

# An Exploratory Study on a Computer Assisted English Learning Course

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## Introduction

In and outside Japan, university students' interest in improving their English, the dominant language in the world of business, has been intense in accordance with tenacious social needs triggered by the rapid globalization of the world economy. Under such circumstances, that effective English education to meet their expectations be implemented in university English language classes is strongly desired. With this mission in mind, the present exploratory study attempts to analyze the relationship (if any) between university students' linguistic gain in an English course involving an online English learning material, their educational backgrounds, the contents of the course, and linguistic input provided during the semester. This study also tries to provide issues to be deliberated in utilizing computer-assisted language learning material to improve learners' English proficiency, together with research topics to be investigated in further studies.

## Input and Second Language Learning

English learners at university often try to reach their goal of achieving a high score in such tests as the TOEIC test and the TOEFL test, but they sometimes misunderstand the nature of second (foreign) language acquisition and are unable to reach their goal successfully. The following critical points regarding successful second language acquisition must be understood and appropriate language learning should take place before proficiency tests such as the TOEIC test are attempted.

It has been taken for granted, in the field of second language acquisition, that a sufficient amount of linguistic input taken in comprehending messages, in both oral and written forms, is a prerequisite for successful second (foreign) language acquisition to take place (Krashen, 1985). In fact, it is strongly recommended that such input be comprehensible in quality and sufficient in amount. This fact is quite obvious in the case of infants acquiring their first language; they receive an immense amount of comprehensible input, which is often modified by their caretakers into more comprehensible forms, by the time they start to produce a short utterance consisting of a few words. Thus, it seems unlikely that learners can acquire a second (foreign) language to the extent that they can communicate successfully with people in the target culture without sufficient linguistic input. It should be noted, however, that some other crucial factors such as output (Swain, 1985) and interaction (Long, 1996) have also been claimed to play important roles in successful second language acquisition. Krashen's (1982) classical Monitor Model remains convincing in that 'subconscious acquisition' of a second language, that is to say, picking up language as one does in the case of first language acquisition, is more powerful than 'conscious learning' of an immense amount of grammar rules and vocabulary. Not all of Krashen's earlier arguments have been

accepted however. McLaughlin's (1987) argument that things learned in 'conscious learning' can contribute to second language acquisition is one such example.

### **Communicative Competence**

Another important concept for successful language learning is communicative competence. The concept of communicative competence, which provided a solid foundation for the communicative approach, is crucial in understanding the nature of second language acquisition. Canale & Swain's (1980) theoretical argument states that communicative competence consists of four distinct components: linguistic competence, sociolinguistic competence, discourse competence, and strategic competence. In this concept, successful language learners would be defined as those who have acquired all components of this competence. Thus, it is assumed that learners with high proficiency in a second language can demonstrate such abilities successfully even in language proficiency tests, because the test scores are deemed to be the manifestation of such abilities.

The first component is linguistic competence, which is an ability to manipulate vocabulary and grammar successfully to produce appropriate utterances for people in a particular linguistic community and to comprehend utterances and texts generated by people in the community. Thus, effective communication is not possible without this ability. It is a matter of course that learners with higher linguistic competence can achieve higher scores in foreign language proficiency tests such as the TOEIC and the TOEFL. However, a simple compilation of a great number of grammar rules and a mere memorization of innumerable vocabulary items does not equate to an enhancement in linguistic competence. This competence is something to be acquired in interacting with people speaking the target language in meaningful contexts or at least in comprehending a great deal of input in the form of spoken or written messages.

The second component, sociolinguistic competence, contributes to generating or understanding socially-acceptable utterances. Speakers of a particular language control their utterances in accordance with the situations in which they are placed or with the linguistic value they have toward a particular socio-linguistic variation, while they display an ability of understanding such social values of utterances. Thus, those with solid sociolinguistic competence can make judgments as to the situation and/or to whom certain utterances are addressed even without being involved in the conversation. Proficient learners with high sociolinguistic competence are also assumed to comprehend messages more accurately than those with lower competence, thus leading to higher scores in listening or even in reading in language proficiency tests as well.

The third component is discourse competence, which is an ability to render our utterances cohesive and coherent with the effective use of cohesive devices, or by arranging utterances in a comprehensible order or to understand messages effectively with the help of such skills. This ability is also a key factor in achieving high scores in language proficiency tests, because those with high discourse competence are ensured an ability to generate and comprehend messages as a meaningful whole.

The last one, strategic competence, plays a minimal role in attaining high scores in the types of proficiency tests which do not involve the assessment of speaking ability. This is because it is an ability to compensate for communicative breakdown in actual communication settings, as in the form of asking for repetition or utilizing circumlocution when the right word cannot be found for a particular referent. However, in the recent forms of the TOEFL test and the TOEIC SW test,

where speaking ability is measured, this competence seems quite important.

It should be understood that learners need to develop such abilities as described above in the course of their language learning, and that their scores in such language proficiency tests reflect their success or failure in their foreign language learning process.

### **Nature of Language Testing**

Another fact which university students intending to achieve higher scores in proficiency tests such as the TOEIC test and the TOEFL test should know is that such proficiency tests are quite different from achievement tests in nature. The former consists of questions to assess language proficiency which cannot be achieved in a fairly short period, and such questions are usually produced with careful statistical procedures involving calculating the item difficulty of questions and discarding inappropriate ones from the compiled lists of an immense number of questions. In contrast, the latter is designed to measure a certain achievement made in a limited period in a particular subject, say, English. Mid-term examinations and final examinations of a particular subject are involved in this category. It is quite difficult for us to improve scores in proficiency tests after intensive study in an extremely limited period, while it is quite probable that we can achieve higher scores in achievement tests when we concentrate on our study even in a limited period. In other words, it would be difficult for us to improve our proficiency test scores greatly after solving problems in workbooks, unless we have reached a certain level in language proficiency. Once we have reached a certain level, similar test scores can be achieved repeatedly regardless of the time and place when such tests are taken. In short, test-takers should be aware of this fact and develop their proficiency so that their real language proficiency may be reflected on the proficiency test scores. Also, it should be kept in mind that constant efforts are necessary to attain high scores in proficiency tests.

### **Individual Differences in Language Learning**

The other aspect of foreign language learning which university students should understand is that not all language learners are identical in terms of affective, cognitive, socio-cultural and educational factors, and that a particular method suited for one learner may not be effective at all for another. Each learner needs to find an appropriate learning method suited to his/her individual traits. It is claimed that this is due to individual differences in such variables. As Skehan's (1989) extensive review on individual differences in second language learning revealed, each individual has his/her own learning style in accordance with such factors, and it is beneficial for learners to adopt a learning style best suited for them.

Learners can be classified in accordance with their personality characteristics such as introversion/extraversion, anxiety in language learning, empathetic tendency, and self-confidence, or with their cognitive styles including; field-dependence/field-independence, analytic/holistic, visual/auditory, or the degree of ambiguity tolerance. Learners are also different in memory, which has been claimed to be an important factor in determining a successful language learner, and in language learning aptitude, which is another recognized phenomenon in second language learning literature. Thus, no single language learner is the same as other learners in terms of these features, and an ideal way of language learning for each individual must be sought out.

This fact is true of university students' English learning involving computer assisted

language learning. In fact, Nakano (2011) categorized Japanese university English learners into groups using these individual traits and was successful in providing effective feedback for students in each group. It is undeniable that not all language learners are willing to spend a few hours facing computer screens with their headsets on. However, there are also many who can learn a great deal in computer assisted language learning. Still, one thing is certain; learners need to take as much input as possible and process it so that successful language acquisition may take place. Thus, each learner must be sensitive to his/her own method suited for this purpose.

### **Research Questions**

The present study is exploratory in nature and basically attempts to describe what has happened in learning with online material and to detect interrelationships between variables, so that a hint to enhancing learners' English proficiency to be reflected on their TOEIC scores may be detected. For this purpose, the following research questions are raised with respect to learners' backgrounds, their use of the online learning material, and the contents of the course, and their linguistic gains through the course.

- 1) What did the participants learn in their English learning both at home and at school in their high school days?
- 2) What are their motivations like in terms of English learning?
- 3) To what extent did the learners utilize the present online material both in and outside classes?
- 4) What impressions do they have in relation to the use and effects of the online material?
- 5) What are their impressions like concerning brief lectures on second language acquisition provided in class?
- 6) To what extent did the learners implement 'repeating' and 'shadowing'?
- 7) What are their linguistic gains or improvements in English proficiency through the online learning?
- 8) What (if any) are the inter-correlations between factors related to English learning through the present online learning material?

## **Method**

### **Participants**

This study involved 17 economics majors (10 male students and 7 female students) ranging from freshmen to seniors who enrolled in the course entitled 'English Training (a)' at Shimonoseki City University. This course is designed for students who are interested in taking the TOEIC test, and thus, it is assumed that their main goal is to achieve higher scores in the TOEIC test. Some of them had taken English qualification tests such as the TOEIC test, the TOEFL test, and the STEP test (Eiken) before they participated in the course, but many of them had not taken the TOEIC test before. All students who wanted to participate in the course utilizing the online English learning material were accepted, and they were not placed in this course on the basis of their English proficiency test scores and their English proficiency varied.

### **Contents of the Course**

Each session of the course consisted of two basic parts; 1) the two training parts, where the

students practiced the contents of the online material on their own accord, and 2) a brief lecture for about 20 minutes by the researcher with varied topics on how to succeed in English learning, which was usually provided between the two training parts. The entire course involving the online teaching material contained 15 class hours in the spring semester in 2014, with three testing sessions provided at the beginning, in the middle, and at the end of the 15 class hours. The tests provided were simulated ones with similar questions to the actual TOEIC bridge tests.

The participants were assumed to be able to spend at least one hour on the online training in one class, although there were some differences in the time spent on the training, depending on participants. Thus, it was estimated that at least 10 to 15 hours were spent on the computer training in class alone. However, the researcher emphasized throughout the course that training only in class hours was not sufficient for them to improve their English proficiency in the limited period, and that it was imperative for them to spend a certain amount of time, say, at least 30 minutes to one hour every day on the training outside the class as well. Furthermore, the researcher required that the participants should practice 'repeating' and 'shadowing' as much as possible while they were training, using a great amount of model sentences involved in the program. This online program has a function, on the part of the instructor, of measuring the amount of time which each learner has spent on his/her training and the number of sections he/she has completed. These functions facilitate the researcher to investigate the relationships between their improvements in English proficiency, the number of sections they have covered, and the time spent on the online learning.

### **Contents, Testing Procedure, and Questionnaire**

There are two versions of online teaching materials produced by 'Company A'. Course A is designed to achieve 600 points in 150 hours in the TOEIC test and Course B to attain 800 points in 450 hours in the same test. The researcher selected Course A for the participants, taking their proficiency level into account. Course A consisted of the following five parts corresponding to the actual TOEIC bridge test; Part 1 for Picture Description, Part 2 for Response Questions, Part 3 for Questions on Conversations, Part 4 for Grammar and Vocabulary, and Part 5 for Reading. Each part had the following structure; 1) vocabulary lessons for the part, 2) model sentence lessons for the part involving the vocabulary items already learned, 3) dictation lessons for the part, 4) basic training questions for the part, and the training questions corresponding to those in the TOEIC bridge test. The entire program contained 69 sessions, with 10 sessions for Part 1, 14 for Part 2, 19 for Part 3, 12 for Part 4, and 14 for Part 5. The entire program was designed to be completed in 150 hours.

The participants' English proficiency was measured, using the simulated TOEIC bridge tests accompanied with this program which involved similar questions as introduced above, at the beginning, in the middle, and at the end of the course. The length of the test time for each test was pre-determined and the same across the three tests, and all of the participants were able to complete the tests in time. For the assessment of learners' gains in the course, the results obtained in the first and the last test were utilized as the pre-test and the post-test, which had correlation coefficients of 0.62,  $p < 0.02$  and 0.84,  $p < 0.00$  with the participants' TOEIC test scores respectively.

After the course finished, a questionnaire (see Appendix) was provided for the participants to obtain information on their educational backgrounds, proficiency test scores already taken, and

impressions about the contents of the course, and 17 responses were obtained. The data from these 17 respondents were utilized for the analyses.

## Results and Discussion

The following is the results of the analyses of the data obtained from the 17 participants with respects to their educational backgrounds, motivations, impressions of the contents of the CALL training course, and linguistic gain.

### Educational Backgrounds and Contents of CALL Training

1) What did the participants learn in their English learning both at home and at school in their high school days?

The questions related to items 14 through 23 mainly asked to what extent the learners worked on each component of English learning when they were high school students. As the figures for 14 through 23 in Table 1 below show, the participants responded that they worked on reading, writing, and grammar almost equally, with similar ratios of concentration both at home and at school. As predicted, they answered they worked on speaking and listening less, but the figures also show they worked even on speaking and listening to some extent both at home and school. This may suggest that more emphasis has been placed on training communicative skills in recent high school education than in the past.

The figures for items 24 through 33 show what percentage each component in English learning accounts for both at home and at school. The present researcher had intended to ask questions about their backgrounds in high school days here as well, but some of the participants may have interpreted these questions as those regarding their present state rather than in their high school days. Similar tendencies were observed both at home and at school; that is, they learned reading most, grammar second, listening and writing less, and speaking least, although there is a difference in this order between listening and writing.

2) What are their motivations like in terms of English learning?

The figures for items 34, 35, and 36 are concerned with the motivations of the participants. The first question in this category asked about their self-evaluated intensity of motivations, but no special result was observed. The question for item 35 asked about the intensity of their instrumental motivation, which is referred to as a motivation to learn a foreign or second language as a tool to attain advantageous positions in society. Achieving a high score in the TOEIC test in order to be employed by a large enterprise is included in this category. It was assumed that the participants might have a strong intention to achieve higher scores in the TOEIC test for such purposes, but their instrumental motivation was not so conspicuous. It is quite probable that their motivation to take the TOEIC test is not strong enough to spend a substantial time to achieve higher scores on their own accord, and that they simply believe that higher TOEIC scores are necessary in obtaining decent jobs.

3) To what extent did the learners utilize the present online material both in and outside classes?

The figures for items 37 and 38 show to what extent the participants think they have used the

online learning material inside and outside the classroom. The figure 4.2 for the use in class indicates they have used the material sufficiently in class hours, but they used it less outside the class, as the figure 3.6 shows. These figures reflect what the researcher has observed throughout the whole semester, and one key factor to improve their English proficiency must be their voluntary use of the material outside classes. Obviously some of them did not touch keyboards at all after the class time was over.

4) What impressions do they have in relation to the use and effects of the online material?

The figures for items 39, 40, and 41 are concerned with the impressions learners had on their improvements in listening, grammar, and reading. The figures, 3.8, 3.5, and 3.4, out of 5 points seem to show their fairly positive impressions on their improvements, although these were not particularly clear. The figure 4.2 for item 42 shows learners' confidence in the online learning material; they seem to believe that this material can facilitate their linguistic improvements substantially when they spend more time on it. Furthermore, the figure 4.0 for item 43 indicates their fairly strong preference for the online material. The question asked whether they had fun in training through this computer program. Training through online computer programs can be tiresome, but this figure shows they enjoyed the program substantially.

5) What are their impressions like concerning brief lectures on second language acquisition provided in class?

In each class, the researcher provided the learners with short lectures on how a foreign or second language is acquired, such as one on the importance of linguistic input, output and interaction, and on the effects of the learning environment on second language acquisition. These lectures were provided in the middle of class hours, when the learners looked tired, spending 15 to 20 minutes. The researcher implemented this brief session on second language acquisition in the belief that, with such knowledge provided, the learners' learning would be enhanced and they would be more ready to learn English through the online material. The figure 4.3 for item 44 indicates that they thought these brief sessions contributed substantially to their language learning.

6) To what extent did the learners implement 'repeating' and 'shadowing'?

The researcher required that the learners implement 'repeating' and 'shadowing' as much as possible in training with the online material. 'Repeating' simply means repeating English sentences they see on the computer screen, and 'shadowing' refers to repeating sentences without looking at them, preferably simultaneously. The present online material involves a function which enables learners to listen to sentences on the screen repeatedly by clicking its sound button. It is assumed that constant 'repeating' and 'shadowing' can contribute, as input and output, to enhancing learners' English proficiency. The figure, 3.7, for item 45 indicates that they implemented 'repeating' and 'shadowing' as instructed, although the researcher felt that more could have been done in class to improve proficiency.

**Table 1***Descriptive Statistics for Backgrounds and Contents of CALL Training*

<i>Variable</i> <i>n = 17</i>	<i>Mean</i>	<i>SD</i>
1. Listening Score in Test 1	66.8	10.6
2. Listening Score in Test 2	74.2	10.3
3. Reading Score in Test 1	58.0	13.8
4. Reading Score in Test 2	68.7	16.9
5. Total Points in Test 1	124.8	21.9
6. Total Points in Test 2	142.9	25.2
7. Numbers of Items Covered	22.8	11.3
8. Hours Spent on Training	35.5	18.9
9. Self-evaluated Speaking Ability	2.5	0.9
10. Self-evaluated Listening Ability	2.9	1.0
11. Self-evaluated Reading Ability	3.3	1.0
12. Self-evaluated Writing Ability	2.8	1.0
13. Self-evaluated Grammar Ability	2.8	1.3
14. Intensity (Speaking) at Home	2.3	1.2
15. Intensity (Listening) at Home	3.0	1.0
16. Intensity (Reading) at Home	3.7	1.0
17. Intensity (Writing) at Home	3.5	1.2
18. Intensity (Grammar) at Home	3.8	1.2
19. Intensity (Speaking) at School	2.7	0.9
20. Intensity (Listening) at School	3.8	1.2
21. Intensity (Reading) at School	3.9	1.3
22. Intensity (Writing) at School	3.5	1.2
23. Intensity (Grammar) at School	3.6	1.5
24. % for Speaking at Home	9.0	6.3
25. % for Listening at Home	22.2	15.0
26. % for Reading at Home	26.4	13.1
27. % for Writing at Home	17.4	9.6
28. % for Grammar at Home	22.4	14.7
29. % for Speaking at School	10.9	7.1
30. % for Listening at School	17.7	9.5
31. % for Reading at School	29.7	13.1
32. % for Writing at School	19.7	10.2
33. % for Grammar at School	22.1	8.7
34. Intensity of Motivation	3.1	0.9
35. Instrumental Motivation	3.5	1.1
36. Integrative Motivation	3.8	1.1
37. Use of Material inside Class	4.2	0.8
38. Use of Material outside Class	3.6	0.8



39. Perceived Improvement (Listening)	3.8	0.6
40. Perceived Improvement (Grammar)	3.4	0.8
41. Perceived Improvement (Reading)	3.4	0.7
42. Confidence in the Material	4.2	0.4
43. Fun in Learning	4.0	0.8
44. Lecture on SLA	4.3	0.6
45. Shadowing	3.7	0.7
46. Gain in Listening	7.4	8.4
47. Gain in Reading	10.7	12.8
48. Gain in Total Score	18.1	16.5

### Time Spent on the Online Material and the Number of Items Completed

This e-learning material was designed to be completed in 150 hours, and the participants spent 35.5 hours on average on this material in and outside the classes, with a maximum of 88.4 hours and a minimum of 18.6, while 22.8 items for learning in the material out of 69 items were completed on average with a maximum of 49 items and a minimum of 9 items. This means that approximately two parts in the listening section were completed by average learners but almost nothing was done in the reading sections. Since things taken as input in the listening sections can contribute to developing their English proficiency, this fact does not necessarily mean that they did not learn anything for reading. However, as with the maximum and minimum figures, there were wide discrepancies between the efforts of dedicated learners and those who were not. The most diligent learner is assumed to have spent at least one hour every day during the semester, but the least dedicated spent almost no time outside the class.

### Linguistic Gains Assessed with *t*-test

7) What are their linguistic gains or improvements in English proficiency through the online learning?

The learners' linguistic gains were measured in relation to listening, reading, and the total score, using the results of the pre-test and the post-test. The tests used for the assessment were the two of those attached to this online material, which had correlation coefficients of 0.62,  $p < 0.02$  and 0.84,  $p < 0.00$  with the participants' TOEIC test scores respectively.

**Table 2**

*T* – test for Listening, Reading, and Total Score

Listening	<i>N</i>	<i>Mean</i>	<i>SD</i>
L1	17	66.82	10.58
L2	17	74.24	10.34
Difference	17	7.41	8.54

*t* – value = 3.58    *p* – value = 0.003

Reading	<i>N</i>	<i>Mean</i>	<i>SD</i>
R1	17	58.00	13.77
R2	17	68.71	16.87
Difference	17	10.71	12.84

$t$  - value = 3.44       $p$  - value = 0.003

Total Score	<i>N</i>	<i>Mean</i>	<i>SD</i>
T1	17	124.82	5.31
T2	17	142.94	6.10
Difference	17	18.12	16.58

$t$  - value = 4.51       $p$  - value = 0.000

As far as  $t$  - values in the table above are concerned, statistically significant differences were observed between the pre-test and the post-test in terms of listening, reading, and the total score, although the differences were not so large. It was noteworthy that the participants gained 18.12 points on average in the total score between the pre-test and the post-test during the semester. In fact, there were four subjects who were able to gain more than 30 points. One point to be noted is that even those who did not study any item in the reading parts were able to gain more points in the post-test than in the pre-test. This fact may indicate that the input taken in the listening parts in the form of both oral and written texts worked significantly for their linguistic improvements.

### Inter-correlations between Factors

8) What are the inter-correlations between factors related to English learning through the present online learning material?

Inter-correlations between variables were sought to see if there were any relationships between them, and the following is the list of pairs where some correlations were detected.

- 1) (18) Intensity (Grammar) at Home and (1) Listening Score in Test 1       $r = 0.57$  ( $p = 0.018$ )
- 2) (18) Intensity (Grammar) at Home and (3) Reading Score in Test 1       $r = 0.55$  ( $p = 0.022$ )
- 3) (18) Intensity (Grammar) at Home and (5) Total Points in Test 1       $r = 0.62$  ( $p = 0.003$ )
- 4) (18) Intensity (Grammar) at Home and (2) Listening Score in Test 2       $r = 0.66$  ( $p = 0.004$ )
- 5) (18) Intensity (Grammar) at Home and (4) Reading Score in Test 2       $r = 0.60$  ( $p = 0.01$ )
- 6) (18) Intensity (Grammar) at Home and (6) Total Points in Test 2       $r = 0.67$  ( $p = 0.00$ )

Moderate correlations were detected between learners' test scores in the pre-test and the post-test and their emphasis on grammar in studying at home in their high school days. These figures seem to indicate that those who believed they had studied grammar hard at home in their high school days tended to achieve higher scores in both tests. However, this does not necessarily mean that they actually worked hard on grammar in high school days; it merely indicates that they believe they did. It is difficult to confirm the fact, but the extent of grammar study in those days could have contributed to the test results.

Furthermore, moderate or fairly high correlations were found between learners' test scores in the pre-test and the post-test, the self-evaluated intensity of motivations, and that of instrumental motivation. Whether it is a general motivation or an instrumental one, the intensity of motivations seems to have affected

high scores in both tests.

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| 7) (34) Intensity of Motivation and (3) Reading Score in Test 1       | $r = 0.49$ ( $p = 0.046$ ) |
| 8) (34) Intensity of Motivation and (4) Reading Score in Test 2       | $r = 0.73$ ( $p = 0.001$ ) |
| 9) (34) Intensity of Motivation and (6) Total Points in Test 2        | $r = 0.64$ ( $p = 0.006$ ) |
| 10) (35) Instrumental Motivation and (2) Listening Score in Test 2    | $r = 0.71$ ( $p = 0.001$ ) |
| 11) (35) Instrumental Motivation and (4) Reading Score in Test 2      | $r = 0.62$ ( $p = 0.008$ ) |
| 12) (35) Instrumental Motivation and (6) Total Points in Test 2       | $r = 0.71$ ( $p = 0.001$ ) |
| 13) (35) Instrumental Motivation and (18) Intensity (Grammar) at Home | $r = 0.53$ ( $p = 0.028$ ) |

In addition, other meaningful correlations were detected in the following pairs.

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| 14) (37) Use of Material inside Class and (38) Use of Material outside Class | $r = 0.51$ ( $p = 0.037$ ) |
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This seems to indicate that those who used the material a lot in class did the same outside the class as well.

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| 15) (39) Perceived Improvement (Listening) and (38) Use of Material outside Class | $r = 0.59$ ( $p = 0.013$ ) |
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It could be interpreted that those who believed they improved listening tended to use the online material even outside the class.

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| 16) (41) Perceived Improvement (Reading) and (37) Use of Material inside Class | $r = 0.65$ ( $p = 0.004$ ) |
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The learners who answered that they used the material a lot in class were likely to feel that they improved their reading.

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| 17) (41) Perceived Improvement (Reading) and (40) Perceived Improvement (Grammar) | $r = 0.67$ ( $p = 0.003$ ) |
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Those who felt they made improvements in reading were also positive in thinking they did the same in grammar.

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| 18) (39) Perceived Improvement (Listening) and (42) Confidence in the Material | $r = 0.61$ ( $p = 0.01$ ) |
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This correlation seems to indicate that the learners who felt they improved listening had confidence in this online material.

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| 19) (43) Fun in Learning and (37) Use of Material inside Class | $r = 0.59$ ( $p = 0.013$ ) |
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The learners who answered they used the material a lot in class tended to respond they had fun in using the material.

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| 20) (46) Gain in Listening and (35) Instrumental Motivation | $r = 0.51$ ( $p = 0.036$ ) |
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| 21) (47) Gain in Reading and (35) Instrumental Motivation | $r = 0.56$ ( $p = 0.019$ ) |
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| 22) (48) Gain in Total Score and (35) Instrumental Motivation | $r = 0.70$ ( $p = 0.002$ ) |
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It is noteworthy that linguistic improvements observed in listening, reading, and the total score were moderately correlated only with instrumental motivation which is a motivation to drive learners to learn a foreign or second language as a tool to be successful in their career. Except for these three pairs, there were no other pairs where linguistic gains were correlated with other variables. Thus, it can be interpreted that those who had strong instrumental motivation in learning English achieved more improvements through the online training, which is quite plausible. One interesting point related to their motivations is that neither learners' integrative motivation nor motivation in general correlated with any of the variables concerning linguistic gains. This issue of motivation, i.e., which motivation is crucial in successful language learning, has been controversial for over four decades, but as far as the present data is concerned, instrumental motivation played a more important role.

Finally, one important point in relation to learners' input taken in the course of the online training is that neither time spent on the training nor the number of items covered in the program was correlated with their linguistic gain. It was assumed that the more time learners spent on training, covering more items, the

more improvements they would achieve, but that was not true of the present study. This requires further investigation. There was one learner who spent the second most time in class yet demonstrated minimal improvement. This anomaly could be attributed to the learner's learning style, which is worth deliberating in further studies. Different results may have appeared if linguistic input had been provided over a longer period, say, for one year.

### **Summary and Conclusion**

The present exploratory study was conducted so that problems involved in an English course utilizing computer assisted language learning material could be specified and points to be investigated in further studies might be detected in relation to e-learning of this type. The participants of this study, 17 university students at a local public university, experienced training for one semester with an online English learning material in a course designed to enhance their English proficiency and help them to achieve higher TOEIC scores. The following is the summary of the research findings.

- 1) As predicted, the participants worked more on reading, grammar, and writing, and less on speaking and listening both at home and at school in their high school days, but more emphasis has been placed on listening and speaking, compared with former times.
- 2) The participants' self-evaluated motivations were not so significant, but their instrumental motivation was slightly higher than their integrative motivation.
- 3) The participants used the online learning material to a sufficient degree in class, but not outside. This is a problem to be solved in order to improve their English proficiency.
- 4) Learners' beliefs regarding their improvements through the online material varied, but most of them seemed to believe they could improve their English proficiency when it was used to a sufficient degree.
- 5) The learners may have believed that the brief sessions on how a foreign language is learned provided by the researcher contributed substantially to their language learning, but its effectiveness on language learning needs to be further investigated.
- 6) The learners responded that 'repeating' and 'shadowing' were done in and outside classes to some extent, but more could have been done to improve their proficiency.
- 7) There were some statistically significant gains in reading, listening, and the total score, which were achieved in the class involving the online learning material, although these gains were not so conspicuous.
- 8) Their linguistic improvements observed in listening, reading, and the total score were moderately correlated with their instrumental motivation only. Except for these three pairs, there were no other pairs where their linguistic improvements were correlated with variables.
- 9) There was no correlation between the time spent on the learning material, the number of items covered, and learners' linguistic gains, indicating that the amount of input provided had little effect on their improvements.

### **Pedagogical Implication**

The present exploratory study has revealed the following points to be deliberated in future studies; 1) how we can develop learners' autonomy, 2) relationships between successful English

learning and learner's individual traits, and 3) continuity of learning involving the online learning material and other English courses offered at university.

First of all, the problem of how we can develop learners' autonomy must be addressed. As far as the researcher observed, the learners were not so willing to spend their time on the material on their own accord. If they had not been involved in the class and not been encouraged to do so repeatedly, they would not have spent enough time on the material. This is true of any kind of learning, but developing learners' autonomy is the key issue, especially in learning English through the online learning material. One encouraging point is that they spent a substantial amount of time, 35.5 hours on average, on the material, probably mostly in class, and this would be far greater than the time spent passively or idly in other types of regular English classes. In addition, a group of students with higher motivation outperformed other learners both in time and in linguistic achievement, indicating the material could work efficiently for such students. It is needless to say that constant encouragement by the instructor is mandatory in this type of courses.

Secondly, learners' individual traits related to second or foreign language acquisition should be further investigated, as the research conducted by Nakano (2011) revealed. For example, a relationship between learners' linguistic gain and their instrumental motivation, which was significant in the present study as well, could be a research topic worth further investigation, and the findings could contribute to Japanese university students who are eager to obtain higher scores in the TOEIC test for their careers. University learners are not concerned with effective learning styles and affective conditions appropriate for their successful language acquisition, and suggestions from research findings related to these aspects could contribute to their improvement in English.

Finally, sufficient comprehensible input, which is a prerequisite for successful foreign language learning to take place, must be continuously provided until students graduate, preferably in the way they learn on their own accord. This will surely help students learn effectively in other English courses offered in university English education including reading, writing, and speaking, thus contributing to enhancing their English proficiency to the extent that they can use the target language successfully in their subsequent careers. The relationship between providing comprehensible and sufficient input through the online learning material and students' later success in other areas of English learning should be further investigated, although convincing results on this point were not obtained from the present exploratory study.

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#### Appendix:The Questionnaire employed in the study

オンライン教材を使用した授業についてのアンケート

氏名( )

#### I. 英語学習の背景について

1. 英語は得意ですか。以下の項目について該当するものを○で囲んでください。「全く得意でない」を1、「どちらともいえない」を3、「とても得意だ」を5とします。主観的でけっこうです。

- |            |   |   |   |   |   |           |
|------------|---|---|---|---|---|-----------|
| 1) 英語を話すこと | 1 | 2 | 3 | 4 | 5 | (Item 9)  |
| 2) 英語を聞くこと | 1 | 2 | 3 | 4 | 5 | (Item 10) |
| 3) 英語を読むこと | 1 | 2 | 3 | 4 | 5 | (Item 11) |
| 4) 英語を書くこと | 1 | 2 | 3 | 4 | 5 | (Item 12) |
| 5) 英語の文法   | 1 | 2 | 3 | 4 | 5 | (Item 13) |

2. 大学入学までに、英語の勉強を、**家庭**でよくしましたか。以下の項目について該当するものを○で囲んでください。「全くしていない」を1、「どちらともいえない」を3、「とてもよくした」を5とします。

- |             |   |   |   |   |   |           |
|-------------|---|---|---|---|---|-----------|
| 1) 英語を話す練習  | 1 | 2 | 3 | 4 | 5 | (Item 14) |
| 2) 英語を聞く練習  | 1 | 2 | 3 | 4 | 5 | (Item 15) |
| 3) 英語を読む練習  | 1 | 2 | 3 | 4 | 5 | (Item 16) |
| 4) 英語を書く練習  | 1 | 2 | 3 | 4 | 5 | (Item 17) |
| 5) 英語の文法の練習 | 1 | 2 | 3 | 4 | 5 | (Item 18) |

3. 大学入学までに、英語の勉強を、**学校の授業内**でよくしましたか。以下の項目について該当するものを○で囲んでください。「全くしていない」を1、「どちらともいえない」を3、「とてもよくした」を5とします。

- |            |   |   |   |   |   |           |
|------------|---|---|---|---|---|-----------|
| 1) 英語を話す練習 | 1 | 2 | 3 | 4 | 5 | (Item 19) |
| 2) 英語を聞く練習 | 1 | 2 | 3 | 4 | 5 | (Item 20) |
| 3) 英語を読む練習 | 1 | 2 | 3 | 4 | 5 | (Item 21) |
| 4) 英語を書く練習 | 1 | 2 | 3 | 4 | 5 | (Item 22) |
| 5) 英語の文法練習 | 1 | 2 | 3 | 4 | 5 | (Item 23) |

4. 自分の**家庭**での英語学習振り返ってみて、英語学習全体を100%とすると、以下の1)～5)の項目はそれぞれ何パーセント程度になりますか。合計100%になるように大まかに示してください。

- |            |       |           |
|------------|-------|-----------|
| 1) 英語を話す練習 | ( ) % | (Item 24) |
| 2) 英語を聞く練習 | ( ) % | (Item 25) |
| 3) 英語を読む練習 | ( ) % | (Item 26) |

- 4) 英語を書く練習 ( ) % (Item 27)  
5) 英語の文法練習 ( ) % (Item 28)

5. 自分の**学校での英語学習**振り返ってみて、英語学習全体を100%とすると、以下の1)～5)の項目はそれぞれ何パーセント程度になりますか。合計100%になるように大まかに示してください。

- 1) 英語を話す練習 ( ) % (Item 29)  
2) 英語を聞く練習 ( ) % (Item 30)  
3) 英語を読む練習 ( ) % (Item 31)  
4) 英語を書く練習 ( ) % (Item 32)  
5) 英語の文法練習 ( ) % (Item 33)

6. 海外に旅行で行ったり、居住したりしたことはありますか。○で囲んで下さい。

はい            いいえ

「はい」と答えた人は、例に従って、場所、様態、期間を記入してください。

例 (オーストラリアに修学旅行で1週間)

(アメリカに留学で1年間)

( )

7. 以下の英語検定試験のうちこれまでに受験したものがあれば成績を教えてください。

英検 ( ) 級

TOEIC ( ) 点

TOEFL ( ) 点

## II. 英語学習の動機づけについて

8. 自分の英語を学ぶモチベーション(動機づけ)の強さを自己評価し、以下の項目について該当するものを○で囲んでください。「全く動機づけが弱い」を1、「どちらともいえない」を3、「とても動機づけが強い」を5とします。

1        2        3        4        5 (Item 34)

9. 自分の動機づけを以下の2点から見た場合、それぞれの項目に関する評価を表す番号を○で囲んでください。「全く動機づけが弱い」を1、「どちらともいえない」を3、「とても動機づけが強い」を5とします。

1) TOEICや英検でより高いスコア、級をとって就職の際に有利になるようにしたい。

1        2        3        4        5 (Item 35)

2) 英語が使えるようになり英語が話されている国々の人々と関われるようになりたい。

1        2        3        4        5 (Item 36)

## III. オンラインの英語教材について

10. このオンライン教材を**授業中に**十分に使用しましたか。該当するものの番号を○で囲んでください。(Item 37)

- 1) 全く使用していない。  
2) あまり使用していない。  
3) まあまあ使用した。  
4) わりとよく使用した。  
5) とてもよく使用した。

1) と 2) を選んだ人はその理由を書いてください。

11. このオンライン教材を**授業外で（家庭や空き時間に）**十分に使用しましたか。該当するものの番号を○で囲んでください。(Item 38)

- 1) 全く使用していない。
- 2) あまり使用していない。
- 3) まあまあ使用した。
- 4) わりとよく使用した。
- 5) とてもよく使用した。

1) と 2) を選んだ人はその理由を書いてください。

12. このオンライン教材を用いた授業を通じて、あなたの**英語を聞く力**は以前と比べて伸びとしますか。該当するものの番号を○で囲んでください。(Item 39)

- 1) 全然伸びたと思わない。
- 2) あまり伸びたと思わない。
- 3) どちらともいえない。
- 4) かなり伸びたと思う。
- 5) 相当伸びたと思う。

13. このオンライン教材を用いた授業を通じて、あなたの**英文法の力**は以前と比べて伸びとしますか。該当するものの番号を○で囲んでください。(Item 40)

- 1) 全然伸びたと思わない。
- 2) あまり伸びたと思わない。
- 3) どちらともいえない。
- 4) かなり伸びたと思う。
- 5) 相当伸びたと思う。

14. このオンライン教材を用いた授業を通じて、あなたの**英語を読む力**は以前と比べて伸びとしますか。該当するものの番号を○で囲んでください。(Item 41)

- 1) 全然伸びたと思わない。
- 2) あまり伸びたと思わない。
- 3) どちらともいえない。
- 4) かなり伸びたと思う。
- 5) 相当伸びたと思う。

15. このオンライン教材を徹底的に学習したら**英語力が向上する**と思いますか。(Item 42)

- 1) 全然そう思わない。
- 2) あんまりそう思わない。
- 3) どちらともいえない。
- 4) かなりそう思う。
- 5) 絶対そう思う。

16. このオンライン教材を用いた**トレーニングは面白かった**ですか。(Item 43)

- 1) 全くおもしろくなかった。
- 2) あまりおもしろくなかった。
- 3) どちらともいえない。
- 4) わりとおもしろかった。
- 5) とてもおもしろかった。



1) と 2) を選んだ人はその理由を書いてください。

17. 授業中に教員が話した外国語習得に関する話は役に立ちましたか。(Item 44)

- 1) 全然そう思わない。
- 2) あんまりそう思わない。
- 3) どちらともいえない。
- 4) かなりそう思う。
- 5) 絶対そう思う。

18. このオンライン教材を使用しながら、英語の文のリピーティング、シャドウイングをよくしましたか。(Item 45)

- 1) 全くしなかったと思う。
- 2) あまりしなかったと思う。
- 3) まあまあしたと思う。
- 4) かなりしたと思う。
- 5) とてもよくしたと思う。