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Facilitating ESL academic lecture comprehension through metacognitive strategy instruction: A study of undergraduates in Rajarata University of Sri Lanka

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Abstract

This paper reports the findings of a study based on an ongoing research which investigates the effects of facilitating English as a Second Language academic lecture comprehension through metacognitive strategy instruction of the undergraduates in a Sri Lankan university. Comprehension of academic lectures conducted in English has been a daunting task for university students mainly due to two reasons; transition from medium of first language to second language and poor state of listening and comprehension skills in English language. The study involved 73 students studying in the Faculty of Management Studies of the Rajarata University of Sri Lanka. A questionnaire was used as the tool for the initial survey to gauge the knowledge of existing metacognitive listening skills while a training in metacognitive strategy instruction in listening was the major study. The results indicated that the selected students had a poor knowledge of metacognitive strategies in the initial survey. In the major study, it was proved that metacognitive strategy training could boost English as a Second Language academic lecture comprehension.

Keywords: Academic lecture comprehension, English as a second language (ESL), metacognitive strategy instruction.

1. Introduction

The demand for English medium education in the Asian countries and other developing countries has shown a dramatic increase due to the globalization of Education. It has been pointed out that as a result of the increasing number of second language (L2) English speakers or speakers of English as a foreign language attending universities of English

speaking countries, there is a demand for study programs conducted in English in the higher education sector. English medium education in the Sri Lankan universities has been considered important by most of the faculties due to the world trends in education, the advent of information and communication technology (ICT) and the vast private-sector oriented employment opportunities that resulted in, since the introduction of liberalized economic policies of the late 1970s. However, preparing students for English medium education is a major challenge for universities and the higher educational institutes despite the English language programs such as intensive programs and semester level English as a second language (ESL) courses conducted. This phenomenon is apparent in both local and foreign contexts where the student population belongs to the categories of L2 English speakers or speakers of English as a foreign language.

It is obvious that in the Sri Lankan context, the students are selected to universities and higher educational institutes based on the results of the G.C.E (A/L) examination or similar examinations and in some cases based on the G.C.E. (O/L) qualifications. Since, school education up to G.C.E (A/L) examination is done mostly through first language (L1) of the students, transforming to English medium education in the universities and the higher educational institutes has been a difficulty for students in the universities.

The poor attainment levels of the undergraduates' English language proficiency have been felt as an obstacle in the national universities in Sri Lanka to conduct study programs in L2 and prepare them for the competitive job market with necessary English language skills. In order to remedy this situation, it was felt as a need to start ESL and English as a Foreign Language (EFL) programs in universities. Hence, English Language Teaching Units (ELTUs) were established in all the national universities in Sri Lanka by the University Grants Commission in 1983 in order to improve the English language proficiency of the undergraduates to engage in courses conducted in English language which is L2. Further, comprehension of lectures conducted in L2 is a crucial factor for most of the university students due to various reasons such as poor level of English knowledge gained during the school education, limited access to English language in the home and social environment and the emphasis not placed on oral skills in the national education system.

In higher education, lecturing is a common format used for delivering information in academic contexts. Comprehension of lectures conducted in L2 is crucial for most of the university students as during the G.C.E. (A/L), majority of students study their subjects in L1. In the L1 context, note taking is the habitual action of students attending lectures. It is the practice of second language students to resort this same strategy when they face the task of listening to a lecture given in the L2. The linguistic features such as pragmatic, semantic, syntactic, lexical, and phonological areas in the L2 context also matter in the comprehension process of lectures compared to the same in L1 context. Listening is a major skill involved in the process of lecture comprehension and majority of EFL students find it difficult to comprehend lectures and to take down notes as listening is a cognitive skill and it has its own characteristics and also the students are not familiar with sub skills of listening in the L2 context. As Flowerdew (1994) points out, the unique characteristics

of listening skill are a matter that demands pressures upon listeners. Researchers of second language learning have proposed that use of learning strategies by L2 learners correlate with success in L2 learning (Oxford & Cohen, 1992) and the studies on listening strategies used by L2 learners provide evidence of remarkable improvement in the listening skill (Chamot & Kupper, 1989; Vandergrift, 1996).

In a university or higher education sector, lecturing is the prominently used mode of dissemination of knowledge in the classroom. Therefore, academic lecture comprehension is a pivotal function in the classroom. In academic lecture comprehension, whether it is lectures conducted in L1 or L2, listening is the language skill which is directly involved in facilitating lecture comprehension. It is obvious that ESL students with low levels of competency in listening skill may find it difficult to listen, comprehend and take down notes of lectures conducted in L2. Hence, experts in the field of education believe that research needed to be done to enable more effective classroom teaching of the listening skill (Anderson & Lynch, 1998; Mendelsohn, 1998; Vandergrift, 2004). The concept of application of language strategies, developed from cognitive psychology , has been pointed out as a remedy to facilitate language skills and research so far has proved it to be more effective (Flowerdew & Miller, 2005; Goh, 2008; Rubin, 1994).

The core area of strategy instruction is the concept of metacognition introduced in cognitive psychology. Metacognition is a process in which the learner is actively monitoring, controlling and arranging the cognitive process in order to attain cognitive goals. According to Anderson (1991), metacognitive strategies are considered the most essential ones in developing learners' language skills. Further, studies have proved the fact that listening is a much more complex process than it appears despite the inadequate focus paid initially (Lynch, 2002; Brown & Yule, 1983; Vandergrift, 2004). Learning strategies enhances second language acquisition and studies done by Bacon (1992) and Vandergrift (1997) have proved that use of metacognitive strategies in ESL listening has been effective.

The L1 of the student population of the Sri Lankan universities is either Sinhala or Tamil and the students mostly belong to the middle or lower social classes of the society in which the exposure to English is minimal in the social and the family environments. Further, most of the students have studied in under-privileged schools that had less opportunities, resources, conducive environments and motivation for improving English. Since the English language qualifications gained at the G.C.E. (O/L) and G.C.E (A/L) examinations are not considered for university entrance, students also pay less attention to learning English than they do to other major subjects. Moreover, even if students gain qualifications in English at national examinations such as the G.C.E. (O/L) and G.C.E. (A/L), they do not reflect the oral competency of the candidates which includes listening and speaking as the focus of evaluation is limited to reading and writing skills in such examinations. Therefore, the drastic transition in the medium of instruction from L1 to L2 in the university system is a challenge for students, particularly in the areas of speaking

and listening which subsequently affect academic lecture comprehension of lectures conducted in English language (L2).

The purpose of the first stage of this study was to ascertain whether the students possess and use listening strategies, particularly metacognitive strategies, in the comprehension of lectures conducted in L2. The study was based on the assumption that the students did not initially have a knowledge of listening strategies and they do not use listening strategies to overcome the difficulties faced during lectures conducted in English medium. In the second stage, it was tested whether training in metacognitive strategies could boost ESL academic lecture comprehension.

2. Literature review

Over the past decade or so, listening comprehension strategy has become one of the most important topics in second language acquisition research. Researchers, such as O'Malley and Chamot (1990), Oxford (1990), and Vandergrift (1997), along with many others, have examined a wide variety of issues related to L2 listening strategies. Most of the discussions have focused on differences between more and less effective listeners, listening strategy instruction, and assessment of listening strategies. The effectiveness of explicit teaching listening strategy on improving learners' listening proficiency has been proven across a range of settings (e.g., O'Malley & Chamot, 1990; Ozeki, 2000 ; Carrier, 2003; Clement, 2007).

Studies in the second language learning have identified that the use of learning strategies-the techniques or procedures that facilitate a learning task by the learners, can exert a potential effect on achievement and performance in second/foreign language learning. Learning strategies in second language acquisition emerged from a concern for identifying the characteristics of good language learners and the research efforts concentrating on the "good language learner" (Rubin, 1975; Naiman, 1975). They identified that strategies reported by students or observed in learning situations appeared to contribute to learning. The main factors that affect how well students learn a second language are language learning 'styles' and 'strategies' (Oxford, 2003). Learning styles are general approaches that students use in acquiring a new language while learning strategies are defined as specific actions, steps, or techniques used by students to enhance their own learning (Scarcella & Oxford, 1992).

The description of the strategies used by successful language learners provided a stimulus for further research into the establishment of taxonomies of language learning strategies. As a result, researchers such as O'Malley et al. (1985) have divided language learning strategies into three main subcategories. They are; metacognitive strategies, cognitive strategies and socio-affective strategies. Metacognitive strategies are the strategies that require planning for learning, thinking about the learning process as it is taking place, monitoring of one's production or comprehension, and evaluating learning after an activity is completed. Among the main metacognitive strategies, it is possible to include advance organizers, directed attention, selective attention, self-management, functional

planning, self-monitoring, delayed production, and self-evaluation. Cognitive strategies are more limited to specific learning tasks and they involve more direct manipulation of the learning material itself. Repetition, resourcing, translation, grouping, note taking, deduction, recombination, imagery, auditory representation, key word, contextualization, elaboration, transfer, and inference are among the most important cognitive strategies. As to the socio-affective strategies, it can be stated that they are related to social-mediating activity and transacting with others. Cooperation and question for clarification are the main socio-affective strategies.

Therefore, language learning strategies and accompanying classification schemes grounded in cognitive theory, learning strategies have been differentiated and categorized into three main types: metacognitive, cognitive, and socio-affective strategies. These three types of learning strategies form the bases for research in language learning strategies in second language acquisition (O'Malley et al., 1985; Oxford, 1990). In the case of metacognitive strategies, they help to oversee, regulate, or direct the language learning process and thus include planning, monitoring and evaluating. Cognitive strategies manipulate the material to be learnt or apply a specific technique to the learning task, while socio-affective strategies help learners to cooperate with classmates, question the teacher for clarification or apply specific techniques to lower their anxiety level.

One of the most important ways which may help learners overcome their problems in listening skill and facilitate listening comprehension is to guide them in employing the right tool- to use listening strategies effectively to compensate for breakdowns. Graham (2006) points out that problems of learners with listening include poor monitoring and understanding, poor application of background knowledge to help overcome problems of comprehension, problems in speech segmentation and recognizing familiar vocabulary in the speech stream.

Authors (such as Field, 2008; Goh, 2008) have called for more teaching of listening as a skill in its own right, rather than something which teachers assume will develop of its own accord. Research has proved that teaching listening strategy instructions has been able to improve the listening skill of students (Harris 2007; Graham & Macaro, 2008). Therefore, strategy instruction training can be considered important in the context as strategies were the thoughts and behaviors that learners use to help them comprehend, learn, and retain information (O'Mally & Chamot, 1990). Meanwhile, more recent studies (e.g., Ozeki, 2000; Carrier, 2003; Shen, 2003; Clement, 2007) on learning strategy instruction that informed students about the purpose and value of the strategies to be trained have proven to be helpful in maintaining strategy use over time and transferring strategies to new tasks.

The lecturing is the principal method of information transmittal most often practiced in universities or higher educational institutes. Lectures given in the native language do not become challenging for comprehension in academic pursuits. However, lectures delivered in foreign or second languages are a daunting task for EFL/ESL students. According to Dunkel & Pialorsi (1982), learning how to listen and take notes in L2 is, in fact, perceived to be "a question of academic survival". Academic lecturing involves primarily listening

and perhaps speaking tasks in universities or higher educational system in which students need to maintain their concentration, comprehend information, and take down important notes for later retrieval. Richards (1983) suggested that academic lecture listening primarily requires skills to identify the topic of a lecture and to follow topic development. According to Bejar et al. (2000), tasks for academic lecture listening need to assess L2 learners' abilities to comprehend details and facts, and their abilities to make an inference about the lecture content and its relationship. Further, the opportunities to interact with the speakers in academic lecture listening contexts is relatively limited and thus, the process of academic lecture listening places a high demand on the part of the listeners (Ferris & Tagg, 1996).

In the study, the theoretical framework applied was the application of metacognitive strategies in academic lecture comprehension and facilitating students with the necessary strategies of metacognition for application in academic lecture comprehension. At the heart of strategy instruction in metacognition is the concept of metacognition introduced in cognitive psychology. Metacognition is a process in which the learner is actively monitoring, controlling and arranging the cognitive process in order to attain cognitive goals. Flavell (1976) defines metacognition as to be aware of one's own cognitive processes and products or everything else which is relevant like those aspects of information related to the learning process. O'Malley and Chamot (1990) believe that metacognitive strategies are "higher order executive skills that may entail of planning for, monitoring, or evaluating the success of activity". Harris (2003) views metacognition as a guiding process to learning in which the learner is using strategies to plan, monitor and evaluate language use and language learning.

3. Methodology

The study was conducted focusing the students in the Faculty of Management Studies, Rajarata University of Sri Lanka. The design of the study comprised two stages; assessing if students already apply any metacognitive strategies in comprehending lectures and ascertaining how effective is metacognitive strategy training program for the comprehension of lectures conducted in English language. The purpose of the first stage of the study was to ascertain whether the students possess and use listening strategies, particularly metacognitive strategies, in the comprehension of lectures conducted in L2. A questionnaire prepared in English language with a translation of Sinhala language was used to elicit information as the study was based on the assumption that the students did not initially have a knowledge of listening strategies being used in comprehending lectures.

In the second stage, students were divided as the controlled group and the experimental group and a training program in metacognitive strategies was carried out to the experimental group. The students in the second semester of the second year of the Department of Business Management were divided into two groups and the student group

A with a student population of 33 was the controlled group and the group B with a student population of 40 was taken as the experimental group.

Next, a pre-test was conducted for the two groups and the metacognitive strategy training in listening comprehension process was given to the experimental group while the controlled group received the normal listening lessons included in the semester syllabus. The pre-test contained a listening task where a lecture on the subject area of innovation in business context was delivered. The difficulty level of the pre-test was intermediate and the test contained 15 'wh' questions. After three weeks of strategy training for the experimental group, a post-test was held for both the groups to gauge the level of improvement of comprehension of lectures. The post-test was similar to the pre-test in the difficulty level and contained 15 'wh' questions. It too was a listening task where a lecture on the subject area of planning was delivered.

The metacognitive strategy training program in academic listening in the study was conducted for six weeks with 12 hours of training for the experimental group. The six week strategy training program conducted in two stages emphasizing the metacognitive strategies related to academic lecture comprehension. The training program included the metacognitive strategies such as advanced organization, directed attention, selective attention, organizational planning, comprehension monitoring, self-assessment and performance evaluation. The data in the first stage were analyzed qualitatively while in the second stage, data were analyzed quantitatively using t-test.

4. Results and discussion

Table1 includes students views about the metacognitive strategies used in academic lecture comprehension. Positive responses support the use of metacognitive strategies, negative responses that indicate the participants do not use metacognitive strategies and indecisive responses which do not indicate clear opinions with regard to either the use of metacognitive strategies or absence of metacognitive strategies in comprehending lectures.

Table 1
Use of metacognitive strategies in academic lecture comprehension

Group	Use of metacognitive strategies in academic lecture comprehension		
	Yes	No	Indecisive
Controlled group	20.4%	52.7%	26.8%
Experimental group	29.4%	54.0%	16.5%

As per the data, both the controlled group and the experimental group had more than 50 percent of responses (52.7% and 54% respectively) that indicate the no use of metacognitive strategies in comprehending lectures conducted in English (L2), while the positive responses were 20.4 percent and 29.4 percent respectively, which indicate that

the use of metacognitive strategies was comparatively low. The indecisive responses were ignored as they did not communicate either of the responses, i.e. negative or positive. Therefore, the data suggest that both the groups of the study did not initially have a fair knowledge of listening strategies that they use to comprehend lectures conducted in English.

In the major study, the results of the pre-test and the post –test of the controlled and the experimental groups were compared by an independent samples t-test. As shown in Table 2, the descriptive statistics for the pre-test of the experimental group and the controlled group were almost similar. The mean scores of the experimental group and the controlled groups were 39.85 and 39.79 respectively. The standard deviation of the experimental group was 7.60 while in the controlled group the standard deviation was 7.78. Hence, the results indicate that both the groups had similar levels of performance at the pre-test that is both the groups had equal competency levels in listening.

Table 2
Descriptive statistics for pre-test

Statistics	Experimental group	Controlled group	Entire group
Mean (M)	39.85	39.79	39.82
Standard deviation (SD)	7.60	7.78	7.63
Skewness (SK)	0.32	-0.63	-0.11
Minimum	27.00	23.00	23.00
Maximum	55.00	51.00	55.00
No. of students	40	33	73

Table 3 presents descriptive statistics and result of paired samples t-test for the pre-test over the post-test of the experimental group and the controlled group. The mean value of the experimental group has been increased from 39.85 in the pre-test to 47.85 in the post-test. Moreover, paired samples t-test shows the evidence that there is a significant improvement of the listening skill among the students in experimental group $(t=7.76, p<0.01)$.Therefore, these results indicate that the performance of the experimental group which was subjected to metacognitive training in listening has been significantly improved.

Table 3
Descriptive statistics of the experimental group and the controlled group

Statistics	Experimental group		Controlled group	
	Pre-test	Post-test	Pre-test	Post-test
Mean (M)	39.85	47.85	39.79	42.00
Standard deviation (SD)	7.60	7.30	7.78	8.10
Skewness (SK)	0.32	-0.04	-0.63	-0.25
Minimum	27.00	30.00	23.00	27.00
Maximum	55.00	62.00	51.00	55.00
t-value	7.76		1.85	
Sig.	0.00		0.08	

In the case of the controlled group, the mean value of the pre-test was 39.79 while the mean value of the post-test was 42.00. These statistics reveal that the controlled group which was not subjected to metacognitive training in listening did not have a significant improvement in the mean value. This is also evident by the results of paired samples t-test (t=1.85, p>0.05). So it is apparent from these results that the controlled group which had only regular English language lessons did not improve when compared to the experimental group in the listening test that reflected the academic lecture comprehension in English medium. However, there has been a slight improvement in the mean value of the controlled group from 39.79 to 42.00. It is presumed that this slight improvement was due to the regular lessons of English language conducted during the semester.

5. Conclusion

This study found that university students face difficulties to understand ESL lectures delivered as they do not have an adequate knowledge of employing metacognitive listening strategies in the process of understanding lectures delivered in English. However, the study found the fact that the metacognitive strategy intervention facilitates students to improve and achieve a higher level of understanding of the ESL academic lectures by using metacognitive strategies appropriately. As researchers in the field of second language teaching and working on metacognitive listening strategies have pointed out, proper training or incorporation of metacognitive strategy training in ELT programs could boost and facilitate students with ESL academic lecture comprehension. From a pedagogical perspective, it seems reasonable to ascertain whether the curricula of the ESL programs of the universities should have provisions for metacognitive strategy training so that ESL academic lecture comprehension would be facilitated.

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