Self-Efficacy, Task Value and Metacognitive Self-Regulation as Predictors of Vietnamese High School English Learners’ Achievement

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Abstract

The purpose of this study is to determine the extent to which self-efficacy, task value, and metacognitive self-regulation predict Vietnamese high school students’ English language achievement. In this quantitative study, 403 Vietnamese participants were requested to fill out the Motivated Strategies for Learning Questionnaire to measure self-efficacy, task value and metacognitive self-regulation. The English language achievement was measured by the students’ self-reported final grades. In order to analyse the data, multiple regression analysis was used. The results revealed that self-efficacy, task value and metacognitive self-regulation were positively correlated with English language achievement and they significantly predict English language achievement when they were taken together as a set. Moreover, the results showed that self-efficacy was the only significant predictor of language achievement at an individual level.

Keywords: self-efficacy, task value, metacognitive self-regulation, achievement.


Introduction

It is prima facie valid that motivational constructs such as self-efficacy and task value contribute to effective learning behaviours and thus, to successful academic achievement (Marsh et al., 2005; Smith, Smith, Gilmore, & Jameson, 2012). Many Educational psychologists have pointed out that motivated learners are likely to be engaged in learning, like learning-related tasks and believe that learning is of great value. Motivation not only helps students to succeed, but also helps them to understand that the process of learning remains rewarding in all aspects of life (Brown, 2009). This paper aims to investigate two significant motivational constructs, namely self-efficacy and task value, and how they could in combination with metacognitive self-regulation predict English language achievement among Vietnamese students.
Researchers have been increasingly interested in the role of self-efficacy predicting academic achievement (Ayllón et al., 2019; Honicke & Broadbent, 2016). For instance, Geitz et al. (2016) and Zimmerman (2000) highlighted that self-efficacy pertains to individuals' confidence in their ability to perform a given task, with this belief being dependent on the educational settings and past experiences. It is widely acknowledged that learners with high levels of self-efficacy beliefs are more likely to use self-regulatory strategies, actively engage in tasks and consequently perform well. On the other hand, students who lack self-efficacy beliefs are more likely to give up learning. Therefore, it is of paramount importance to examine how students' self-efficacy beliefs correlate with their academic achievement in the context of English language learning.

Task value is a significant component of self-regulated learning which refers to the extent to which individuals value a certain task, and how they perceive its importance and usefulness to achieve their goals (Eccles et al., 1993). It is believed that learners with high task value perceptions showed resilience and determination to academic achievement (Velayutham et al., 2012; Matusovich et al., 2010). Furthermore, Pintrich (1993), Pintrich & De Groot (1990), and Zimmerman (2000) reported that learners with positive task value perceptions tend to employ more cognitive and metacognitive strategies to achieve their academic goals. According to expectancy–value theory of motivation, students’ self-regulatory skills are determined by the extent to which they value activities (Eccles et al., 1983; Wigfield and Eccles, 1992). Therefore, task value contributes to a great extent to students’ academic engagement, task persistence and academic achievement.

Metacognitive self-regulation is another self-regulated learning component which is believed to be closely related to the aforementioned components and which determines students' academic achievement. It is conceptually defined as students’ ability to regulate their learning process through planning, monitoring and regulating abilities (Pintrich et al., 1993). Metacognition is essential in learning and it is strongly related to academic achievement. It allows individuals to set their goals, engage in self-monitoring and use effective strategies to achieve them (Lossenno et al., 2020). This process enables learners to adjust their learning strategies and implement them based on self-progress and self-monitoring to achieve goals. For instance, when adjustments of learning strategies are made based on self-monitoring, but still goals are not achieved, then the individuals need to modify the goals (Lossenno et al., 2020; Schunk, 2012). In a nutshell, metacognitive self-regulation skills are assumed to enhance learners’ performance through continuous checking, assessing and adjusting academic related behaviours and tasks.

Many researches attempted to explore the relationship among self-efficacy, self-regulated learning and academic achievement. For instance, Agustiani, Cahyad and Musa (2016) investigated the correlations between self-efficacy, self-regulation of learning and academic achievements among 101 Psychology students in Indonesia. Their study revealed that self-efficacy, self-regulation of learning and academic achievements are positively correlated. Moreover, metacognition self-regulation was found to be a significant predictor of academic success (Cong-Lem, 2019; Coutinho, 2007).

In other studies, self-efficacy was found to be strongly correlated with self-regulated learning and a significant predictor of academic achievement (Meng & Zhang, 2023; Pintrich & De Grooth, 1990). For instance, Trương and Wang (2019) investigated self-efficacy beliefs and its relationship to English language proficiency of 767 Vietnamese
college students. The results of their study demonstrated that self-efficacy was positively and significantly related to English language proficiency of Vietnamese college students. Maison et al. (2019) showed that some self-regulated learning constructs such as self-efficacy, task value and metacognitive self-regulation have a strong relationship with academic achievement. Pintrich (1999) has demonstrated that task value has a positive association with self-efficacy and academic achievement.

Furthermore, a large number of studies have widely investigated motivational constructs and learning strategies in relation to academic achievement (Jansen et al., 2019; Panadero et al., 2017; Sun & Wang, 2020; Zimmerman & Martinez-Pons, 1986). However, only a few researchers in the academic field have studied the role of self-efficacy, task value and metacognition in academic achievement in developing countries such as Vietnam. Therefore, the purpose of this study was to examine if there is a significant relationship between self-efficacy, task value and metacognitive strategies and English language achievement among Vietnamese high school students. Furthermore, it examined the impact of self-efficacy, task value and metacognitive self-regulation on English language achievement of Vietnamese high school students.

Methodology

Participants

The sample population participating in this study consists of 403 conveniently selected high school students from three different public high schools in Ha Long city, Quang Ninh province, Vietnam. The majority of participants (93.1 %) were from grade 10 and 11, the rest of participant were from grade … The sample consists of 178 males (44.2 %) and 225 females (55.8 %).

Instrument

The study makes use of a five-point-Likert scale questionnaire for data collection. The questionnaire used in this study consisted of two sections. The first section contained items regarding participants’ demographic information, including gender, age, current class year. It also includes self-reported final English exam score, which is used in this study as the dependent variable. The second section consisted of number items measuring self-efficacy, task value and metacognitive self-regulation rated on a five-point Likert scale ranging from 1 (not at all true of me) to 5 (very true of me). The items were adapted and adopted from the Motivated Strategies for Learning Questionnaire (MSLQ) developed by Pintrich et al. (1993). The adapted version of the MSLQ questionnaire was designed to assess college students’ self-efficacy, task value, and self-regulated learning strategies including cognitive and metacognitive strategies. In this study, Cronbach’s alpha coefficient was used to calculate the internal consistency of the scales included in the questionnaire. Results of the reliability analysis showed that the items in the scales exhibit satisfactory reliability coefficients for all the scales. The alpha values of self-efficacy, task value, and self-regulated learning subscales were .85, .78, and .60 for self-efficacy, task value and metacognitive self-regulation respectively.

Procedure

The collection of the data took place during the spring semester of 2023 in three different high schools. The participants were informed that the purpose of the study was to ascertain the effects of their self-efficacy, task value on English language achievement and the metacognitive strategies each student used to achieve learning
outcomes. In addition, Vietnamese English teachers (Teacher assistants) instructed the students how to fill out the questionnaire. The results were computed using Statistical Package for the Social Sciences (SPSS) version 25. Pearson Correlation and Multiple Regression Analysis was used to determine the relationship and the predictive properties among the variables.

Results

Description of Students’ Self-Efficacy, Task Value and Metacognitive Self-Regulation

Descriptive statistics were firstly carried out in order to explore the Vietnamese students’ perceptions of self-efficacy, task value and metacognitive self-regulation. Table 1 below presents the summary of descriptive statistics for all metacognitive self-regulation subscales.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std.D</th>
<th>Maximum</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task value</td>
<td>3.18</td>
<td>0.87</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>3.26</td>
<td>0.88</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Metacognitive Self-regulation</td>
<td>3.04</td>
<td>0.78</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>English Language Achievement</td>
<td>7.45</td>
<td>1.29</td>
<td>4</td>
<td>9</td>
</tr>
</tbody>
</table>

The descriptive statistics show that self-efficacy had the highest mean score, followed by task value and metacognitive self-regulation (M = 3.26, SD = 0.88; M = 3.18, SD = 0.87; M = 3.04, SD = 0.78, respectively). Overall, these results seem to suggest that Vietnamese high school students had moderately positive perceptions about their self-efficacy, task value and metacognitive self-regulation, which suggests that they have a balanced level of confidence. They also reasonably value their tasks and they have some degree of awareness of how to control, monitor and assess their learning behaviours. Regarding English language achievement, the mean score is 7.45 (SD = 1.29), which certainly indicates an overall above-average English language performance.

Correlation Among Self-Efficacy, Task Value, Metacognitive Self-Regulation and Academic Achievement

In order to establish the interrelationship which existed among self-efficacy, task value, self-regulated learning and English proficiency, Pearson correlation analysis was carried out to obtain the correlation matrix and the results are presented in a correlation matrix in Table 2 below.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Task value</th>
<th>Self-efficacy</th>
<th>Self-regulation</th>
<th>English Language Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task value</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>0.65**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-regulation</td>
<td>0.51**</td>
<td>0.50**</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
Table 2 below displays the correlation among task value, self-efficacy, metacognitive self-regulation and English language achievement. The highest correlation was found between self-efficacy and English language achievement ($r = .23, p < .01$). This was followed by the correlation between task value and English language achievement ($r = .18, p < .01$); and finally, metacognition self-regulation and English language achievement ($r = .10, p < .05$). These positive correlations indicate that as, self-efficacy, task value, and metacognitive self-regulation increase, English language achievement increases as well.

### The Impact of Self-Efficacy, Task Value, and Metacognitive Self-Regulation on Academic Achievement

In order to determine whether self-efficacy, task value, and metacognitive self-regulation predict students’ English proficiency multiple regression analysis was carried out. The results of multiple regression analysis are presented in Table 3 below.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>p</th>
<th>β</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-efficacy</td>
<td>.318</td>
<td>.001</td>
<td>.217</td>
<td>3.250</td>
</tr>
<tr>
<td>Task value</td>
<td>.087</td>
<td>.384</td>
<td>.058</td>
<td>.872</td>
</tr>
<tr>
<td>Metacognition</td>
<td>-.065</td>
<td>.502</td>
<td>-.039</td>
<td>-.673</td>
</tr>
</tbody>
</table>

Note: $R^2 = .240; R^2 = .058; \text{Adjusted } R^2 = .050; F = 8.123, p < .05$

In this study, the significance value (p-value), extracted from ANOVA table, was 0.000 indicating that the regression model is significant. Therefore, self-efficacy, task value and metacognitive self-regulation, when they are taken together as a set, significantly predicted English language achievement, $F (3,399 = 8.123, p < .05)$. Moreover, the results showed that the $R^2$ was 0.058 indicating that only 5.8% of the variance in English language achievement is being explained by all the three independent variables together (self-efficacy, task value and metacognitive self-regulation). The regression model revealed also that self-efficacy ($β = .217, p < .05$) is the only significant predictor of English language achievement, as p-value is less than .05. However, task value and metacognitive self-regulation were not significant predictors of English language achievement (task value $β = .058, p > .05$; metacognition $β = -.039, p > .05$), since their p-value is greater than .05. Therefore, self-efficacy is the only factor in this study which accounts for a significant amount of variance in English language achievement among Vietnamese students. Based on this result, we can conclude that the higher students’ self-efficacy, the better their English language achievement is going to be.

### Discussion and Conclusion

The main objective of this study was to determine whether there is a significant relationship between self-efficacy, task value, metacognitive self-regulation and
English language achievement of Vietnamese high school students. It sought to investigate whether the aforementioned variables significantly predict students’ English language achievement.

The correlation results of the current study revealed that self-efficacy, task value and metacognitive self-regulation were statistically correlated with English language academic achievement of Vietnamese high school students. The results were consistent with the studies which highlighted the significant correlation between self-efficacy, task value, metacognitive self-regulation and academic achievement (Maison et al., 2019; Pintrich, 1999; Pintrich & De Groot, 1990; Trương & Wang, 2019; Zimmerman & Martinez-Pons, 1986). Reciprocally, these results suggest that learners who have high levels of self-efficacy believe that academic tasks are valuable and tend to use more self-regulatory strategies and, therefore, they obtain better English language outcomes.

The results of multiple regression analysis showed that self-efficacy, task value and metacognitive self-regulation were significant predictors of language achievement when they were taken together as a set. However, only self-efficacy, as an individual tenet, was significantly predictive of English language achievement. Again, this result is in line with other studies which found that self-efficacy was a positive predictor of academic achievement (Meng & Zhang, 2023; Pintrich & De Groot, 1990). Therefore, it is assumed that learners with high self-efficacy are more likely to set their learning goals, monitor and control their learning, seek help, engage in learning activities and they are highly motivated. Furthermore, the results of this study indicate that neither task value nor metacognitive strategies independently predict academic achievement in English language learning. Put differently, factors such as task value and metacognitive strategies in isolation are unlikely to significantly influence students’ academic performance. On the other hand, self-efficacy emerges as a crucial catalyst in fostering task value beliefs and self-regulated learning strategies, thereby enhancing academic attainment.

It should be noted that this study was confined to certain motivational constructs and metacognitive self-regulation, which are embedded within the notion of self-regulated learning. Self-regulated learning constructs such as self-efficacy, task value and metacognitive self-regulation have pivotal roles in academic achievement in general and English language achievement in particular. Since English language achievement of students is related to their personal and professional development, it is recommended that great attention has to be given to the components of motivation, especially self-efficacy beliefs, and metacognitive self-regulatory skills by educators, stakeholders and educational planners through adopting self-regulated learning interventions, fostering positive learning environment, and promoting strategies that develop motivation and self-regulatory skill among students.

References


