

The Relationship Between Academic Buoyancy and Academic Self-Handicapping in Foreign Language Learning Among University Students

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Abstract

Academic buoyancy refers to students' ability to successfully overcome routine academic challenges and setbacks, representing a positive adaptive psychological mechanism. In contrast, academic self-handicapping describes students' tendency to proactively create barriers in evaluative situations to avoid potential negative judgments resulting from failure. This study employs questionnaire data to examine the relationship between academic buoyancy and academic self-handicapping in college students' foreign language learning, with a focus on gender differences in both constructs and their intercorrelation.

Keywords: foreign language learning, academic buoyancy, academic self-handicapping

1. Introduction

Evaluation is an integral and important part of the teaching and learning process[1], and college students inevitably face a variety of exams and assessments in school. Complex factors such as the frequency of examination cycles, differences in the difficulty of knowledge, students' mastery of knowledge, and the uncertainty of the revision state determine that it is difficult for individuals to achieve the desired results in each examination. Therefore, Martin and Marsh proposed that academic buoyancy is the ability of students to successfully overcome the difficulties and challenges encountered in their daily academic life and is a psychological mechanism for positive adaptation[5]. In their day-to-day studies, most students encounter common and typical academic challenges such as exam pressure, unsatisfactory grades, difficult assignments, and tight homework schedules, etc. Datu and Yuen also argued that the key for students to achieve academic success and maintain psychological well-being lies in having the ability to successfully cope with a variety of typical setbacks[4], and that it is precisely the student's ability to respond and deal with everyday academic setbacks in a positive manner that is reflected in academic buoyancy. and academic buoyancy reflects a student's ability to positively respond to and cope with everyday academic setbacks. Researchers have also referred to academic buoyancy as everyday academic resilience. Previous studies on coping with academic setbacks have mainly focused on academic resilience, but academic resilience mainly targets extreme negative events, and its beneficiary group has certain limitations[10]. To circumvent negative evaluations from potential failures, students may exhibit pre-set barrier behaviors, such as exaggerating difficulty and reducing effort, when faced with uncertain evaluative situations, i.e., academic self-handicapping[2]. Academic self-handicapping may have a positive effect on protecting self-worth and relieving stress in the short term, but its long-term effects are usually manifested as insufficient motivation, decreased academic performance, learned helplessness, and anxiety[7].

Currently, a relatively small number of studies have been conducted on academic buoyancy, focusing mainly on the relationship between academic buoyancy and positive academic outcomes and psychological well-being, and the content is relatively homogenous. In order to fill this gap, the present study investigated the relationship between academic buoyancy and academic self-handicapping in foreign language learning among college students, and provided rationalized suggestions for improving the level of academic buoyancy and reducing academic self-handicapping in college students' foreign language learning.

2. Academic Buoyancy

The concept of academic buoyancy has been defined with some differences by different researchers based on different perspectives. First, focusing on the competence aspect, Martin and Marsh firstly proposed the concept of

academic buoyancy and defined it as the ability of students to successfully cope with common academic setbacks and challenges in school life (e.g., poor grades, exam pressure and difficult schoolwork, etc.) [5]. Secondly, focusing on the aspect of response, academic buoyancy is described as the ability of students to respond positively, constructively, and adaptively to a variety of challenges and setbacks they experience in a typical daily academic setting. In addition, some research synthesized both the process and ability perspectives of successful coping and concluded that academic buoyancy is the ability of students to positively adapt to and successfully cope with typical academic setbacks, challenges, and difficulties in their daily studies, mainly in terms of learning engagement, coping styles, and persistence in learning. It is easy to see that although the definitions of academic buoyancy are different, there are some cross-cutting similarities, i.e., two components, i.e., “daily academic stress” and “successful coping”, are essential.

3. Academic Self-Handicapping

The concept of self-inhibition was originally proposed by Bergla and Jones, which refers to the thoughts or behaviors that individuals engage in to externalize the causes of failure in order to reduce the negative effects of poor performance in a situation[2]. It has similarities and essential differences with attribution in that self-hindering is a pre-preparation to find a seemingly plausible excuse for the likely consequences of failure, whereas attribution is more of a rationalization of the consequences of failure after they have arisen. Covington defines self-hindering in a similar way to Berglas, suggesting that self-hindering is a pre-preparation to find a plausible excuse for the likely consequences of one's own failures to find justification for the hindrances put in place that are detrimental to personal achievement[3]. As the research related to self-inhibition gradually became the focus, domestic scholars also defined it, such as Shi Wei and Huang Xiting pointed out that self-inhibition is a self-protection strategy that individuals adopt in advance to prevent the damage of their own value caused by possible failure when they are not sure whether they can achieve the expected results[8]. Currently, the research conducted on self-handicapping is more mature and the definitions are more convergent. In general, researchers' interpretations of self-hindering focus on “preemptive barriers”, i.e., the behavior of individuals who tend to set limits on their target behaviors in order to prevent negative external evaluations of their abilities due to the risk of failure in uncertain achievement situations. self-handicapping consists of two basic types: behavioral self-handicapping and claimed self-handicapping. Behavioral self-handicapping refers to behaviors that prevent individuals from achieving their goals in advance in order to provide excuses for potential failures, such as shortening study time, procrastination, and alcohol abuse. Claimed self-handicapping refers to individuals who, when faced with uncertain achievement situations, claim that their performance is limited by uncontrollable factors (e.g., physical discomfort, high stress, pre-test anxiety, and emotional instability) in order to avoid the damage to their self-worth caused by their failure, in order to give others the impression that they have been “impeded”. Although the behavioral style may convince others that external factors have a greater impact on them, it will greatly reduce the probability of success because it takes actions that prevent goal achievement, whereas the claimed style does not take actions that undermine goal achievement, and therefore does not have a significant impact on the individual's achievement[7].

4. Research Methods

In this study, questionnaires were distributed through questionnaire star and all questionnaires were 5-point Likert scale with mean score as score. The questionnaire was chosen to synthesize the Academic Buoyancy Scale and the Academic Self-Hindering Scale for data collection. Data were analyzed using JASP (version 0.18.30) after completion of data collection.

4.1 Research Participants

This study recruited college students in Yunnan Province as the research participants, in order to explore the real situation in college students' foreign language learning. The questionnaire was randomly distributed to college students in Yunnan Province, and a total of 81 students were selected as the subjects. The survey was conducted voluntarily and anonymously, and 81 questionnaires were finally returned. 2 invalid questionnaires were screened out by lie detector questions, and 79 valid questionnaires were finally returned. Among them, 39 were male students and 40 were female students. As shown in Table 1 below.

Table 1. Distribution of participants

		<i>Percentage (%)</i>
Gender	F	40 (50.63%)
	M	39 (49.37%)
Grade	First-year undergraduate	22 (27.85%)
	Second-year undergraduate	17 (21.51%)
	Third-year undergraduate	18 (22.79%)
	Fourth-year undergraduate	22 (27.85%)

4.2 Research Instrument

The Academic Buoyancy Scale chosen for the questionnaire is a Chinese version revised by our scholar Sun Weiwen based on Martin and Marsh's Academic Buoyancy Scale[9]. This scale items (A1-A4). It is scored on a likert 5-point scale, with 1-5 representing complete noncompliance to complete compliance, and the median score of 3 being the critical value for determining the level of students' academic buoyancy; the higher the score of a subject indicates the higher the level of his/her academic buoyancy. The validity of the questionnaire was verified, and the Cronbach's alpha coefficient of the scale in this study was 0.80.

The academic self-handicapping scale chosen for the questionnaire is the academic self-handicapping questionnaire developed by Huang Shuang based on our background, which consists of behavioral self-handicapping and claimed self-handicapping in two dimensions, and each dimension contains 7 question items[6]. There are 15 items in total (the last item is a lie detector question to detect whether the subject is serious in answering), such as "I play more in school because I want to show that I learn easily", "I say I am nervous before an exam when I am not actually as nervous as I say I am". The questionnaire was scored on a 5-point Likert scale, with 1 being "not at all" and 5 being "completely", with higher scores representing higher levels of academic self-inhibition. The Cronbach's alpha coefficient for this scale in this study was 0.91.

5. Research Findings

5.1 Descriptive Statistics and Independent Samples T-Test

In this study, descriptive statistics and independent samples T-test were used to analyze the gender differences in academic buoyancy (frustration coping, academic stress, stress management, and confidence in learning) and gender differences in academic self-handicapping (claimed academic self-handicapping, and behavioral academic self-handicapping) respectively, in order to explore the effects of gender differences on academic buoyancy and academic self-handicapping.

First, descriptive statistics described the mean, standard deviation, and variance of gender on each dimension of academic buoyancy. Also, the means, standard deviations, and variances describing the mean, standard deviation, and variance of gender on each dimension of academic buoyancy were analyzed using independent samples T-tests to assess whether there was a significant difference between genders on each dimension of academic buoyancy. Higher scores on each of the academic buoyancy scales represented greater ability to persevere and overcome setbacks. In the frustration coping dimension, the means of the scores of males and females were very close to each other at 3.75 and 3.77 respectively, which indicates that there is not much difference in the performance of males and females in frustration coping in the sample group. The standard deviation and variance also show that there is not much difference between the two sexes in frustration coping but the fluctuation of females is slightly more than that of males. In terms of academic stress, females had a slightly higher mean score than males (3.80 vs. 3.77), suggesting that females may feel a slightly higher level of academic stress and are slightly more resilient to stress than males. However, both the standard deviation and variance were greater for males than for females, suggesting greater inter-individual variation in perceived academic stress among males. In terms of stress handling ability, males had a slightly higher mean than females (3.87 vs. 3.83), but the difference was not significant. Both the standard deviation and variance for males were smaller than for females, suggesting that males were more consistent in their stress handling, while females fluctuated more in this ability. In terms of academic confidence, females had a higher mean than males (3.63 vs. 3.31), indicating that females performed better than males in academic confidence overall, and that females performed more confidently in foreign language learning. At the same time, the variance and standard deviation of females were also slightly higher than those of males, indicating that there were also slightly greater fluctuations among individual females in terms of academic

confidence. However, none of the gender differences were significant in the four dimensions of academic buoyancy, namely frustration coping, academic stress, stress handling, and academic confidence. This could mean that gender has less of an effect on academic buoyancy or that the sample data is not sufficient to reveal potential gender differences. The data are shown in Table 2 below.

Table 2. Gender and academic buoyancy

		<i>M</i>	<i>SD</i>	<i>Var</i>	<i>T</i>	<i>P</i>
Frustration coping	F	3.75	1.06	1.12	-0.083	0.934
	M	3.77	1.01	1.02		
Academic stress	F	3.80	0.99	0.99	0.127	0.899
	M	3.77	1.16	1.34		
Stress management	F	3.83	1.13	1.28	-0.201	0.841
	M	3.87	0.92	0.85		
Academic confidence	F	3.63	1.10	1.22	1.337	0.185
	M	3.31	1.00	1.00		

The next step was to assess whether there was a significant difference between the genders on the dimensions of academic self-handicapping. On behavioral academic self-handicapping, the means for males and females were very close to each other at 22.90 and 22.65, respectively, indicating that there is not much difference between males and females in their performance on behavioral academic self-handicapping as a whole in the sample group. However, the variance (72.13) and standard deviation (8.49) were higher for females than for males (variance 58.25 and standard deviation 7.63), suggesting that females' performance on behavioral academic self-handicapping was more volatile, i.e., individual differences were more significant. For claimed academic self-handicapping, females had slightly higher means than males (23.58 vs. 23.03), but this difference was not significant. Similar to behavioral academic self-handicapping, females had a slightly higher variance (63.43) and standard deviation (7.96) than males (variance 60.87, standard deviation 7.80), suggesting that females also had slightly higher performance volatility than males in claiming academic self-handicapping. However, on both dimensions of behavioral academic self-handicapping and claimed academic self-handicapping, gender differences were not significant, and gender had a lesser effect on academic self-handicapping. The data are shown in Table 3 below.

Table 3. Gender and academic self-handicapping

		<i>M</i>	<i>SD</i>	<i>Var</i>	<i>T</i>	<i>P</i>
Behavioral academic self-handicapping	F	22.65	8.49	72.13	-0.14	0.892
	M	22.90	7.63	58.25		
Claimed academic self-handicapping	F	23.58	7.96	63.43	0.31	0.758
	M	23.03	7.80	60.87		

5.2 Correlation Analysis

The following conclusions were drawn from the correlation analysis of academic self-handicapping (claimed academic self-handicapping and behavioral academic self-handicapping) and academic buoyancy (frustration coping, academic stress, stress management, and academic confidence).

The correlation coefficient between claimed academic self-handicapping and behavioral academic self-handicapping was very high (0.953), indicating a strong positive correlation between claimed academic self-handicapping and actual behavior. Claimed academic self-handicapping and behavioral academic self-handicapping always occur together, and students with claimed academic self-handicapping usually have behavioral academic self-handicapping as well. The correlation coefficient between frustration coping and claimed academic self-handicapping was 0.152, and the correlation coefficient with behavioral academic self-handicapping was 0.177, suggesting a weak positive correlation between frustration coping and academic self-handicapping. The correlation coefficient between academic stress and claimed academic self-handicapping was 0.067 and the correlation coefficient with behavioral academic self-handicapping was 0.081, indicating a very weak correlation between academic stress and academic self-handicapping. The correlation coefficient between stress management and claimed academic self-handicapping was 0.259 and the correlation coefficient with behavioral academic self-handicapping was 0.220, indicating a moderate positive correlation between stress management and academic self-handicapping. The correlation coefficient between academic confidence and claimed academic self-handicapping is 0.327 and the correlation coefficient with behavioral academic self-handicapping is 0.337, indicating a moderate positive relationship between academic confidence and academic self-handicapping. The significant positive correlation between claimed academic self-handicapping and behavioral academic self-handicapping suggests that college students tend to exhibit similar tendencies in their actual behavior when they self-report academic self-handicapping. In addition, weak or moderate correlations between frustration coping, academic stress, stress management, academic confidence, and academic self-handicapping indicated that the formation of academic self-handicapping is a complex process that is influenced by a variety of factors. The data are shown in Table 4 below.

Table 4. Correlation analysis between academic buoyancy and academic self-handicapping

variant		Claimed academic self- handicapping	Behavioral academic self- handicapping	Frustration coping	Academic stress	Stress management	Academic confidence
Claimed academic self- handicapping	Pearson's r	—					
Behavioral academic self- handicapping	Pearson's r	0.953	—				
Frustration coping	Pearson's r	0.152	0.177	—			
Academic stress	Pearson's r	0.067	0.081	0.582	—		
Stress management	Pearson's r	0.259	0.22	0.56	0.53	—	
Academic confidence	Pearson's r	0.327	0.337	0.646	0.542	0.573	—

6. Conclusion

The main purpose of this study is to investigate the relationship between academic buoyancy and academic self-handicapping in college students' foreign language learning. First, among the gender differences in academic buoyancy, different genders performed similarly on various aspects of academic buoyancy, but there were subtle differences in some dimensions. Females performed slightly better on frustration coping and academic confidence, while males performed more consistently on stress handling. These data provide a preliminary understanding of gender differences in academic buoyancy. Second, in the gender differences in academic self-handicapping, the

findings showed that gender differences were not significant on either dimension of behavioral academic self-handicapping or claimed academic self-handicapping, thus, gender had a lesser impact on academic self-handicapping. The lack of significant differences between genders on multiple dimensions of academic self-handicapping provides a basis for future research to further explore the influence of other potential factors on academic self-handicapping. Additionally, academic self-handicapping correlated with multiple dimensions of academic buoyancy, but the extent of this correlation varied. Future research could further explore the causal relationship between these variables and how interventions can reduce academic self-hindering behaviors.

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