readers and prefer to work individually on activity sheets (Haynes, 1998).

The results of this study indicate that the multi-sensory approach at IELE does not help much in reducing students' nervousness and shyness. This is primarily due to the target students having grown up with a traditional language teaching approach which was dominated by a teacher-centered, book-centered, grammar-translation method and an emphasis on rote memory (Liu & Littlewood, 1997). Therefore, these students are more introvert, analytic, and reflective. The multi-sensory approach can provide a platform for students to reinforce their English in communication, but hardly to change their natural shyness.

From the results of this study, the correlations between the kinesthetic-tactile strategy and personal factors and learning outcomes in speaking are not as strong as either the visual strategy or auditory strategy. The reason for this is similar to that stated above. If the target students are more introvert, analytic, and reflective, they will have difficulties in coping with the multi-sensory approach, especially the kinesthetic-tactile strategy which requires body movement.

From the results of this study, the correlations between motivation and speaking, reading, and writing are not as strong as the correlation between motivation and listening. In the teaching and learning process, whether a student can go further mainly depends on whether he/she could understand the lecture or not. Therefore, listening skills are very powerful factors regarding motivation. In contrast, motivation would cause students to be more attentive in listening (Fisher, 2006).

Recommendations

Implications for IELE teachers, administrators and students

The multi-sensory resources and materials need lots of time to prepare in advance, which requires more preparation time for teachers. The multi-sensory resources, materials and activities should combine all the senses together (Dunn & Dunn, 1978), which would be an advantage for most students. If a student is allowed to choose the most suitable resources, materials, and activities to conduct the tasks and projects; the choices are called "resources alternatives" (Mager & McCann, 1972). When designing multi-sensory activities, resources, and materials, teachers should pay more attention to analytic learners and should

develop a more systematic and more obvious way for learning grammar.

Most IELE teachers are from Western countries and they should realize the differences in Asian students' learning styles. Teachers should be able to lead the students step-by-step to cope with the multi-sensory approach and a multi-sensory learning environment. The mismatches between the existing learning styles and teaching styles in English learning may lead to more serious consequences for the students: (1) students may feel they are unfamiliar with the classroom environment, (2) students may feel inferior to those students whose learning styles are better matched to the multi-sensory environment. On the other hand, teachers facing students who are inattentive become more hostile towards students and may be discouraged regarding their professional competency (Felder, 1998). As mentioned above, it is necessary to provide "resource alternatives" in the classroom and allow students to choose the best strategy to learn. Taylor (1998) stated that "students are not dumb, but they are different." IELE teachers should be able to adjust their teaching according to the real situation.

IELE administrators should also take action to improve the quality of teaching. In-service training, seminars, and workshops must all be part of a continuous process to develop teacher's skills. More preparation time should be given to teachers to prepare the multi-sensory resources, materials and activities. A reward system for creativeness should also be provided in IELE, so that teachers would have more motivation to design new and novel multi-sensory activities. IELE administrators also need to fight for the budget to update the facilities and equipment used in teaching English. Today, high-tech facilities play important roles in the teaching and learning process. Because the multi-sensory approach has already been noticed by outside experts, teachers, and English learning institutions, IELE administrators should provide a platform for teachers to share their experiences with others. On the other hand, IELE teachers should receive more feedback to help them improve their teaching.

The student is the major element of the learning process. The transition from traditional language learning methods to a totally new, unfamiliar way of learning is the most difficult stage for students. What they need to do is take responsibility for their own learning. They should use their learning strengths effectively. They should find the best ways to communicate with teachers, and reach an understanding on what is the best way for each to help the student learn.

Implications for further study

The results from this study are from the students' perceptions. Since the multi-sensory approach is happening in the learning and teaching process, experimental research or field observation would provide more details and a different point of view from teachers as inside or outside observers. Since the multi-sensory approach is an innovative program in IELE, a systematic program evaluation is needed in a further study. This evaluation should be conducted in various ways: (1) a pre-test and post-test should be given to students to determine their academic grades, (2) a comparison with traditional language teaching methods should be made to determine the strengths and weaknesses of the multi-sensory approach, and (3) the multi-sensory approach has a very close relationship with students learning styles, so different students with different learning styles should be taken into account.

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