

Evaluation of English Listening Proficiency of SALC Users at KMUTT, Thailand*

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Abstract

It is widely accepted that a self-access center provides opportunities for the students to develop their English proficiency skills out of class. Even though a self-access center requires a large sum of budget and resources, its practical usefulness for language learners and its effect on the users' proficiency development have not been fully investigated. This preliminary study which was funded by KMUTT was a tentative attempt (1) to evaluate English listening proficiency of the KMUTT's Self-Access Learning Center (SALC) users, and (2) to investigate on the significance of the SALC's role in autonomous learning, particularly in developing English listening proficiency. Twenty-two undergraduate and graduate students from the four main faculties, namely Science, Energy, Engineering, and Industrial Education volunteered to participate in the study. They were then randomly divided into 2 groups: 14 students in the experimental group who practiced 20 hours in the SALC and 8 students in the control group who did no SALC listening. The researcher found that the SALC users' English listening proficiency increased more significantly than that of the non-users. By the F-test, it was found that the subjects' development of listening proficiency was not significantly affected by the above factors at the 0.05 level.

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THE RESEARCH PROBLEM

Even though a self-access center requires a large budget and varied resources, its practical usefulness for language learners and its effect on the users' proficiency development have not been fully investigated. Most studies in the past have focused on the attitudes of users and tutors towards self-access learning (e.g., Ma, 1992; Poon, 1992; Tantisawetrat & Chongsuphajaisiddhi, 1996) or these people's attitudes towards the effectiveness of the self-access centers and the benefits of using them (e.g., Gardner & Miller, 1997). This research was a tentative attempt to fill some of the gaps. It was a preliminary study, which aimed to get more evidence on the effect of a self-access center upon autonomous learners.

PURPOSES OF THE STUDY

The two research purposes which will be presented in this article are to evaluate English listening proficiency of the KMUTT's Self-Access Learning Center (SALC) users and to investigate the significance of the SALC's role in autonomous learning, particularly in developing English listening proficiency.

THE HYPOTHESIS

This study had set up two hypotheses as follows:

1. The SALC users' English listening proficiency will be different from the non-users' proficiency.
2. These factors will cause the difference in the SALC users' development in listening proficiency:
 - 2.1 The number of days
 - 2.2 The frequency of visits
 - 2.3 The length of visits
 - 2.4 The time of visits
 - 2.5 The series of materials

REVIEW OF LITERATURE

The Role of a Self-Access Center

According to Gardner and Miller (1997), interest in promoting autonomy in language learning stems from several factors. There are changes in approaches to teaching which allow teachers more flexibility in teaching, teaching style and strategies which shift from teacher-centered to student-centered, and the desire for language use in the real world which encourages the students to become more independent of their teachers (Rost, 1991; Sheerin, 1989). Self-instructional or autonomous learning is therefore useful in solving practical problems of learners, and in helping to achieve several educational aims (Dickinson, 1994).

Today the role of listening comprehension is clearly recognized to be of primary importance in the learning of a second language. Many programs are devoting an increasing amount of attention to providing students with appropriate listening experiences in a second language (Morley, 1984). By constructing a self-access listening and learning center, equipped with recorded audio and video materials that are organized into self-access/self-study programs, teachers may help their students to develop their listening programs and goals (Morley, 1984; Rost, 1991).

Evaluation of Learners' Proficiency

The usual method to evaluate a learners' proficiency development is to give a pre-test before practicing and a post-test after completion. Moreover, Carver and

Dickinson (1981) and Dickinson (1994) suggest that while learners are practicing, they should also keep records of, for example, the activities that they performed, the difficulties they had and the way they performed.

Moreover, Rodgers (1978) gives some remarks on the individual differences in success of practice. One of them is that students' learning efficiency varies differentially according to time of study (longer versus shorter study periods, morning versus afternoon, beginning of class period versus end of class period, first term versus last term, etc.). Therefore, learners' records of information during their practice should be investigated in order to search for the factors that are most closely related to achievement in listening in the SALC.

THE SUBJECTS

The subjects in this research were KMUTT student volunteers from four faculties: Science, Energy, Engineering and Industrial Education, with a heterogeneous mix of study levels starting from first year students up to graduate students. At KMUTT, most students study in the fields of science and technology and the students from these four main faculties constitute the majority of the university's student body (See Appendix 1).

These volunteers were randomly divided into 2 groups. Fourteen students were in the experimental group who

practiced in the SALC's listening corner for 20 hours. Eight students were in the control group who did not practice but also took the same pre-test and post-test at the same time as the experimental group did.

RESEARCH PROCEDURES

The research was conducted from February, 1999 to June, 1999. The subjects had to take a pre-test before they started to practice listening and a post-test after they completed the practice. The tests were adapted from the listening section of several TOEFL tests. On the assumption that TOEFL tests are typical standardized tests, both of the pre-test and post-test constructed from TOEFL questions were estimated to be equivalent¹. The researcher chose only the context about science and technology from these tests to suit the subjects' background knowledge in English for Science and Technology (EST). The pre-test and the post-test consisted of 30 questions each (see Appendix 3).

The pre-test scores which reflected the subjects' starting level of proficiency enabled the researcher to suggest the appropriate level for each subject to start. The subjects practiced listening for 20 hours in the KMUTT SALC² where there are listening booths with dozens of materials from which students can freely select. The subjects were also able to choose the time and pace of practicing according to their individual convenience.

¹ The TOEFL tests that were used as the source here were photocopy documents provided for student practice without any detail on the statistical reliability or validity.

² At the School of Liberal Arts, KMUTT, there is a Self- Access Center (SALC) founded in 1991 to serve the target groups which include undergraduates, post-graduates and all other KMUTT members.

At each visit, they were required to record their practice; such as the time and length of their practice, and what they had listened to, etc. by filling in a given form (see Appendix 2). Another group of volunteers was studied as the Control group. They took the same pre-test as the Experimental group but they did not practice listening.

After 20 hours of practice, both groups of subjects took a post-test which was equivalent to the pre-test. The scores from these two tests, which showed the development or the lack thereof, of the subjects' proficiency in listening, were compared. This comparison answered the first hypothesis concerning whether the users of the SALC listening corner developed their listening proficiency more than the non-users or not.

The individual records of the experimental group provided information for analysis to answer the second hypothesis concerning factors which might influence development. The subjects were also interviewed about any other listening activities they participated during the project outside the SALC to search for possible variables, which influenced their proficiency development.

The comparison between the test scores and the interviews of the experimental and the control groups was analyzed in order to investigate the significance of the SALC's role in autonomous learning.

DATA ANALYSIS

Firstly, the pre-test and the post-test scores of the Experimental group were

compared. The differences were further calculated in comparison with the total score of the tests to show the change in the subjects' proficiency as a percentage of the total score (termed development percentage). The scores of the pre-test, the post-test and the development percentage were next compared using t-test to answer the first hypothesis. To see whether the SALC users' proficiency developed more than that of non-users, the development percentage of the experimental group and the control group and information from interviews from both groups were compared.

The data from the subjects' records were studied and calculated by F-test in order to answer the second hypothesis, that is, to find the factors which caused the difference in the SALC users' development.

THE FINDINGS

A. Evaluation of listening proficiency development

1. The first hypothesis: *The SALC users' English listening proficiency will be different from the non-users' proficiency.*

After the practice was completed, the subjects in the experimental group had developed their proficiency since the post-test mean was significantly higher than the pre-test mean at the 0.05 level. On the other hand, the control group did not develop their proficiency as their post-test mean was not significantly different from the pre-test mean (see Figure 1).

Figure 1 Comparison between the scores

Descriptive Statistics

Group	Variables	n	\bar{X}	S.D.
Experimental Group	pre-test	14	11.3571	3.1770
	post-test	14	15.6429	2.7346
	development	14	14.1893	9.1698
Control Group	pre-test	8	11.2500	3.0589
	post-test	8	13.0000	2.0702
	development	8	5.8325	8.1128

Paired Samples Test

Group	Variables	n	\bar{X}	S.D.	t
Experimental Group	pre-test VS post-test	14	4.2857	2.7576	5.815*
Control Group	pre-test VS post-test	8	1.7500	2.4349	2.033

*P<0.05

In order to investigate the role of the SALC in autonomous learning, particularly in developing English listening proficiency, the scores of the experimental and control groups were compared by t-test. From the statistics, the pre-test means of both groups were nearly the same, which was natural since they were students of the same university. A remarkable difference,

however, occurred in the post-test means and the development means which were significantly different at the 0.05 level. Comparing the development of these two groups, the first group's development mean of 14.1893 was much higher than the second group's development mean of 5.8325. They were also significantly different at the 0.05 level (see Figure 2).

Figure 2 Comparison between the Groups

Independent Samples Test

Group	Variables	N	\bar{X}	S.D.	t
Experimental Group	pre-test vs. pre-test	14	11.3571	3.1770	.077
Control Group		8	11.2500	3.0589	
Experimental Group	post-test vs. post-test	14	15.6429	2.7346	2.2364*
Control Group		8	13.0000	2.0702	
Experimental Group	development vs. development	14	14.1893	9.1698	2.139*
Control Group		8	5.8325	8.1128	

*P<0.05

In addition to the tests, the subjects in the experimental group and the control group were also interviewed about their listening activities outside the SALC during the project. Most of the subjects listened to English songs and radio. They occasionally watched English videos or movies but they rarely corresponded with English speakers or went abroad to English speaking countries. For the overall rating, they considered that they rarely participated in any special listening activities. This clearly showed the supporting role of the SALC in English listening proficiency development.

B. Factors which influence the proficiency development

2. The second hypothesis: *Some factors will cause the difference in the subjects' development in listening proficiency:*

2.1 *The number of days*

2.2 *The frequency of visits*

2.3 *The length of visits*

2.4 *The time of visits*

2.5 *The series of materials*

Focusing on the subjects in the experimental group who showed development in proficiency, their records during practice were investigated. All factors mentioned above were analyzed by F-test as follows (see Figure 3):

Figure 3 Comparison between Development and Factors

Factor	Development	Source of Variance	SS	df	MS	F
Number of days	Dev	b/w group	220.549	2	110.274	1.682
		within group	655.726	10	65.573	
		total	876.275	12		
Frequency of visits	Dev	b/w group	6.794	2	3.397	.039
		within group	869.481	10	86.948	
		total	876.275	12		
Length of visits	Dev	b/w group	237.752	3	79.251	1.117
		within group	638.524	9	70.947	
		total	876.275	12		
Time of visits	Dev	b/w group	18.129	2	9.064	.106
		within group	858.147	10	85.815	
		total	876.275	12		
Series of materials	Dev	b/w group	104.390	1	104.390	1.488
		within group	771.886	11	70.171	
		total	876.275	12		

2.1 *The Number of days*

The subjects spent different number of days to accomplish their 20-hour practice (including days when the subjects did not use the SALC). The subjects spent 18 to 50 days in practice. For further calculation, the subjects were divided into four groups according to the number of days as follows:

15-23 days = group 1

24-32 days = group 2

33-41 days = group 3

42-50 days = group 4

The F-test calculation shows that the proficiency development of all the four groups did not have any significant difference at the 0.05 level.

2.2 *The frequency of visits*

The subjects had different frequency in visiting the SALC. They went for 12 to 18 times to practice before they fulfilled their listening tasks. The subjects were divided into 3 groups according to their frequency of visits as follows:

10-12 times = group 1

13-15 times = group 2

16-18 times = group 3

The F-test calculation shows that the proficiency development of all the three groups did not have any significant difference at the 0.05 level.

2.3 *The length of visits*

According to their records, the subjects spent from 66 to 106 minutes in each visit to the SALC. The subjects were then divided into 4 groups according to the length of visits as follows:

65-75 minutes = group 1

76-86 minutes = group 2

87-97 minutes = group 3

98-108 minutes = group 4

The F-test calculation shows that the proficiency development of all the four groups did not have any significant difference at the 0.05 level.

2.4 *The time of visits*

Although the subjects visited the SALC at their convenience, the subjects could be divided into three groups according to their habit of visiting the SALC as follows:

Group 1 came to practice between 9:30 a.m. and 1:30 p.m.

Group 2 came to practice between 1:31 p.m. and 4:30 p.m.

Group 3 came to practice between 4:31 p.m. and 6:30 p.m.

The F-test calculation shows that the proficiency development of all the three groups did not have any significant difference at the 0.05 level.

2.5 *The series of material*

There are several series of self-access materials provided in the listening corner. These materials vary in content as well as focus of practice, ranking from elementary level with phonemes up to advanced level with authentic conversations and passages for listening comprehension. Subjects chose differing numbers of series of materials to practice. The subjects were then divided into three groups according to the number of series of materials as follows:

2-4 series = group 1

5-7 series = group 2

8-10 series = group 3

The F-test calculation shows that the proficiency development of all groups did not have any significant difference at the 0.05 level.

The analysis of the five factors above did not show any significant difference in

the subjects' proficiency development which means that these factors had only a minimum, if any, effect. The researcher then investigated further the trend of any

probable correlation between these factors and proficiency development, by using Pearson Correlation (see Figure 4).

Figure 4 Correlation between Factors and Development

Pearson Correlation

VARIABLE	DEVELOPMENT r-value
Number of days	.477
Frequency	-.088
Length of visits	-.149
Time of visits	.132
Series of materials	-.345

*Correlation is significant at the 0.05 level (2-tailed)

From the calculation, none of the five factors has significant correlation with proficiency development at 0.05 level.

DISCUSSION

The analysis of the tests clearly shows that the subjects of the experimental group have developed their proficiency in listening after practice in the SALC whereas the subjects of the control group haven't. This suggests that self-access learning is very beneficial for users' development.

However, it is unclear whether the students' practicing in the SALC is responsible for this development, or whether the students would have developed through 20 hours of extra study of whatever kind.

Nevertheless, both groups also answered in the interview and questionnaire that they rarely participated in any listening activities outside the SALC. This shows that the students do not have much chance to practice listening English in their daily life,

therefore, the SALC's supporting role is evidently noticeable.

In this study, the five factors which were studied do not show any significant correlation with development. It may be interpreted that these factors have only a slight effect, if any, on the subjects' proficiency development. However, the result provides some interesting remarks.

There are three factors which show negative correlation with proficiency development: the frequency of visits, the length of visits, and the series of materials. This indicates that the students who rarely visited the SALC, and those who spent a longer time in each visit, may have a lower degree of proficiency development. Moreover, the result suggests that using fewer different series of materials tends to bring more success.

On the other hand, there are two factors which have positive correlation with proficiency development: the number of

days and the time of visits. This shows that the subjects who visited the SALC to practice for a larger number of days achieved more development than those who spent a smaller number of days. In addition, the subjects who visited the SALC in the evening after class show a tendency to achieve more proficiency development than the others. However, these results are not significant so they are not definite and require further investigation.

It is interesting to see that the time of visits, which has also been observed by Rodgers (1978), does not have significant correlation at the 0.05 level. This lack of significance may be due to the limited number of experimental subjects. With a larger group of subjects, the analysis may reveal more significance than the present study.

The Author

Charatdao Intratat graduated with honors a B.A. in French from the Faculty of Humanities, Chiang Mai University. She got an M.A. in Applied Linguistics (Teaching English for Science and Technology) from the Faculty of Science, Mahidol University and a Ph.D. in Linguistics from the Faculty of Arts, Chulalongkorn University.

Her subjects of interest are EST, syntax and semantics, especially in zero anaphora and grammaticalization of verbs. At present, she is teaching EST at the Department of Language, School of Liberal Arts, King Mongkut's University of Technology Thonburi.

CONCLUSION

The researcher finds that the subjects' proficiency in English listening proficiency increases at a considerable percentage after they have practiced in the SALC. The five factors studied in this research do not cause any difference in the subjects' listening proficiency development or show any significant correlation with it.

From the information obtained in this research, it can be concluded that the users of the SALC listening corner can improve their listening proficiency by spending 20 hours for practice. In institutions where self-access facilities are available, it is recommended that the students or university members who want to improve their listening proficiency should practice in a SALC.

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APPENDIX 1

THE SUBJECTS

Faculty	Level of Study						Total number (22)
	Undergraduate graduate						
	Y1	Y2	Y3	Y4	Y1	Y2	
Science	2	1		1	3	2	9
Energy*					2	2	4
Engineering	1	2			1	1	5
Industrial Education			2	1	1		4

Group	Level of Study						Total number (22)
	undergraduate graduate						
	Y1	Y2	Y3	Y4	Y1	Y2	
Experimental group	1	-	1	-	7	5	14
Control group	2	3	1	2	-	-	8

*School of Energy has only graduate programs.

APPENDIX 2

RECORD FORM

Name.....Department.....Degree.....Year...Page....

Date..... Starting Time..... Finishing Time..... Total.....

Title of Material..... Type..... Level.....

Problems found

Solution..... Self evaluation

APPENDIX 3
EXAMPLE OF THE TEST

(Script)

Saliva provides another example of taste modification. Although people do not notice the taste because they have adapted to it, their saliva does have a taste. Since the composition of everyone's saliva varies, the taste of everyone's saliva differs. A person with very high salivary sodium contents is less able than someone with low-sodium saliva to taste small amounts of salt. This means that the saltiness detected in a particular food may vary according to the sodium content of a person's saliva.

Listening Comprehension I

Name.....

Major.....

Choose a, b, c, or d to answer these questions

1. The preceding passage most probably deals with saliva?
 - a) the production of saliva
 - b) elements that change tastes
 - c) effects of salt on taste
 - d) exotic tastes

2. Why do people NOT notice the taste of their own saliva?
 - a) It has no taste.
 - b) Salt interferes with the ability to taste saliva.
 - c) They are accustomed to taste.
 - d) Human tongues are not adapted to taste saliva.

3. According to the passage, the taste of salt can be affected by the amount of
 - a) food eaten at one meal
 - b) sodium in a person's saliva
 - c) saliva in a person's mouth
 - d) other spices in the food