

# **Career Decision Self-Efficacy and Career Orientation Among Physical Education Students in China**

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#### **Abstract**

Aim: Physical education has played an important role in cultivating sports talents to build a sport power. However, unlike other industries, such as high technology, there are less openings in sports industry, which challenge the students in physical education in job seeking. The study described the profile of the PE major students regarding sex, grade level, and types of school; determined the career decision self-efficacy of PE major students in terms of interest in decision making, information gathering and problem solving; assessed the respondents' career orientation in terms of autonomy, security and stability, lifestyle, pure challenge; tested the difference in responses on career decision self-efficacy and career orientation when grouped according to the profile; tested the significant relationship between respondents' career decision self-efficacy and career orientation; and proposed a career development plan for physical education students.

Methodology: This descriptive research involved 318 physical education students from two colleges in China using questionnaire that assessed the respondents' career decision self-efficacy and career orientation.

Results: Majority of the respondents were female, senior and from public schools. Most of the respondents showed high self-efficacy in career decision particularly highest in information gathering; respondents have good career orientation particularly on security and stability. Career decision self- efficacy of respondents differ significantly when grouped according to types of school and grade level. There is highly significant difference in responses on career orientation of respondents a when grouped according to type of school and significant in terms of grade level except on security and stability. There is a highly significant relationship between' career decision self-efficacy and career

Conclusion: A career development plan was proposed to help physical education students improve their career decision self-efficacy and career orientation to enhance their ability for the future job. From the findings, future researchers may investigate further and may increase the number of samples to ensure the diversity and greater representation. In addition, the career decision self-efficacy and career orientation of other majors may be explored.

Keywords: Career Decision Self-efficacy, Career Orientation, PE students

## **INTRODUCTION**

In September 2019, the General Office of the State Council issued the Outline for Building a Sports Power Country, making it clear that more efforts should be made to build China a strong sports country. Physical education has played an important role in cultivating sports talents to meet the needs of building sport power. Influenced by the outline, many universities expand the number of physical education students' enrollment in recent years. The physical education cultivates numerous talents for the society and contribute greatly for the building of strong sports country. However, compared to other industries, the sports industry is not developing as quickly, such as high technology and business etc. There are not so many job openings for sports graduates. Therefore, the students in physical education face job crisis because of the limited number of openings.



In addition, the outbreak of Covid-19 makes the situation of employment worse. At present, most students in physical education can assess the employment in a rational way and hold a positive attitude to career seeking. However, some students hold a negative attitude toward the employment situation, and they expect too high, and they are anxious about employment. They cannot clearly make career decision that best meets their interests and abilities. According to the study by Hung and Lee (2013), about fifty percent of students majoring in sports management are unsure about their career choice. In the present study, the focus is to examine the career decision and career orientations of students major in physical education.

Currently, many researchers focus on the importance of individual factors in career decision and career planning. Career development is the individual's choice and development in the professional aspects and with the goal of fulfilling the career-related aspiration (Chan, 2020). Students in physical education undergo a transition from school education to career exploration. They should assess their ability and the needs of society, understand their ideas and establish a clear direction for job hunting. Therefore, students career decisions and orientation affect their career development. Moreover, many universities are focusing on the healthy development of students. Physical education student has been shifted from the ignore parties to the focus parties.

Career decision self-efficacy can be defined as one's beliefs in their ability to make career-related decision. Alipio (2020) suggests that it is greatly related to one's actual competence in making and implementation career decision. The concept of "career decision self-efficacy" comes from the social cognitive career theory, which emphasizes the intricate relationships between people, their behaviors, and their environments. One of the main cognitive elements impacting career choice and outcomes is career self-efficacy. Career decision self-efficacy, according to Cheng et al. (2016), influences students' attitudes and choices while making professional decisions, and it can assist people in overcoming hurdles in their careers and adjusting to pressure at work. Students who feel less confident in their ability to make career decisions are more inclined to put off things like selecting a major, discovering their own interests and skills, and looking up pertinent employment information. Because of this, they are ill-equipped to make wise job choices, and when faced with difficulties, they are more inclined to alter their original plans. Career development and career decision elf-efficacy are positively correlated (Chan, 2022). According to Chui and Ngo's (2022), professional optimism and protean career orientation are positively correlated, and this correlation is totally mediated by career flexibility and career decision self-efficacy.

In addition, career orientation shapes the important value for an individual and help individuals determine their views in deciding the career development. The career orientation, which is also called career anchor, refers to one's views, value, and motivations to the future career. It is believed that people's job choices and self-management behavior are strongly influenced by their career orientations, which are the way in which they view and approach their careers (Hirschi & Koen, 2021). It influences one's decision on a career, shapes how they view the future, and influences how they respond to their work experiences. Therefore, career orientations can be viewed as the main force directing and stabilizing a person's future career.

Despite of the abound of rich studies, only few research, however, have examined the professional selfefficacy and orientation in physical education of college students. In fact, it has been observed by the researcher that generally, the path and career of PE students have not been fully given so much attention because maybe this is not found to be significant compared to other major or specialization, that is why this study has been focused to them. It is crucial for the researcher to study physical education to be able to assess and thoroughly explore their career options. Through this study and through the output of the researcher, the physical education students' competitiveness in the job market will be improved and will help them have better grasp of their career potential. Thus, this research intends to help students improve their employment rate, improve their career decision selfefficacy, and help schools: according to students' employment orientation, improve employment guidance, and design employment guidance plans for teachers according to students' employment needs.

## **Objective**

The study aimed to determine the relationship between career decision self-efficacy and career orientation among Chinese students majoring in physical education. Specifically, the study described the profile of PE major students in terms of their sex, grade level, and types of schools; determined career decision self-efficacy in terms of making career decisions; interest in decision making, information gathering and problem solving; assessed the respondents' career orientation in terms of autonomy, security and stability, lifestyle, pure challenge; tested the difference of responses on career decision self-efficacy and career orientation when grouped according to the profile; tested the significant relationship between respondents' career decision self-efficacy and career orientation; and proposed a career development plan for physical education students.



#### **METHODS**

### **Research Design**

The purpose of the study was to investigate the connections between career decision self-efficacy and career orientation and to suggest a strategy for career advancement. The descriptive research approach was employed in this study to evaluate the students' responses. The goal of descriptive research is to gather measurable data for statistical analysis of the population sample. It offers a thorough picture of the traits, actions, and traits of a specific group or event, which can help guide future study and political choices. It is a well-liked research tool that enables data collection and description.

## **Participants of the Study**

There are 1820 physical education students altogether in two colleges (one public, one private). The Raosoft online sample size calculator was used as the tool for computing the number of participants. By utilizing the rule of "the margin of error is 5% and the confidence level is 95%", 318 students were chosen as the respondents. The selected participants had at least three years of physical learning experience, and they had a basic view on the sportrelated job market and the requirements of the sections. The freshman and junior were selected as the participants because of their different experience of learning and different views to employment. Also, the selection of different grades can better the changes or differences of students' view on the career development.

## **Data Gathering Instrument**

Questionnaire was used as the primary data gathering tool. Three sections made up the survey questionnaire. The responders' profiles are in the first section. The Career Decision Self-Efficacy Questionnaire was used in the second section to gauge the physical students' level of preparedness for their chosen careers. The study used a questionnaire from Hampton's (2005) career decision self-efficacy scale. The third part was the Career Orientation questionnaire to determine the students' career decisions and it was adapted from the research by Wang et al (2019). The Career Decision Self-Efficacy and Career Orientation questionnaire responses from each participant were graded on a four-point Likert scale, with the responses ranging from "strongly agree" to "strongly disagree.". The instrument has undergone validation by experts before it was subjected to pilot test.

Based on the reliability test results above, the questionnaire with both variables, career decision self- efficacy and career orientation has obtained a Cronbach Alpha value of 0.915 and above with a verbal interpretation of Excellent in all items. This means that the main data gathering instrument used is reliable and ready to be used for the large-scale survey.

## **Data Gathering Procedure**

The researcher finalized the questionnaire that can be used to examine the respondents' career decision selfefficacy and career orientation. The questionnaires were also submitted to the advisor for comments. After getting the approval from the adviser and having been checked by three experts for comments, the reliability test was conducted to test whether the questionnaires were suitable. Finally, the questionnaires were sent to the respondents for collecting study data. The teachers who participated in the study help in the data collection process by asking their students to fill- out the survey questionnaire voluntarily. The answered questionnaires were collected, tabulated, and submitted for analysis and interpretations. Relevant studies were also connected to verify the research findings based on the present context.

## **Data Analysis**

Frequency and percentage were used to describe the profile of the physical education students regarding their sex, grade level, and types of school. Weighted mean and ranking were used to determine their responses to the career decision self-efficacy and career orientation. Analysis of Variance was used to test the difference of responses on career decision self-efficacy and career orientation when grouped according to the profile. Pearson's r was used to test the significant relationship between respondents' career decision self-efficacy and career orientation. Lastly, a career development plan for physical education students was proposed based on the results.



### **Ethical Consideration**

To get a high level of confidentiality of respondents, the respondents' name and personal information were not mentioned in the study. They were oriented about the right to participate or quit the survey at their options. They were all given explanations and orientation during the distribution of the questionnaires. All their responses were kept secret and for research use only. The research also got the approval of the Ethics review Committee to conduct the study. This was accomplished by submitting first the research protocol and other pertinent documents to the Ethics Review Committee of the university for scrutiny of the content before conducting the study.

### **RESULTS and DISCUSSION**

Table 1
Percentage Distribution of the Respondents Profile

Sex	Frequency	Percentage %
Male	140	44.0
Female	178	56.0
Grade level		
Freshman	157	49.4
Senior	161	50.6
Types of school		
Private school	151	47.5
Public school	167	52.5

The profile of respondents was shown in Table 1. Regarding sex, 178 respondents are females, accounting for 56%. There are more females than males in the population. more enrollment for girls may be related to the development of society.

The result is in consistent with the findings of Wang (2021), who studied the student structure of physical education. It was found that the physical education students were unbalanced in term of grade structure. Also, there was an unbalance in terms of gender structure. There were more males and fewer females in sports major, while in non-sports major there was more females and fewer males. From the above analysis, different gender and different grades have different understanding of public and private, which is related to the influence of the state orientation and cultural system and is more closely related to the concept of students.

Table 2
Career Decision Self-Efficacy in terms of Decision Making

	Indicators	Weighted Mean	Verbal Interpretation	Rank
1.	I can plan of my goals for the next 5 years.	2.88	Agree	3
2.	I can determine the steps need to take to successfully complete my chosen major.	2.86	Agree	4
3.	I can determine what my ideal job would be.	3.05	Agree	1
4.	I can persistently work at my major or career goal even when I get frustrated.	2.99	Agree	2
	Composite Mean	2.94	Agree	-

Legend: 3.50 - 4.00 = Strongly Agree; 2.50 - 3.49 = Agree; 1.50 - 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 2 presents the respondents assessment on career decision self-efficacy in terms of decision making. The composite means of 2.94 is interpreted as "Agree" which means that the respondents agreed in general. This shows that with the current situation, most students employment awareness and confidence are constantly increasing, and their employment expectations tend to be reasonable. They think they can decide their jobs based on their interest, can persist with the work despite of the difficulties, can make detailed plans about the career.



Among the items cited, respondents can determine what their ideal job would be. It got the highest mean score of 3.05, ranking the first. It may be because of the influence of environment to the students. They tend to frame their future job, how it looks like based on what they can see around.

Respondents can determine the steps need to take to successfully complete my chosen major, rated the least with the score of 2.86. This means that the PE students can establish clear career plan and complete it step by step according to their plan. Many of them have their employment concepts. They are clear about their advantages and disadvantages. This finding may be explained by the development of the respondents. With three years of learning, their thoughts, cognition, and psychology have gradually matured, and they have their own understanding and evaluation of people and things around them. They try to independently think, make decisions, and realize their personal pursuits as adults.

This result is consistent with the study conducted by Akos (2020), who concluded the PE students can make employment plans based on actual situation, lower employment expectations to a certain extent. They adjust avoid expectations for employment are too high or unreal.

Table 3 Summary Table on Career Decision Self-Efficacy

	Indicators	Weighted Mean	Verbal Interpretation	Rank
1.	Decision Making	2.94	Agree	2
2.	Information Gathering	2.99	Agree	1
3.	Problem Solving	2.85	Agree	3
	Composite Mean	2.93	Agree	

Legend: 3.50 - 4.00 = Strongly Agree; 2.50 - 3.49 = Agree; 1.50 - 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 3 displays the summary of career decision self-efficacy of PE major students. The composite mean of the four dimensions is 2.93, indicating that most PE students are confident in career decision. Among the three dimensions, the score of information gathering ranks first with the highest value of 2.99, followed by the decision making with a composite mean of 2.94. Problem solving rank last with the composite mean of 2.85.

Information gathering has the highest value of 2.43. This means that the students can realize the importance of information gathering. To prepare for unanticipated circumstances if they are unable to achieve their initial desired professional goal in the future, people typically prepare their second and/or third job possibilities.

Furthermore, Pössel et al. (2018) found that support from parents and teachers had a favorable impact on career exploration and choice when teenagers must make decisions on whether to continue their education or start careers after graduation.

Students must share information with their peers about careers that fit their interests and majors. The exchange of career information and guidance is one of the characteristics of peer support, according to Naslund (2016). They require this dialogue to learn the most recent knowledge and prospective difficulties that may arise in the workplace in the future. The acquired knowledge is anticipated to give pupils a comprehensive image of their jobs and to equip them to deal with numerous unforeseen circumstances in the future. As a result, they become more self-assured, capable of making decisions, and flexible to changes in the future. This result is in line with several research that found that peer support is a source of knowledge that aids in adjusting to the competitive job market.

Similarly, Patil et al. (2016) discovered that college athletes' confidence in addressing issues relevant to career development can be increased by connecting with parents, coaches, and peers and receiving support from them. According to Hu et al. (2015), family support had a significant impact on athletes' professional decisions and sense of efficacy.

Table 4 Summary Table on Career Orientation

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Technical and Functional	2.92	Agree	6



2. General Management	2.99	Agree	2
3. Autonomy and Independence	2.98	Agree	3
4. Security and Stability	3.03	Agree	1
5. Entrepreneurial Creativity	2.96	Agree	4
6. Dedication to a Cause/ Service	2.91	Agree	7.5
7. Pure challenge	2.93	Agree	5
8. Life Style	2.91	Agree	7.5
Composite Mean	2.95	Agree	

Legend: 3.50 - 4.00 = Strongly Agree; 2.50 - 3.49 = Agree; 1.50 - 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 4 reveals the overall situation of the career orientation of students in physical education. The composite mean of 2.95 means that most of the students agree on the above indicators. Among all indicators, security and stability ranks first with the weighted mean of 3.03. Respondents finding is similar with the results by Wang ect. (2023), who investigate career orientations and its influence on the general practitioners, in which security is the top career orientation. The results indicate that most of the students in physical education pursue for stability for their future career. This may be related to the traditional job seeking value of Chinese people, which most people wants to find a job first to make a living on themselves and then they will pursue for other benefits, such as the balance with life, high salary, and the chance for professional practice.

The dimension of dedication to a cause/service and lifestyle ranks the last with the weighted mean of 2.91. It is found that the indicator of dedication to a cause/service and lifestyle are not the dominant career orientations. This finding is different from some of the related studies. For example, the study by Lin and Xu (2012) found that sense of service is one of the top career orientation of nurses' career anchors. The possible reasons may be the different job, which has different levels of dedication.

Respondents' findings of the study are important for physical education students have a correct view of career choice. They can set up correct view of career choice and career development. A right career perception or view promotes the development of career and the process of self-realization, which requires the students to have clear understanding of themselves, such as their abilities, professional skills, hobbies. Stability is one of the reference conditions for career choice, but more importantly, they should consider whether they can get inner satisfaction in the work and whether they can contribute themselves to the society.

Table 5 Difference of Responses on Career Decision Self-Efficacy When Grouped According to Profile

Sex	F-value	p-value	Interpretation
Decision Making	0.009	0.924	Not Significant
Information Gathering	1.182	0.278	Not Significant
Problem Solving	1.268	0.261	Not Significant
Grade Level			
Decision Making	17.022	0.000	Significant
Information Gathering	6.730	0.010	Significant
Problem Solving	8.767	0.003	Significant
Type of School			
Decision Making	56.924	0.000	Significant
Information Gathering	51.459	0.000	Significant
Problem Solving	58.483	0.000	Significant

Legend: Significant at p-value < 0.05

Table 5 shows the difference of responses on career decision self-efficacy when grouped according to profile. The results indicate that career decision self-efficacy is not affected by sex. Meanwhile, career decision self-efficacy posted significant variation of responses in terms of grade level and type school.





As regards to the type of school, the data imply that the PE students from the private school may outperform those from the public school. This result is a little unexpected. In China, the student from the public school is generally academically better than students from private school. Also, for the employees, they prefer the public graduates for their competitiveness. The students in private schools are still taught the skills to perform better in the job market and increase the chance of employment. Zhang (2015) find that students in public schools may be rather competitive in their school academically but not necessarily when they enter in the workplace. Different conclusions are reached in a study conducted by Dag (2015) who compared the competitiveness of the private schools and public schools. He discovered that the private school students are disadvantageous in job seeking for their relatively lower ability. Yang (2016) also find that different schools implement different kinds and levels of career guidance, which will influence their students' employment decision and beliefs. If the students are clear about their current ability and needs, and also a clear understanding about the workplace requirement, they will have a better chance of getting a desired job.

Table 6 Difference of Responses on Career Orientation When Grouped According to Profile

Sex	F-value	p-value	Interpretation
Technical and Functional	0.565	0.453	Not Significant
General Management	0.003	0.959	Not Significant
Autonomy and Independence	0.828	0.363	Not Significant
Security and Stability	0.185	0.667	Not Significant
Entrepreneurial Creativity	1.928	0.166	Not Significant
Dedication to a Cause/ Service	8.156	0.055	Not Significant
Pure challenge	4.466	0.035	Not Significant
Life Style	0.278	0.599	Not Significant
Grade Level			
Technical and Functional	4.187	0.042	Significant
General Management	3.903	0.049	Significant
Autonomy and Independence	4.111	0.043	Significant
Security and Stability	0.094	0.760	Not Significant
Entrepreneurial Creativity	2.367	0.125	Significant
Dedication to a Cause/ Service	1.168	0.281	Significant
Pure challenge	3.715	0.055	Significant
Life Style	4.828	0.029	Significant
Type of School			
Technical and Functional	82.580	0.000	Highly Significant
General Management	70.328	0.000	Highly Significant
Autonomy and Independence	51.584	0.000	Highly Significant
Security and Stability	42.624	0.000	Highly Significant
Entrepreneurial Creativity	61.872	0.000	Highly Significant
Dedication to a Cause/ Service	60.690	0.000	Highly Significant
Pure challenge	57.648	0.000	Highly Significant
Life Style	73.874	0.000	Highly Significant

Legend: Significant at p-value < 0.05

When categorized by profile, the responses to the question about career orientations are compared in Table 16. Except for security and stability, there were noticeable differences when groups were made based on grade level and school type. This was noted since the p-values that were obtained were below the alpha threshold.

This was noticed since the obtained p-values were less than the alpha level. This means that significant difference exists and based on the test conducted, it was found out that freshmen have better assessment than seniors, and those from private school have better assessment than those from public schools.

As for the students from private do better response than public schools, the possible reason is the reasonable career training program or system provided by the private schools. According to the study by Wang (2017), many



private universities provide employment guidance for students, so that students can have a clear understanding of themselves and of their future employment goals. It is helpful for students to formulate career plans, collect employment information, and effectively protect their own interests while successfully obtaining employment. In addition, many universities regularly open career guidance lectures to help students know about their major and their career. All these measures are helpful for student to plan their career well and have a correct view for career development.

Table 7
Relationship Between Career Decision Self-Efficacy and Career Orientation

Decision Making	r-value	p-value	Interpretation
Technical and Functional	.907**	0.000	Highly Significant
General Management	.914**	0.000	Highly Significant
Autonomy and Independence	.924**	0.000	Highly Significant
Security and Stability	.904**	0.000	Highly Significant
Entrepreneurial Creativity	.925**	0.000	Highly Significant
Dedication to a Cause/ Service	.882**	0.000	Highly Significant
Pure challenge	.877**	0.000	Highly Significant
Lifestyle	.885**	0.000	Highly Significant
Information Gathering			
Technical and Functional	.951**	0.000	Highly Significant
General Management	.945**	0.000	Highly Significant
Autonomy and Independence	.952**	0.000	Highly Significant
Security and Stability	.954**	0.000	Highly Significant
Entrepreneurial Creativity	.943**	0.000	Highly Significant
Dedication to a Cause/ Service	.943**	0.000	Highly Significant
Pure challenge	.945**	0.000	Highly Significant
Lifestyle	.943**	0.000	Highly Significant
Problem Solving			
Technical and Functional	.950**	0.000	Highly Significant
General Management	.927**	0.000	Highly Significant
Autonomy and Independence	.945**	0.000	Highly Significant
Security and Stability	.917**	0.000	Highly Significant
Entrepreneurial Creativity	.934**	0.000	Highly Significant
Dedication to a Cause/ Service	.924**	0.000	Highly Significant
Pure challenge	.903**	0.000	Highly Significant
Lifestyle	.918**	0.000	Highly Significant

Legend: Significant at p-value < 0.01

Table 7 presents the association between career decision self-efficacy and career orientations inventory of PE major students. The computed rho values indicate a very strong direct correlation, and the resulted p-values were all less than the alpha level. This means that a significant relationship exists and implies that the career decision self-efficacy is highly significant for the better the career orientations inventory of PE major students.

The findings also show a favorable relationship between career self-efficacy and safety and stability, entrepreneurial innovation, and unadulterated challenge (Betz & Voyten, 1997; Blustein, 1989; Rogers et al., 2008). Low self-efficacy leads to avoidance of the actions, whereas high self-efficacy leads to successful behavior execution (Choi & Kim, 2013). High self-efficacy has been linked to several outcomes, including career planning and preparation, according to Roger et al. (2008). When self-confidence in carrying out job-related tasks is increased, the depth and breadth of career exploration are also increased (Rogers & Creed, 2011; Tsai et al., 2017), in addition to the motivation for researching careers being reinforced.

According to Demulier et al. (2013), competent athletes tend to think they can handle a challenge like a career shift and hence spend more time considering their future options. Self-efficacy and external variables will impact college students' capacity for and views about making wise career decisions. (Nachmias & Walmsley, 2015) . Basically, a person with high self-efficacy will confidently overcome obstacles in their career development and work



to achieve their career goals (Lent et al., 2001). The more self-assurance and expectations people have for their career development, the more successfully people choose their career paths.

#### Conclusion

A career development plan was proposed to help physical education students improve their career decision self-efficacy and career orientation to enhance their ability for the future job. From the findings, future researchers may investigate further and may increase the number of samples to ensure the diversity and greater representation. In addition, the career decision self-efficacy and career orientation of other majors may be explored.

#### Recommendation

The study recommends the use of the Proposed Career Development Plan as shown in the table below:

Table 8 Proposed Career Development Plan to enhance PE Students' Career Decision Self-efficacy and Career Orientation

Key Result Area	Objectives	Strategies/ Activities	Success Indicators	Person/s Responsible
Career Decision     Self-efficacy     Problem solving	To help students to solve the practical ability for job- related problems	Develop a career training program according to the needs of society;  Design internship courses for students; Conduct lecture on the physical education employment situation;	85% of the physical education students have known about the professional needs and improved their ability for practice	Career Training Instructors/ Concerned Department
Career Orientation  2.1 Dedication to a Cause/ Service	To guide students have the spirit of sacrifice and form correct career value	Conduct a reorientation on the knowledge about career value;  Conduct a Professional knowledge contest or Career festival  Provide seminars or trainings on Community	85% of the physical students know the right career value and willing to contribute to their career;	PE students/Career Traning Instructors/ Concerned
2.2 Life Style	To help students understand the importance and the way of work-life balance	Awareneess and Service  Conceptualize lectures on the job-life fit cases;  Simulate activities for real-life employment activities	90% of the students can keep a balance between work and life	Department



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