The relationship between achievement goal orientation and foreign language learning strategies: the mediating role of foreign language enjoyment

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Abstract. Motivation and emotion have long been a key focus of research in the realm of learning. This study combines the achievement goal theory and the broaden-and-build theory of positive emotions to explore how achievement goal orientation impacts foreign language learning strategies. A mediation model from “achievement goal orientation” to “foreign language learning strategies” was constructed through structural equation modeling. The study found that: (1) achievement goal orientation significantly positively predict foreign language learning strategies through a direct pathway; (2) achievement goal orientation and significantly positively predict foreign language learning strategies indirectly via the foreign language enjoyment. The results suggest that regardless of the type of achievement goal orientation, foreign language learners can promote the use of foreign language strategies through foreign language enjoyment, which could help to improve their foreign language performance.

Keywords: achievement goal orientation; foreign language enjoyment; foreign language learning strategies.

1 Introduction

With the increasing number of foreign language learners in China, the problem of “more time-consuming and less efficient” foreign language learning has been one of the main aspects of society’s questioning of the rationality of foreign language education[5]. According to the statistics from Beijing Evening News: the number of Chinese people learning English has exceeded 400 million, and the national spending on English training is as high as 30 billion dollars/year, and yet less than 3% of Chinese people can really use English for communication. Many foreign language learners have in-appropriate learning methods, such as rote memorization of vocabulary, blindly doing a lot of written exercises, which seriously undermines their interest in foreign language learning and hinders their effective learning of foreign languages. Unfortunately, there is a lack of empirical research on learning strategies in the field of foreign language education in China. Dörnyei (2009) suggests that the cognitive, affective, and motivational components of foreign language learners constitute a continuous interaction and
cannot be isolated from each other in the process of learning a foreign language\cite{12}. For a long time, foreign language teaching has been focusing on developing learners’ cognitive abilities, and less on learners’ affective factors and the interaction with cognitive and motivational factors\cite{8}. It is undeniable that motivational and affective factors can play an important role in foreign language learning and have a significant impact on foreign language learning strategies\cite{17}. Achievement goal orientation is an important research component in the theory of learning motivation. It has a close correlation with learning strategies, which can be used as a predictor of learners’ use of learning strategies\cite{1,20}. However, the mechanism of the intermediate role between the achievement goal orientation and learning strategies is not yet clear. Meanwhile, whether the correlation of the two is equally generalized in the field of foreign language learning domain still need to be verified.

Positive emotions have gained recognition in the field of foreign language teaching alongside the rise of positive psychology\cite{39}. Foreign language enjoyment, as a positive emotion, can hedge against negative emotions during foreign language learning, and has a cumulative positive effect on foreign language learning\cite{11}. It can also enable foreign language learners to use learning strategies proactively\cite{18,37}. There could exist a close correlation among achievement goal orientation (motivational factor), foreign language enjoyment (emotional factor) and foreign language learning strategies, and the specific relationship between the three needs to be further explored. The present study attempts to explore the role of achievement goal orientation on foreign language learning strategies by constructing a relationship model between achievement goal orientation, foreign language enjoyment and foreign language learning strategies. This study could provide suggestions for the development of learners’ foreign language motivation, emotions and strategies.

2 Literature Review

2.1 Research on foreign language learning strategies

Foreign language learning strategies play an important role in foreign language learning. Research has shown that teaching learning strategies aims to make it easier, faster, more enjoyable, and more effective for students to use the language and to transfer the learnt strategies in new situations\cite{42}. The most recognized current classification of language learning strategies is the six strategies proposed by Rebecca Oxford, which are divided into two main categories: direct and indirect strategies\cite{25}. Direct strategies include memory, cognitive and compensatory strategies, while indirect strategies include metacognitive, affective and social strategies. Research has shown that among the characteristics of successful language learners, many of them involve the use of language learning strategies\cite{5,32}. It can be seen that successful foreign language learning cannot be achieved without the help of language learning strategies. Changing traditional foreign language learning strategies to achieve better learning outcomes is an important topic of concern to current researchers, teachers and students of foreign language learning\cite{21,26,35}.
2.2 Research on achievement goal orientation

Achievement motivation is an important topic in the field of learning. Researches have shown that learning motivation provides the motivational mechanism for the selection and execution of self-learning strategies[31]. The concept of achievement goal orientation was first developed from the theory of achievement motivation and, in conjunction with social cognitive theory, is seen as the reason for the existence of achievement motivation[13]. Achievement goals are an individual’s cognitive process of planning for achievement, while achievement goal orientation is a disposition towards this planning cognitive process[14]. A close relationship exists between achievement goal orientation and learning strategies. Previous research has found that learners with a mastery goal orientation tend to use intensive and organizational strategies, while there is a significant positive correlation between performance goals and surface processing strategies[38]. It has also been found that mastery goals are associated with positive cognitive learning strategies, whereas performance goals as well as avoidance goals lead to adverse learning consequences[7]. Another study found that performance approach goals and mastery approach goals were significantly associated with deep processing strategies, while performance avoidance goals and mastery avoidance goals were significantly associated with surface processing strategies[23]. However, there are also studies that did not find a correlation between the two[19]. The results of the current research on the relationship between achievement goal orientation and learning strategies are inconsistent and mainly focus on general learning strategies. The research on learning strategies in the field of foreign language learning still needs to be further improved.

2.3 The mediating role of foreign language enjoyment

Less research has been addressed on the internal mechanisms by which achievement goal orientations influence foreign language learning strategies. According to the control-value theory, learners’ evaluations of control and value in foreign language learning are proximal antecedents that influence their academic emotions[30]. Individuals with a high propensity for achievement goals are more likely to recognize the value and significance of learning (including foreign language learning), thus affecting their academic emotions. Academic emotions are diverse and are not exclusive to anxiety, but also include other positive emotions such as enjoyment and pride[29]. Positive academic emotions can facilitate learning. Fredrickson (2001) found that academic emotions can facilitate cognitive activities during learning activities[16]. Specifically, positive academic emotions are conducive to broadening attention and cognitive scope, enabling individuals to think flexibly and creatively, and increasing psychological resources for coping with conflictual situations, which in turn enhances satisfaction. Research has also found that enjoyment as a positive academic mood can directly influence learners’ foreign language learning strategies[34]. Therefore, it can be hypothesized that achievement goal orientation may influence the use of foreign language learning strategies mediated by foreign language enjoyment.
2.4 Current study

In summary, the current research focuses on the relationship between achievement goal orientation and general learning strategies. In the field of foreign language learning, the relationship between achievement goal orientation and language learning strategies as well as their internal mechanisms still need to be further explored. In addition, the internal mechanisms by which achievement goal orientation affect language learning strategies also need to be further explored. Finally, although control-value theory has been widely used in educational psychology to explain academic emotions\cite{41}, empirical studies are rare in the field of second language acquisition applying this theory to investigate the causes and consequences of learners’ foreign language emotions. In view of this, the present study aims to explore the relationship between achievement goal orientation and foreign language learning strategies in the field of foreign language learning, and whether foreign language enjoyment can play a mediating role between the two.

3 Research Design

3.1 Subjects

This study used the questionnaire method, which was randomly distributed among the students of a university in Jilin Province, China during Chinese winter vacation. A total of 150 questionnaires were distributed, with a valid recovery rate of 86.67%. Finally, 130 valid questionnaires were recovered, the age of the subjects was 18-23 years old (\(M=20.62, SD=1.723\)), 67 male students (51.5%), 63 female students (48.5%). Subjects were freshmen to seniors aged 18-23 years old. The number of freshmen, sophomores, juniors, and seniors were 20, 33, 38 and 39. There are 60 arts students and 70 science students.

3.2 Research Tools

Achievement Goal Orientation Scale, Foreign Language Enjoyment Scale and Oxford Language Learning Strategies Scale were used to measure the subjects’ achievement goal orientation, the level of foreign language enjoyment and foreign language learning strategies in their daily English learning. The scores of the three scales were used to model and statistically analyze to verify possible mediating relationships between achievement goal orientation, foreign language enjoyment and foreign language learning strategies.

3.2.1 Achievement Goal Orientation Scale.

The Achievement Goal Orientation Scale developed by Liu and Guo (2003) was used in this study\cite{22}. It includes four dimensions, namely achievement approach goal, mastery approach goal, achievement avoidance goal and mastery avoidance goal orientation, with a total of 29 questions. The internal consistency coefficients of the total
scale and the dimensions were 0.870, 0.870, 0.770, 0.820, and 0.700, respectively, using a scale of 1 (not at all) to 5 (completely). The internal consistency reliability (Cronbach’s \( \alpha \)) of the scale in the present study was 0.970, and the validated factor analytic model fit index was good (\( \chi^2/df = 1.267 \), between 1 and 3; \( GFI=0.808 \), \( RMR =0.042<0.08 \), \( TLI=0.957>0.9 \), \( RMSEA=0.045<0.08 \)). The internal consistency coefficients of the dimensions were: achievement approach goal \( \alpha =0.912 \), mastery approach goal \( \alpha =0.912 \), achievement avoidance goal \( \alpha =0.868 \), mastery avoidance goal \( \alpha =0.842 \).

3.2.2 Foreign Language Enjoyment Scale.
Botes et al. (2021) simplified the previous Foreign Language Enjoyment Scale with nine questions divided into three dimensions: teacher appreciation, personal enjoyment, and social enjoyment\(^3\). In the present study, the scale had an internal consistency reliability (Cronbach’s \( \alpha \)) of 0.916, a good fit index for the validated factor analysis model (\( \chi^2/df = 1.377 \), between 1 and 3; \( GFI=0.947>0.9 \), \( RMR=0.033<0.08 \), \( TLI=0.978>0.9 \), \( RMSEA=0.054<0.08 \)). The internal consistency coefficients for the dimensions were: teacher dimension \( \alpha =0.797 \), personal dimension \( \alpha =0.731 \), and social dimension \( \alpha =0.825 \).

3.2.3 Oxford Language Learning Strategies Scale.
Compiled by Oxford, an American linguist, it is divided into six dimensions: memory strategies, cognitive strategies, compensation strategies, metacognitive strategies, affective strategies and social strategies\(^25\). There are a total of 50 questions with a five-point Likert scale. In this study, the internal consistency reliability (Cronbach’s \( \alpha \)) of the scale was 0.984, and the validated factor analysis model fit index was good (\( \chi^2/df = 1.290 \), between 1 and 3; \( GFI=0.711 \), \( RMR=0.036<0.08 \), \( TLI= 0.929>0.9 \), \( RMSEA=0.047<0.08 \)). The internal consistency coefficients for each dimension were: memory strategy \( \alpha =0.915 \), cognitive strategy \( \alpha =0.943 \), compensatory strategy \( \alpha =0.886 \), metacognitive strategy \( \alpha =0.913 \), affective strategy \( \alpha =0.888 \), and social strategy \( \alpha =0.890 \).

3.3 Research Procedures and Data Processing
In this study, the questionnaire was randomly distributed and administered to a group of college students in a university in Jilin Province, and the language of the questionnaire was Chinese. After data entry, SPSS 25.0 was used for standardization, descriptive and correlation analyses, and AMOS 21.0 was used for scale reliability, structural equation modelling and mediation model testing.
4 Results

4.1 Descriptive statistics and correlation analysis of variables

Descriptive statistics for the three variables of achievement goal orientation, foreign language enjoyment and foreign language learning strategies were conducted. The results are shown in Table 1 below:

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
<th>Kurtosis</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement Goal Orientation</td>
<td>3.297</td>
<td>19.937</td>
<td>-14.059</td>
<td>23.713</td>
<td>-1.420</td>
<td>0.193</td>
</tr>
<tr>
<td>Foreign Language Enjoyment</td>
<td>0.526</td>
<td>6.758</td>
<td>-14.728</td>
<td>7.636</td>
<td>-1.077</td>
<td>-0.454</td>
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<tr>
<td>Foreign Language Learning Strategy</td>
<td>4.296</td>
<td>35.804</td>
<td>-70.233</td>
<td>34.691</td>
<td>-1.176</td>
<td>-0.553</td>
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</table>

Subsequently, Pearson correlation analyses were conducted on the total scores of the three variables, namely, achievement goal orientation, foreign language enjoyment, and foreign language learning strategies. It showed that there were positive correlations of different degrees among the three variables. The results are shown in the table below:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Achievement Goal Orientation</th>
<th>Foreign Language Enjoyment</th>
<th>Foreign Language Learning Strategy</th>
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<tr>
<td>Achievement Goal Orientation</td>
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<tr>
<td>Foreign Language Enjoyment</td>
<td>0.477**</td>
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<td>—</td>
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<tr>
<td>Foreign Language Learning Strategy</td>
<td>0.524**</td>
<td>0.685**</td>
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</table>

Note: **p<0.01

As shown in Table 2, it can be seen that there is a two-by-two significant positive correlation between the three variables of Achievement Goal Orientation, Foreign Language Enjoyment and Foreign Language Learning Strategies. To further understand the relationship between the sub-dimensions of the variables, Pearson correlation analyses were conducted on the sub-dimension scores of the three variables, and the results are shown in Table 3 below:
Table 3. Correlations between the sub-dimensions of the variables

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<td>.624**</td>
<td>.789**</td>
<td>.798**</td>
<td>1</td>
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</tbody>
</table>

Note: **indicates p<0.01. 1=achievement approach orientation; 2=mastery approach orientation; 3=achievement avoidance orientation; 4=mastery avoidance orientation; 5=memory strategies; 6=cognitive strategies; 7=compensatory strategies; 8=metacognitive strategies; 9=emotional strategies; 10=social strategies; 11=teacher appreciation; 12=personal enjoyment; 13=social enjoyment.

4.2 Results of structural equation modelling and analysis of mediation effects

In this study, the maximum likelihood estimation of covariance structural modelling was used to estimate the relevant parameters. A structural equation model was established with achievement goal orientation as the independent variable, foreign language learning strategy as the dependent variable and foreign language enjoyment as the mediator variable (Figure 1). The results of model fitting and estimation show that each fitting index of the model has roughly reached the ideal level. The model λ²/df=0.812; GFI=0.947>0.9; CFI=1>0.9; RMSEA=0<0.08. The multivariate correlation squared of “foreign language learning strategy” R²=0.559, which indicates that 55.9% of its variance can be explained by this model.
A bias-corrected Bootstrap test (5000 samples) was used to examine the effect sizes of each path in the two models. The results show that the effect sizes of all paths in the models reach the significant level, indicating that achievement goal orientation can not only predict foreign language learning strategies directly, but also significantly predict foreign language learning strategies through the mediation of foreign language enjoyment. The data show that the effect value of the direct path “Achievement Goal Orientation → Foreign Language Learning Strategies” is 0.223, which indicates that under the control of other variables, every 1 unit increase in the learner’s achievement goal orientation increases the learner’s foreign language performance by 0.223 units. “Achievement Goal Orientation → Foreign Language Enjoyment → Foreign Language Learning Strategies” has a significant level. The mediating path “Achievement Goal Orientation → Foreign Language Enjoyment → Foreign Language Learning Strategies” has an effect value of 0.311, through the indirect effect of “Foreign Language Enjoyment”, for every one unit increase in the learner’s achievement goal orientation, the learner’s foreign language achievement will be increased by 0.311 units accordingly. The total effect size of “Achievement Goal Orientation → Foreign Language Learning Strategies” is 1.020, which means that under the combined effect of direct and indirect effects, for every one unit increase in the learner’s achievement goal orientation, the learner’s foreign language learning strategies will be increased by 1.020 units accordingly.
5 Discussion

5.1 The relationship between achievement goal orientation and foreign language learning strategies

The present study found that achievement goal orientation can significantly and positively predict the use of foreign language learning strategies, and all four dimensions of achievement goal orientation are significantly and positively correlated with the six dimensions of foreign language learning strategies. Previous studies have shown that different achievement goal orientations are more closely related to different learning strategies. The results of the present study are not entirely consistent with previous studies. One reason for this may be that previous studies have focused on general learning strategies such as repetition, organization, and refinement strategies, rather than on specific strategies for foreign language learning. Foreign language is a skill that requires long hours of time and effort to learn well, and foreign language learning strategies play an important role in all aspects of foreign language learning, including vocabulary and grammar. Regardless of individual achievement goal orientations, mastering certain foreign language learning strategies is a necessary condition for learning a foreign language well. Learners with different achievement goal orientations may use familiar foreign language learning strategies to facilitate their learning, which may be one of the reasons why the results of the present study are inconsistent with those of previous studies. Another reason is that achievement goal orientation is seen as the reason for the existence of achievement motivation. The total score of the Achievement Goal Orientation Scale represents subjects’ level of achievement motivation. The Directed Motivational Current(s) (DMCs) theory of bilingual learning proposes that in bilingual learning, goal/vision orientation is a prerequisite for the emergence of motivational flow. The intensity of directed motivational flow depends on the degree of fantasizing about a given goal. The higher the degree of fantasizing, the higher the intensity of motivational flow. Therefore, regardless of the goal orientation, the higher the total score of the scale represents the higher level of achievement motivation of the subject. As long as the achievement motivation is strong enough, it could motivate learners to actively use foreign language learning strategies to achieve their mastery or performance goals through certain means. Some previous studies have suggested that mastery goal orientation learners are more proactive in their approach to learning, while performance goal orientation learners are not as proactive in the learning process. However, in the field of foreign language learning, many studies have confirmed that both mastery goal orientation and performance goal orientation have a close relationship with the use of foreign language learning strategies, with only variations in the depth of the learning strategy. In conclusion, no matter what achievement goal orientation learners prefer, it is undeniable that as long as the achievement goal orientation reaches a certain level, it could motivate them to use foreign language learning strategies actively, which has a positive effect on foreign language learning and performance improvement.
5.2 The mediating role of foreign language enjoyment

By examining the pathways of achievement goal orientation, this study found that “foreign language enjoyment” partially mediated the effectiveness of achievement goal orientation in predicting foreign language learning strategies. First, achievement goal orientation can significantly predict foreign language enjoyment. This can be explained firstly from the perspective of control-value theory\cite{2}, which suggests that feelings of control and value influence academic emotions. Achievement goal orientation is an individual’s sense of achievement in a task during an activity, as well as the perceptions of meaning and value that are evoked by this sense of achievement\cite{2,16}. Higher total scores on the achievement goal orientation scale (either mastery orientation or performance orientation) indicate that learners are more motivated to learn, and that their perceived sense of achievement and the sense of meaning and value are higher. These feelings may cause more positive academic emotions (enjoyable emotions are a common positive academic emotion). In addition, according to achievement goal orientation theory, different achievement goal orientations produce different effects on people’s cognitions, emotions, and behaviors. Therefore, different levels of achievement goal orientation among individuals may also lead to different levels of enjoyable emotions. Some studies have already shown that achievement goal orientation could lead to different academic emotional experiences\cite{28}: mastery goal orientation positively predicts positive emotions such as gladness, hope, and pride, while achievement goal orientation is associated with both positive and negative emotions\cite{27}. Second, foreign language enjoyment significantly predicts the use of foreign language learning strategies. According to the broaden-and-build theory of positive emotions\cite{16}, positive emotions can broaden our cognitive resources and invoke more strategies to deal with problem solving. It has been found in the field of foreign language learning that foreign language enjoyment can have many positive effects on foreign language learning\cite{9,10,33,34}. One of these positive effects is that it can enable foreign language learners to positively invoke learning strategies to improve performance\cite{34}.

6 Conclusion

This study constructed a moderated mediation model of “achievement goal orientation predicts foreign language learning strategies”. It was found that: (1) achievement goal orientation significantly and positively predicted the use of foreign language learning strategies; (2) in addition to direct prediction, achievement goal orientation also significantly and indirectly predicted learners’ foreign language learning strategies by promoting foreign language enjoyment.

The present study investigated the mechanism by which motivation (achievement goal orientation) and affect (foreign language enjoyment) jointly influence foreign language learning strategies, which provides constructive suggestions for the use and enhancement of foreign language learning strategies. However, the present study did not distinguish and analyze in detail to what extent there were differences between the foreign language learning strategies significantly predicted by the four achievement goal orientations. That is, the study did not conclude that a particular achievement goal
orientation is more likely to use a particular foreign language learning strategy. Therefore, the causal relationship between specific achievement goal orientations and specific foreign language learning strategies can be explored in the future through psychological experimental studies. As factors affecting foreign language learning are intricate, future research can continue to explore the interactive mechanisms of motivation, emotion, and cognitive systems in foreign language learning, with a view to providing more references for foreign language teaching.

References


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