Examining The Relations Between Motivation, Receptive Vocabulary Acquisition and Autonomous Learning

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Abstract

This small-scale study examines the extent to which Japanese university sophomore students made efforts to carry out autonomous study over the course of one university semester.　The study looks at the effect that this self-reported autonomous study had on the development of students' receptive English vocabulary levels, measured using The Vocabulary Levels Test (Nation, 2008).　The study shows that even with a variety of autonomous study resources available to the students, having clearly defined goals regarding English study appears to be a key factor regarding both the extent to which students make use of the resources and the increases in their receptive vocabulary scores.

Keywords : motivation, autonomy, vocabulary

Introduction

After completing their first semester in a communicative English as a foreign language (EFL) class at a Japanese university, one class of sophomore students approached one of the authors (not the teacher of the class in question) and confidentially expressed frustration at their lack of perceived progress in their language ability, specifically related to vocabulary acquisition and understanding in written texts.　The communicative EFL class in question had focused on collaborative task-based learning, featuring no specific vocabulary teaching or activities and relied instead on the students themselves to incorporate autonomous learning practices to make up for self-perceived deficiencies in their English.　This study discusses to what extent students in the class made efforts to engage in autonomous study outside the classroom during the following university semester and whether the combination of the reported methods and the motivations of the participants aided or hindered the development of receptive English vocabulary levels.

Literature review

It is an aphorism that vocabulary is a fundamental component of second language proficiency.　For students, a lack of vocabulary will stymie their efforts to communicate – both to understand and be understood. For teachers, students' poor vocabulary skills can limit the type and level of activity that can be offered in the second language (L2) classroom.　And yet there is a belief in some circles that vocabulary need not be taught explicitly.　Instead, it is suggested that mere exposure to the L2 will enable students to soak up the language that they come into contact with, both inside and outside the classroom, in the interactions they listen to, see or take part in.　Harris and Snow's (2004) charge that "few words are retained from those which are 'learned'

or 'taught' by direct instruction" (p. 55) is echoed in Ellis' claim that "most L2 vocabulary is learned incidentally, much of it from oral input" (1994, p. 24).   The onus in these claims seems to be put upon the students to supplement their classroom learning with activities outside of class.   The notion of the motivated L2 student is implied, a student eager to plunge into the world of English and ready to learn from mistakes garnered from interaction in the L2.   We are reminded of Schmidt's (1995) noticing hypothesis, which states that "…what learners notice in input is what becomes intake for learning" (p. 20) and the belief that becoming aware of the regularities which govern the use of language structures can aid in the internalisation of these patterns. In an earlier work, Schmidt and Frota (1986) suggest that in order for input to become intake, learners are required to "make a comparison between their observed input and typical output based on their current interlanguage system" (Cross, 2002).   In other words, students must observe or, to use Schmidt and Frota's term, "notice the gap" (1986, p. 311) between their current skill set and their language goals, and in doing so be able to "reflect on what is noticed, endeavour to understand its significance and experience insight" (Cross, 2002). However, in this paper we suggest that merely to experience insight is not enough to promote measurable vocabulary acquisition.   Instead, students require direction and guidance to assist them in developing autonomous practices, which may in turn, assist them in discovering ways of improving their L2 skills.

It is important not to conflate autonomy with self-instruction or individualisation whereby learners can determine their own needs and act upon these needs independently.   Rather, through studies such as Kohonen's experiential model (1992), autonomy is more generally conceptualised as an interdependent model, incorporating the student, the institution and the teachers within it, allowing possibilities for students to explore avenues of self-regulation in learning both inside and outside the classroom.

David Barker, in his 2007 article tackles the question of which words students should learn and teacher's role in this acquisition.   Whilst acknowledging the importance of "informed" teachers giving "systematic and structured input" (p. 531), Barker makes the case for students themselves to consider the pros and cons, or "cost and benefit" (p. 526) of learning new vocabulary via the answering of a series of questions to ascertain whether the new word is worthy of the time to study it.   Hulstijn (2013) also supports the need for student involvement in the vocabulary learning process and posits that the retention of new vocabulary is dependent upon student effort, such as activities which require them to look up and process the meaning of new words. Acquisition of vocabulary that is not part of a conscious or intentional learning process is referred to as incidental learning (Hulstijn, 2001).   File and Adams' (2010) study into vocabulary instruction and retention found that both isolated and integrated vocabulary instruction led to greater learning and retention than incidental exposure.   The implication therefore is that learning resulting in 'successful' vocabulary acquisition cannot be a merely osmotic process.   Schmitt (2000) argues that for incidental learning to be effective, "acquisition requires multiple exposure to a word" and that "if recycling is neglected, many partially known words will be forgotten, wasting all the effort already put into learning them" (p. 137).   The concept and value of recycling is echoed by Milton (2009) and by Nation (2008), who both advocate the need for repetition of vocabulary.   The key, to effective vocabulary acquisition appears to be one of focus, time and dedication spent by both teacher and student to achieve a directed goal.   It follows that, rather than a vague and arbitrary oft-heard desire by the L2 student and, indeed, echoed by the participants in this study, to 'speak like a native speaker', more rigorous, better-defined and tangible goals might be sought and/or offered which are altogether more pertinent to members of the learning environment.   With vocabulary acquisition having a distinctive role to play in L2 study, the fact that vocabulary learning and teaching should be targeted as one such explicit goal in the language classroom appears self-evident.   In addition, given the limited amount of time per week

spent in many L2 classrooms, the creation of activities to encourage and promote autonomous study seems equally fundamental.

In stating his belief in the value of autonomy, Benson (2002) claims that "autonomous learning is more effective than non-autonomous learning" (p. 2) and that "the development of autonomy implies better language learning" (p. 2).　As we have argued, in order for students to develop a rich lexicon in the L2, at least some of the onus needs to be placed upon the student to avail him/herself of the opportunities for increasing their vocabulary either within or without the walls of the institution.　Dafei's 2007 research on the relationship between learner autonomy and English proficiency, showed a clear correlation between learner autonomy and English proficiency.　According to Dafei, an autonomous learner is one that may be described as being independent and who takes full responsibility for all the decisions concerning their learning, "defining the objectives；defining the constraints and progressions；selecting methods and techniques to be used；monitoring the procedures of application；evaluating what has to be acquired" (Dafei, 2007, pp. 5-6).

In other research, carried out in the same setting as this paper, students were encouraged to discover effective ways to address their English grammar weaknesses.　In this previous study, students were given time and guidance to explore a variety of out-of-classroom resources.　Feedback from the class suggested that students saw value and perceived improvements in their grammar understanding after being offered an autonomous role in their learning (Cooke, 2012).　It was noted, however, that "even if the learner *is* willing to undertake these practices and the university offers opportunities and resources for students to act on their own initiatives, it does not necessarily follow that he/she will be permitted to engage in them.　Rather, that there are various material, social and psychological constraints at play that might limit implementation of these responsibilities" (Cooke, 2012, p. 50).　In the case of the class in this paper, the introduction of autonomous learning patterns and expectations promoted in the freshman year and the positive outcome of the aforementioned study, suggested that such constraints would not hinder efforts for students to come into contact with a large variety of vocabulary resources outside of the classroom.

The above considerations gave rise to the following research questions：

1- To what extent was autonomous learning being carried out by each student in the study？

2- Does being autonomous in L2 learning lead to higher improvement in vocabulary acquisition？

Setting

The class under study consisted of 20 sophomore students following a required communicative English course in a Japanese university's International Languages and Culture (ILC) department.　The class met twice a week over a period of 15 weeks.　The course being followed consisted of a task-based curriculum with materials created by the teacher.　The curriculum materials consisted of four topics, with each topic divided into a 3-week cycle of readings, discussions and finally presentations of ideas generated from each topic. The topics were chosen for relevance to students' interests (such as music) and topics covering economic and social issues (such as language change in Japan).

The university has an extensive Self-Access Centre (SAC) that holds a large amount of study materials in the form of grammar books and worksheets, in addition to thousands of audio CDs and DVDs and books. An orientation to the SAC is given to all freshman students.　Use of these materials is voluntary.

Method

At the start of the research period, in order to gauge student motivation for learning English, the students were first asked to report on their English learning goals.   Autonomous study forms (see appendix) were handed out to the students at the start the class every second week.   The forms, completed using a persistent pseudonym, asked students to note the frequency and length of time they had spent using and/or studying English outside of class over the last week.

The student's receptive vocabulary level was measured in the second and fourteenth week of the semester using the Vocabulary Levels Test (Nation, 2008).   In the test, students are provided with words which must be matched with their definition.   An example is given in Figure 1 below :

> 1.   copy
> 2.   event   -end or highest point
> 3.   motor   -this moves a car
> 4.   pity   -thing made to be like another
> 5.   profit
> 6.   tip

Figure 1.   An example from The Vocabulary Levels Test 3000 word level test (Nation, 2008, p. 179).

The test is typically divided into five sections.   The words selected for each of the five sections of test are taken from the second, third, fifth and tenth 1000 word frequency bands in English and from the Academic Word list (see Nation, 2008 for further reading).   The test, which measures only receptive vocabulary knowledge, was chosen as the students had mentioned that this was where they perceived their weaknesses lay. The test was also chosen for its ease of grading and scoring and the time required for its completion (approximately thirty minutes).   Of the twenty students registered for the class, fourteen were either present for both of the tests or completed feedback sheets in a manner which enabled analysis.   The data from the vocabulary tests was analysed for increased scores in each level of the test and the self-report sheets were examined for comments which might explain the differences.

Results and discussion

The first research question asks to what extent autonomous learning was being carried out by students in the study.   To measure this, the qualitative responses from students in the autonomous study forms completed each class were analysed by the researchers.   The findings showed that in general, students who were spending more time in autonomous study and who mentioned explicit goals for their study had greater gains in their vocabulary scores.   However, the most striking element of the findings was that the vast majority of the students were spending very little time outside of the classroom engaged in autonomous study.   Of the fourteen respondents to the initial survey concerning learning goals, just three students cited specific learning objectives.   One student, Student A, wrote that she was studying to improve her TOEIC score for em-

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[1]   The Test of English for International Communication (TOEIC) is an English-language proficiency test for non-native students of English.   The two forms of the exam are : The TOEIC Listening & Reading Test and the TOEIC Speaking & Writing Test.

ployment purposes (see note below regarding TOEIC).　Similarly, another student, Student B, wrote that she needed a good English score (presumably in TOEIC) to get a job as a cabin attendant.　Another student, Student C, wrote that her goal in studying English was to *'talk better my friends in another country* [*sic*].'　The remaining 11 students' responses were altogether more vague, such as '*To improve my English'* (4 responses), '*To get a job speaking English.'* (5 responses) and '*To speak like a native speaker'* (2 responses).

It is perhaps no coincidence that the student whose two Nation test scores showed the greatest increases was Student A.　Motivated with clear goals, this student voluntarily detailed her own study timetable on one of her feedback sheets, commenting that a list of words she should know was explicitly set out in the text that she was studying from.　Student A and student B who, had both expressed explicit goals for their learning, also showed increases in their scores over the two Nation tests.

The second research question asks whether being autonomous in L2 learning leads to higher improvement in vocabulary acquisition.　Based on the results of the qualitative data discussed above, the sample was divided into two groups (Not-autonomous and Autonomous).　In the first week of the course, students were asked to complete all sections of Nation's word level test.　Table 1 shows the averaged results for each section of the test.　The level 2000 test showed relatively high scores (i.e., 71.67%), which dropped dramatically to much lower scores at the 3000-word level (i.e., 42.86%) suggesting that students' mean vocabulary strength to be at the 2000-word level.　For this reason, calling upon Krashen's Input Hypothesis theory (1985), that students should be learning at a level just beyond their current one (i.e. i+1), the researchers decided to focus on the 3000-word level to measure improvements in students' vocabulary knowledge.

Table 1　*Descriptive Statistics for Each Level of Nation's Word Level Test*

Test	M	SD	Skewness	Kurtosis	95%CI
2000	21.50	6.05	-1.57	2.32	[18.01, 24.99]
3000	12.86	4.82	0.37	0.91	[10.08, 15.64]
5000	11.07	3.20	-0.21	-0.52	[9.23, 12.92]
10000	6.5	2.85	0.57	-0.51	[4.86, 8.14]
Academic	13.71	6.27	0.38	-0.83	[11.51, 14.75]

Note. $N=14$; Maximum score is 30.

Using SPSS Version 20, a comparison was conducted between the first and second time of attempting Level 3000 of the Nation Vocabulary Test by a one-way analysis of variance (ANOVA), with 95% Confidence Intervals (95%CI) and Partial Eta Squared (η^2) effect sizes also being reported.　It can be seen in the descriptives in Table 2 that the Not-autonomous Group showed no salient improvement, $F(1, 12)=1.46$, $p=.250$, $\eta^2=.109$, but statistically significant improvements were found in the Autonomous Group $F(1, 12)=30.22$, $p<.001$, $\eta^2=.716$ with large effect sizes.

Table 2　*Descriptive Statistics of the Improvements in Test Scores in this Study*

Group	Test	n	M	SD	Skewness	Kurtosis	95%CI
Not-autonomous	1	7	15.00	4.80	0.838	−0.049	[10.56, 19.44]
	2	7	17.57	2.94	−0.184	0.088	[14.86, 20.29]
Autonomous	1	7	10.71	4.07	−0.625	−0.199	[6.95, 14.48]
	2	7	20.43*	2.30	1.453	2.619	[18.30, 22.55]

Note. Maximum is 30 ; **p＝＜.001.*

This gives some statistical evidence that engaging in autonomous study (indicating certain degrees of motivation) leads to better results. However, examination of the total time spent studying English through either music or movies (the most popular form of autonomous study indicated), found no significant difference between the Not-autonomous Group ($M＝72.57$ minutes, $SD＝61.70$) and the Autonomous Group ($M＝206.71$ minutes, $SD＝226.36$), $F (1, 12)＝2.288$, $p＝.156$, $\eta^2＝.160$. Observing that being more highly motivated did not necessarily lead to studying for a significantly longer time, but resulted in higher progress in the vocabulary test, it can be concluded that an approach to teaching, which places emphasis on motivation and in helping students to establish goals for their learning may be more effective improving the quality of these students' study habits.

Conclusions

Despite the statistics showing improvements in test scores for students classed as 'autonomous', the fact that the majority of students in this small-scale study did not develop any significant vocabulary gains and were not seen to take part in much autonomous study is a case for concern. Much responsibility for these shortcomings must be taken by the creator of the curriculum under study who, without offering students tangible goals in their language learning, such as assisting in or establishing goals for vocabulary learning, is clearly failing the students in this regard. As for the students, Milton (2009) proposes that : "in order to notice anything in a language, the learners must be sufficiently willing to take part in the language activity in a meaningful sense" (p. 219). The students in the study that showed the largest increases in vocabulary scores appeared to be spending larger amounts of time devoted to autonomous study. In addition, these students also claimed to be studying for a purpose, rather than having an arbitrary goal of improving their English skill. Nevertheless, *all* the participants in the study were students who had initially approached the author voicing their desire to improve their vocabulary skills. With the aforementioned array of resources available to students at the university, why were the students not accessing them ?

One reason that might be given is that students are being confronted with the paradox of choice – with so many resources available, where should they start ? What practices/materials should their preferred method of learning suggest they avoid ? It might be suggested that an irony of the well-stocked self-access learning centre is that, true to its nature, access to its materials must be voluntary – requiring a certain degree of motivation on the part of the student. As Milton (2009) posits : "successful learners, it seems, employ strategies…create their own opportunities for exposure and repetition" (p. 245). We can postulate that assisting students in developing into more 'successful learners', good classroom practice on behalf of both students and teacher, which includes but is not restricted to, realistic goal-setting and support in the development of autonomous practices, can be of great benefit to all participants in the learning process.

As the present paper is severely limited by the low number of subjects, future research will aim to incorporate a larger sample size, which will aid in producing more qualitative data for analysis.　　Further research will measure other forms of vocabulary acquisition (not only receptive) which might demonstrate a variance in the vocabulary acquisition progress.　　Research could also incorporate interviews with students regarding motivation/changes to motivation over time which could lead to greater data regarding teacher/peer influence etc.　　Comparative data, taken from students who were explicitly encouraged to go to the university's SAC might also demonstrate the effectiveness that a larger variety of autonomous learning styles might have on vocabulary acquisition.

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Appendix

Student autonomous study forms

Name :

　　　How often did you practice English outside of class over the last week?

☐ I spoke to a proficient English speaker.

How often did you speak to them ?　e.g. every day_____

Approximately how long did you speak for (in minutes) ?_____

☐ I read some English.

How often did you do this (e.g. every day) ?_____

What did you read (e.g. newspaper, comic, the internet) ?_____

Approximately how long did you read for (in minutes) ?_____

☐ I listened to some English.

How often did you do this ? (e.g. every day)_____

What did you read ? (e.g. newspaper, comic, the internet)_____

Approximately how long did you read for (in minutes) ?_____

Did you do anything while listening ? (e.g. make notes)_____

☐ I wrote some English.

How often did you do this ? (e.g. every day)_____

What did you write ? (e.g. journal)_____

Approximately how long did you write for (in minutes)_____

☐ I listened to some English.

How often did you do this ? (e.g. every day)_____

What did you watch ? (e.g. movie, T.V.)_____

Approximately how long did you watch for (in minutes) ?_____

Did you do anything while watching ? (e.g. make notes)_____

☐ Other

Please describe

_____

_____