International Journal of Innovative Research and Scientific Studies, 7(1) 2024, pages: 18-26

IJIRSS
International Journal of Innovative Research & Scientific Studies

ISSN: 2617-6548

URL: www.ijirss.com

The influence of outdoor training on college students' professional competitiveness: The mediating role of self-efficacy

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Abstract

To explore the relationship and mechanisms of outdoor training, self-efficacy, and professional competitiveness. A questionnaire survey was conducted among 120 college students who received outdoor expansion training for eight days and seven nights in Panlong Grand View Garden of Xiangtan City through the self-efficacy and professional competitive strength scales. The relationship between outdoor development training, self-efficacy, and professional competitiveness is statistically significant ($r = 0.736, 0.821, 0.873, P < 0.01$). Self-efficacy mediates outdoor training and professional competitiveness, with a mediation effect value of (0.339-0.537). Outdoor development training can directly affect professional competitiveness through self-efficacy. This study only takes the students of Hunan University of Science and Technology as the research object, and the representativeness of the student group needs to be improved. The questionnaire survey results are biased. The findings emphasize the value of outdoor development training. It is proven that outdoor development training not only has a direct impact on professional competitiveness but also has an indirect impact on professional competitiveness through self-efficacy. This study not only verifies the relationship between outdoor development training and professional competitiveness but also reveals the inner psychological mechanism of the influence of outdoor development training on professional competitiveness. Therefore, the results of this study can provide a theoretical basis for promoting college students' professional competitiveness.

Keywords: College students, Outdoor development training, Professional competitiveness, Self-efficacy, Sense of unity and cooperation, The outdoor development programs.

DOI: 10.53894/ijirss.v7i1.2399
Funding: This study received no specific financial support.
History: Received: 6 June 2023/**Revised:** 12 September 2023/**Accepted:** 15 November 2023/**Published:** 27 November 2023

Authors' Contributions: The ideas, concepts, and design of the research, the concepts, instruments development, and data analysis, Q.W.; the data analysis, and formatting article, Q.W. and Y.D. Both authors have read and agreed to the published version of the manuscript.
Competing Interests: The authors declare that they have no competing interests.
Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.
Institutional Review Board Statement: The Ethical Committee of the Krirk University, Thailand has granted approval for this study on 10 March 2022 (Ref. No. 2022-0310).
Publisher: Innovative Research Publishing

1. Introduction

In January 2009, Premier Wen Jiabao emphasized the criticality of addressing the employment challenges faced by college graduates in China at the meeting on “Deployment for promoting the employment of college graduates.” He presented the seriousness of college students’ employment and committed to prioritizing this issue. He acknowledged the severity of college students' work and committed to prioritizing this issue. Besides, statistics from China Employment Network show that the number of nationwide college students to graduated in 2021 will be as high as 10.76 million, which indicates that the employment competition for Chinese college graduates will become increasingly fierce. Additionally, this will present a more substantial obstacle to the education and vocational competitiveness of graduates in China.

Professional competitiveness is the sum of a person's unique and competitive skills, attitudes, knowledge, and other aspects of his career, which are concentrated on the quality of an individual in the professional environment, including career adaptability, work execution ability, self-improvement ability, and interpersonal relationship ability [1]. Generally, the higher the professional competitiveness, the better the performance in the career, the greater the space and choice for career advancement, and the stronger the ability to cope with the professional environment. In recent years, with the intensification of economic information technology, and employment competition, the development of individual careers among college students has shown new characteristics. College graduates must have professional competitiveness, protect and enhance their professional competitiveness through various channels, and build their professional competitiveness to minimize the fear of competition and unemployment.

Many scholars are committed to finding strategies to improve college students' career competitiveness. Existing studies have confirmed that self-efficacy has a significant effect on influencing factors of college students' career competitiveness. In 1977, the famous American psychologist Bandura proposed self-efficacy, which he defined as "an individual's belief and judgment about whether he or she can carry out a certain activity." [2]. Many studies at home and abroad have proved that self-efficacy is related to professional competence [3]. Individuals with high self-efficacy show a more positive work attitude [4] and higher organizational or professional commitment [5], thus improving work performance [6] and achieving higher job satisfaction [7]. Self-efficacy affects an individual's persistence and degree of effort in an occupation. Individuals with a heightened sense of self-efficacy can strive to overcome various difficulties in their work and have a greater chance of career success, Bandura [8]. Krouwel and Goodwill [9] found through their research on female managers in the Netherlands that whether female managers can achieve career success largely depends on their sense of self-efficacy. Appelbaum and Hare [6] found that self-efficacy is related to career success, and self-efficacy helps to improve employees' work performance, thereby increasing career development opportunities. Furthermore, other research has corroborated the notion that engaging in physical exercise can significantly enhance self-efficacy, demonstrating a direct and proportional association. Downs [10] showed that physical exercise can improve self-efficacy, maintain positive emotions, and positively impact physical activities. Sheng, et al. [11] found that different physical exercises have other effects on middle school students' self-efficacy, and moderate physical exercise lasting more than six months has the best result.

In the diversified educational direction of colleges and universities, outdoor, outward-bound training has gradually joined the training of college students' vocational competitiveness. In the diversified academic order of colleges and universities, outdoor exercise has steadily entered the training of college students' vocational competitiveness. Outdoor training is a comprehensive, practical, interactive activity essential to the outdoor experiential education system. Like the internationally popular outdoor education models such as Project Adventure (PA education mode), High-5 (five-stop learning), and Expeditionary Learning (EL outreach training), it is not only an educational concept but also an experiential curriculum learning system. It is a necessary supplement to our traditional education. Currently, there is a greater emphasis on the outdoor training mode, and there is a need for more comprehensive research on the mechanisms underlying the career competitiveness and self-efficacy of college students. In this study, 120 Hunan University of Science and Technology (HUST) students received outdoor development training lasting eight days and seven nights in the Panlong Grand View Park in Xiangtan City. The outdoor development programs included 12 items: fun, adventure, multiplayer cooperation, and trust. This paper conducted this case study to explore further the relationship between outdoor development and college students' career competitiveness and investigate the mediation role of self-efficacy in outdoor training and career competitiveness. This will provide insights into a deeper understanding of the association between outdoor training and career competitiveness.

2. Theoretical Backgrounds and Hypothesis

2.1. Relationship between Outdoor Training and Professional Competitiveness

Outdoor training is a training method that originated during the war. This method enhances personal characteristics and comprehensive ability by encouraging trainees to actively participate in physical activities like imitation in the natural environment. The introduction of outdoor training will expand the scope of general education. Therefore, given its guidance for individuals’ psychological quality and team spirit, society has extensively popularized outdoor expansion training. Professional competitiveness is the process of rationally distributing the knowledge and skills possessed by individuals, including various forms of social and human capital and individual work experience, to obtain the desired results. A review of relevant literature shows that domestic and foreign scholars have conducted in-depth research on the relationship between outdoor development training and professional competitiveness, and some experts have verified the relationship between the above variables. Propst and Koesler [12] pointed out that the expansion course through carrying out outdoor quality development activities and field survival training in colleges and universities, such as military training, morning exercise, physical education class expansion, second class expansion, mental health quality expansion, community activities expansion, youth volunteer activities, and field adaptability training, will make students strengthen and feel the

spirit of teamwork and enhance self-confidence in the development of quality. Moseley, et al. [13] believe that outdoor training can help college students realize how to face setbacks and difficulties and the importance of constantly progressing in social competition, exercising their willpower, stimulating their potential, and tapping their creativity. Ryska [14] conducted an experimental intervention on college students' Internet addiction through outdoor outreach training and found that outdoor outreach training significantly affected social soothing in the withdrawal symptoms of Internet addiction. Houston, et al. [15] believe that the team project setting of outward development training can help the backbone team of students learn ways to communicate with others during the training, enhance their awareness of active communication, and experience a sense of success and pride in completing tasks with others. Li [16] claimed a positive effect of outdoor training on improving college students' perceptions of and adaptability to society. Liu [17] suggested that outdoor exercises can effectively enhance college students' management abilities and professional competence. Gill, et al. [18] collected and analyzed data of different quality levels through actual outdoor extension teaching experiments and found that outdoor extension physical education plays a significant role in improving students' physical quality, psychological quality, team spirit, and interpersonal relationships. Outdoor expansion of physical education is of great significance to enhance the overall quality of students. From the above discussion, this paper proposes the following hypothesis:

H_1: Outdoor development training has a positive impact on professional competitiveness.

2.2. The Relationship between Outdoor Training and Self-Efficacy

Self-efficacy is an individual's perception or belief in their ability to effectively control all aspects of their life [19], an essential internal quality of an individual. Many sports psychologists claim that an individual's sports behavior has a compound causal relationship with their thinking, belief system, attitude, diverse environment, and other social and psychological factors. A large number of empirical studies have also verified that regular physical activity has positive effects on not only physical but also mental health. Bandura, et al. [19] believed that starting an individual's behavior and maintaining it mainly depend on the individual's expectations and beliefs about their related behavioral skills. This belief, which is essential in many areas of human activity, is self-efficacy. O'Bannon [20] studied the effect of outdoor camping on adolescents' self-efficacy and found that adolescents' self-efficacy gradually improved with an increase in the number of physical exercises and duration. This reflects a significantly positive relationship between physical exercise and self-efficacy. Chang and Liu [21] took college students as research objects and found that self-efficacy played a good mediating role in the relationship between physical exercise and self-management. Stumpf [22] found that self-efficacy played a good mediating role in regulating mood and psychological needs. In addition, many studies show that outdoor training has three factors affecting self-efficacy: the first is the success or failure experience, which is the most direct and influential factor on self-efficacy. Self-efficacy can be obtained through outdoor training, which can enhance self-efficacy through many successful experiences and reduce self-efficacy through many failed experiences. The second is indirect experience. It is a kind of self-efficacy obtained through learning, imitating, and watching. For example, the power of example in outward training can also indirectly improve their self-efficacy. The third method is verbal persuasion. For some people, verbal persuasion can promote or enhance self-efficacy. For example, in the process of outward training, some encouraging language from team members will strengthen your sense of self-efficacy. Moritz, et al. [23] found that the number of appropriate participation times and the number of days participating in outdoor camp sports gradually increased adolescents' self-efficacy. Feltz, et al. [24] confirmed that the interpersonal relationships, self-efficacy, and mental health of female college students in the exercise group were significantly better than those in the non-exercise group, indicating that exercise has a significant effect on improving interpersonal relationships, enhancing self-efficacy, and promoting mental health. From the discussions, we propose the second hypothesis:

H_2: Outdoor expansion has a positive impact on self-efficacy.

2.3. Relationship between Self-efficacy and Career Competitiveness

In recent years, the current employment trend has been grim, and college students have more significant employment pressure to stand out in many competitions; their career adaptability, interpersonal skills, etc., are the key factors to finding a job successfully. Good professional competitiveness can help college students do an excellent job of self-occupation and social scientific cognition, cultivate humanistic and professional quality, general knowledge, and innovation ability, and have the ability to develop their quality, adapt to social life, and achieve the ideal goal. Studies have shown that when an actor has a high sense of self-efficacy, they will have a higher level of workability, work adaptability, and interpersonal skills. At the same time, they will make more significant efforts for them, thus enhancing their professional competitiveness. Many scholars have proven this view. Abd-Elrhaman, et al. [25] examined how self-efficacy impacts the interpersonal skills of company staff. The study results reflect a high association between self-efficacy and the staff's work outcomes. Lu, et al. [26] found that people with high self-efficacy are less vulnerable to disturbance by external factors. When they encounter problems, they tend to work more seriously and efficiently, which helps them achieve high performance and solid professional competitiveness. In other words, when individuals experience difficulties at work and in personal performance,self-efficacy can play a regulatory role to a large extent. Wang [27] investigated the mediation effect of self-efficacy in the relationship between professional and career competitiveness, finding that self-efficacy can enhance professional and career competitiveness. Besides, self-efficacy positively improves employees' work competitiveness, workplace satisfaction, and work performance. Then, we infer the following hypothesis:

H_3: Self-efficacy can positively affect career competitiveness.

2.4. The Mediation Effect of Self-Efficacy

According to the research, outdoor training can directly improve college students' career competitiveness and influence individual career competitiveness through the mediating role of self-efficacy. This is consistent with the research conclusion of Liu [17] that physical exercise can help college students improve their mental toughness and happiness, keep them positive and optimistic, and improve self-efficacy, which can effectively enhance individual workability, workplace satisfaction, and workplace competitiveness. Self-efficacy is an individual's self-perception and a current situation description. People's understanding of the current situation will affect whether an individual can complete challenges more actively and confidently in the face of difficulties and setbacks. College students must work together to overcome the challenges of outdoor training, deal with bad weather or emergencies, etc. The ability to approach challenges with a compose mindset and surmount them with unwavering conviction has a positive impact on the development of self-assurance and enhancement of the psychological well-being among college students. Consequently, this substantially reinforces their self-efficacy. The stronger the sense of self-efficacy, college students will have better judgment, autonomy, and the ability to deal with things and quickly and accurately grasp their advantages in employment. It is the most suitable place to maximize their value and develop strong career competitiveness. Therefore, self-efficacy is an important bridge linking outdoor training and professional competitiveness. The hypothesis below is proposed according to the above discussion:

H_4: Self-efficacy is an intermediary between outdoor development training and professional competitiveness.

According to the above discussion and analysis, outdoor, outward-bound training will positively affect the vocational competitiveness of college students, and college students' self-efficacy plays an intermediary role in these two paths. After making theoretical reasoning on the hypotheses, this paper constructs the impact model of outdoor outward-bound training with self-efficacy as the mediating variable and the vocational competitiveness of college students, and the concrete model frame is shown in Figure 1:

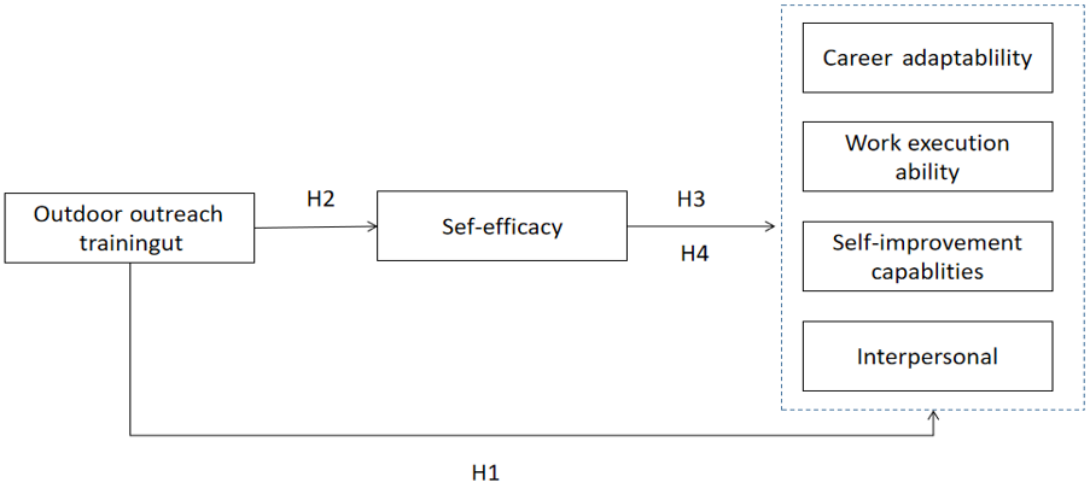

Figure 1.
Research model.

3. Methods

3.1. Participants

One hundred twenty undergraduates were recruited from Hunan University of Science and Technology through convenient sampling, and all 120 questionnaires were collected, reaching a 100% collection rate. These samples include 58 male students (47.96%) and 62 female students (52.04%), as well as 51 liberal arts students (42.86%), 21 science students (17.53%), and 48 art students (39.8%). Table 1 presents the demographic characteristics of the participants.

Table 1.
Demographic characteristics (N = 120).

Demographic variable	Category	Number	Percentage (%)
Gender	Males	58	47.96
	Female	62	52.04
Specialties	Natural sciences	21	17.53
	Social science	51	42.86
	Art sports	48	39.8
Total number of participants		120	100

3.2. Measures

This study employed standardized questionnaire and scales as instruments for measurement, while data collecting was facilitated through the use of questionnaires. Each questionnaire comprises three sections, i.e., the research introduction, the investigation of participants' demographic features, and the scale. In the first part, we introduced this

research's objective, importance, and privacy protection commitment. In the second part, participants must provide their personal information, such as gender, age, and educational background. In the third part, we employed the 5-point Likert scale to analyze the above information, with each response evaluated at five criteria levels. Options A, B, C, D, and E represent “strongly disagree,” “disagree,” “mainly agree,” “agree,” and “strongly agree,”; and the three latent variables correspond to a total of 34 observed variables. All measures are directly or indirectly derived from existing research to ensure the reliability of the scale questions to the maximum extent. To avoid interference from variables such as age, gender, and significance that may lead to inaccuracy or mistakes in the results, such variables were controlled in the design of the questionnaire.

(1) Questionnaire on outdoor training effects. The questionnaire on the effect of outdoor training is a self-compiled questionnaire developed according to research needs. Given a large number of items, the questionnaire adopts the method of item packaging [28] to package items of the same dimension into four observation indicators a1-a4, i.e., bravery, decisiveness, innovation, and self-discipline. The reliability analysis test shows that the internal consistency coefficient of the scale is 0.914.

(2) General Perceived Self-Efficacy Scale. This study employs the general perceived self-efficacy scale [29]**.** Items a5 - a14 contain ten questions. The reliability analysis test shows that the internal consistency coefficient is 0.934.

(3) Occupational competitiveness scale. This study mainly adopts the occupational competitiveness scale in the occupational competitiveness model. He [1] constructed and combines the existing employment situation into the questionnaire. Items a15 - a34 contain 20 items, such as: “I will set goals for each task and strive to complete the work with high quality and efficiency.” The internal consistency coefficient is 0.968.

3.3. Procedures

After the questionnaire, two rounds of the same outward-bound training were conducted on these college students before this study. In each round, fifteen college students who completed the training for the same duration were chosen to participate in the pre-survey. They were invited to amend the questionnaire structure and the question design so we could optimize the questionnaire by combining these students’ responses in the pre-survey. Then, the college students received the eight-day outdoor development training from June 3 to 10, 2022, and participated in the paper questionnaires on June 10, 2022, by filling out the questionnaires on-site. Finally, we collected 120 questionnaires, reaching a 100% recovery rate.

3.4. Data Analysis

SPSS (Statistical Product Service Solutions) 20.0 was used to assess the survey results. After controlling demographic variables, this paper used linear regression analysis to explore how outdoor training impacts self-efficacy and career competitiveness. Besides, this paper employed Harman's single-factor test to detect the common method bias. A correlation test was used to analyze the correlation of all variables. The structural equation model (SEM) was developed through AMOS 23.0, and the definite mediation function was tested using the bias-correction percentile Bootstrap approach (5000 repeated samplings and 95% confidence interval).

4. Results

4.1. Test on Common Method Deviation

This paper utilized Harman's single-factor test to identify the common method deviation. According to the test criteria, if multiple variables whose characteristic value is more significant than one are extracted and the explanation rate of the first variable is lower than 40 percent, this reflects no severe common method bias. This paper also conducted an exploratory factor analysis on outdoor training, self-efficacy, and career competitiveness variables. The results manifested that the characteristic value of six variables was greater than 1, and the explanation rate of the first variable was 28.29 percent, lower than the threshold of 40 percent. This test validated that no severe common method bias exists in this research.

Table 2.
Means and standard deviations of variables and correlation coefficients (N=120).

Variable	M	SD	Age	Specialties	Gender	Outdoor training	Self-efficacy	Career competitiveness
Age	1.133	1.991	1					
Specialties	1.267	2.133	0.941**	1				
Gender	0.692	1.814	0.958**	0.921**	1			
Outdoor outreach training	4.319	0.798	0.281	0.172	0.291	1		
Self-efficacy	3.460	0.555	0.487	0.392	0.489	0.736**	1	
Career competitiveness	4.302	0.660	0.382	0.287*	0.386	0.821**	0.873**	1

Notes: * Means $p < 0.05$; and ** means $p < 0.01$.

4.2. Descriptive Correlation Analysis

Before the hypothesis is tested, the correlation test is used to analyze the early correlation of all variables, and the correlation is verified by Plzeň coefficient. Outdoor training was positively correlated with self-efficacy (r = 0.736 * *, p < 0.01) and vocational competitiveness (r = 0.821 * *, p < 0.01), and self-efficacy was positively correlated with vocational competitiveness (r = 0.873 * *, p < 0.01) (Table 2). The results show that the correlation is high, and preliminary verification of the prediction results, can continue to study.

4.3. Reliability Analysis

This study explored data dependability by using Cronbach's alpha and CR. The value of these two indicators is more significant than 0.7 (Table3), indicating an excellent internal consistency of the collected data.

4.4. Validity Analysis

Table 3 reflects that the Average variance extracted (AVE) value and the factor load of test items of each variable is larger than 0.5, which suggests a good converge validity of the scale.

Table 3.
Reliability and validity test table.

Latent variable	Number of terms	Observed variable	Z	Alpha	AVE	CR
Outdoor training	4	a1	0.768	0.914	0.731	0.915
		a2	0.83			
		a3	0.82			
		a4	0.88			
Self-efficacy	10	a5	0.791	0.934	0.591	0.935
		a6	0.859			
		……	……			
		a10	0.826			
Career competitiveness	20	a15	0.838	0.968	0.605	0.968
		a16	0.859			
		……	……			
		a34	0.881			

Note: a1-a34 represents the items of each variable.

4.5. Hypothesis Test

In this paper, SEM is conducted to detect the hypotheses developed in this paper. It can be seen that a good model fit exists between the data and model: $\chi 2/df$ = 2.038, RESEA = 0.093, GFI = 0.093, IFI = 0.909, TLI = 0.945, and CFI = 0.908. The GFI (goodness of fit index), TLI (Tucker-Lewis index), CFI (comparative fit index), and IFI (incremental fit index) of all relevant factors are more significant than 0.9, indicating that the relevant factors have an excellent fitting effect. Furthermore, the Root Mean Square Error of Approximation (RMSEA) values of all factors are within the acceptable range, which proves that the measurement model selected in this paper can be accepted. The model suggests the significance of outdoor development training in improving career competitiveness (β = 0.418, P < 0.01), which validates the first hypothesis. Besides, it also reveals the importance of outdoor training for self-efficacy (β = 0.775, P < 0.01), which validates the second hypothesis. Finally, self-efficacy is claimed to positively impact career competitiveness (β = 0.548, P < 0.01), proving the third hypothesis, as shown in (Table 4).

Table 4.
The effect of the mediating model (Standardized).

Hypothesis	Paths	β	P
H1	Outdoor training - Career competitiveness	0.418	＜0.01
H2	Outdoor training - Self-efficacy	0.775	＜0.01
H3	Self-efficacy - Career competitiveness	0.548	＜0.01

The deviation-correction percentile Bootstrap approach, with 5000 repeated samplings and a 95% confidence interval, was employed to examine the mediation behavior. The 95% confidence interval is [0.162, 0.905], with the value 0 excluded from the confidence interval data, as shown in Table 5. Self-efficacy can be a crucial mediator in the relationship between outdoor training and career competitiveness, with an effect value of 0.432. The total effect value is 0.858, corresponding to the 95% confidence intervals of [0.677, 1.144], which validate the fourth hypothesis.

Table 5.
Mediation effect test.

Effect type	Effect value	Bootstrap 95%CI		
		Lower	Upper	P
Indirect effect	0.432	0.162	0.905	0.001
Total effect	0.858	0.677	1.144	0.001

According to the above analysis, the path coefficient relationship among these variables can be shown in the following Figure 2:

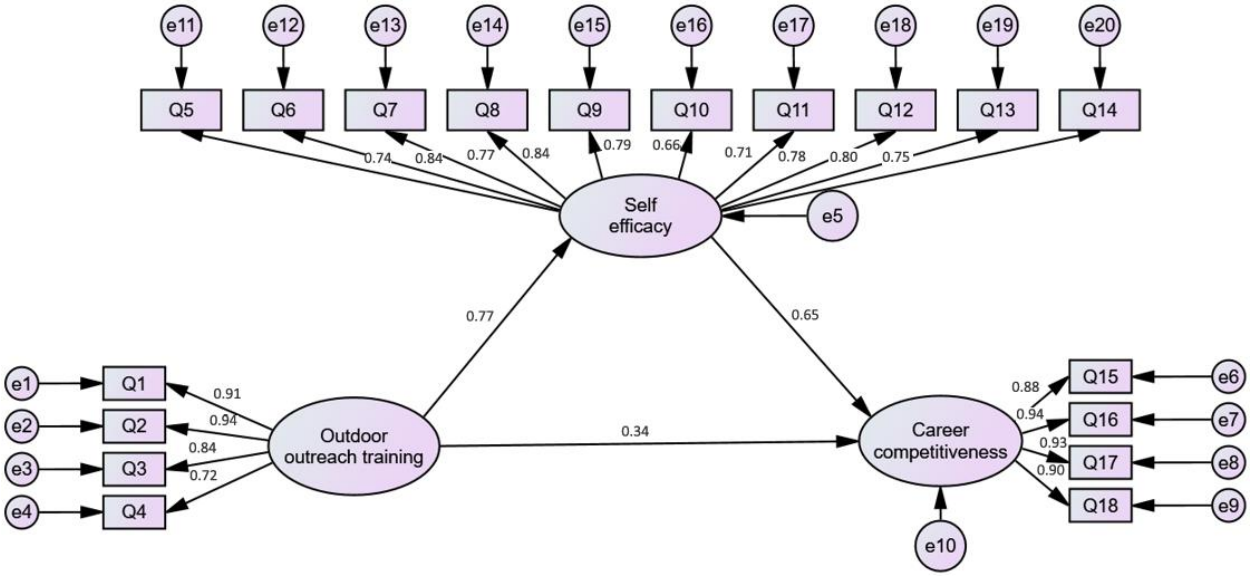

Figure 2.
Path coefficient diagram.

5. Discussion

This study explores the impact of outdoor training on professional competitiveness and its psychological mechanisms. The conclusions are that outdoor training directly impacts professional competitiveness and can influence professional competitiveness through the mediation effect of self-efficacy. Theoretically, this sheds light on further studies on enhancing college students' professional competitiveness.

5.1. Outdoor Outward-Bound Training has a Direct Effect on Career Competitiveness

Participation in outdoor training can directly affect the professional competitiveness of college students, which is consistent with research hypothesis H1. It shows that by participating in outdoor training, college students can not only enhance their physical fitness and relieve the pressure of intense work and study but also cultivate their sentiments, promote the spirit of unity, cooperation, courage, and hard work, and cultivate healthy, perfect, and positive enterprise employees for future enterprises. Make them face various changes and challenges in the future calmer and more orderly. This result is in accordance with the conclusions of many research studies. Walumbwa, et al. [30] study on the impact of outdoor training on adolescents' mental health confirmed that outdoor training can develop teenagers' emotions, such as joy, anger, sadness, and joy, and transfer these emotions to daily life and study through the conscious guidance of teachers, which is conducive to the formation of healthy psychology for adolescents. The research results of Liu [17] prove that outdoor training can help participants face setbacks and difficulties and realize the importance of continuous progress in social competition to exercise their willpower, stimulate their potential, and tap their creativity. Through the experiments of Luoyang University and Jiaozuo University on the impact of outdoor outward training on the overall quality of college graduates, it is confirmed that through outdoor training, graduates can improve their awareness of risk and competition in employment, breaking the traditional "relying on parents, etc." helpless way, insisting on their natural talent, and finding their favorite job. Stumpf [22] also confirmed in their research that outdoor training can improve students' abilities and cultivate their confidence, sense of responsibility, and sense of collective honor. To sum up, outdoor training, with its novel and fashionable form, is favored by most college students. Participation in outdoor activities and outward-bound training can greatly satisfy college students' spirit of challenging themselves and daring to take risks, fully improve their physical and psychological quality, cultivate their sense of unity and cooperation, establish high self-confidence, and improve their comprehensive quality. The aforementioned factors are fundamental components that contribute to the future professional competitiveness of college students. It may be argued that outside outward-bound training possesses a strong reason for enhancing the career competiveness of college students. Through the above discussion and analysis, outdoor activity has an excellent rationale to enhance the professional competitiveness of college students. At the same time, it proves the direct effect of outdoor activity on college students' career competitiveness in the conceptual model.

5.2. Self-Efficacy Plays a Mediating Role between Outdoor Training and Career Competitiveness

Outdoor training can mediate between outdoor outward training and career competitiveness through self-efficacy, consistent with hypothesis H2-H4. This indicates that outdoor training can not only have a direct impact on career competitiveness but also have an indirect impact on career competitiveness through self-efficacy. The results of this study are consistent with previous conclusions. Feng, et al. [31] surveyed 336 employees of service enterprises and found that

innovative behavior significantly impacts employees' high sense of self-efficacy. Dimotakis, et al. [32] point out that individuals with high self-efficacy are more likely to accept challenging tasks and set higher goals to improve their work performance and career opportunities. Zhang and Schwarzer [33] found that self-efficacy mediates the relationship between physical exercise and sexual emotion. Physical exercise can enable individuals to gain the ability to control emotions such as anger, and the body can constantly adapt to the stimulation brought by exercise and the sense of accomplishment when the physiological limit is broken again and again. A sense of control and achievement can strengthen the self-efficacy of individuals. The stronger the sense of self-efficacy, the more it helps individuals cope with setbacks and difficulties and break the negative emotions brought by setbacks and difficulties. Outdoor training is a kind of physical exercise, including physical training, psychological training, management training, personality training, and so on. Through outdoor training, the physical quality of college students is improved. At the same time, the psychological quality is also improved. Overcoming difficulties in outdoor outward-bound training, dealing with bad weather or emergencies, etc., requires college students to work together, stay calm, face problems with a calm attitude, and overcome problems with strong faith, which is conducive to the cultivation of self-confidence and the improvement of psychological quality in college students and thus significantly strengthens their self-efficacy. The stronger the sense of self-efficacy, the stronger the sense of self-efficacy. College students will have better judgment, autonomy, and the ability to deal with things, navigate easily in employment, accurately grasp their advantages, and maximize their value in the most suitable place to form strong career competitiveness. Through the above discussion and analysis, it can be concluded that self-efficacy plays a mediating role in the relationship between outdoor outreach training and career competitiveness, and the relationship of the mediating utility path in this study has also been well confirmed.

6. Research Implications

First, strengthen the cooperation between schools and off-campus outdoor training bases, make up for the current situation of insufficient school venues and facilities, open up the channel of school-enterprise cooperation, and jointly enhance the channel of vocational competitiveness of college students.

The second is to carry out college outdoor, outward-bound training courses vigorously. Strengthen the construction of outdoor outward-bound training sites in colleges and universities, introduce talents, develop school-based outdoor outward-bound training courses, popularize the outdoor outward-bound training courses in colleges and universities, and train the vocational competitiveness among college students in a targeted way.

The third is to enhance the consciousness of individual professional competitiveness of college students. Consciousness determines behavior. Only by forming a consciousness of professional competitiveness can individuals choose the right training program according to their needs and insist on participating.

7. Research limitations

This research also has limitations, mainly reflected in the following two aspects: First, the representativeness of the student group needs to be improved because only one student of Hunan University of Science and Technology is taken as the research object. Second, there is a certain degree of bias in the survey results as this study only adopted the questionnaire, and the respondents' attitude towards the questionnaire is uncontrollable. It is recommended to expand the student population's scope further and conduct research in many regions of the country so that the results can be more representative. Besides, it is necessary to increase intervention research to provide evidence for objective and effective intervention methods to improve college students' professional competitiveness.

8. Conclusion

To sum up, this research explores the association between outdoor training and college students' professional competitiveness and examines the influence mechanism of outdoor training on professional competitiveness. Thus, the research provides theoretical insights for improving college students' professional competitiveness.

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