Relationships of Achievement Goals to Use of Learning Strategies of English in Japanese College Students

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This article examines relationships among achievement goals (mastery goals; performance-approach goals; and performance-avoidance goals) and use of learning strategies. Thirty-seven undergraduates and graduates assigned to the questionnaire. The questionnaire included the items which measure participants’ achievement goals, self-efficacy, beliefs about English learning, and the use of learning strategies. The results show the positive relationship between the mastery goals and the use of learning strategies such as meta-cognition, organization, guessing, and social strategies. These findings provide the evidence of the effects of the mastery goals to the use of the effective learning strategies in Japanese students’ English learning. The possibilities to enlargement those findings to the other foreign language situation are discussed in the English learning situation.

Keywords: Achievement Goals, Learning Strategies

How could we learn new materials effectively? It might be a major concern of students in a situation of learning. The more researches show the impacts of the use of learning strategies on academic performance, the more consideration is given to the use of learning strategies (e.g., Okada, 1997). Recent investigations have demonstrated that the learning motivations influence on the use of learning strategies (e.g., Horino & Ichikawa, 1997; Kubo, 1999). In reference to the motivation, Dweck (1986) identified two classes of achievement goals (mastery goals and performance goals) to describe the motivational patterns in the domain of intellectual achievement. There are some studies using achievement goals to measure the motivation (e.g., Elliott & Dweck, 1988; Sato, 2004). Recently, the achievement goals have gained attention from numerous motivation researchers (Uebuchi, 1995). The achievement goals are the goals that individuals pursue in achievement situations (Elliott & Dweck, 1988), and be measured by the items such as “I want to learn as much as possible from this class” (Elliott & Church, 1997). Dweck

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(1986) proposed that the achievement goals have impacts on behavior patterns such as the use of learning strategies. Similarly, Sato (2004) documented the influence of the achievement goals to the use of learning strategies empirically, since showing the evidence about the effects of the achievement goals will provide fruitful suggestion to the classroom. Note that, Sato (2004) asked participants’ general achievement goals but some researchers (Uebuchi, 1995; Uketa & Fujita, 2010; Nakano, 2011) point out the possibility that the achievement goals are domain specific. Thus, this research focuses on English, especially in college students, to study how the achievement goals relate to the use of learning strategies, and provide the evidence about the achievement goals that promote the use of effective learning strategies.

The reason why English learning of college students are selected in this study could be described from a social background in Japan. Recently, the increasing importance of foreign languages such as English and Chinese were emphasized because of today's globalization. Taking English as an example of foreign language, the ministry will implement English education as a compulsory subject in elementary school for 5th and 6th grade students from 2011. Students study English for 3 years and more than nine tenth one study for 6 years in the Japanese compulsory education. Additionally, it has been a compulsory subject in most of the junior high schools and the high schools in Japan. Not only to communicate with native English speakers but also with people whose mother language is not English, we use English, that is, English is surely the most in demand to have a communication with people overseas. Furthermore, Kubo (1999) argued that students after graduating schools are required continuing to study English, recently. Likewise, college students feel that they need to develop their English skill regardless of their major. Some of them strongly feel developing their English competences, the others feel not. For instance, some would develop their speaking competences to apply for employment; the other would develop their writing competences to write a paper in English. Because it is likely that college students have varieties of the learning motivation in English, it might be meaningful to take up English as the subject to consider the effects of the motivation.

Achievement Goal Orientation

Initial achievement goal researchers set two goals; mastery goals which focused on developing ones competence, and performance goals focused on performing ones competence to others (Dweck, 1986). However, recent researchers introduce the dimension of approach-avoidance and extend the dichotomous model to trichotomous model; mastery goals, performance-approach goal which focused on showing others one’s competence, and performance-avoidance goal which focused on avoiding to show others negative information about one’s competence (e.g., Elliot, 1999). It is natural to divide performance goal by approach-avoidance dimension but probably not so natural in the case of mastery goal. That is why many researchers (e.g., Tanaka
& Fujita, 2003) use three goals.

Because Achievement Goal Orientation seems to have important effect on students’ learning behavior, achievement goal researchers study about how these goals relate to many variables such as their score (e.g., Tanaka & Fujita, 2003), test anxiety (e.g., Elliot & McGregor, 2001), and the use of learning strategies (e.g., Sato, 2004; Nakayama, 2005). This paper takes up the use of learning strategies and considers the relationship between them and the achievement goal orientations.

The Types of Learning Strategies

Although the definition provokes continuing debates, a learning strategy is identified as “mental process or action which students use to understand, learn, and memorize new information”, generally (Kojima et al., 2010). According to Sato (2004), learning strategy could be broadly separated into two categories; cognitive strategies (e.g., grouping, summarizing, and asking friends) and meta-cognitive strategies (e.g., planning, self-monitoring). There are broadly two main types of cognitive strategies, surface-processing strategies and deep-processing one (Uesaka, 2010). The former includes simple strategies such as writing the same target word repeatedly which is called rehearsal strategies, word play, and rote memorization. The latter include grouping, summarizing (Pintrich, 2002). Uesaka (2010) argues that learning strategy gains recognition of researchers because it is likely to have a positive effect on learning. Actually, Pintrich and DeGroot (1990) maintain that a learning strategy is one of the major predictor of student’s grade. From this standpoints, many researchers study about the use of effective learning strategies (e.g., Sato, 2004; Okada, 2007). For the purpose of this study, the strategies that are suggested as effective (e.g., organization strategy, meta-cognition strategy, and guessing strategy) would be measured and surface-processing strategies that seems to be less effective in previous study (Marton & Säljö, 1976) would not be measured in this study.

Self-Efficacy and Beliefs about English learning

In addition, a previous study said that there might have other factors that relate on the relationship between achievement goals and learning strategy using; beliefs about Language learning (Nakayama, 2005). Referring to this suggestion, beliefs about English learning are measured in the present study additionally.

Kojima et al. (2010) instance self-efficacy and achievement goals to learn language as major factors of motivation to learning language. Self-efficacy is the major concept in psychology and many motivation researchers studied about this concept since early time. Self-efficacy is generally perceived as a students’ belief about the possibility of doing well in a specific area (Uebuchu, 1995), such as “I could learn many things about English” in the case of learning English. From this standpoint, Mori (2003) shows that students whose self-efficacy are high use more cognitive
strategies in learning English than the others whose self-efficacy are low. These references suggest that self-efficacy might have an effect on the use of learning strategies. Furthermore, other researchers think that self-efficacy is a factor that has the interaction effect on students (e.g., Pintrich, 2002). For that reason, we should better call self-efficacy in account to consider about the effect of achievement goals.

**Purpose of This Study**

The purpose of this study is to consider the relationships between the achievement goals and the use of learning strategies in learning English of college students. In accord with previous discussions, that self-efficacy is a major factor of motivation, using self-efficacy of English as a controlled variable, the relationship between achievement goals and the use of learning strategies are considered in this study. In reference to earlier researches, hypothesis of this study is that mastery goals have a positive influence on the usage of effective cognitive strategies such as organizing strategy and meta-cognitive strategy. Accordingly, the author measures beliefs about English learning. Nakayama (2005) noted that the beliefs about English learning have an influence on the use of learning strategies. Certainly, if some students have the traditional beliefs about English such as “we must memorize a huge number of grammars to study English”, they would use a memorize strategy. Whereat, to get a picture of the relationship between the achievement goals and the beliefs in English learning, their beliefs are measured.

**Method**

**Participants**

Thirty-seven undergraduates and graduates engaged on the research. All participants are students with majors in the school of humanities (12 participants are students of education, 9 are of language, 4 are of literature, and 12 are of English).

**Procedure**

The following items are printed in a book form. The author handed the participants that book form questionnaires, and collected answered questionnaires in 2 to 7 days.

**Measures**

Participants responded to the following items on a six point scale (1 = strongly disagree; 6 = strongly agree).

- **Achievement Goal** Author revised the items of Tanaka and Fujita’s Achievement Goal Questionnaire (2003) to fit this purpose (e.g., Phrases such as “When I study English” and “Taking English test” are added to each item). The Questionnaires consists of three subscales (Mastery goal, Performance-approach goal, and Performance-avoidance goal) and each subscale includes 5 items. The Mastery goal items focus on the degree to which participants are trying to master
English, such as “I want to learn many things about English”. The Performance-Approach goal items focus on the degree to which they are trying to do better than other students (e.g., “When I take English test, my aim is to perform well relative to other students”). The Performance-Avoidance goal items focus on the degree to which they are trying to avoid doing poorly than others (e.g., “My aim is to avoid doing worse than other students, when I take English test”).

**Self-Efficacy** The author revised the word “mathematics” to “English” of Matsunuma’s (2004) Self-Efficacy scale (7 items).

**Beliefs about English Learning** The author revised 14 items of two scales. From Nakayama’s (2005), Beliefs about Learning Language scale, 4 items of beliefs about Traditional English learning style (e.g., “Learning English is to memorize amounts of new word”) and 4 items of beliefs about the importance of speaking competence of English (e.g., “If I could speak English frequently, I could get good job more easily”). The other 6 items are revised items of subscale of Ueki’s beliefs of learning scale (2002). These items are dealing with the thought that the use of learning strategies is important in English learning situation (e.g., “A good English learner is using good learning strategies”).

**Learning Strategy** To assess the degree of the use of learning strategies, 28 items are used. Nine items are items of Kubo’s (1999) English learning strategies scale (e.g., “I guess the meanings of unknown word”). The other 19 items are quoted by Nakayama’s English learning strategies scale (2005) that consists of four subscales; a meta-cognition strategy (9 items such as “I try to find more effective way to learn English.”); an organization strategy (4 items such as “I try to memorize the target word in relation to the other word so that I could evoke them.”); a guessing strategy (2 items such as “I infer the meaning of unknown words from context, before using dictionary.”); a pronunciation strategy (2 items such as “I pronounce the target word until I memorize it.”); and a social strategies (2 items such as “I study English with my friends or other students”).

**Results and Discussion**

**Achievement Goals and Beliefs about English**

First of all, Table 1 shows the characteristics of participants’ achievement goals. From Table 1, the mastery goals of this study’s participants are higher than the other goals, that is their performance approach and avoidance goals. As you know, since most of the participants were major in English, they value to develop their English skill rather than to show their ability to others. It should be noted that SD of Self-Efficacy is large, that is, there is a lot of variation in the data. This might be one signature of this data.
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Correlation coefficients of the achievement goals present the positive relationship between the mastery goals and the performance avoidance goals and between the performance approach goals and the performance avoidance goals. Elliot (1999) maintains that the performance-approach goals and the performance-avoidance goals have both similarity and difference. Both goals focus on the importance of his or her performance such as how people think or evaluate about themselves, not on the importance of developing their ability which the mastery goals related on. In other word, mastery-performance distinction related to the difference of the definition of ability; the mastery goals focused on attaining objective, intrapersonal competence; performance goals focused on attaining normative competence (Elliot & Church, 1997). This commonality persuades us of the positive relationship between performance approach goal and avoidance one. Additionally, many researchers present similar results (e.g., Tanaka & Fujita, 2003).

Furthermore, Table 1 correlates the achievement goals with self-efficacy of English. Although there is no significant relationship between the performance avoidance goals and the self-efficacy, the mastery goals and the performance approach goals are correlated with the self-efficacy. Elliot & Church (1997) describe that both mastery goals and performance approach goals focus on a positive result and Uebuchi (1995) explain that high self-efficacy is likely to relate to the possibility of success. Because not only the mastery goals and the performance approach goals but also self-efficacy focuses on achievement, the results show the significant relationship between these achievement goals and self-efficacy. These results about the achievement goals provide the supports of the achievement goals theory.

Secondly, the results of beliefs about English learning were presented. Table 2 shows that Beliefs about the importance of speaking competence are higher than the other beliefs. That is, many participants tend to value speaking skill of English. To see the difference of beliefs, the author uses the scores per one item of three strategies and compares them by a test of statistical significance. We conducted one-way analysis of variance (ANOVA) on item score with three beliefs as factors. As predicted, there is a significant main effect of the types of beliefs ($F_{(1,35)} = \ldots$)
4.120, p<.05). The result of multiple comparison (Bonferroni method) shows that there are significant difference between the pair of “Traditional English Beliefs” and “Beliefs about speech fluency” (p<.001) and the pair of “Beliefs about Traditional English learning style” and “Beliefs about the importance of strategies” (p<.001), but not between “Beliefs about speech fluency” and “Beliefs about the importance of strategies”. That is, Traditional English Belief is lower than other two beliefs. Beliefs about Traditional English learning style refer to considering English to be the subject that require students to memorize words and grammar. On the other hand, Beliefs about speech fluency refer to considering English to be a communication tool. In fact, Participants of this study hold a weak traditional English belief, thus, they emphasize more on oral communication than memorizing words and grammars in English learning. Besides, they hold a strong strategy belief in learning English, in other words, they attach importance on strategies. Therefore, they might be students who try to seek more effective strategies.

Table 2 Descriptive Statistics of Students Beliefs of English Learning and Correlation of Coefficient between the Achievement Goals

<table>
<thead>
<tr>
<th>Beliefs about Traditional English learning style</th>
<th>Reliability</th>
<th>RANGE</th>
<th>min</th>
<th>MAX</th>
<th>M</th>
<th>SD</th>
<th>Mastery goal</th>
<th>Performance Approach Goal</th>
<th>Performance Avoidance Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beliefs about the importance of speaking competence</td>
<td>0.696</td>
<td>4-24</td>
<td>4</td>
<td>16</td>
<td>11.46</td>
<td>3.19</td>
<td>0.013</td>
<td>0.351*</td>
<td>0.295</td>
</tr>
<tr>
<td>Beliefs about the importance of strategies</td>
<td>0.745</td>
<td>6-36</td>
<td>16</td>
<td>34</td>
<td>25.51</td>
<td>4.72</td>
<td>0.283</td>
<td>0.529*</td>
<td>0.081</td>
</tr>
</tbody>
</table>

Reliability was calculated using Cronbach’s alpha.

It should be noted that Beliefs about Traditional English learning style and Beliefs about the importance of strategies have positive relations between performance-approach goals (Table 2). Participants who rated high on the performance approach goals tend to rate high on beliefs about Traditional English learning style. This result is partially consistent with the findings from Nakayama’s (2005) study. Although Nakayama (2005) did not consider the approach-avoidance dimension, he discussed the connection between the performance goals and the Beliefs about traditional English learning style. Results of the present study suggest that the performance approach goals play a central role in Nakayama’s study (2005). In addition, the performance approach goals correlated with beliefs about the importance of strategies. Both the performance approach goals and the beliefs about the importance of strategies tend to accelerate learning (e.g., Elliot & Church, 1997; Okada, 2007), and that might be the reason of their relationship.
The Use of Learning Strategies

Descriptive statistics of the use of learning strategies are presented in Table 3.

| Table 3 Descriptive Statistics of The use of learning strategies |
|-----------------|--------|---|---|---|---|
|                 | Reliability | RANGE | min | MAX | M  | SD  |
| meta-cognition strategy | 0.888 | 9-54 | 13 | 53 | 32.16 | 9.45 |
| organization strategy   | 0.855 | 4-24 | 4  | 24 | 14.65 | 4.60 |
| guessing strategy       | 0.599 | 2-12 | 4  | 12 | 9.08  | 1.69 |
| pronouncing strategy    | 0.716 | 2-12 | 2  | 12 | 7.22  | 2.21 |
| social strategy         | 0.703 | 2-12 | 2  | 12 | 5.97  | 2.46 |
| drift strategy          | 0.642 | 9-54 | 27 | 48 | 35.59 | 5.40 |

*a Reliability was calculated using Cronbach’s alpha.

According to Table 3, average scores arguably show that the usage of social strategy is lower and the usage of drift strategy higher. Sample item of social strategy is “I study English with my friends or other students.” That is, few students ask his or her friends or teachers in learning English. As discussed before, participants of this study value the fluency of speaking English so that unless there is confidence of speaking English fluently, they would hesitate to speak English with friends, though it may enable them to practice and improve their speaking skill. Sample item of the drift strategy is “I guess the meanings of unknown word.” Therefore, participants of this study tend to prefer to catch the drift not to translate word from word.

Since there might have some relations between the frequencies in use of each strategies, the zero-order correlations are calculated. Pearson’s product-moment coefficient correlations between each variable are presented in Table 4. There are significant relations between nine pairs of the use of learning strategies. Meta-cognition strategies relate to four strategies; guessing; pronounce; social; and drift. Kojima et al. (2010) said that meta-cognition strategy is of relatively higher and important level than the other cognitive strategies. That is, this strategy needs higher level of

| Table 4 Correlation of coefficient between the use of learning strategies |
|-----------------|--------|---|---|---|---|---|
|                 | 1     | 2  | 3  | 4  | 5  | 6  |
| 1 meta-cognition strategy | —     | 0.204| 0.347* | 0.564**| 0.545**| 0.389* |
| 2 organization strategy | —     | 0.393*| 0.174 | 0.338* | -0.005 |
| 3 guessing strategy    | —     | 0.278| 0.289 | 0.461**|
| 4 pronouncing strategy | —     | 0.395*| 0.159 |
| 5 social strategy      | —     | 0.408*|
| 6 drift strategy       | —     |

*p<.05  **p<.01
processing. Therefore, students who can use meta-cognition strategy are the students who can use cognitive strategies which required lower level of the process than the process which meta-cognition strategy required. For that reason, there exist such correlations.

The relationships between achievement goals and the use of learning strategies

The purpose of this study is to study the relationship between achievement goals and the use of learning strategies in learning English. Therefore, partial correlation analysis is used in this study. Self-efficacy is defined as control variable at last. The results were discussed below (Table 5).

According to Table 5, there is a significant relationship between the mastery goals and four strategies; meta-cognition strategy; organization strategy; guessing strategy; and social strategy. That is, the mastery goal related to meta-cognitive strategy and three types of cognitive strategy positively but there are no relationships between performance goals and the use of learning strategies, as predicted. We did not measure the usage of simple and surface-processing strategies and measured only the strategies which previous study indicated as effective (e.g., Sato, 2004). That might be the possible reason why there are no significant relationship related to the performance goals. Furthermore, since the performance goals focus on showing his/her competence to others, if we use strategies relates to showing competence to others, we could indicate the positive relations between these strategies and the performance goals.

Conclusion

As discussed above, this paper shows that the achievement goals which correlate with many effective strategies except for the possible effects of self-efficacy, were the mastery goals. That is, students whose mastery goals in learning English were high tend to use more effective learning strategies than the others whose mastery goals were low. Additionally, the mastery and the
performance approach goals correlate with self-efficacy. This result is consistent with the achievement goal theory (e.g., Dweck, 1986; Elliot, 1999). The performance approach goals also relate to the beliefs about traditional English learning and the beliefs about the importance of strategies in the English learning situation. The former are known as a negative predictor of English learning, on the other hand, the latter considered as a positive predictor (Nakayama, 2005). The further detailed studies were needed since this dual nature of the performance approach goals would be beneficial to describe the effects of the achievement goals in English learning.

There are at least three reasons that can be surmised why this study is effective. The first point is, this paper provide the evidence that support the achievement goals theory of Dweck (1986). Dweck (1986) and many achievement goals researchers (e.g., Elliot, 1999; Nakayama, 2005) shared the view about the positive effects of the mastery goals on students’ learning. Since mastery goals focused on the development of competence, students whose mastery goals are high tend to try to use more strategies, especially effective strategies (Elliott & Dweck, 1988). It should be noted that this paper show the results follow the coherently from this theory in the case of English learning. There are only a few studies that consider the impact of the achievement goals to the use of learning strategies in specific area (e.g., Nakayama, 2005). Although Nakayama (2005) studied about English learning, he adopted the dichotomous model of the achievement goals not the trichotomous model. This study examines this trichotomous model in English learning and presented the results support the positive effects of the mastery goals.

The second point is, this paper shows how the achievement goals correlate with self-efficacy and the beliefs about English learning. These three issues are considered as important in the achievement goals studies (Dweck, 1986), the learning motivation studies (Elliot, 1999), and the English learning studies (Nakayama, 2005). There seems to be no studies that consider these three issues together but it is likely to relate from overviewing the references. Actually, for instance, the findings of this study indicate that there are positive relationship between the mastery goals and self-efficacy. To apply the valuable insights of the past researches, it is meaningful to show the connection between these important issues relate to motivations.

The third point is, suggestion from this finding is that if we want to improve students’ use of effective learning strategies by intervening to their achievement goal, we should try to make them set more mastery goals. Mastery goal seems to relate to the merits or goals. If students unvalued the merits of learning English, it would be difficult to set the goals to master English. One suggestion is that we could show students many merits of learning English to enhance or built up students’ mastery goals. In fact, students who know the merit that a speaking skill of English enables them to join the meeting conducted in English easily would study English for applying the employment and so on. There are many merits to learn English; English
competences enable us to communicate with many people over the world, to compose a mail in English, and work abroad. However some students seem not to recognize the merits of studying English and try to avoid English. Therefore, it might be effective way to improve students' mastery goals.

In conclusion, these findings from this study were meaningful because it might be possible to provide suggestions to the case of foreign language learning such as Chinese and Spanish. Today, in addition to mother language, competence of second language is much more important to enrichment one's daily life and one's career. For that reason, the studies about foreign languages grow in its presence. In light of these backgrounds, this study could be the fruitful and might be useful for students, teachers, and the other person who engages on education. However, this study still remains some problems. First of all, we only asked liberal arts students. However, if we ask to math and science students, we would found different results. Secondly, we did not consider that effect of their demands, that is, which ability they wish to master. In light of these problems, future researches are required. To reveal the details about the effect of the achievement goals, it will be important to investigate the relation between the achievement goals and the use of learning strategies.

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