Metacognitive Strategies Within Foreign Language Reading Classroom

Linguistics

Keywords: Metacognitive Strategies, EFL, Metacognitive Awareness of Reading Strategy Inventory (MARSI), second language acquisition, foreign language learners, reading comprehension.

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Abstract

Many current researchers believe that readers need to be aware of and employ effective reading strategies so they accurately understand and retain the information being presented (Maasum & Maarof, 2012). Available literature suggests that metacognitive strategies can help foreign language learners read with better degrees of competency. This work sought to find evidence of metacognitive strategy success rates in 1st , 2nd and 3rd year ESL students on the university level. Student reading success was evaluated using pre and post test tools. The control and experimental group were divided between those who were exposed to the Metacognitive Awareness of Reading Strategy Inventory (MARSI) and those who were not (control). Based on the research findings, it was concluded that metacognitive strategies for reading do have a positive effect on ESL learners on the university level. In all situations, those students who were exposed to metacognitive strategies on average out-performed their counterparts who were exposed to no such strategies. The way in which it influences test performance, however, does vary according to the evaluation tool..

A Topic Overview

According to Maasum and Maarof (2012), "Reading is regarded as one of the essential skills for learners wanting to attend a university" (p. 1250). For learners attending English speaking universities where English is their second language, potential barriers in reading in L2 texts can hinder their academic potential and degrees of learning. Many current researchers believe that readers need to be aware of and employ effective reading strategies so they accurately understand and retain the information being presented (Maasum & Maarof, 2012). Available literature suggests that metacognitive strategies can help foreign language learners read with better degrees of competency. This has led to a variety of studies and adaptations of metacognitive strategies for EFL students. This work sought to find evidence of metacognitive strategy success rates in 1st, 2nd and 3rd year ESL students.

Research Questions

The primary research question for the study can be framed as follows: *Do Metacognitive strategies for reading have a positive effect on EFL learners on the university level?* It is hypothesized by the researcher that there will be statistically significant recorded positive effects of Metacognitive strategies on all groups in which it is employed regardless of the level.

Definitions and Theoretical Framework

To properly express the dimensions being recorded, metacognition will be defined as: "An educational process that incorporates knowledge about one's abilities, the demands of a given tasks, and potentially effective learning strategies; it involves self regulation via planning, predicting, monitoring, regulating, evaluating and revising strategies" (Medical, 2013, p. 1).

Metacognitive strategies that were used in the study consist of planning, monitoring and evaluating. The instrument employed was known as the Metacognitive Awareness of Reading Strategy Inventory (MARSI).

A Review of Literature

Recent research in foreign language acquisition has focused on metacognition, which can literally be expressed as cognition of cognition (Carrell, Pharis & Liberto, 1989). Amongst this research, findings have suggested that less competent learners may improve their skills through training in strategies evidenced by more successful learners (Carrell, Pharis & Liberto, 1989). In a study conducted by Carrell, Pharis and Liberto (1989), it was found that metacognitive strategy training is effective in enhancing foreign language reading. Result variance in efficacy was determined to be primarily related to how the reading measurements were performed and the different learning styles of the students (Carrell, Pharis & Liberto, 1989). This has been something that has been found in both native and non native readers. For example, successful native speakers have been determined to possess a number of metacognitive reading strategies and these same strategies have been found in EFL learners (Maasum & Maarof, 2012). Possessing these strategies is something in which the student carries with them throughout their learning process thereby suggesting that spill over efficacy is also a part of the metacognitive strategy advantage (Alexander & Jetton, 2000; Maasum & Maarof, 2012).

Sheorey and Mokhtan (2001) also determined that both EFL and native speakers who are successful in reading show comparable degrees of higher reported usage for cognitive and metacognitive reading strategies. Lower level reading students in both EFL and native speaking groups were found by the same researchers to not employ many of the metacognitive skills deemed efficacious for reading competency and problem solving. These similar findings were also in Block (1992).While this research has demonstrated favorable potential for metacognitive strategy, the positive results have not been so conclusive across all research. According to Hassan, et al. (2005), reactions to strategy instruction have been mixed and conclusive findings about the value of strategy instruction have yet to be established (Lam, 2010).

While other research has shown positive correlation with wash over effects of metacognitive processes, Lam (2010) determined that little proper attention have been placed on the degree of wash over effect efficacy and her findings were inconclusive regarding their efficacy in future learning endeavors. Some researchers have established that not all metacognitive training studies have been conclusive. Zohreah & Reza (2003), in their survey of published research found that some training has been effective in various skill areas but in others it was not successful. Even within the same study, such types of variances could be found. In their personal study, they found that metacognitive training only contributed statistically to positive effects on vocabulary learning (Zohreah & Reza, 2003).

Bentahr (2012) found similar types of variance in his study. According to the researcher, pretest and post test scores improved in all three areas of metacognitive knowledge in his experimental groups with significant differences in each reading scale. On true false and word reference list dimensions, however, there was no statistically significant change (Bentahr, 2012). An overview of research on the subject, however, demonstrates that there is enough positive variables present to warrant further research and specificity in metacognitive strategy methods for EFL reading students.

Methods

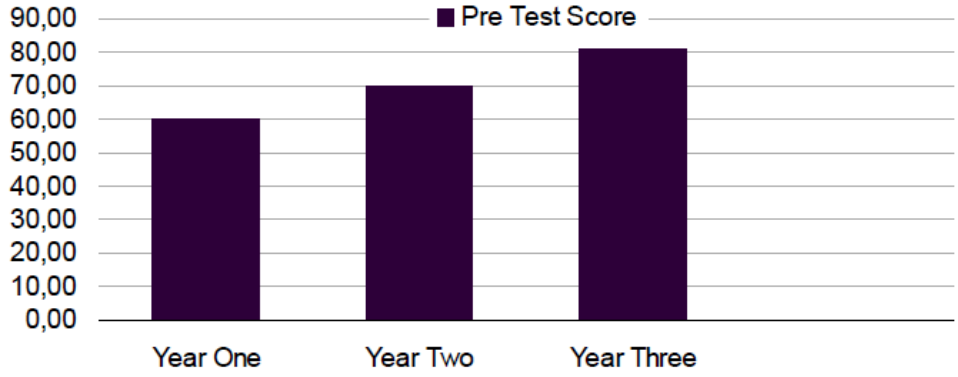
The method employed for this research study was first establishing the sample participants from three different levels of language development. Participants were university students with English as their foreign language in their 1st, 2nd and 3rd year of studies. Full classes of students were not employed. Instead, 20 students representing each group were selected with alternates for each level. Alternates were used in the case that a participant could not finish the study in a proper manner for comprehensive data evaluation. Each group of 20 students was split into a control and an experimental group. Both groups would take a pre-test and a post test to evaluate their levels of success throughout the study. The experimental group, however, would be given the MARSI as a metacognitive strategy learning device. The post-testing was done in a quantitative manner by judging reading comprehension through multiple choice, true and false and journals that were accessed through rubrics. The pre-testing, though also quantitative in nature, used all of the same evaluation methods without the journals.

Success was judged according to the difference in average scores between the pre and post testing on a 100 point scale. For example, if the average student post-test score was 85 for the experimental group and 75 for the control group, this would suggest that the added element of the metacognitive strategy had a positive significant effect on the learners. With the exception of the MARSI, which was the metacognitive strategy influencer that was given to the experimental group, the instruction for all students was the same thereby making the metacognitive stimuli the only difference between the group members. In addition, participants for the control and experiment group were selected at random with no prior knowledge by the researcher as to academic levels or learning styles other than their year of study. Elements like gender, age and type of first language were not
considered in this study.

Results

The results of the study demonstrate that both the experimental group and the control group all improved in a statistically significant capacity from pre to post testing. This means that all level of instruction for the course was efficacious. In addition, the level of learner also increased in scoring on the pre-test. This would suggest that the level of learner did have an impact on their degree of reading ability which is of small wonder as by design it should be this way. Figure 1 shows the pre test scoring average on a scale of 100 for the three respective groups. For pre-testing, the average score was determined from all 20 scores of the control and experiment group as up to this point, there was no instructional difference between the groups.

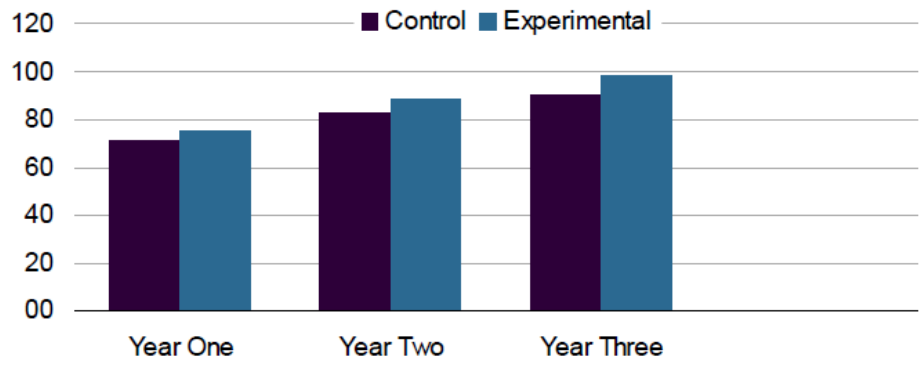
Figure 1: Pre Test Scoring Average



As illustrated in the graph, the average pre-test score for first year ESL students was 60, the average score for year two students was 70 and the average score for third year students was 81. The pre-test was the same for all groups and this would explain why third year individuals scored higher than the previous years and so forth.

At the conclusion of the course and instruction, the following post test performance results are demonstrated in Figure 2.

Figure 2: Post Test Scoring Average



On all levels, the experimental group scored higher average post test points than their control counterparts. In terms of general trends for the control group, however, they experienced a +11 point increase at year one, a +13 point increase at year two and a +9 increase at year three. The experimental group, however, recorded a +15 increase at year one, a +18 increase at year two and a +17 point increase at year three. By the third year, the average score for the experimental group was 98, which demonstrates a near perfect mastery on the reading skills being evaluated in the post test. There was a cumulative mastery phenomenon across all groups with a clear advantage at all levels going toward the experimental group a +4, +5 and +8 difference between the their control counterparts respectively.

Discussion

The results of the study demonstrate that those individuals who were exposed to metacognitive strategies scored higher on their post tests than their control group counterparts. This dimension backs the bulk of the research that has been conducted on the study and reported in the review of literature. The added instructional element can be considered an advantage. In addition, the study showed trends related to the cumulative effect or spill over of cognitive skills. Each year it can be accurately expressed that the students learn more cognitive skills related to reading comprehension and strategies. Those skills transfer into higher test scores based on the number of years in which they have been studying. When combined with the metacognitive strategies presented, however, the degree of change in scores became much different according to the level of the reader. For example, as year one, the experimental group only had a +4 post test scoring advantage over their control counterparts.

At year 3, however, they had a +8 point advantage over their counterparts thereby demonstrating nearly double the difference between the two groups by the third year. This lends validity to the cumulative effective of metacognition on reading skills. Though further studies would have to be conducted to definitely express the nature of this trend, it is congruent to much of the research presented.

What is not illustrated in the data presented, however, is the variance that occurred in the areas of data evaluation. As stated in the methodology, the post test consisted of multiple choice, a journal and true/false questions. The greatest degree of increase in scores was found in the multiple choice sections of the post test which primarily were evaluating reading comprehension. In the true/false section, however, there was very little statistical variance in the test scores. The true/false section consisted of 10 questions. At year one, the post test scores were basically even between the experimental and control group. At year two, there was only a .5 point advantage to the experimental group. At year three, there was only a 1 point advantage to the experimental group. While this does suggest some possible cumulative benefits of metacognitive strategies, it

does back Bentahr (2012) who found performance on true/false post tests did not change significantly with exposure to metacognitive strategies.

There was an other peculiarity that necessitates consideration in the evaluation of the data. The highest point differential at any year for the experimental group was during the second year with a +18 difference in pre and post test scores. At year three, for the experimental group, there was only a + 17 difference. In the same year, the control group also scored their highest differences between pre and post testing with a +13 difference. Within the context and framework of this study, there is no definitive explanation for this phenomenon. It is possible that this may have had something to do with individual learning style or individual learner aptitude. On the level of performance, there was less variation in high and low scores in the year two group. For the sake of the study, the highest and lowest scores in each category were kept in the calculation of averages. Though not included in the data, the scores of the alternates were also calculated and none of their results would have statistically changed the general trends that have been reported throughout the study results.

Weaknesses

As with all studies, there are some innate weaknesses that are present. They are not present, however, to the extent that they nullify the trends or general results of the study. In this regard, higher sampling sizes and samples across different universities would be advantageous to see if there is school based or regional differences in the results. In addition, it would be useful in the future to use gender, learning style and age of the student as another demographic variable to further breakdown how metacognitive strategies are useful and where they are most useful in the ESL education process. Qualitative data would also be a valuable addition to the available research. It would be useful to see how the students feel about the metacognitive strategy method and how they feel it either helps or does not help them.

Conclusions

Based on the research findings, it was concluded that metacognitive strategies for reading do have a positive effect on EFL learners on the university level. In all situations, those students who were exposed to metacognitive strategies on average out-performed their counterparts who were exposed to no such strategies. The way in which it influences test performance, however, does vary according to the evaluation tool. This study found that true/false questions had less variance in accuracy between control and experiment groups. In addition, it was also found that Metacognitive advantages were cumulative thereby making carry over highly likely. Research implications for EFL reading classrooms suggest that there is no disadvantage to metacognitive strategy interventions and only potential benefits. As a result, though further research is necessary to demonstrate exactly how and why this method works, instructors should be incorporating it into their teaching at the university level and potentially beyond.

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