

STRATEGY DEVELOPMENT FOR SUSTAINABLE DEVELOPMENT  
STUDENT'S CAREER VALUES EDUCATION IN HIGHER  
VOCATIONAL COLLEGES, HUNAN PROVINCE

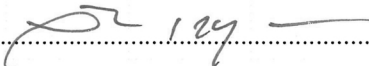
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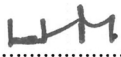
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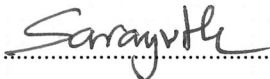
**Thesis Title** Strategy Development for Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province

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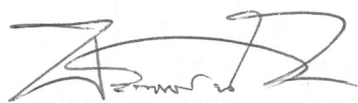
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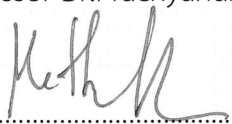
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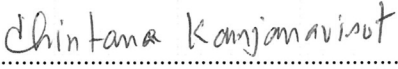
  
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### ABSTRACT

The objectives of this research were 1) to study the current situation of career values education in higher vocational colleges in Hunan Province, 2) to propose strategies for the development of career values education in higher vocational colleges in Hunan Province, and 3) to evaluate the suitability and feasibility of the strategies for the development of career values education in higher vocational colleges in Hunan Province, including the following four aspects: 1) career ethics, 2) career skills, 3) career psychology, and 4) career planning. The sample group of this research comprised 384 students from higher vocational colleges in Hunan Province, selected through systematic and simple random sampling methods. Additionally, the interview group consisted of 12 career guidance experts. The experts who evaluated the suitability and feasibility of the strategies were high-level administrators and career education experts from 6 colleges.

A mixed-methods approach was employed. Quantitative data were gathered from 384 students using a systematic random sampling technique, while qualitative insights were obtained through structured interviews with 12 career guidance experts from six higher vocational institutions. Data analysis included document analysis, questionnaires, structured interviews, and evaluation forms. Statistical tools such as

percentages, averages, and standard deviations were used, along with SWOT and TOWS matrix analyses.

The results revealed that the overall level of career values education is high but unbalanced, with career skills being the most developed and career planning lagging behind. A total of 29 strategies were proposed: 5 for career ethics, 6 for career skills, 9 for career psychology, and 9 for career planning. The strategies were evaluated by experts and rated highly for adaptability and feasibility, achieving average scores between 4.5 and 5.0.

The study recommends that colleges should integrate these strategies into their curricula and provide continuous professional development opportunities for educators. Society should actively collaborate with educational institutions by offering mentorship programs and supporting students' career development through internships. Finally, students should take an active role in aligning their career development with industry needs, regularly evaluating their career plans, and enhancing their professional skills.

**Keywords:** Career Values Education, Higher Vocational Colleges, Hunan Province, Sustainable Development, Educational strategies



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# Contents

	Page
Abstract.....	i
Acknowledgement.....	iii
Contents.....	v
List of Figures.....	vii
List of Tables.....	viii
Chapter	
<b>1 Introduction.....</b>	<b>1</b>
Rationale.....	1
Research Question.....	3
Objective.....	3
Scope of the Research.....	3
Advantages.....	5
Definition of Terms.....	5
Research Framework.....	8
<b>2 Literature Review.....</b>	<b>10</b>
Sustainable development education.....	10
Development strategy.....	15
Students' career values.....	23
Higher vocational colleges.....	37
Related Research.....	43
<b>3 Research Methodology.....</b>	<b>49</b>
The Population/ Sample Group.....	51
Research Instruments.....	53
Data Collection.....	56
Data Analysis.....	59

## Contents (Continued)

	Page
<b>4 Results of Analysis</b> .....	60
Symbol and Abbreviations.....	60
Presentation of Data Analysis.....	60
Result of Data analysis.....	62
<b>5 Discussion Conclusion and Recommendations</b> .....	152
Conclusion.....	152
Discussion.....	158
Recommendations.....	161
<b>References</b> .....	163
<b>Appendices</b> .....	176
A List of Specialists and Letters of Specialists Invitation for IOC Verification...	177
B Official Letter.....	179
C Research Instrument.....	197
D The Results of the Quality Analysis of Research Instruments.....	211
E Certificate of English.....	217
F The Document for Accept Research.....	219
<b>Researcher Profile</b> .....	221

## List of Figures

Figure	Page
1.1 Research Framework.....	9
3.1 Summary of research methods and steps.....	50
4.1 SWOT Analysis Interview Content.....	73
4.2 Strategies to Promote Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province.....	142

## List of Tables

Table	Page
2.1 Lists of the concept of SWOT analysis.....	19
2.2 The results of the synthesis of career values importance in professional Development.....	27
2.3 Lists of relevant studies.....	47
2.4 Lists of Research Methods in Relevant Studies.....	48
3.1 Lists of Sampling table.....	51
3.2 Lists of interviewer size.....	52
3.3 Lists of evaluation size.....	53
4.1 Number of people and percentage of respondents.....	63
4.2 presents the mean and standard deviation of the current state of students' career values in higher vocational colleges in Hunan Province.....	64
4.3 shows the mean and standard deviation of the current state of students' career ethics in higher vocational colleges in Hunan Province.....	65
4.4 The average value and standard deviation of the current situation of students' career skills in higher vocational colleges in Hunan Province.....	66
4.5 The average value and standard deviation of the current situation of students' career psychology in higher vocational colleges in Hunan Province.....	68
4.6 The average value and standard deviation of the current situation of students' career planning in higher vocational colleges in Hunan Province.....	69
4.7 TOWS Matrix Analysis.....	74
4.8 The table of corresponding strategies derived from the TOWS analysis.....	77
4.9 Personal information of interviewee.....	80
4.10 The interview content.....	138
4.11 Strategies to Promote Sustainable Development Student's Career Values Education in Higher Vocational Colleges,Hunan Province.....	143

## List of Tables

Table	Page
4.12 The average value and standard deviation of the evaluation of the adaptability and feasibility of strategies for improving the sustainable Development of students' career values education in higher vocational colleges in Hunan Province in four aspects.....	147

# Chapter 1

## Introduction

### Rationale

The researcher of this study, Xu Hui, employed at Hunan polytechnic of Environment and Biology as a teacher for graduate employment guidance, has observed numerous challenges faced by graduates from vocational colleges in their career selection process, including low job satisfaction, high turnover rates, and relatively low wages. Vocational education plays a pivotal role in China's education system. In the era of economic transformation and development, with the acceleration of occupational changes and the increasing variety of job types, the demand for high-quality technical talents in society is also growing. Consequently, there is an urgent need for a large number of high-quality technical workers in the industry. The primary task of higher vocational colleges is to train advanced technicians. These institutions are committed to cultivating comprehensive talents who possess solid professional knowledge and technical skills, as well as good professional values, to address the structural contradiction between the training of high-quality technical talent and market demands. The "National Medium and Long-term Educational Reform and Development Plan (2010-2020)" explicitly proposes the important task of developing vocational education, emphasizing the cultivation of students' professional ethics and skills to meet the socio-economic needs for high-quality labor and skilled talents.

In reality, many graduates from higher vocational colleges, when facing career choices, tend to avoid hardship and laborious work, showing aversion towards harsh working environments such as workshops and factories. According to Liu (2021), the fundamental reason for this lies in the deviation in the students' vocational values. Zhu and Zhang (2013) argue that under the current circumstances, students from higher vocational colleges exhibit a trend towards utilitarian vocational value orientation. Their employment expectations are diversified, yet their job-seeking psychology shows contradictions. The vocational values of college students are the



complex results of the interaction of various factors, including society, family, school, and individual. Higher vocational colleges should focus on education around vocational values, encompassing aspects such as professional ideals, attitudes, and career planning.

The United Nations hosted a summit where they proposed the "2030 Agenda for Sustainable Development," including 17 Sustainable Development Goals (SDGs) to be achieved by 2030. Goal 4 focuses on education, titled "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all," highlighting the importance of high-quality education, economic growth, and reducing inequalities. Goal 8, "Decent Work and Economic Growth," encompasses educating students about the value of various types of work, fostering their professional ethics and skills, and contributing to personal and societal economic development.

Hunan province, located in the central-south of China, has a geographical position less advantageous than coastal developed areas, leading to relatively slower regional economic development. The researcher, focusing on the employment challenges faced by graduates of vocational colleges in Hunan province and aligning with the Sustainable Development Goals, delves into the educational content of vocational values for these students. This study constructs a content system for vocational values education from four dimensions: career ethics, career psychology, career planning, and career skills. It aims to effectively guide students in establishing correct career Perspective, enhancing their employability, and facilitating a smooth transition to the workplace. Higher vocational education in Hunan province is designed to serve local development, with an employment-oriented approach. It systematically cultivates students' values regarding sustainable development, guiding them to make socially and environmentally beneficial choices in daily life and professional development. This study, addressing the challenges faced by vocational students in Hunan province during career selection, proposes practical development strategies. It emphasizes strengthening students' career ethics, career psychology, career skills, and career planning, thereby promoting the establishment of sustainable vocational values

among higher vocational students in Hunan province and achieving the goal of sustainable development in vocational education in the region.

### **Research Questions**

1. What is the current situation of students' career values education in higher vocational colleges in Hunan province?
2. What strategies can be formulated for sustainable development students' career values education in higher vocational colleges in Hunan province?
3. What are the feasibility of strategies for sustainable development students' career values education in higher vocational colleges in Hunan province?

### **Objectives**

1. To study the current situation of students' career values education in higher vocational college in Hunan province.
2. To study strategies for sustainable development students' career values education in higher vocational college in Hunan province.
3. To evaluate the feasibility of the strategies for sustainable development students' career values education in higher vocational college in Hunan province.

### **Scope of the Research**

#### **Population and the Sample Group**

##### **The Population**

This study takes 95000 higher vocational college students for questionnaire survey and interview. as the research object, we selects six research objects: Hunan polytechnic of Environment and Biology, Hunan Financial and Industrial Vocational-technical College, Yongzhou Vocational Technical College, Changsha Social Work College, Chenzhou Vocational and Technical College, Loudi Vocational and Technical College.

### **The Sample Group**

The sample group was determined using the Krejcie and Morgan sampling table, ensuring a representative sample of 384 students, randomly selected from the six higher vocational colleges. The random sampling method ensures that the sample is unbiased and representative of the larger student population, allowing for generalizable findings across all six institutions. Additionally, an interview group comprising 12 career guidance experts-six teachers and six administrators-was selected using purposive sampling to ensure relevant expertise.

### **The Interviewee**

The Interviewees were selected based on the following qualifications: 1) At least 10 years of teaching experience in educational management at a vocational college; 2) Research experience in the field of education for sustainable development; and 3) An academic title of associate professor or higher. These qualifications ensured that the interviewees provided expert insights into the strategies for career values education.

### **Evaluation**

The evaluation process involved six experts from the same institutions, each responsible for assessing the adaptability and feasibility of the proposed strategies. The experts used a Likert scale to evaluate the strategies, with data interpretation based on mean values and standard deviation.

### **The Variable**

#### **Independent Variable**

The strategies for enhancing students, career values in higher vocational colleges.

#### **Dependent Variable**

Quality of strategies that are adaptability and feasibility of strategies for enhancing students, career values in higher vocational colleges.

## Advantages

1. For students, it meets the needs of their comprehensive individual development. Through education on career values, it aids students in identifying and selecting career paths that align with their personal values, interests, and abilities, thereby facilitating fulfillment and success in both their personal and professional lives.

2. For schools, it can enhance the school's social image and educational influence. Through vocational values education for students, it promotes the improvement of students' comprehensive qualities and increases the school's employment rate. Strengthening students' sense of social responsibility and moral awareness helps to foster a positive and healthy campus culture, contributing to the creation of a harmonious campus environment.

3. For society, it can promote sustainable development and enhance educational equity and inclusivity. By formulating sustainable development strategies and promoting vocational values education among students, research findings can support the achievement of the United Nations Sustainable Development Goals (SDGs) related to quality education, economic growth, and reducing inequalities, contributing to the creation of a more harmonious, prosperous, and sustainable society.

## Definition of Terms

**1. Sustainable development education** refers to educating students about the principles and practices of sustainable development. This education aims to instill a sense of responsibility towards the planet and future generations, fostering a mindset that values sustainability in personal choices and professional decisions. It includes understanding the interconnectedness of global systems, the impact of individual and collective actions on the environment, and the importance of sustainable practices in various industries. Sustainable development awareness education prepares students to be conscientious global citizens and proactive agents of change in their future careers.

**2. Higher vocational education** refers to a significant component of the Chinese educational system, representing advanced vocational education. The primary objective of higher vocational education is to cultivate well-rounded professionals with high vocational competence. These professionals possess not only specific professional and technical skills and abilities but also hold correct life outlooks, worldviews, and values.

**3. Students' career values** refer to values encompass clear and stable value judgments and evaluation criteria manifested in why they choose a particular occupation, how they choose it, and what kind of job they opt for. Within this framework, the career values of vocational college students are seen as the specific embodiment of their values in career activities, affecting their career choices, career self-efficacy, job burnout, and career behavior. They go beyond mere academic learning, encompassing the development of personal values, work ethics, and attitudes that are pivotal in the career world. This education aims to prepare students not just for their first job, but for a lifelong career path. It includes teaching the importance of responsibility, integrity, teamwork, respect for diversity, and a continuous learning mindset. The objective is to develop well-rounded individuals who can adapt to different work environments, collaborate effectively with others, and contribute positively to their chosen fields.

**4. Higher vocational students** refer to talents trained through advanced vocational and technical education. They possess specific professional techniques and skills, and are capable of enhancing their learned knowledge through practical application. These individuals are cultivated by higher vocational colleges and, upon completing their higher vocational education, possess a higher level of professional skills. They meet the demands of the industrial sector for skilled talents and provide high-quality services for socio-economic development.

**5. Career ethics** refer to the ethical principles and moral standards that guide behavior in the workplace, emphasizing honesty, integrity, and responsibility. Upholding career ethics involves maintaining respect and courtesy towards colleagues and clients, adhering to company rules and regulations, and ensuring fairness and

justice in all professional interactions. Even in the absence of supervision, individuals should conscientiously complete their tasks and prioritize the interests of the company in situations involving conflicts of interest. Career ethics also require individuals to continuously improve their personal ethical standards and behavior norms, avoid discriminatory behavior, and adhere to ethical principles even under pressure or temptation.

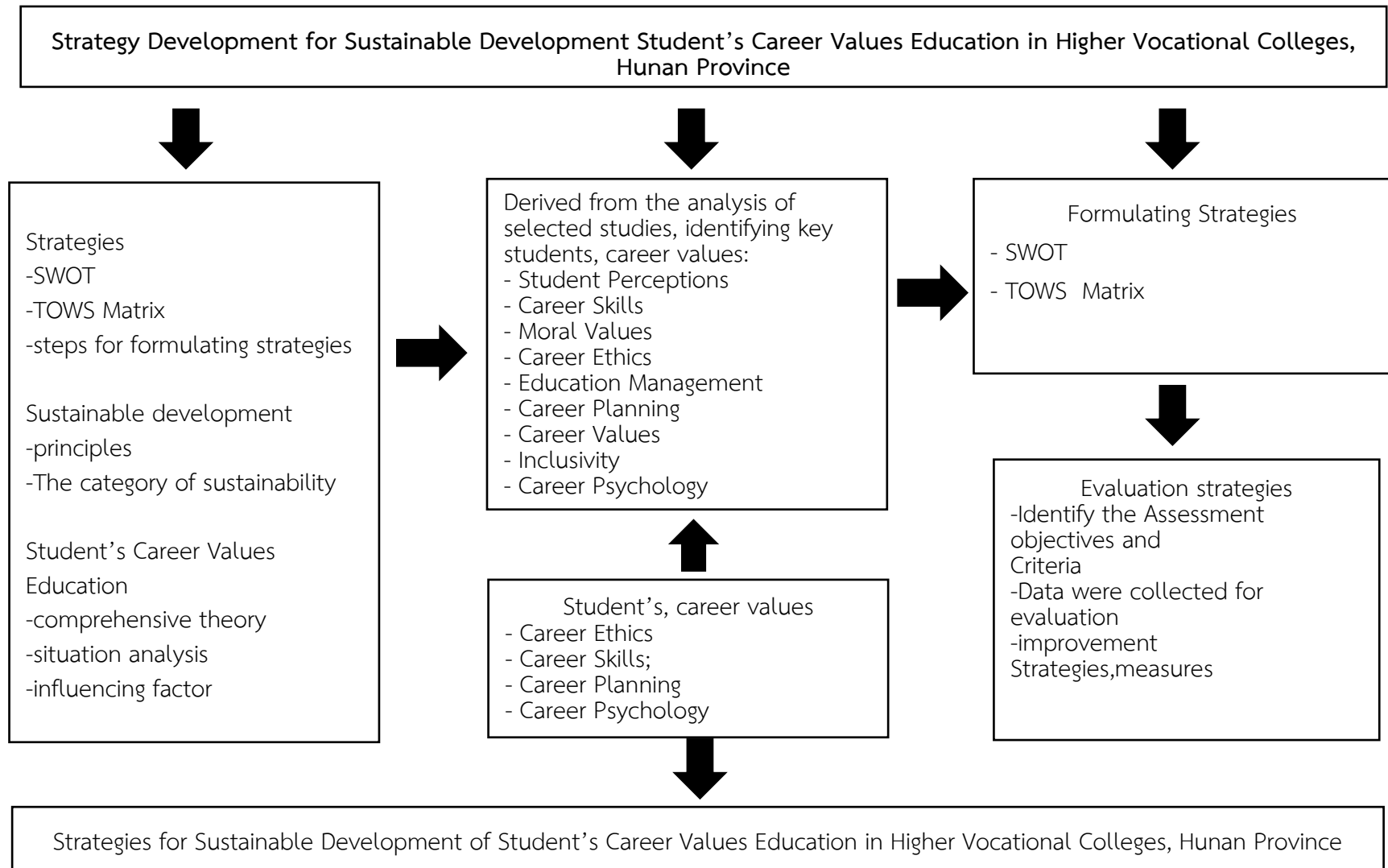
**6. Career skills** refer to the comprehensive set of abilities required to perform effectively in a professional role, including the application of professional knowledge and time management to ensure tasks are completed efficiently. These skills involve proficiency in teamwork, communication, and collaboration, as well as problem-solving abilities to address challenges in the workplace. Career skills also encompass technical competencies, such as the proficient use of computer software and tools relevant to one's profession, and the ability to adapt to changes and challenges. Actively participating in professional training and continuing education is essential for enhancing career competitiveness. Moreover, career skills include strong verbal and written communication abilities, as well as an understanding of the latest technologies and methods in the field.

**7. Career psychology** refers to the mental and emotional factors that influence an individual's professional life, including the ability to remain optimistic and positive about future career prospects. It encompasses psychological resilience to cope with work-related pressures and challenges, while maintaining good emotional control even under high stress. Career psychology also involves balancing work and personal life to safeguard mental health, as well as being mentally prepared for difficulties during career development. Individuals with strong career psychology are willing to seek help and support when facing obstacles, and they place high importance on achieving self-worth and satisfaction in their careers. Additionally, career psychology is characterized by the ability to handle career changes and uncertainties with psychological stability, while maintaining self-motivation and a continuous drive for progress.

**8. Career planning** refers to the systematic process of setting clear career goals and developing plans to achieve them. This involves regularly evaluating and adjusting these goals as needed, often with guidance from mentors, teachers, or career advisors. Career planning includes understanding the specific skills and knowledge required for success, actively seeking internships and job opportunities to gain relevant experience, and balancing career objectives with personal life goals for overall development. Long-term career planning also involves considering future growth, understanding job market demands, and adjusting career development strategies accordingly. Additionally, effective career planning requires conducting risk assessment and management to navigate potential challenges in one's career path.

### **Research Framework**

According to Table 2.2, the researchers analyzed and synthesized documents, concepts, theories, and research related to career ethics, skills, psychology, and planning, which consisted of Liu (2023); Chen & Zheng (2022); Prendeville (2022); Walia (2022); Prakash (2016); Jackson & Tomlinson (2019); Pallavi & Kaushal (2017); Dias & Rego (2020); Agarwal (2016). The researcher used the criteria to consider the corresponding characteristics, to use as a framework for research in this study, by selecting characteristics with a frequency of 4 or more. These characteristics were synthesized into four key areas as follows: 1) Career Ethics; 2) Career Skills; 3) Career Planning; 4) Career Psychology.



**Figure 1.1** Research Framework



## Chapter 2

### Literature Review

The research in improving sustainable development students' career values education in higher vocational colleges in Hunan province, the researcher was analyzed documents, concepts, theories and researches related to students' career values education. The details are as follows.

1. Sustainable development education
2. Development strategy
3. Students' career values
4. Higher vocational colleges
5. Related research

The details are as follows.

#### **Sustainable development education**

##### **The origins for sustainable development education**

The origins of Education for Sustainable Development (ESD) can be traced back to the environmental movements of the 1970s, during which there was a growing recognition of the importance of environmental conservation and socio-economic development. The United Nations (1987) released the "Our Common Future" report (also known as the Brundtland Report), which first introduced the concept of "sustainable development." Subsequently, the educational sector began to explore the role of education in achieving sustainable development goals. In August of the same year, an international conference held in Moscow by UNESCO and UNEP highlighted for the first time the significant role of environmental education in promoting sustainable development. By 1992, the United Nations Conference on Environment and Development held in Brazil, through its "Agenda 21," emphasized the fundamental role of education in fully unleashing human and societal potential. This agenda underscored the crucial importance of education in fostering sustainable

development and enhancing the capacity of people to address environmental and developmental issues. The concept of sustainable development continuously evolved and expanded, encompassing various domains including social responsibility, equity and justice, interdependence of humans and the environment, as well as biodiversity and cultural diversity, thus leading to the formation of a comprehensive, interdisciplinary, and integrated form of education-Education for Sustainable Development. In 1994, UNESCO proposed an international initiative for ESD, the "Environment, Population, and Education Programme." In April 1996, at the fourth meeting of the Commission on Sustainable Development held at the United Nations Headquarters, the "Special Work Programme on Education, Public Awareness, and Training" was introduced. This programme defined the objectives and characteristics of ESD, formally establishing its concept.

In March 1994, the Chinese government approved the "China Agenda 21 - The White Paper on Population, Environment, and Development in the 21st Century" (hereinafter referred to as "China Agenda 21"), demonstrating a firm commitment to sustainable development strategies. As a programmatic document guiding the national economic and social development, it marked the commencement of China's journey towards sustainable development. "China Agenda 21" resonates with the United Nations' "Agenda 21", positioning China as one of the first nations to formulate a national-level agenda for sustainable development, reflecting the Chinese government's sense of historical mission and responsibility. By March 1996, the Fourth Session of the Eighth National People's Congress had ratified the "Ninth Five-Year Plan and the Vision for 2010 for the National Economy and Social Development of the People's Republic of China," setting "the promotion of economic and social harmony and sustainable development" as the key goal for economic and social progress over the next 15 years. In 1997, the 15th National Congress of the Communist Party of China identified the strategies of invigorating the country through science and education and sustainable development as the two major strategies for governance into the next century. From 1997 onwards, the central government held annual symposia during the

"Two Sessions" for five consecutive years to study and plan the work on population, resources, and environment.

To ensure and smoothly advance the implementation of sustainable development strategies, the Chinese government issued the "Action Plan for Sustainable Development in the Early 21st Century in China" in 2023. This outlined the overarching goals for China's sustainable development in the early 21st century: continuously enhancing the capacity for sustainable development, achieving significant adjustments in the economic structure, effectively controlling the total population, noticeably improving the ecological environment, significantly increasing the efficiency of resource utilization, promoting harmony between humans and nature, and steering society towards a civilized development path characterized by productive development, affluent living, and a healthy ecology.

### **The concept of Sustainable Development Education**

Sustainable Development Education (SDE) is increasingly recognized as essential for addressing global challenges and achieving the UN Sustainable Development Goals (SDGs). Recent literature highlights various approaches and frameworks for embedding sustainability in education, emphasizing the role of higher education institutions, cultural practices, and innovative teaching methods.

One study critically analyzed the effectiveness of a whole-institution approach to embedding Education for Sustainable Development (ESD) in curricula, finding that strategic commitments, such as embedding Carbon Literacy, were effective in fostering sustainability across disciplines (Price et al., 2024). Similarly, Arianpoor et al. (2024) proposed a comprehensive framework for sustainable education, focusing on international accounting students, which emphasizes the importance of aligning educational services with student satisfaction to maintain competitiveness in the global education market (Arianpoor et al., 2024).

The role of cultural practices in promoting sustainable development is also explored, with a study highlighting the integration of Indian folk art in art education to foster sustainable living practices (Bhosale et al., 2024). Additionally, Garbuzova et al. (2024) discussed the formation of socio-economic culture among students,

emphasizing the integration of economic education in schools as a foundation for sustainable societal development (Garbuzova et al., 2024).

Further research has focused on policy implications, particularly in China, where increased scientific research policies during the COVID-19 pandemic have significantly impacted the education and scientific industries, promoting sustainable development (Zhang & Li, 2024). Finally, a meta-review by Chowdhury & Chowdhury (2024) emphasized the strategic role of information science education in achieving the SDGs, proposing a research agenda for integrating SDGs into information science curricula (Chowdhury & Chowdhury, 2024).

In conclusion, The recent literature on Sustainable Development Education emphasizes the need for strategic, culturally relevant, and innovative approaches in education to foster sustainability. Higher education institutions play a crucial role in this transformation, with interdisciplinary and culturally grounded practices proving effective. The integration of SDGs into various educational frameworks, including information sciences and socio-economic education, highlights the broad impact of sustainable education on societal development.

#### **The importance of education for sustainable development education**

Sustainable development education plays an extremely important role in achieving the United Nations' Sustainable Development Goals and simultaneously promoting economic growth while safeguarding the environment (Xiangdan et al., 2023).

It is considered a vital tool for individual development and fostering societal, political, economic, and cultural transformations (Ana et al., 2023).

Furthermore, the integration of marketing education is deemed necessary to bridge the gap in the sustainable development field and address societal and environmental issues (Hübscher et al., 2023).

Establishing a high-quality and high-performance education system that aligns with sustainable development standards is crucial for achieving societal sustainability in the contemporary world (Dorneanu et al., 2022).

Sustainable development education amalgamates humanitarian and ecological knowledge with the aim of nurturing an ecological culture among future professionals (Sovhira & Braslavskaya, 2022).

In conclusion, education plays a strategic role in advancing sustainable development practices and shaping a sustainable future. This educational approach underscores the significance of environmental education, which is a key component of global education and international cooperation for preserving human civilization. Additionally, sustainable development education places emphasis on cultivating ecological competence, including promoting values and attitudes that encourage responsible actions to protect natural resources.

#### **Principles of education for sustainable development**

Sustainable Development Education (ESD) adheres to the principles of education for sustainable development, aiming to cultivate students' awareness, knowledge, skills, and attitudes towards environmental protection and sustainable practices (Piao et al., 2023). This educational approach encompasses economic, social, and environmental issues, integrating them into curricula and teaching methods.

To support the development of sustainable and innovative economies, ESD requires a profound reform of university curricula (Zwolinska et al., 2022). Students need to acquire abilities such as systems thinking, interdisciplinary collaboration, building personal and team relationships, and tolerance for ambiguity and uncertainty (Marcos-Sánchez et al., 2022). Project-based learning and system simulations are effective methods for fostering these capabilities (Thomas et al., 2023).

The Sustainable Development Goals (SDGs) provide valuable benchmarks for incorporating sustainability themes into education (Corazza et al., 2022). By measuring the extent to which the SDGs are covered in the curriculum, it can assist in planning further implementation of sustainability-related teaching.

In summary, the goal of ESD is to equip students with the knowledge and skills necessary to address sustainable development challenges and make informed decisions for a more sustainable future. This educational approach aligns with the principles of education for sustainable development, integrating the concept of

sustainability into the education system to promote societal, economic, and environmental sustainability. This is crucial for shaping a more sustainable future society.

## **Development strategy**

### **Definition of development strategy**

A development strategy can be defined as a comprehensive plan designed to promote sustainable economic, social, and environmental progress. It involves making deliberate choices and taking specific actions to drive progress within a community or organization.

Nayal et al. (2021) discuss the impact of a sustainable development strategy on sustainable supply chain firm performance in the digital transformation era. The paper explores the implications of implementing a sustainable development strategy within the context of supply chain operations.

Korachi and Bounabat (2020) focus on the development of a frame of reference for smart city strategy development and governance. Their research provides insights into the various components and considerations involved in shaping effective smart city strategies, emphasizing the role of technology and innovation.

Furthermore, Guo et al. (2021) investigate the impact of a regional green development strategy on environmental total factor productivity in the context of the Yangtze River Economic Belt in China. The study offers valuable insights into the environmental implications of regional development strategies, particularly in high-density economic zones.

In addition, Thanh et al. (2018) examine the early adaptation of the One Village One Product (OVOP) rural development strategy in Vietnam. The research highlights the practical implications of implementing endogenous development strategies within rural communities, focusing on job creation, creativity enhancement, and local empowerment.

In conclusion, these studies collectively contribute to our understanding of development strategies, offering insights into sustainable supply chain performance, smart city governance, business incubation, environmental productivity, and rural development initiatives. With the insights from these works, it is possible to gain a richer understanding of the multifaceted nature of development strategies and their implications for sustainable progress.

### **The concept of sustainable development education strategy**

The concept of sustainable development education strategy is a crucial topic in the current era, with growing concerns about the environment, climate change, and social responsibility. Educating the future generations about sustainable development is a multidimensional challenge that requires innovative and effective strategies.

Popov (2023) sheds light on the opportunity to improve the effectiveness of training in the context of achieving sustainable development principles by using KmPlot software to teach further mathematics, leading to improved learning outcomes of future economists.

Olive and Enright (2021) highlight the ecofeminist analysis of sustainability in the Australian Health and Physical Education Curriculum, emphasizing the need to engage with the interconnections between human and environmental health to promote a more ecological and ethical understanding of sustainability.

Agirreazkuenaga (2019) provides insights into the implementation of educational practical experiences of sustainability programs in secondary schools from the perspective of teachers, emphasizing the essential role of teaching staff and the support of school authorities in the success of sustainability programs.

Martín-Sánchez et al. (2022) present the design, implementation, and evaluation of a Service Learning methodology as an Education for Sustainable Development (ESD) strategy in a university course, emphasizing the significant increase in the students' knowledge about innovative teaching strategies and the Sustainable Development Goals (SDGs).

Michel (2020) maps out students' opportunity to learn about sustainability across the higher education curriculum, acknowledging the importance of integrating

sustainability education into higher education to prepare students for addressing global sustainability challenges.

Bissinger and Bogner (2018) discuss the education on tropical rainforests and climate change as a way to foster environmental literacy and promote sustainability education, emphasizing the practical application of environmental education in specific contexts.

In conclusion, the literature highlights the diverse efforts in implementing sustainable development education strategies, emphasizing the importance of engaging teaching staff, integrating sustainability into the curriculum, and promoting practical experiences to enhance student learning and understanding of sustainability principles. These approaches reflect the multi-faceted nature of sustainable development education and the need for comprehensive strategies to address environmental and social challenges.

#### **The Concept of SWOT analysis**

SWOT analysis is a fundamental strategic planning tool used to identify and evaluate the internal and external factors that can affect an organization's ability to achieve its objectives. The acronym SWOT stands for Strengths, Weaknesses, Opportunities, and Threats. This tool is widely used across various industries and sectors to formulate strategies that align with the organization's goals.

The SWOT analysis is based on the idea that by systematically analyzing these four elements, organizations can craft strategies that leverage their strengths, mitigate their weaknesses, capitalize on opportunities, and defend against threats. This method is rooted in the strategic management theory, where the goal is to achieve a strategic fit between the internal resources and capabilities of the organization and the external environment.

#### **The steps for conducting a SWOT analysis are as follows:**

**Identify Strengths:** These are the internal factors that give the organization an advantage over competitors. They could include strong brand reputation, proprietary technology, loyal customer base, and efficient processes.



Identify Weaknesses: These are internal factors that place the organization at a disadvantage relative to competitors. Examples include resource limitations, outdated technology, or poor brand perception.

Identify Opportunities: These are external factors that the organization can exploit to its advantage. Opportunities may arise from market trends, regulatory changes, technological advancements, or demographic shifts.

Identify Threats: These are external factors that could negatively impact the organization. Threats might include new competitors, economic downturns, changing consumer preferences, or unfavorable regulations.

Analyze the Matrix: Once the strengths, weaknesses, opportunities, and threats have been identified, they are analyzed in a matrix to determine how they interact with each other. This analysis helps in developing strategies that align with the organization's objectives.

Develop Strategic Recommendations: Based on the analysis, strategies are formulated to leverage strengths, mitigate weaknesses, capitalize on opportunities, and defend against threats. These strategies are then prioritized and implemented.

This process helps organizations gain a comprehensive understanding of their strategic position and informs decision-making by highlighting areas for improvement and growth. SWOT analysis is particularly valued for its simplicity, versatility, and ability to provide a structured approach to strategic planning.

One study highlights the importance of aligning career goals with personal strengths, weaknesses, opportunities, and threats through a self-SWOT analysis, which can significantly influence career trajectory by enabling proactive management of professional development (Addams & Allfred, 2013).

Another study proposes an evolved version of SWOT tailored for a sustainable world, emphasizing the importance of incorporating long-term values and sustainability into strategic decision-making, which reflects a growing awareness of the need for responsible career planning (Pereira et al., 2021).

The adaptability of SWOT analysis is further demonstrated in its application to entrepreneurial skills in industrial settings, where the focus is on leveraging strengths

and opportunities while mitigating weaknesses and threats to foster business success and personal career advancement (Stan & Nedelcu, 2015).

Additionally, the shift from traditional SWOT to value appropriation models in career implications suggests a need for more dynamic and flexible frameworks that accommodate the rapid changes in today's job market (Shin & Dess, 2017).

**Table 2.1** Lists of the Concept of SWOT analysis

NO.	Author	Year	Key Insight
1	Andini & Kusufa	2024	Demonstrates the effectiveness of SWOT in assessing the potential of tourism management based on strengths and opportunities.
2	Pereira et al.	2021	Introduces a sustainability-focused SWOT, integrating long-term values into strategic decision-making.
3	Shin & Dess	2017	Discusses the limitations of traditional SWOT and proposes a dynamic model for career value appropriation.
4	Stan & Nedelcu	2015	Explores the use of SWOT in enhancing entrepreneurial skills and career progression in industrial settings.
5	Addams & Allfred	2013	Highlights the value of self-SWOT analysis in career planning for students.
6	Clardy	2013	Reviews and critiques the traditional SWOT method, proposing improvements for its application in career contexts.

These studies collectively underscore the enduring relevance of SWOT analysis as a tool for strategic career management, while also highlighting the evolving nature of this framework to meet contemporary challenges. The consistent theme across these papers is the critical role of values-both personal and organizational-in shaping career paths and ensuring long-term success.

### **The concept of TOWS Matrix analysis**

The TOWS Matrix has emerged as a critical tool in strategic management, offering a structured approach to aligning internal capabilities with external challenges and opportunities. Recent research highlights the matrix's versatility across various sectors.

It appears that no specific recent research papers were found directly discussing the concept and steps of the TOWS Matrix analysis in the search query. However, I can provide a general overview of the concept and steps based on established knowledge, supported by the broader application of TOWS Matrix analysis in strategic management.

The TOWS Matrix, an extension of the traditional SWOT analysis, is a strategic tool used to generate, evaluate, and select strategies based on the internal strengths and weaknesses of an organization in conjunction with the external opportunities and threats. The acronym TOWS represents these four factors, but the matrix focuses more on strategy formulation by considering how strengths can be used to capitalize on opportunities or counter threats, and how weaknesses might be mitigated by leveraging opportunities or defending against threats.

The TOWS Matrix is grounded in the strategic management theory, where the emphasis is on aligning internal capabilities with external environmental conditions to achieve long-term objectives. Unlike SWOT, which primarily identifies and categorizes factors, TOWS emphasizes actionable strategies by crossing internal and external elements to create specific strategic options.

Identify Internal Factors: Determine the strengths (S) and weaknesses (W) of the organization, focusing on resources, capabilities, and internal processes.

Identify External Factors: Analyze the external environment to identify opportunities (O) and threats (T), considering factors such as market trends, competition, regulatory changes, and technological advancements.

Develop the Matrix: Construct the TOWS Matrix by creating a grid where each quadrant represents a combination of internal and external factors: SO (strengths-opportunities), ST (strengths-threats), WO (weaknesses-opportunities), and WT (weaknesses-threats).

Formulate Strategies: Generate strategies for each quadrant:

SO Strategies: Use strengths to exploit opportunities.

ST Strategies: Use strengths to counteract threats.

WO Strategies: Address weaknesses by taking advantage of opportunities.

WT Strategies: Minimize weaknesses to defend against threats.

5. Evaluate and Select Strategies: Assess the viability and potential impact of each strategy, prioritize them based on organizational goals, and develop an implementation plan.

This structured approach ensures that strategic decisions are data-driven and aligned with the organization's overall objectives, providing a clear roadmap for navigating complex environments.

Zmegač et al. (2024) developed a simulation model that integrates the TOWS Matrix with Delphi and Focus Group methods to enhance situational analysis at the subnational level, providing a more objective basis for strategic planning in regional economics.

In the business sector, Dewanto (2022) utilized the TOWS Matrix to craft strategic responses for BP Tapera, a public housing agency, emphasizing the matrix's utility in developing comprehensive business strategies based on SWOT analysis.

Similarly, Tenzin and Wangchuk (2022) applied the TOWS Matrix to strengthen Bhutan's Scouting Program, addressing key issues such as leadership competence and dropout rates, and proposing strategic initiatives aligned with the World Organization of Scout Movement's priorities.

Tian et al. (2022) introduced the SROP Matrix, an evolution of the TOWS Matrix, which incorporates organizational and personal perspectives for complex decision-making processes, demonstrating its applicability in emergency management scenarios.

Lastly, Pasaribu (2023) combined the TOWS Matrix with the Business Model Canvas (BMC) to redesign competitive strategies in Indonesia's creative industry, showing how the matrix can guide strategic realignment in dynamic and competitive environments.

In summary, the TOWS Matrix is a flexible and powerful tool in strategic management, applicable across diverse sectors from public planning to business strategy. It helps organizations systematically address internal and external factors, leading to more informed decision-making. The matrix's integration with other strategic tools, such as the Delphi method, Focus Groups, and the Business Model Canvas, further enhances its effectiveness. Future research could explore its application in even more complex and varied contexts, ensuring it remains a relevant and valuable tool in strategic management.

### **Factors Influencing the Implementation of development strategies**

The implementation of development strategies is a complex process that involves various factors. Several studies have delved into the different elements influencing the successful execution of strategies in diverse contexts.

Salih et al. (2022) conducted a study on the Critical Success Factors (CSFs) influencing the implementation of Enterprise Resource Planning (ERP) systems in the Saudi Arabian food industry. The research provided a rating of CSFs from the perspective of users, enabling decision-makers to better assess project risks and discover the strengths and limitations of the ERP users.

Huang et al. (2018) focused on Unpacking Partnership, Engagement, and Collaboration (PEC) research in the context of health to inform implementation strategies development. The study identified critical domain factors, processes, and key strategies for PEC, contributing to knowledge in the field of Dissemination and Implementation (D&I).

Furthermore, Lau et al. (2021) investigated the identification of factors influencing the development of photovoltaic (PV) implementation in Singapore. The study examined the obstacles, potentials, and drivers that could facilitate and accelerate building-integrated photovoltaics (BIPV) and PV façade integration, offering insights for the development of a long-term holistic strategy for PV implementation in urban environments.

In conclusion, The implementation of development strategies is influenced by a variety of factors, which can be classified into two dimensions: internal and external. Internal factors typically refer to the resources, capabilities, and structure within an organization, while external factors involve changes in the market environment, policies and regulations, and societal values outside the organization.

## **Students' career values**

### **The concept of career values**

The concept of career values has gained significant attention in recent years as scholars explore the factors influencing career choices, particularly in the context of specific professions and demographic groups.

Daniilidou et al. (2024) investigate the interplay between personality traits and identity statuses in the decision-making process for special education careers, highlighting intrinsic values like shaping children's futures and social equity as crucial motivators.

Fan and Yeh (2024) examine the impact of career development on employment capabilities among architecture students, emphasizing the role of learning motivation as a mediator.

Honra et al. (2024) explore the integration of technical-vocational skills within biology education to address job mismatches, revealing the importance of career-focused teaching approaches.

Colizza et al. (2024) delve into the dual careers of professional female athletes, identifying role strain as a significant factor affecting well-being, which is exacerbated by societal expectations and work-life balance challenges.

Hendy's (2024) study on rural university youth and artificial intelligence technologies underscores the shifting values in career aspirations influenced by technological advancements.

Lastly, Cohan's (2024) narrative on Audrey Hepburn's career journey provides an anecdotal perspective on the values driving career decisions in the entertainment industry. Together, these studies reflect a growing understanding of how intrinsic values, identity, motivation, and external pressures shape career choices across various fields and populations.

In summary, recent research underscores the multifaceted nature of career values, highlighting the interplay between personal traits, societal expectations, and educational approaches. These findings suggest that career values are not static but evolve with individual experiences and broader societal changes, necessitating ongoing research to understand their implications across different contexts.

#### **Definition of students' career values**

Career values are a crucial aspect of one's overall values, reflecting a university student's beliefs and stance regarding their career. These beliefs and attitudes not only play a pivotal guiding role in a university student's career decision-making but also directly shape their professional life, influencing their work demeanor, enthusiasm, and even having profound effects on the development and progress of the broader society.

Li (2015) indicated that ideas lead actions, and career values shape individuals' professional behaviors. These values act as an intangible yet potent guide, influencing decisions in career choice, work attitude, and professional conduct. Specifically, occupational values fulfill four primary functions: evaluative, directive, restrictive, and motivational.

Lin et al. (2020) Given the significant differences between higher vocational education and undergraduate education in curriculum, teaching content, and talent cultivation objectives, students in higher vocational education and undergraduate programs exhibit distinct growth paths and developmental trajectories. Compared to undergraduates, vocational college students demonstrate unique group characteristics

in terms of foundational knowledge, employment features, and self-esteem. Specifically, students in vocational colleges are more prone to various latent or manifest behavioral and psychological issues. In a complex and dynamic social environment, they may face greater psychological stress and employment confusion, leading to biases in vocational cognition.

Li and Yang (2021) pointed that with the ongoing physical and mental development of higher vocational students, coupled with the accumulation of professional knowledge and skills, their career values exhibit characteristics of staged development. This progressive development predominantly encompasses several phases: firstly, the nascent period; secondly, the exploration period; and thirdly, the formation period.

Lin (2021) defined that career values are instrumental in aiding higher vocational students to develop accurate professional understanding, ignite robust motivation for learning, attain a scientific sense of vocational identity, and set realistic employment objectives. These values serve as an unseen guiding force, steering the vocational trajectory of higher vocational students.

Chai (2021) pointed out the ultimate goal of talent cultivation in higher education institutions is to facilitate student employment, and noble career values form the foundation of student employ ability. Shaping students' career values is not only a crucial component of ideological and political education but also a key aspect in guiding students' growth and success. From the perspective of the students themselves, their professional qualities, career planning, and psychological attributes all require further enhancement and refinement.

Zheng (2018) defined the career values of university students permeate their entire process of learning, living, and working, extending beyond just attitudes and orientations towards professions and career choices. These values are more profoundly connected to work attitudes and enthusiasm, as well as career planning, reflecting the students' intrinsic understanding and adaptation to societal needs.



Yu (2023) pointed out in vocational colleges, the career values of university students serve as an intrinsic driving force in shaping their career development. These career values gradually form a dynamic system during their engagement in professional activities, and in turn, exert an influence on their career pursuits. Career values play a guiding role in individual career choices, with correct career values generating positive effects, impacting an individual's career mindset, and guiding their behavioral choices in the career sphere.

To sum up, students' career values are the principles guiding their choice of occupation, job selection, and career decisions. For vocational college students, these values shape their career choices, self-efficacy, job satisfaction, and behavior. Career education goes beyond academics to include personal values, work ethics, and attitudes essential for long-term success. It focuses on instilling responsibility, integrity, teamwork, respect for diversity, and a commitment to continuous learning, aiming to develop adaptable, collaborative, and positively contributing individuals.

### **The importance of students' career values**

Career values play a critical role in shaping an individual's professional trajectory, influencing decisions that define their career path, job satisfaction, and long-term success. These values, which encompass personal beliefs and attitudes towards work, serve as guiding principles that affect how individuals approach their careers, interact with colleagues, and make decisions regarding their professional growth.

Universities need a comprehensive understanding of career development frameworks. The study of career planning and ethics has evolved through several key models: the "focus on professional values" model from the early 2000s, emphasizing the importance of career values and ethics in professional development; the "focus on proactive behavior" model, which emerged in the 2010s, highlighting the significance of proactive career management and skill development; and the "focus on educational psychology" model, which considers the integration of ethics and psychology in shaping career paths. The current model, "focus on career ethics and planning," emphasizes the need for a holistic approach that includes career ethics, skills development, psychology, and strategic planning to navigate the complexities of modern professional

environments. This approach underlines the importance of ethical decision-making, the cultivation of professional values, and the development of career skills as foundational elements for successful career planning. Therefore, the study of career ethics, skills, psychology, and planning in higher education is an essential research direction in today's educational and professional development.

**Table 2.2** The results of the synthesis of career values importance in professional development

Component	Liu, X. (2023)	Chen, H.-Y., & Zheng, Y. (2022)	Prendeville, P. (2022)	Walia, N. (2022)	Prakash, P. (2016)	Jackson, D., & Tomlinson, M. (2019)	Pallavi, & Kaushal, A. (2017)	Dias, F. A., & Rego, S. (2020)	Agarwal, S. (2016)	Frequency
Student Perceptions	-	-	-	-	-	-	✓	-	-	1
Career Skills	-	-	✓	✓	✓	✓	-	-	✓	6
Moral Values	-	-	-	✓	-	-	-	✓	-	2
Career Ethics	-	-	✓	✓	✓	-	✓	✓	✓	6
Education Management	✓	-	-	-	-	-	-	-	-	1
Career Planning	✓	✓	-	✓	✓	✓	✓	-	-	6
Professional Values	✓	✓	-	-	-	-	-	-	-	2
Inclusivity	-	-	-	✓	-	-	-	-	-	1
Career Psychology	-	-	✓	✓	✓	-	-	✓	-	4
Experiential Learning	-	-	-	-	✓	-	-	-	-	1

According to Table 2.2, the researchers analyzed and synthesized documents, concepts, theories, and research related to career ethics, skills, psychology, and planning, which consisted of Liu (2023); Chen & Zheng (2022); Prendeville (2022); Walia (2022); Prakash (2016); Jackson & Tomlinson (2019); Pallavi & Kaushal (2017); Dias & Rego (2020); Agarwal (2016). The researcher used the criteria to consider the

corresponding characteristics, to use as a framework for research in this study, by selecting characteristics with a frequency of 4 or more. These characteristics were synthesized into four key areas as follows: 1) Career Ethics; 2) Career Skills; 3) Career Planning; 4) Career Psychology

### **Career ethics**

Career ethics have a profound and enduring impact on one's career values. Adhering to career ethical standards shapes an individual's career attitude and behavior, emphasizing principles such as integrity, responsibility, honesty, and respect. These moral norms contribute to building professional reputation, enhancing self-esteem, and influencing career decisions. Simultaneously, upholding good career ethics also facilitates teamwork, trust-building, and the maintenance of client relationships. In summary, career ethics not only shape career attitudes but also profoundly influence professional values, playing a crucial role in the success of one's career and development in the workplace.

Yildirim (2014) aims to find out the views of the Public Education Centers (PEC) managers on vocational ethics. In conclusion, the definitions of occupational ethics made by the PEC managers have a basic structure in determining ethic codes of occupational ethics for educational institutions, especially for adult education in Turkey.

Zhang (2018) discusses the significance and countermeasures of implementing professional ethics education in higher vocational colleges based on the educational goal of cultivating craftsmen's spirit. This provides a feasible reference for improving the professional ethics education system and methods of students in higher vocational colleges and cultivating students' simple craftsmen's spirit.

Miller et al. (2018) surveyed faculty about what is being taught and how much time is dedicated to ethics training. This is the first study to examine whether content suggested by the Ethics Education Framework (EEF) has been implemented in curriculums in the UK.

Zhangpei et al. (2018) aim to understand vocational education in China and analyze the developing process of vocational education in China. Together with 14

million secondary vocational education students, China owns the largest scale of vocational education in the world.

Bondaharo et al. (2020) intend to raise the discourse regarding the ethics of communication that occur in the world of Education, especially what happens to students who are in Vocational High School I Percut Sei District, Deli Serdang Regency. Family communication, communication of Islamic religious education teachers, and peer communication together have a significant effect on the ethics of Islamic communication of students.

Chukwuedo et al. (2020) explore lecturers' perception of the teacher education policy, ethics, and quality of its graduates. Keywords: teacher education, education policy, ethics in education, quality of graduates, vocational education.

Malihah et al. (2019) discuss the impacts of the Fourth Industrial Revolution on the tourism and hospitality industry and how secondary vocational education responds to these impacts. The Indonesian government has developed a vocational education revitalization policy that has generated collaborative actions among several ministries to accelerate the quality improvement for students.

Mulyadi et al. (2019) aim to comprehensively describe the efforts to improve the competence of professional vocational teachers in the digital era as an effort to meet the required competency standards.

Bondaharo et al. (2020) intend to raise the discourse regarding the ethics of communication that occur in the world of education, especially what happens to students who are in Vocational High School I Percut Sei District, Deli Serdang Regency. Family communication, communication of Islamic religious education teachers, and peer communication together have a significant effect on the ethics of Islamic communication of students.

Tabensky (2020) argues that education and ethics are two mutually constitutive aspects of the practice of freedom. Tabensky further argues that professional education and skills training cannot be understood properly in isolation from these broader educational aims and criticizes mainstream educational practices

for not paying sufficient attention to the intimate relationship between the vocational and non-vocational aspects of education.

Chukwuedo et al. (2020) explore lecturers' perception of the teacher education policy, ethics, and quality of its graduates. Keywords: teacher education, education policy, ethics in education, quality of graduates, vocational education.

Krismadinata et al. (2020) aim to examine and provide an explanation of the blended learning model in vocational education. In the field of vocational education, one must be able to adapt to vocational education, infrastructure, technology, learning, pedagogical principles, activity assessment, baiting processes, interactions, resources, activities, infrastructure, culture, management and organization, ethics, etc.

Li (2016) emphasized the integration of success stories as part of classroom instruction in vocational ethics education to harness the synergy between success principles and moral education, thus harnessing the pivotal role of "two courses".

Ji (2019) advocated for the establishment of a "learning community" model in vocational ethics education classrooms, highlighting the significance of fostering equal communication between teachers and students, thereby transcending traditional teacher-student role distinctions.

Wang (2016) contended that online education can be considered an effective means to enhance students' interest in learning vocational ethics, underscoring the pivotal role of the internet in education.

Li (2016) argued for encouraging students to actively immerse themselves in work positions, facilitating experiential learning and interaction with frontline workers to acquire vocational norms and professional ethics through practical experiences and communication.

Zhang (2015) underscored the vital mission of vocational ethics education in higher vocational education, emphasizing the necessity of nurturing vocational ethical competence during the learning phase rather than solely beginning at the workplace.

Du (2019) elucidated Xi Jinping's educational principles, emphasizing the core elements of moral education for young students, including ideal beliefs, value systems,

social ethics, professional ethics, and family virtues. Additionally, Dr. Du highlighted the role of new media in the dissemination of moral education.

To sum up, career ethics plays a crucial role within the vocational education system, profoundly influencing the formation of career values. Through imparting vocational ethics, emphasizing moral principles, and fostering a sense of responsibility and career integrity, ethics education contributes to cultivating students who adhere to ethical standards, respect others, and pursue fairness and justice in the workplace. This not only aids individuals in establishing trustworthy career reputations but also guides their career decisions and behaviors, serving as an essential component in the shaping of their career values

### **Career skills**

Career skills have a profound impact on one's career values. Skill enhancement enhances professional self-confidence, increases job satisfaction, and fosters a sense of responsibility and professional ethics. Possessing skills also aids in obtaining career opportunities and promotions, motivating continuous development and achievement. Furthermore, the nature of skills may shape a sense of social responsibility, such as environmental skills encouraging sustainable practices. In summary, vocational skills not only shape professional attitudes but also influence a sense of professional responsibility, satisfaction, and societal responsibility, thus underscoring their significance

In the sphere of career development, the acquisition and refinement of career skills hold paramount importance for individuals striving to thrive and excel in their respective fields. As underscored in the scholarly literature, the conceptualization and influence of professional development programs on teacher learning and student outcomes have attracted substantial scholarly attention (Desimone, 2019).

It is postulated that effective professional development not only have the potential to elevate educators' skills and competencies but can also exert a positive impact on student achievement (Borko, 2014).

Additionally, research has probed into the interplay between training, job performance, and career advancement, with a notable emphasis on the mediating role of motivation in this dynamic process (Brown & Lent, 2020).

In the realm of leadership, servant leadership has been scrutinized as a catalyst for employees' subjective career success, shedding light on the pivotal role that career skills play in shaping career satisfaction and perceived employability (Mlambo et al., 2021).

Moreover, the significance of soft skills in the workplace has been underscored, signifying their relevance in fostering career development and achieving success (Bhati, 2022).

Furthermore, the integration of virtual exchange in higher education has been identified as a means to cultivate career-relevant skills that are highly sought after by employers (Withanachchi et al., 2022).

In conclusion, career skills constitute a significant influencing factor on one's career values. Through skill enhancement, individuals gain confidence and are more inclined to assume career responsibilities, promoting ethical career conduct and a positive career attitude, thus profoundly shaping their career values. Additionally, career skills create opportunities for career advancement and success, further influencing an individual's awareness and pursuit of career and moral values. In summary, career skills play a pivotal role in shaping professional values

### **Career psychology**

Career psychology significantly influences one's career values. An individual's work experiences, satisfaction levels, and emotional states shape their perspectives and values regarding their occupation. Positive career psychological states such as job satisfaction, motivation, and a sense of fulfillment tend to promote favorable career values, whereas negative psychological states, including work-related stress and dissatisfaction, may impact the formation and evolution of professional values negatively. Consequently, comprehending and effectively managing career psychology is of paramount importance in shaping positive career values.

Nascimento (2020) presents results of research on the practice of Vocational Guidance (VG) at the interface between Psychology and Education, highlighting it as a strategic device for integrating psychology and education in an ethical and political manner.

Koteneva et al. (2020) explore methodical competence as both the purpose and result of vocational training for future biology teachers, providing theoretical substantiation for this approach in their article.

Ge (2020) starts with the significance of vocational guidance in colleges and universities, analyzing problems in this area and proposing new methods and ideas for its promotion.

Hao (2021) examines the construction of psychological associations and health theory education for students in higher vocational colleges, underscoring their role in enhancing mental quality and abilities.

Zheng (2021) discusses reforms in domestic vocational colleges, with a focus on pedagogy and psychology aimed at individual development and overall student quality improvement.

Mubaroq et al. (2021) offer solutions to the unemployment of vocational education graduates through a socio-technical system approach, addressing the mismatch between graduates' interests and job vacancies.

Lyssakov et al. (2021) study the current stage of aviation psychology in science and education, analyzing its development and peculiarities, particularly in the Russian context.

Cadenas et al. (2022) review theoretical frameworks that support embedding critical consciousness in research, practice, education, and training, aligning this focus with vocational psychology's foundational social justice aspirations.

Hutz-Midgett et al. (2012) discuss the history, current state, and future prospects of the counseling profession in Brazil, marking counseling's emergence in the 1940s to address career and vocational guidance needs.



Liu (2015) collects diverse literatures and synthesizes various discourses to explore the inner world of vocational college students from multiple perspectives, including philosophy, education, psychology, and sociology.

Chirkina (2015) aims to identify the content and professional nature of adults' learning activities during special vocational retraining, focusing on psychological factors such as meaning-making. This research is valuable for organizers of vocational retraining, academics, and policymakers in additional education, particularly in "Practical Psychology in Education".

Healy et al. (2018) use contemporary personality theory and vocational psychology theory to focus on life stories, explaining a method for assessing learning in career contexts. They describe the conceptual and methodological dimensions of "My Career Chapter-A Dialogical Autobiography" (McIlveen, 2016) as an innovative pedagogical method based in vocational psychology and dialogical self theory.

Hao (2021) studies the construction of psychological associations and health theory education for students in higher vocational colleges, emphasizing their role in improving students' mental quality and abilities.

Zheng (2021) discusses recent achievements and reforms in vocational colleges, focusing on pedagogy and psychology to enhance individual development and overall student quality.

To sum up, career psychology focuses on the study and application of psychological principles to address issues related to work and professions. It encompasses various areas, including human resource management, organizational behavior, employee recruitment and selection, career development, job satisfaction, leadership, job performance assessment, occupational health, and work environment, among others.

### **career planning**

Career planning refers to a systematic process that helps individuals gain self-awareness, understand the job market, set career goals, and develop plans to achieve these objectives. It also encourages students to view career development as a long-

term journey, promoting continuous learning, growth, and adaptation. This fosters a sense of valuing lifelong learning and personal development in students' career values.

Li (2019) analyzes the importance of ideological and political education in college students' career planning, addressing issues like the lack of targeted teaching content, insufficient communication during the teaching process, unclear guidance concepts, and the unprofessionalism of teaching teams. The study suggests enhancing the effectiveness of ideological and political education in career planning for college students.

Jiang (2019) discusses the necessity and content of career planning education for freshmen, emphasizing its significance during the freshman entrance education period.

Gibbons et al. (2019) describe a theory-based multi-week career education curriculum aimed at increasing career and college readiness, delivered to over 1,300 high school students in rural Appalachian counties. This curriculum was particularly designed for students underrepresented in higher education.

Zafar (2019) uses chi-square tests and logistic regression to examine the association of career guidance in career planning among secondary school students. The study finds that factors such as gender and parents' education level play a significant role in seeking career guidance.

One notable investigation conducted by Jackson et al. (2019) delved into the proactive career behaviors exhibited by contemporary higher education students. The study identified varying degrees of intrinsic and extrinsic career values across specific student demographics, underscoring the significance of comprehending diversified value systems in the context of career planning.

Wang et al. (2020) analyze theme literatures from CNKI on "Career Development Planning Education for Middle School Students," focusing on the current research status, content, and existing problems. The analysis reveals issues like inadequate research attention, comprehensive research contents, and unbalanced research subjects.

Jackson et al. (2020) address the limited empirical analysis of higher education students' perceptions of contemporary labor market demands, finding that perceptions of employability, sense of career control, and reported career proactivity positively influence engagement in career planning.

Tingyan et al. (2020) explore the influencing factors of college students' career planning, considering the lack of career planning education and the detailed division of social and professional work. The study proposes countermeasures and suggestions under the backdrop of "mass entrepreneurship and innovation."

Peng (2020) explores innovative modes for upgrading college career planning education in the context of the integration of innovation, entrepreneurship, and specialty education. This approach aims to alleviate unemployment pressure, improve education effects, and help students develop comprehensively.

Career planning education has garnered increasing attention due to its significant role in promoting students' overall development, enhancing employment rates, and facilitating the rational allocation of human resources. Kuang et al. (2012) propose several solutions to improve the quality of career planning education, including providing comprehensive guidance, diversifying content and methods, and ensuring qualified teachers for career planning education.

Jiang (2018) explores solutions to build a scientific and effective career planning curriculum system, addressing the need for qualitative changes in career planning education to improve the quality of personnel training, enhance students' comprehensive quality, and meet employers' requirements.

Jiang (2019) discusses the importance of implementing career planning education during freshman entrance education, focusing on its necessity and content.

Wang et al. (2020) analyze theme literatures from CNKI on "Career Development Planning Education for Middle School Students," focusing on current research status, contents, and existing problems. The analysis reveals issues like inadequate research attention and unbalanced research subjects.

Peng (2020) explores innovative modes for upgrading college career planning education in the context of integrating innovation and entrepreneurship education.

This approach aims to alleviate unemployment pressure, improve education effects, and help students develop comprehensively.

In conclusion, career planning is a systematic process that helps individuals gain self-awareness, understand the job market, set career goals, and develop plans to achieve these objectives. It also encourages students to view career development as a long-term journey, promoting continuous learning, growth, and adaptation. This fosters a sense of valuing lifelong learning and personal development in students' professional values. The impact of career planning on students' professional values is profound and significant.

## **Higher vocational colleges**

### **The concept of higher vocational education**

The conceptual definition of higher vocational education is subject to differing viewpoints primarily rooted in debates concerning the hierarchical levels and types of higher vocational education. The following are rephrased representations of these viewpoints:

One perspective emphasizes the hierarchical aspect of higher vocational education, defining it as a stage within higher education. It is classified as ISCED5, the tertiary level of education, in the "International Standard Classification of Education." In China's legal framework, higher vocational education is considered a part of higher education. Article 68 of the "Higher Education Law of the People's Republic of China" enacted in 1998 specifies that higher education institutions include higher vocational colleges, thus positioning higher vocational education as a tier within higher education.

Another perspective places emphasis on the types of higher vocational education, primarily encompassing vocational education and technical education, which fall under the category of tertiary-level education. For instance, according to the viewpoint of Professor Pan Maoyuan, higher vocational education is regarded as an education type distinct from general higher education, following the "type theory." The "Encyclopedia of Education" also explains that higher vocational education comprises vocational and technical education, both falling under the tertiary level of education.

Policy documents also underscore the type dimension of higher vocational education. In 2016, the "Opinions of the Ministry of Education on Enhancing the Teaching Quality of Higher Vocational Education" stated: "Higher vocational education, as a type within higher education, bears the mission of nurturing high-level technical professionals to meet the frontline needs of production, construction, service, and management."

Another perspective centers on the educational objectives. Scholars such as Yang Jintu stress that the primary objective of higher vocational education is to cultivate high-level technical professionals, including senior technicians, technologists, and technical engineers. Furthermore, some scholars, based on the distinct disciplinary nature of higher vocational education compared to undergraduate education, assert that higher vocational education is designed to train practical talents in various fields such as production, construction, management, and social services, in line with the specific operational demands of certain occupational positions or clusters.

In conclusion, although there exist varying emphases and debates within academia regarding the definition of higher vocational education, there is general consensus on the fundamental understanding and scope of its educational objectives. According to the explanation provided by the "Encyclopedia of Chinese Education," this article primarily focuses on defining higher vocational education in terms of its form as a school-based education, predominantly admitting graduates from secondary vocational and technical schools and general high schools. Its core objective is to cultivate students' practical skills and produce advanced applied talents and high-level skilled workers for various sectors of the national economy.

#### **Hunan Polytechnic of Environment and Biology**

The Hunan Polytechnic of Environment and Biology formerly known as the Hunan Forestry College, is a key institution in China known for its commitment to ecological education. It has been designated as a national ecological civilization education base and recognized as a leading institution in vocational education on the national level. Additionally, it was one of the first provincial-level demonstrative vocational colleges in Hunan Province and serves as the exclusive base for professional master's degree programs under the Chinese Academy of Forestry in Hunan Province.

The institution's history dates back to its establishment in 1975 as the Hengyang Branch of Hunan Agricultural College. In 1987, it gained approval from the provincial government to transform into the Hunan Forestry College. To adapt to the evolving landscape of higher vocational education in 1999, the institution received approval from the Ministry of Education to transition from a regular higher vocational college to a higher vocational college. In March 2021, it adopted its current name, Hunan University of Environment and Biology. Furthermore, in June 2024, the original Hengyang Health School merged with the institution.

As of June 29, 2022, Hunan University of Environment and Biology officially transitioned to being administered by the Hunan Provincial Department of Education. The institution comprises ten academic colleges, offering a total of 34 different majors, and it accommodates over 19,000 full-time students as of March 2022.

#### **Hunan Financial and Industrial Vocational-technical College**

Hunan Financial and Industrial Vocational-technical College is located in Hengyang City, Hunan Province. It is a full-time regular higher vocational institution approved by the People's Government of Hunan Province and registered with the Ministry of Education. It is also designated as a key construction unit for Hunan Province's outstanding higher vocational colleges.

The college has a history dating back to the establishment of the Hengyang Second Technical School in 1958 and the Hengyang Financial Accounting School in 1980. In 2024, the Hengyang Financial Accounting School merged and was upgraded to become Hengyang Financial and Industrial Vocational-technical College, and in January 2015, it was officially renamed as Hunan Financial and Industrial Vocational-technical College.

As of April 2023, according to the official website of the college, it covers an area of 1,026 mu (approximately 68.4 hectares) and has teaching equipment with a total value of over 100 million yuan. The college comprises six teaching departments offering 22 majors, with a staff of 661 faculty members and over 12,000 enrolled students.

### **Yongzhou Vocational Technical College**

Yongzhou Vocational Technical College, located in Yongzhou City, Hunan Province, is a nationally recognized exemplary higher vocational institution.

The college was established through the merger and upgrading of Zero Lingwei School and Zero Lingnong School in July 2020, with the approval of the Hunan Provincial People's Government and subsequent registration with the Ministry of Education. In June 2023, it received further approval from the Hunan Provincial People's Government to incorporate Zero Ling Business School, Zero Ling Industrial School, and Zero Ling Normal School into Yongzhou Vocational Technical College.

In 2010, the college successfully passed the assessment to become a nationally recognized exemplary higher vocational college. In August 2016, it was selected as one of the second batch of national modern apprenticeship pilot units.

As of April 2023, according to the official website of the college, it covers a total land area of 1.959 million square meters, with a total building area of 469,700 square meters. The total fixed assets value is 1.175 billion yuan, including teaching equipment with a total value of 267 million yuan and a library collection of 1.0225 million volumes. The college is composed of 12 secondary colleges and teaching departments offering 39 higher vocational majors. It has approximately 20,000 enrolled students and 1,024 staff members.

### **Changsha Social Work College**

Changsha Social Work College, located in Changsha City, Hunan Province, is a jointly established higher education institution by the Ministry of Civil Affairs of the People's Republic of China and the People's Government of Hunan Province. It holds several prestigious designations, including being a national exemplary higher vocational college, a national high-quality specialized higher vocational college, a high-level vocational college with distinctive features under the "B-level" professional construction plan, a pilot unit for the national modern apprenticeship system, a construction unit for Hunan Provincial Outstanding Higher Vocational and Technical Colleges, and a participating institution in the China-ASEAN Vocational College Characteristic Cooperation Project. The college is also designated as the talent training

base for the Ministry of Civil Affairs in the fields of social work and social organization and has received recognition as a national demonstration university for deepening innovation and entrepreneurship education reform.

Established in 1984 by the Ministry of Civil Affairs, it was originally named Changsha Civil Affairs School. In March 1999, it was officially upgraded to a regular higher vocational and technical college with approval from the Ministry of Education and was renamed Changsha Social Work College. In 2020, it underwent institutional reform to become a joint venture between the People's Government of Hunan Province and the Ministry of Civil Affairs, directly administered by the Education Department of Hunan Province. It is the first higher vocational college primarily focused on civil affairs and social work-related majors.

As of April 2023, according to the official website of the college, it occupies an area of 1,024 mu (approximately 68.3 hectares), with a total building area of 510,000 square meters and teaching equipment valued at 1.9 billion yuan. The college comprises eight secondary colleges, three teaching departments, and offers 44 specialized majors. It has a faculty of 1,002 staff members and an enrollment of over 20,564 students.

### **Chenzhou Vocational and Technical College**

Chenzhou Vocational Technical College, established in 2021, is a publicly funded full-time regular higher education institution located in Chenzhou City, Hunan Province. It has been approved by the Ministry of Education and is designated as a demonstrative (backbone) higher vocational college in Hunan Province.

As of July 2022, according to the official website of the college, the campus covers an area of 528 mu (approximately 35.2 hectares), with a total building area of 150,000 square meters. The college has a faculty of 110 full-time professors, associate professors, and senior engineers, as well as more than 100 part-time professors, on-site experts, and skilled masters. It is organized into five secondary colleges offering 20 specialized majors and has an enrollment of over 8,000 students.



In July 2021, the Party General Branch of the School of Finance and Economics at Chenzhou Vocational Technical College was recognized as an advanced grassroots party organization in the education system of Hunan Province.

### **Loudi Vocational and Technical College**

Loudi Vocational and Technical College, established with the approval of the People's Government of Hunan Province, is a publicly funded full-time regular higher education institution. It has achieved the outstanding level in the talent cultivation work level assessment by the Ministry of Education, holds the status of a demonstrative higher vocational college in Hunan Province, and is recognized as a nationally attractive campus among vocational colleges.

Loudi Vocational and Technical College is known as a high-quality institution for training talents in support of rural revitalization at the national level. It serves as a pilot unit for the modern apprenticeship reform initiated by the Ministry of Education and participates in the "1+X" skill level certification system pilot program. In 2022, it was selected as a "Chuyi" high-level vocational college in Hunan Province and a "Chuyi" industry-education integration training base construction unit.

The college's history dates back to the establishment of the Shaoyang Special Agricultural Cooperative Cadre School in 1957. In 2021, it was formed through the merger and upgrading of Loudi Economic and Trade School and Loudi Industrial School. In 2017, Loudi Mechanical and Electrical Engineering School merged with Loudi Vocational and Technical College. In 2016, Loudi Health School was integrated into the college

As of May 2021, the campus covers an area of over 900 mu (approximately 60 hectares), with a total building area of 370,000 square meters. The college consists of nine secondary colleges offering 46 specialized majors. It has 1,094 full-time teaching and administrative staff members and an enrollment of over 19,000 students.

## Related Research

In recent years, the emphasis on sustainable development within higher vocational education has gained significant momentum, particularly in the context of equipping students with career values that align with the evolving demands of global labor markets. Sustainable development in this context refers to the strategic educational initiatives that prepare students not only with technical skills but also with the ethical, environmental, and social competencies necessary for long-term career success. This literature review synthesizes findings from various studies that address the strategies employed by higher vocational colleges to embed sustainable development principles into career values education.

The concept of sustainable development in vocational education is multifaceted, encompassing the integration of environmental awareness, social responsibility, and economic sustainability into the curriculum. Lin et al. (2016) highlight the role of balanced scorecards in aligning institutional strategies with sustainable development goals. The study emphasizes the need for vocational institutions to develop strategic plans that reflect the interconnectedness of these dimensions, thereby fostering a holistic educational approach that prepares students for the complexities of modern careers.

Career values education in higher vocational colleges has evolved to include not only the impartation of technical skills but also the cultivation of values that support sustainable development. Liu and Yang (2018) argue that vocational values are crucial in shaping students' career choices and professional behaviors. Their research suggests that educational measures must be tailored to instill values that emphasize ethical decision-making, environmental stewardship, and social responsibility. These values are essential for students to navigate the challenges of sustainable development in their future careers.

The integration of sustainability into vocational education requires innovative teaching methodologies that go beyond traditional didactic approaches. Li et al. (2022) discuss the use of creative thinking as a pedagogical strategy to enhance students' problem-solving and critical thinking skills, which are vital for sustainable career

development. The study demonstrates that when students are encouraged to apply creative thinking in their learning processes, they are more likely to develop innovative solutions to complex sustainability challenges.

Another critical aspect of sustainable career values education is the alignment of institutional objectives with industry needs. Shao (2023) explores the role of enterprise colleges in bridging the gap between vocational education and industry demands. The study underscores the importance of collaboration between educational institutions and industry partners to ensure that the curriculum remains relevant and responsive to the changing needs of the labor market. This approach not only enhances students' employability but also ensures that they are equipped with the skills and values necessary to contribute to sustainable development in their respective fields.

The role of government policies and institutional frameworks in promoting sustainable development in vocational education cannot be overlooked. Chen et al. (2023) examine the impact of government regulations on the sustainability of vocational education systems. The study reveals that government support is crucial for the successful implementation of sustainability initiatives in vocational colleges. This support includes funding for research and development, incentives for industry partnerships, and the establishment of standards that guide the integration of sustainability into vocational education.

The importance of sustainability in career values education is further highlighted by Wang et al. (2022), who investigate the relationship between work values and career decision-making among vocational students. Their research shows that students who possess strong sustainability-oriented work values are more likely to make career choices that align with sustainable development goals. This finding suggests that vocational colleges need to prioritize the development of these values within their educational programs.

Moreover, the effectiveness of sustainability education in vocational colleges is often measured by the outcomes it produces in terms of student employability and career progression. Kravchenko and Kozyr (2022) discuss the strategic planning

processes that vocational colleges must undertake to ensure that their graduates are not only employable but also capable of driving sustainable practices within their workplaces. The study emphasizes the need for continuous evaluation and adjustment of educational strategies to keep pace with the evolving demands of the labor market.

The integration of sustainability into vocational education also involves addressing the unique challenges faced by different sectors. For example, Ke-xin et al. (2016) explore the specific needs of the software industry and how vocational education can be tailored to meet these needs while promoting sustainability. The study highlights the importance of flexibility in educational programs to accommodate the rapid technological advancements and changing sustainability requirements within the industry.

In addition to sector-specific strategies, vocational colleges must also consider the broader societal implications of their educational practices. Harris et al. (2017) discuss the role of higher education institutions in promoting global sustainability through strategic planning. The study argues that vocational colleges have a responsibility to not only prepare students for their careers but also to instill in them a sense of global citizenship that encompasses a commitment to sustainability.

The role of leadership in fostering sustainable development within vocational education is another critical area of focus. Mohr and Purcell (2020) explore the leadership strategies that are necessary for implementing and sustaining sustainability initiatives within educational institutions. The study highlights the importance of visionary leadership that can inspire and mobilize stakeholders towards the achievement of sustainability goals.

Furthermore, the long-term success of sustainability education in vocational colleges depends on the ability of these institutions to adapt to changing circumstances. Liu (2018) discusses the challenges faced by vocational colleges in maintaining relevance in the face of decreasing student enrollment and increasing competition. The study suggests that a focus on sustainability can serve as a differentiator that enhances the attractiveness of vocational education to prospective students.

In conclusion, the literature on strategy development for sustainable development student's career values education in higher vocational colleges underscores the importance of a holistic approach that integrates technical skills with ethical, environmental, and social competencies. The successful implementation of these strategies requires the collaboration of educational institutions, industry partners, and government bodies, as well as the continuous evaluation and adaptation of educational programs. As the demands of the labor market continue to evolve, vocational colleges must remain agile and innovative in their approach to sustainability education, ensuring that their graduates are well-equipped to contribute to a sustainable future.

This synthesis of the current research highlights the multifaceted nature of sustainable development in vocational education and the critical role that strategic planning, innovative teaching methods, and strong leadership play in achieving these goals. As vocational colleges continue to navigate the challenges of the digital era and the global push for sustainability, they must remain committed to embedding these values into their educational practices to prepare students for successful and meaningful careers in a rapidly changing world.

The content of the aforementioned relevant studies can be presented according to Table 2.3.

**Table 2.3** Lists of relevant studies

No.	Scholar	Career Ethics	Career Skills	Career Psychology	Career Planning
1	Lin et al. (2016)	√	-	√	-
2	Liu and Yang (2018)	-	√	-	√
3	Li et al. (2022)	√	√	√	-
4	Shao (2023)	-	√	-	-
5	Chen et al. (2023)	-	√	√	-
6	Wang et al. (2022)	√	-	-	√
7	Kravchenko and Kozyr (2022)	√		√	-
8	Kexin et al. (2016)	√	√	-	-
9	Harris et al. (2017)	-	-	-	√
10	Mohr and Purcell (2020)	-	-	√	-
11	Liu (2018)	√	√	-	-

Various research methods have been employed in the relevant studies, including TOWS, SWOT, PEST, Gap Analysis, Balanced Scorecard, and KPI. These methods are illustrated in Table 2.4.

**Table 2.4** Lists of Research Methods in Relevant Studies

No.	Scholar	SOWT Analysis	PEST Analysis	TOWS Analysis	GAP Analysis	Balance Score Card
1	Lin et al. (2016)	-	√	√	-	-
2	Liu and Yang (2018)	-	-	-	√	√
3	Li et al. (2022)	√	√	√	-	-
4	Shao (2023)	-	√	-	-	√
5	Chen et al. (2023)	-	√	√	-	-
6	Wang et al. (2022)	√	-	-	√	-
7	Kravchenko and Kozyr (2022)	√	-	√	-	-
8	Kexin et al. (2016)	√	√	-	-	√
9	Harris et al. (2017)	-	-	-	√	-
10	Mohr and Purcell (2020)	-	-	√	-	-
11	Liu (2018)	√	√	-	-	-

## Chapter 3

### Research Methodology

The research aims to integrate the concept of sustainable development into the cultivation of career values among students in Hunan higher vocational colleges through the formulation and effective implementation of educational strategies. The objective is to encourage students to embrace a sustainable career value system, adapt to societal changes, and contribute to the achievement of sustainable development goals. The researchers have the following procedures;

1. The Population / The sample Group
2. Research Instruments
3. Data Collection
4. Data Analysis

Step 1: Conducted a survey on the current situation of students' career values education in higher vocational colleges, Hunan Province.

Step 2: Interviewed experts to explore the formulation of strategies for the sustainable development of students' career values education in higher vocational colleges, Hunan Province.

Step 3: Evaluated the feasibility of the strategies for the sustainable development of students' career values education in higher vocational colleges, Hunan Province.

The research structure diagram is shown in Figure 3.1:



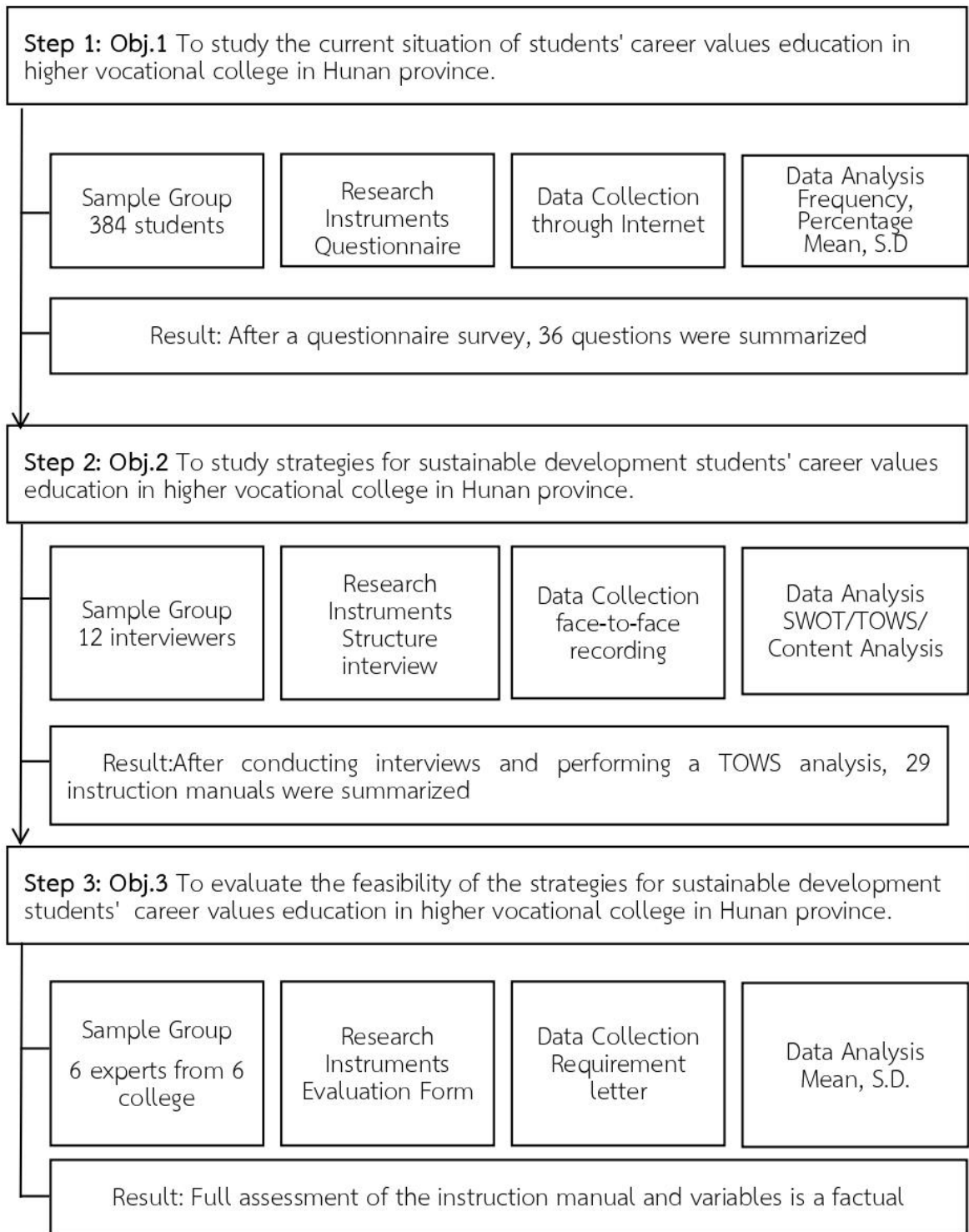


Figure 3.1 Summary of research methods and steps

## The Population and Sample Group

### Population and the Sample Group

This study conducted a questionnaire survey among 95,000 higher vocational college students. Six institutions were selected as research objects.

### The Sample Group

According to the Krejcie and Morgan sampling table, the sample group consisted of 384 students who were randomly selected from six higher vocational colleges, Hunan Province to study the current situation of students' career values education in these institutions.

As shown in Table 3.1:

**Table 3.1** Lists of Sampling table

NO.	Higher vocational college in Hunan province	Population	Sample Group
1	Hunan polytechnic of Environment and Biology	16000	65
2	Hunan Financial and Industrial Vocational-technical College	12000	48
3	Yongzhou Vocational Technical College	20000	81
4	Changsha Social Work College	20000	81
5	Chenzhou Vocational and Technical College	8000	32
6	Loudi Vocational and Technical College	19000	77
<b>Total</b>		<b>95000</b>	<b>384</b>

### Interview groups

This study adopted a random sampling method to select six teachers and six administrators from six higher vocational colleges, resulting in a total sample size of 12 individuals.

As shown in Table 3.2:

**Table 3.2** lists of college and interview size

NO.	Higher vocational college in Hunan province	Interviewers Teachers	Administrators
1	Hunan polytechnic of Environment and Biology	1	1
2	Hunan Financial and Industrial Vocational-technical College	1	1
3	Yongzhou Vocational Technical College	1	1
4	Changsha Social Work College	1	1
5	Chenzhou Vocational and Technical College	1	1
6	Loudi Vocational and Technical College	1	1
<b>Total</b>		<b>12</b>	

### Evaluation group

This study involved inviting six experts and scholars specializing in the development of higher vocational education in Hunan to evaluate the feasibility of strategies for sustainable development in career values education at higher vocational colleges, Hunan Province. The qualifications of the interviewees were as follows: 1) At least 10 years of teaching experience in educational management at a vocational college, 2) Research experience in the field of education for sustainable development, and 3) An academic title of associate professor or higher.

As shown in Table 3.3

**Table 3.3** Lists of university and expert size

NO.	Higher vocational college in Hunan province	expert
1	Hunan polytechnic of Environment and Biology	1
2	Hunan Financial and Industrial Vocational-technical College	1
3	Yongzhou Vocational Technical College	1
4	Changsha Social Work College	1
5	Chenzhou Vocational and Technical College	1
6	Loudi Vocational and Technical College	1
<b>Total</b>		<b>6</b>

### Research Instruments

The research utilized tools including questionnaires, interview guides, and a feasibility assessment form to evaluate strategies for promoting sustainable career values education for students in higher vocational colleges, Hunan Province.

#### Questionnaire

The construction process of questionnaire are as follows:

Step 1: Review and analyze documents, concepts, theories, and research related to career values education, sustainable development, and professional competence in higher vocational colleges, Hunan Province. This review included literature on career ethics, career skills, career psychology, and career planning.

Step 2: Develop a survey questionnaire to assess the current state of career values education in higher vocational colleges. The questionnaire included items designed to evaluate career ethics, career skills, career psychology, and career planning among students. The initial questionnaire outline was shared with academic advisors for feedback and revisions were made accordingly.

Step 3: Validate the questionnaire by assessing its Interrater Objectivity Coefficient (IOC) with the help of 5 experts in the fields of career education and

sustainable development. This step ensured that the questionnaire was aligned with the objectives of the research.

Step 4: Revise the survey questionnaire based on the expert recommendations, refining the content to ensure clarity and relevance to the study's goals.

Step 5: Pilot test the questionnaire by administering it to 30 students from higher vocational colleges, Hunan Province. This step ensured that the questionnaire was understandable and that it measured what it was intended to measure. The Cronbach's Alpha Coefficient for the reliability of the questionnaire was 0.91, indicating a high level of reliability.

Step 6: Distribute the revised questionnaire to the larger sample of students from six higher vocational colleges, Hunan Province and await data collection. The collected data will then be analyzed to evaluate the current state of career values education and the effectiveness of proposed strategies.

The questionnaire is primarily divided into two sections, as follows:

Part 1: Information about the respondents, including gender, grade level, Family Annual Income, and long-term residence before enrollment.

Part 2: The current situation of students' career values in higher vocational colleges, Hunan Province, which constitutes the formal part of the questionnaire. This section surveys four aspects of students' career values, including 9 questions on career skills, 9 questions on career ethics, 9 questions on career planning, and 9 questions on career psychology, totaling 36 questions. The criteria for data interpretation are based on a five-point Likert scale, as follows:

5 express the level of students' career values in higher vocational college are at highest level

4 express the level of students' career values in higher vocational college are at high level

3 express the level of students' career values in higher vocational college are at medium level

2 express the level of students' career values in higher vocational college are at low level

1 express the level of students' career values in higher vocational college are at lowest level

And the data interpretation for average value bases on Rensis Likert (1932). The data interpretation are as follows:

4.50 – 5.00 express highest level

3.50 – 4.49 express high level

2.50 – 3.49 express moderate level

1.50 – 2.49 express low level

1.00 – 1.49 express lowest level

### **Structured interviews**

For the data collection tool related to Objective 2, strategies for promoting sustainable career values education for students in higher vocational colleges, Hunan Province were proposed. Building upon the analysis of interviewee data, this study systematically outlined strategies for enhancing sustainable career values education in higher vocational colleges, Hunan Province. Additionally, interview content and a structured interview template were developed in conjunction with a questionnaire survey. Utilizing SWOT and TOWS analysis and adhering to a problem-oriented approach, deficiencies in four aspects-career ethics, career skills, career psychology, and career planning-were identified as areas requiring improvement. Targeted guidance was then provided to further promote sustainable career values education for students in higher vocational colleges, Hunan Province.

### **Evaluation Form**

The instrument used to collect data for Objective 3 was designed to evaluate the adaptability and feasibility of strategies for the sustainable development of students' career values education in higher vocational colleges, Hunan Province. At this stage, six experts from six representative higher vocational colleges, Hunan Province were invited to evaluate the adaptability and feasibility of the strategies using the Likert scale method. The data interpretation for the average value is based on the methodology proposed by Rensis Likert (1932). The data interpretation is as follows:

- 4.50 – 5.00 express highest level
- 3.50 – 4.49 express high level
- 2.50 – 3.49 express moderate level
- 1.50 – 2.49 express low level
- 1.00 – 1.49 express lowest level

## Data Collection

**The data collection for objective 1:** To study the current situation of students' career values education in higher vocational colleges, Hunan Province, the following procedure was followed:

Step 1: The researcher requested a requirement letter from the Graduate School at Bansomdejchaopraya Rajabhat University to collect data from 384 students in higher vocational colleges, Hunan Province.

Step 2: Contact was made with the personnel departments of the six universities to explain the research being conducted and request their assistance in distributing the questionnaire. The invitation letter was sent to these departments for official approval and support.

Step 3: From April 11 to April 13, 2024, the questionnaire was distributed via Wenjuanxing (a Chinese online survey tool). A QR code for the survey was provided to the personnel departments of the six universities. The departments were asked to forward the QR code to a random selection of lecturers within their institutions.

Step 4: The personnel departments of the six universities distributed the Wenjuanxing QR code to lecturers in accordance with the predetermined sample size calculated for each university based on the Sample Group section. This ensured that the correct number of questionnaires was distributed to achieve the required sample size of 384 responses.

Step 5: By 16:00 on April 13, 2024, a total of 384 completed questionnaires were received, achieving a response rate of 100%. The high response rate was attributed to the careful planning and coordination with the university personnel departments.

**The data collection for objective 2:** To propose strategies for improving students' career values education in higher vocational colleges, Hunan Province, the following procedure was followed:

Step 1: The researcher requested a requirement letter from the Graduate School at Bansomdejchaopraya Rajabhat University to collect interview data from 12 teachers and administrators in higher vocational colleges, Hunan Province.

Step 2: On April 11, 2024, contact was made with the personnel departments of the six universities to explain the research being conducted and to request that they recommend experts who met the criteria for the interviews. The personnel departments were asked to provide the names, contact details, and professional backgrounds of the recommended experts. The invitation letter was also sent to them for official documentation.

Step 3: On April 12, 2024, the recommended experts were contacted via phone. During the conversation, the invitation letter was sent to them, along with a detailed explanation of the research questions, objectives, and the interview guidelines. A preliminary SWOT analysis was also provided to the experts for review, so they could better prepare for the interview.

Step 4: From April 15 to April 20, 2024, interviews were conducted with the experts using a combination of telephone, online video conferencing, and face-to-face meetings, depending on the preferences of the experts. The experts were asked to provide insights related to the study's objectives and research questions, using the preliminary SWOT analysis as a reference to guide their responses.

Step 5: After the interviews were completed, the data from the expert interviews were transcribed and organized for further analysis. This qualitative data was then integrated with the findings from the questionnaires to develop a comprehensive understanding of the research topic.



**The data collection for objective 3:** To evaluate the adaptability and feasibility of strategies for improving the sustainable development of students' career values education in higher vocational colleges, Hunan Province, the following procedure was followed:

Step 1: The researcher requested a requirement letter from the Graduate School at Bansomdejchaopraya Rajabhat University to collect data from six experts from higher vocational colleges, Hunan Province to formulate strategies for students' career values education.

Step 2: On August 1, 2024, contact was made with the personnel departments of the six colleges to explain the research and request expert recommendations. The universities were asked to provide the names, contact details, and qualifications of the experts who could participate in the evaluation process. The invitation letter was sent to the personnel departments for official documentation.

Step 3: On August 10, 2024, the recommended experts were contacted via phone. During the conversation, the invitation letter and details of the research objectives were sent to them, along with an outline of the proposed strategies. The experts were informed of the evaluation process and their role in assessing the feasibility and effectiveness of the strategies.

Step 4: From August 15 to August 20, 2024, the experts were asked to evaluate the strategies through an online survey created using Wenjuanxing. The questionnaire was designed to assess the feasibility and effectiveness of the strategies based on the experts' professional judgment. The survey was distributed to the experts via a QR code.

Step 5: After the responses were collected, the data was compiled and analyzed to determine the overall feasibility and effectiveness of the proposed strategies. The feedback from the experts was used to refine the strategies and ensure they were practical and implementable in the context of higher vocational colleges, Hunan Province.

## Data Analysis

For data analysis in this research, the researcher analyzed the data using a statistical software package, as follows:

Step 1: Descriptive statistics were used to analyze demographic data, including Gender, Long-term Residence Before Enrollment, Grade, and Family Annual Income. The frequencies and percentages of these variables were calculated to understand the distribution of the sample group. This step provided an overview of the respondents' background characteristics and ensured that the sample was representative of the larger population.

Step 2: To analyze the strategic recommendations and their effectiveness, the data was further examined using SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis to identify key factors impacting career values education. Additionally, a TOWS (Threats, Opportunities, Weaknesses, Strengths) analysis was conducted to generate actionable strategies based on the SWOT findings. These tools provided a structured framework for interpreting the qualitative data from expert interviews and helped identify areas for improvement in career values education.

Step 3: The quantitative data collected from the questionnaires was analyzed using mean and standard deviation to assess the overall level of career values education in the four dimensions: career ethics, career skills, career psychology, and career planning. The mean provided a central tendency for the responses, while the standard deviation measured the variability of the data. This step allowed for a detailed understanding of the current status of career values education in the six higher vocational colleges studied.

# Chapter 4

## Results of Analysis

This research focuses on the development of strategies for sustainable development of students' career values education in higher vocational colleges, Hunan Province. The objectives of this research were: 1) To study the current situation of students' career values education in higher vocational colleges, Hunan Province. 2) To study strategies for sustainable development of students' career values education in higher vocational colleges, Hunan Province. 3) To evaluate the feasibility of the strategies for sustainable development of students' career values education in higher vocational colleges, Hunan Province. The data analysis result can be presented as follows:

1. Symbol and abbreviations
2. Presentation of data analysis
3. Results of data analysis

The details are as follows.

### Symbol and Abbreviations

- n      Refers to sample group  
 $\bar{x}$     Refers to average value  
S.D.    Refers to standard deviation

### Presentation of Data Analysis

#### Part 1: Quantitative Analysis

The quantitative analysis of this research consists of two steps, focusing on the demographic characteristics of the respondents and the current state of career values education in higher vocational colleges, Hunan Province.

### **Step 1: Analysis of Respondents' Personal Information**

The analysis results are categorized by variables such as Gender, Long-term Residence Before Enrollment, Grade, and Family Annual Income. Data is presented in terms of frequency and percentage, providing a demographic breakdown of the respondents. This step offers insight into the background characteristics of the sample group, helping to ensure that the collected data is representative of the larger population of students in higher vocational colleges.

### **Step 2: Analysis of the Current State of Career Values Education**

The analysis focuses on the four main aspects of career values education: career ethics, career skills, career psychology, and career planning. The data is presented using mean and standard deviation to reflect the overall levels of career values education among students. This provides a detailed overview of how well each aspect is developed, revealing areas where further improvements can be made.

### **Part 2: Qualitative Analysis**

The qualitative analysis presents insights gained from structured interviews with experts on the development of strategies for career values education. This section is divided into two steps:

#### **Step 1: SWOT and TOWS Analysis**

A SWOT analysis was conducted to categorize internal and external factors affecting the implementation of the strategies. The analysis examined the strengths, weaknesses, opportunities, and threats associated with career values education. Based on the SWOT findings, a TOWS analysis was conducted to create strategic recommendations. The TOWS analysis aligned internal strengths and weaknesses with external opportunities and threats, formulating actionable strategies to improve career ethics, skills, psychology, and planning. These strategies aim to leverage strengths, address weaknesses, capitalize on opportunities, and mitigate threats.

#### **Step 2: Interview Content Analysis**

The interview responses were analyzed using qualitative content analysis to categorize feedback from the experts. Themes relevant to strategy development were identified, including insights into the strengths, weaknesses, opportunities, and threats

(SWOT) involved in implementing these strategies. This analysis helped in understanding the expert recommendations for improving career values education in higher vocational colleges.

### **Part 3: Evaluation of Appropriateness and Feasibility**

The strategies proposed for improving career values education were evaluated by experts based on their appropriateness and feasibility. The evaluation was conducted using structured forms and presented through mean and standard deviation. This analysis determined the overall effectiveness of the proposed strategies, ensuring that they align with the needs of students and educators in higher vocational colleges.

## **Results of Data Analysis**

### **Part 1: Quantitative Analysis**

#### **Step 1: Analysis of Respondents' Personal Information**

The analysis results are categorized by variables such as Gender, Long-term Residence Before Enrollment, Grade, and Family Annual Income. Data is presented in terms of frequency and percentage, providing a demographic breakdown of the respondents. This step offers insight into the background characteristics of the sample group, helping to ensure that the collected data is representative of the larger population of students in higher vocational colleges.

**Table 4.1** Number of people and percentage of respondents

(n=384)

	Personal Information	Frequency	Percentage
Gender	Male	207	54
	Female	177	46
	<b>Total</b>	<b>384</b>	<b>100</b>
Long-term Residence Before Enrollment	Rural area	238	62
	Urban area	146	38
	<b>Total</b>	<b>384</b>	<b>100</b>
Grade	Grade One	120	31.25
	Grade Two	125	32.55
	Grade Three	130	36.2
	<b>Total</b>	<b>384</b>	<b>100</b>
Family Annual Income	10,000RMB-30,000RMB	30	7.8
	40,000RMB-90,000RMB	256	66.7
	Above 100,000RMB	98	25.5
	<b>Total</b>	<b>384</b>	<b>100</b>

According to Table 4.1, it showed that: for gender, there are 207 male respondents, accounting for 54%. There are 177 female respondents, accounting for 46%. The number of male students among the surveyed subjects is relatively higher. For long-term residence before enrollment, 238 respondents are from rural areas, accounting for 62%, while 146 respondents are from urban areas, accounting for 38%. For grade, the main group is Grade Three, accounting for 36.2% of the population, followed by Grade Two at 32.55%, and Grade One is the lowest at 31.25%. For family annual income, the majority of respondents' families earn between 40,000 RMB and

90,000 RMB, accounting for 66.7%, followed by families earning above 100,000 RMB at 25.5%, and the lowest income group is 10,000 RMB to 30,000 RMB, accounting for 7.8%.

### Step 2: Analysis of the Current State of Career Values Education

The analysis focuses on the four main aspects of career values education: career ethics, career skills, career psychology, and career planning. The data is presented using mean and standard deviation to reflect the overall levels of career values education among students. This provides a detailed overview of how well each aspect is developed, revealing areas where further improvements can be made.

**Table 4.2** presents the mean and standard deviation of the current state of students' career values in higher vocational colleges, Hunan Province.

(n=384)

NO.	Students' career values in higher vocational colleges, Hunan Province	$\bar{x}$	S.D.	level	Rank
1	Career ethics	3.89	0.82	high	4
2	Career skills	3.96	0.86	high	1
3	Career psychology	3.94	0.85	high	2
4	Career planning	3.92	0.88	high	3
<b>Total</b>		<b>3.93</b>	<b>0.85</b>	<b>high</b>	

According to table 4.2, found that the current state of students' career values in higher vocational colleges, Hunan Province in four aspects was at high level ( $\bar{x}=3.93$ ). Considering the results of this research, aspects ranged from the highest to lowest level were as follows: the highest level was career skills ( $\bar{x}=3.96$ ), followed by career psychology ( $\bar{x}=3.94$ ), career planning ( $\bar{x}=3.92$ ), and career ethics was the lowest level ( $\bar{x}=3.89$ ).

**Table 4.3** shows the mean and standard deviation of the current state of students' career ethics in higher vocational colleges, Hunan Province.

(n=384)

NO.	Career ethics	$\bar{x}$	S.D.	level	rank
1	Believe maintaining honesty and integrity in work is very important.	3.77	0.83	high	9
2	Comply with all the rules and regulations of the company or organization.	3.81	0.77	high	7
3	Even without supervision, conscientiously complete their work tasks.	3.79	0.83	high	8
4	In the face of a conflict of interest, choose the action that is most beneficial to the company.	3.84	0.89	high	6
5	Fairness and justice in the workplace are crucial for career development.	3.94	0.77	high	4
6	Maintain respect and courtesy towards colleagues and clients at all times.	3.96	0.78	high	3
7	Avoid any form of discriminatory behavior in the workplace.	3.93	0.87	high	5
8	In a career, it is necessary to continuously improve personal ethical standards and behavior norms.	3.99	0.82	high	1
9	In the face of pressure and temptation at work, adhere to career ethical principles.	3.98	0.79	high	2
<b>Total</b>		<b>3.89</b>	<b>0.82</b>	<b>high</b>	



According to table 4.3, found that the current state of students' career ethics in higher vocational colleges, Hunan Province was at high level ( $\bar{x}=3.89$ ). Considering the results of this research, aspects ranged from the highest to lowest level were as follows: the highest level was "In a career, it is necessary to continuously improve personal ethical standards and behavior norms" ( $\bar{x}=3.99$ ), followed by "In the face of pressure and temptation at work, adhere to career ethical principles" ( $\bar{x}=3.98$ ), and "Maintain respect and courtesy towards colleagues and clients at all times" ( $\bar{x}=3.96$ ). The lowest level was "Believe maintaining honesty and integrity in work is very important" ( $\bar{x}=3.77$ ).

**Table 4.4** The average value and standard deviation of the current situation of students' career skills in higher vocational colleges, Hunan Province

(n=384)

NO.	Career skills	$\bar{x}$	S.D.	level	rank
1	Possess the professional knowledge required for the career position.	4.01	0.79	high	3
2	Effectively manage time to ensure tasks are completed on time.	3.95	0.81	high	4
3	Perform well in teamwork, capable of efficient communication and collaboration with others.	4.03	0.76	high	2
4	Possess the ability to solve problems encountered at work and find effective solutions.	3.92	0.89	high	8
5	Proficiently use computer software and tools related to career.	4.05	0.87	high	1
6	Adapt flexibly to changes and challenges in the workplace.	3.94	0.87	high	6

Table 4.4 (Continued)

(n=384)					
NO.	Career skills	$\bar{x}$	S.D.	level	rank
7	Actively participate in professional training and continuing education to enhance one's own career competitiveness.	3.94	0.87	high	6
8	Possess good verbal and written communication skills.	3.94	0.90	high	5
9	Understand and apply the latest technologies and methods related to the profession.	3.90	0.94	high	9
<b>Total</b>		<b>3.96</b>	<b>0.86</b>	<b>high</b>	

According to table 4.4, found that the current state of students' career skills in higher vocational colleges, Hunan Province was at high level ( $\bar{x}=3.96$ ). Considering the results of this research, aspects ranged from the highest to lowest level were as follows: the highest level was "Proficiently use computer software and tools related to career" ( $\bar{x}=4.05$ ), followed by "Perform well in teamwork, capable of efficient communication and collaboration with others" ( $\bar{x}=4.03$ ), and "Possess the professional knowledge required for the career position" ( $\bar{x}=4.01$ ). The lowest level was "Understand and apply the latest technologies and methods related to the profession" ( $\bar{x}=3.90$ ).

**Table 4.5** The average value and standard deviation of the current situation of students' career psychology in higher vocational colleges, Hunan Province (n=384)

NO.	Career psychology	$\bar{x}$	S.D.	level	rank
1	Feel optimistic and positive about the future career.	3.90	0.88	high	7
2	Possess psychological resilience to cope with career pressure.	3.85	0.92	high	9
3	Maintain good emotional control even under high work pressure.	3.95	0.80	high	4
4	Able to balance work and personal life, maintaining mental health.	3.94	0.84	high	5
5	Mentally prepare for difficulties that may arise during career development.	4.00	0.82	high	2
6	Willing to seek help and support when encountering difficulties at work.	3.88	0.82	high	8
7	Achieving self-worth and satisfaction in a career is very important.	3.96	0.85	high	3
8	Effectively cope with career changes and uncertainties while maintaining psychological stability.	3.93	0.88	high	6
9	Maintain self-motivation and continuously pursue progress in the career.	4.02	0.80	high	1
<b>Total</b>		<b>3.94</b>	<b>0.85</b>	<b>high</b>	

According to table 4.5, found that the current state of students' career psychology in higher vocational colleges, Hunan Province was at high level ( $\bar{x}=3.94$ ). Considering the results of this research, aspects ranged from the highest to lowest level were as follows: the highest level was "Maintain self-motivation and continuously pursue progress in the career" ( $\bar{x}=4.02$ ), followed by "Mentally prepare for difficulties that may arise during career development" ( $\bar{x}=4.00$ ), and "Achieving self-worth and satisfaction in a career is very important" ( $\bar{x}=3.96$ ). The lowest level was "Possess psychological resilience to cope with career pressure" ( $\bar{x}=3.85$ ).

**Table 4.6** The average value and standard deviation of the current situation of students' career planning in higher vocational colleges, Hunan Province

(n=384)

NO.	Career planning	$\bar{x}$	S.D.	level	rank
1	Have established clear goals and plans for one's own career.	3.96	0.82	high	3
2	Regularly evaluate one's career goals and plans, and make adjustments as needed.	3.92	0.84	high	5
3	Seek advice and guidance on career planning from mentors, teachers, or career advisors.	3.93	0.88	high	4
4	Understand the specific skills and knowledge needed to achieve career goals.	4.04	0.78	high	1
5	Actively seek internships and job opportunities to gain experience related to career goals.	3.98	0.84	high	2
6	Able to balance career planning with personal life goals, ensuring overall development.	3.86	0.99	high	7
7	Consider long-term development in career planning, not just the immediate job.	3.86	0.95	high	8

Table 4.6 (Continued)

(n=384)					
NO.	Career planning	$\bar{x}$	S.D.	level	rank
8	Understand the job market demand and adjust one's career development direction accordingly.	3.87	0.89	high	6
9	Able to conduct effective risk assessment and management in career development.	3.83	0.92	high	9
<b>Total</b>		<b>3.92</b>	<b>0.88</b>	<b>high</b>	

According to table 4.6, found that the current situation of students' career planning in higher vocational colleges, Hunan Province was at high level ( $\bar{x}=3.92$ ). Considering the results of this research, aspects ranged from the highest to lowest level were as follows: the highest level was "Understand the specific skills and knowledge needed to achieve career goals" ( $\bar{x}=4.04$ ), followed by "Actively seek internships and job opportunities to gain experience related to career goals" ( $\bar{x}=3.98$ ), and "Have established clear goals and plans for one's own career" ( $\bar{x}=3.96$ ). The lowest level was "Able to conduct effective risk assessment and management in career development" ( $\bar{x}=3.83$ ).

The overall level of students' career values education in higher vocational colleges, Hunan Province.

In summary, according to the data interpretation for average values based on Rensis Likert's (1932) scale, the following ranges apply: 4.50 - 5.00 indicates the highest level, 3.50 - 4.49 indicates a high level, 2.50 - 3.49 indicates a medium level, 1.50 - 2.49 indicates a low level, and 1.00 - 1.49 indicates the lowest level. A questionnaire survey conducted among students in higher vocational colleges, Hunan Province revealed that the overall mean score for career values education was at a high level ( $\bar{x}=3.93$ ). Within the various dimensions of career values education, the dimension "Career Skills" achieved the highest average score ( $\bar{x}=3.96$ ), followed by "Career Psychology" ( $\bar{x}=3.94$ ),

"Career Planning" ( $\bar{x}=3.92$ ), and finally, "Career Ethics," which had the lowest average score ( $\bar{x}=3.89$ ).

This data suggests that while the general level of career values education is commendably high, there is a disparity in the effectiveness of different dimensions. Specifically, the findings indicate that:

The management and implementation of career values education are uneven across different dimensions, with career ethics requiring more attention to reach the same level of development as career skills.

The highest level of understanding and application is observed in career skills, emphasizing the practical aspect of vocational education that aligns with the needs of the job market.

Career ethics, despite being a foundational aspect of professional conduct and integrity, is the least developed dimension, indicating a need for more targeted educational efforts in this area.

In conclusion, the results highlight a significant opportunity for improvement, particularly in enhancing the ethical aspects of career education to ensure a more balanced and holistic development of students' career values in higher vocational colleges, Hunan Province.

## **Part 2: Qualitative Analysis**

The qualitative analysis presents insights gained from structured interviews with experts on the development of strategies for career values education. This section is divided into two steps:

### **Step 1: SWOT and TOWS Analysis**

A SWOT analysis was conducted to categorize internal and external factors affecting the implementation of the strategies. The analysis examined the strengths, weaknesses, opportunities, and threats associated with career values education. Based on the SWOT findings, a TOWS analysis was conducted to create strategic recommendations. The TOWS analysis aligned internal strengths and weaknesses with external opportunities and threats, formulating actionable strategies to improve career

ethics, skills, psychology, and planning. These strategies aim to leverage strengths, address weaknesses, capitalize on opportunities, and mitigate threats.

During the interview, the interviewer not only provided strategic recommendations but also addressed questions regarding the strengths, weaknesses, opportunities, and threats associated with each factor. The summarized information is presented in Figures 4.1.

<p>1. Policy Support: Strong government backing for sustainable development in vocational education.</p> <p>2. Institutional Commitment: Colleges are dedicated to integrating sustainable practices into curricula.</p> <p>3. Resource Availability: Access to partnerships and modern tools enhances practical training.</p> <p>4. Experienced Faculty: Skilled educators improve student preparedness in sustainable practices.</p>	<p><b>1. Uneven Implementation:</b> Inconsistent application of sustainable strategies across institutions.</p> <p><b>2. Limited Faculty Training:</b> Not all educators are up-to-date on sustainable practices.</p> <p><b>3. Student Engagement:</b> Low student interest in sustainability due to less innovative teaching methods.</p> <p><b>4. Resource Constraints:</b> Some colleges, especially in rural areas, face funding and resource limitations.</p>
<p><b>1. Market Demand:</b> Growing need for professionals skilled in sustainable practices.</p> <p><b>2. Technological Advancements:</b> New tech offers better delivery of sustainability education.</p> <p><b>3. Industry Collaboration:</b> Partnerships with industries can enhance practical learning.</p> <p><b>4. Global Awareness:</b> Increasing global focus on sustainability boosts colleges' appeal.</p>	<p><b>1. Economic Fluctuations:</b> Economic instability may reduce funding for sustainability programs.</p> <p><b>2. Regulatory Changes:</b> Sudden policy shifts could disrupt program continuity.</p> <p><b>3. Resource Competition:</b> Limited resources may hinder program implementation.</p> <p><b>4. Student Apathy:</b> Lack of student interest in sustainability threatens curriculum integration.</p>

S	W
O	T

Figures 4.1 SWOT Analysis Interview Content



Table 4.7 TOWS Matrix Analysis

	Internal	Strengths (S)	Weaknesses (W)
	External		S1. Policy Support S2. Institutional Commitment S3. Resource Availability S4. Experienced Faculty
Opportunities (O)		SO (Leverage Strengths to Seize Opportunities) Strategy:	WO (Overcome Weaknesses to Seize Opportunities) Strategy:
O1. Market Demand		Leverage Policy Support and Market Demand: Utilize policy backing (S1) and the growing market demand for sustainability professionals (O1) to establish strong international collaborations and attract advanced technology.	Increase Faculty Training via Technological Advancements: Address the gap in faculty training (W2) by utilizing new technologies (O2) to provide accessible and up-to-date training resources.
O2. Technological Advancements		Utilize Institutional Commitment and Global Awareness: Capitalize on the commitment of institutions to sustainable development (S2) and the rising global emphasis on sustainability (O4) to position colleges as leaders in sustainable education, thereby increasing student interest.	Boost Student Engagement Through Industry Collaboration: Improve student interest in sustainability (W3) by offering hands-on, industry-based learning experiences (O3).
O3. Industry Collaboration		Maximize Resource Availability through Technological Advancements: Use available resources (S3) and advancements in educational technology (O2) to enhance the delivery and	Address Resource Constraints by Tapping Global Awareness: Mitigate resource limitations (W4) by seeking international support and collaboration, driven by the global focus on sustainability (O4).
O4. Global Awareness			

Table 4.7 (Continued)

Internal	Strengths (S)	Weaknesses (W)
	External	S1. Policy Support
S2. Institutional Commitment		W2. Limited Faculty Training
S3. Resource Availability		W3. Student Engagement
S4. Experienced Faculty		W4. Resource Constraints
	<p>accessibility of sustainability education.</p> <p>Enhance Faculty Expertise through Industry Collaboration: Strengthen industry partnerships (O3) to offer faculty members practical experience and training in the latest sustainable practices, thus improving their ability to teach these concepts (S4).</p>	<p>Standardize Implementation Across Institutions: Use technological advancements (O2) to create standardized, scalable sustainability programs that can be uniformly implemented across all institutions (W1).</p>
<p>Threats (T)</p> <p>T1. Economic Fluctuations</p> <p>T2. Regulatory Changes</p> <p>T3. Resource Competition</p> <p>T4. Student Apathy</p>	<p>ST (Leverage Strengths to Counteract Threats) Strategy:</p> <p>Ensure Policy Continuity Amid Economic Fluctuations: Advocate for stable and consistent government support (S1) to protect sustainability programs from economic instability (T1).</p> <p>Bolster Institutional Resilience Against Regulatory Changes: Use institutional commitment (S2) to adapt quickly to policy shifts (T2)</p>	<p>WT (Minimize Weaknesses to Avoid Threats) Strategy:</p> <p>Mitigate Economic Risks Through Faculty Training: Reduce the impact of economic instability (T1) by ensuring that faculty are trained in cost-effective, sustainable teaching methods (W2).</p> <p>Adapt Quickly to Regulatory Changes Through Resource Management: Prepare for</p>

Table 4.7 (Continued)

Internal	Strengths (S)	Weaknesses (W)
	S1. Policy Support	W1. Uneven Implementation
	S2. Institutional Commitment	W2. Limited Faculty Training
External	S3. Resource Availability	W3. Student Engagement
	S4. Experienced Faculty	W4. Resource Constraints
	<p>and ensure continuous program delivery.</p> <p>Optimize Resource Utilization to Overcome Competition: Leverage existing resources (S3) to secure funding and partnerships in a competitive environment (T3).</p> <p>Engage Faculty to Combat Student Apathy: Deploy experienced faculty (S4) to create engaging and relevant sustainability curricula that counteract student disengagement (T4).</p>	<p>potential policy changes (T2) by optimizing current resources and ensuring flexible program structures (W4).</p> <p>Combat Resource Competition by Enhancing Implementation Consistency: Strengthen the overall implementation of sustainable strategies (W1) to compete more effectively for limited resources (T3).</p> <p>Counter Student Apathy with Standardized, Engaging Content: Develop engaging, uniform content across all institutions (W1) to counteract student disinterest (T4).</p>

**Table 4.8** The table of corresponding strategies derived from the TOWS analysis

Category	Aspects	Strategies
SO	1. Leverage Policy Support and Market Demand	1. Encourage seeking help and support when encountering difficulties at work. 2. Promote understanding and application of the latest technologies and methods related to the profession.
	2. Utilize Institutional Commitment and Global Awareness	3. Support active participation in professional training and continuing education to enhance one's own career competitiveness.
	3. Maximize Resource Availability through Technological Advancements	4. Encourage proficiency in using computer software and tools related to career.
	4. Enhance Faculty Expertise through Industry Collaboration	5. Actively seek internships and job opportunities to gain experience related to career goals.
WO	1. Increase Faculty Training via Technological Advancements	6. Support active participation in professional training and continuing education to enhance one's own career competitiveness.
	2. Boost Student Engagement Through Industry Collaboration	7. Actively seek internships and job opportunities to gain experience related to career goals.

Table 4.8 (Continued)

Category	Aspects	Strategies
	3. Address Resource Constraints by Tapping Global Awareness	8. Regularly evaluate one's career goals and plans, and make adjustments as needed.
	4. Standardize Implementation Across Institutions	9. Foster the ability to adapt flexibly to changes and challenges in the workplace.
ST	1. Ensure Policy Continuity Amid Economic Fluctuations	10. Consider long-term development in career planning, not just the immediate job.
	2. Bolster Institutional Resilience Against Regulatory Changes	11. Conduct effective risk assessment and management in career development.
	3. Optimize Resource Utilization to Overcome Competition	12. Implement strategies to effectively manage time to ensure tasks are completed on time.
		13. Develop the ability to solve problems encountered at work and find effective solutions.
	4. Engage Faculty to Combat Student Apathy	14. Support maintaining self-motivation and continuously pursuing progress in the career.

Table 4.8 (Continued)

Category	Aspects	Strategies
WT	1. Mitigate Economic Risks Through Faculty Training	15. Mentally prepare for difficulties that may arise during career development.  16. Support maintaining good emotional control even under high work pressure.
	2. Adapt Quickly to Regulatory Changes Through Resource Management	17. Develop psychological resilience to cope with career pressure.
	3. Combat Resource Competition by Enhancing Implementation Consistency	18. Understand the job market demand and adjust one's career development direction accordingly.
	4. Counter Student Apathy with Standardized, Engaging Content	19. Emphasize the importance of achieving self-worth and satisfaction in a career.

### Step 2: Interview Content Analysis

The interview responses were analyzed using qualitative content analysis to categorize feedback from the experts. Themes relevant to strategy development were identified, including insights into the strengths, weaknesses, opportunities, and threats (SWOT) involved in implementing these strategies. This analysis helped in understanding the expert recommendations for improving career values education in higher vocational colleges.

**Table 4.9** Personal information of interviewee

Interviewee	School	Education background	Interview Date and Time
Interviewee 1	Hunan polytechnic of Environment Biology	<b>Post:</b> Director of Student Affairs <b>Expertise:</b> Student Management <b>Work experience:</b> 30 years	May 15, 2024 at 09:00 pm, GMT+8
Interviewee 2	Hunan Financial and Industrial Vocational-technical College	<b>Post:</b> Director of Employment Affairs <b>Expertise:</b> Student Career Planning <b>Work experience:</b> 25 years	May 15, 2024 at 10:30 pm, GMT+8
Interviewee 3	Yongzhou Vocational Technical College	<b>Post:</b> Director of the Mental Health Education Center <b>Expertise:</b> Career Psychology Education <b>Work experience:</b> 30 years	May 15, 2024 at 14:30 pm, GMT+8
Interviewee 4	Changsha Social Work College	<b>Post:</b> Dean of the College of Education <b>Expertise:</b> Career Development Education <b>Work experience:</b> 26 years	May 16, 2024 at 9:30 pm, GMT+8
Interviewee 5	Chenzhou Vocational and Technical College	<b>Post:</b> Full Professor <b>Expertise:</b> Lecturer Training and Education <b>Work experience:</b> 30 years	May 16, 2024 at 14:30 pm, GMT+8

Table 4.9 (Continued)

Interviewee	School	Education background	Interview Date and Time
Interviewee 6	Loudi Vocational and Technical College	<b>Post:</b> Director of the Labor Education Center <b>Expertise:</b> Career Development Education <b>Work experience:</b> 27 years	May 17, 2024 at 10:30 pm, GMT+8
Interviewee 7	Hunan polytechnic of Environment Biology	<b>Professional title:</b> Professor <b>Expertise:</b> Career Development Education <b>Work experience:</b> 30 years	May 18, 2024 at 10:30 pm, GMT+8
Interviewee 8	Hunan Financial and Industrial Vocational-technical College	<b>Professional title:</b> Professor <b>Expertise:</b> Career Ethics Education <b>Work experience:</b> 30 years	May 18, 2024 at 14:30 pm, GMT+8
Interviewee 9	Yongzhou Vocational Technical College	<b>Professional title:</b> Professor <b>Expertise:</b> Career Planning Guidance <b>Work experience:</b> 30 years	May 19, 2024 at 10:30 pm, GMT+8
Interviewee 10	Changsha Social Work College	<b>Professional title:</b> Professor <b>Expertise:</b> Career Psychology Education <b>Work experience:</b> 23 years	May 19, 2024 at 14:30 pm, GMT+8



Table 4.9 (Continued)

Interviewee	School	Education background	Interview Date and Time
Interviewee 11	Chenzhou Vocational and Technical College	<b>Professional title:</b> Professor <b>Expertise:</b> Career Psychology Education <b>Work experience:</b> 25 years	May 20, 2024 at 10:30 pm, GMT+8
Interviewee 12	Loudi Vocational and Technical College	<b>Professional title:</b> Professor <b>Expertise:</b> Career Development Education <b>Work experience:</b> 27 years	May 20, 2024 at 14:30 pm, GMT+8

The results of the interviews conducted through various formats—telephone, video, and face-to-face—with experts from ten universities are as follows:

**Interviewee 1:**

**1. What is the current state of sustainable development students' career ethics in higher vocational college in Hunan province? How can the sustainable development students' career ethics be promoted?**

The current state of sustainable development students' career ethics in higher vocational colleges, Hunan Province can be understood through an analysis of various factors. Hunan's vocational colleges have made significant strides in integrating ethical education within their curricula, fostering a foundational understanding of career ethics among students. However, there is still a considerable gap in practical application, with students often struggling to align theoretical ethical knowledge with real-world scenarios. The ongoing emphasis on sustainable development provides a unique opportunity to reinforce ethical practices within career training, particularly as industries demand more ethically aware professionals. The primary challenge lies in the varying

levels of commitment across different colleges, leading to inconsistencies in ethical education, which may hinder the uniform development of students' career ethics.

To promote sustainable development students' career ethics, several strategies can be implemented. Strategy 1: Ensuring that students acquire the professional knowledge required for their career positions can strengthen their understanding of ethical standards within their specific fields. Strategy 2: Promoting teamwork and efficient communication among students will encourage collaborative efforts in ethical decision-making, leading to a more integrated approach to ethics in the workplace. Strategy 3: Developing problem-solving abilities will equip students to address ethical dilemmas they may encounter in their careers, fostering a proactive ethical mindset. Strategy 4: Fostering adaptability to changes and challenges in the workplace will help students navigate ethical complexities with flexibility and resilience, ensuring that they remain committed to ethical principles even in dynamic environments.

## **2.What is the current state of sustainable development students' career skills in higher vocational college in Hunan province? How can the sustainable development students' career skills be promoted?**

The current state of sustainable development students' career ethics in higher vocational colleges, Hunan Province can be understood through a comprehensive analysis of various factors. The educational framework in these institutions places a strong emphasis on ethical training, particularly concerning sustainability, equipping students with a thorough understanding of ethical principles relevant to their future careers. However, there remains a significant disconnect between the theoretical knowledge provided and its practical application, as students often lack the real-world experience necessary for effective ethical decision-making. The growing demand for professionals who are both ethically conscious and skilled in sustainability practices presents a valuable opportunity for these institutions to further develop and enhance their ethical training programs. A significant challenge lies in the inconsistent implementation of ethical education across different colleges, which may result in

varying levels of ethical competency among graduates, potentially compromising their professional success.

To enhance the career ethics of sustainable development students, the following strategies are recommended. Strategy 1: Implementing effective time management strategies is crucial, as it fosters a disciplined approach to completing tasks on time, thereby reinforcing the importance of accountability and reliability in professional settings. Strategy 2: Developing the ability to solve problems encountered at work is essential for equipping students with the skills needed to navigate ethical dilemmas and find solutions that uphold both professional standards and ethical principles. By focusing on these strategies, students will be better prepared to meet the ethical challenges they may face in their careers, ensuring they can maintain high standards of professionalism and integrity in the workplace.

**3.What is the current state of sustainable development students' career psychology in higher vocational college in Hunan province? How can the sustainable development students' career psychology be promoted?**

The current state of sustainable development students' career psychology in higher vocational colleges, Hunan Province can be understood through a detailed examination of various factors. These institutions have made efforts to instill a sense of purpose and direction in students, emphasizing the importance of their future roles in the context of sustainability, which fosters a positive outlook on their career prospects. However, there is often a lack of comprehensive psychological support, leaving students underprepared for the emotional and mental challenges they may face during their career development. This gap can result in anxiety and uncertainty about their professional futures. The growing recognition of the importance of mental health in education offers an opportunity for these institutions to integrate psychological support services specifically tailored to career development. A significant challenge is the variability in psychological preparation across different colleges, which may lead to uneven levels of career confidence and resilience among graduates, potentially impacting their long-term career satisfaction and success.

To promote the career psychology of sustainable development students, the following strategies are recommended. Strategy 1: Encouraging students to feel optimistic and positive about their future careers is essential. This can be achieved through career counseling and mentorship programs that highlight potential career paths and successes. Strategy 2: Mentally preparing students for the difficulties that may arise during their career development is crucial. This can be facilitated through workshops and discussions that address common challenges and coping strategies. Strategy 3: Emphasizing the importance of achieving self-worth and satisfaction in a career will help students align their professional goals with personal values, leading to greater fulfillment. Strategy 4: Supporting students in maintaining self-motivation and continuously pursuing progress in their careers is vital. This can be done by creating a supportive environment that recognizes and rewards ongoing personal and professional growth. By focusing on these strategies, students will be better equipped to handle the psychological demands of their careers and achieve long-term success.

#### **4.What is the current state of sustainable development students' career planning in higher vocational college in Hunan province? How can the sustainable development students' career planning be promoted?**

The current state of sustainable development students' career planning in higher vocational colleges, Hunan Province can be understood through an in-depth analysis of various factors. Many students possess a strong awareness of the importance of career planning, driven by their understanding of sustainability's relevance in the modern job market. This awareness often leads to a proactive approach to setting career goals and seeking relevant opportunities. However, a significant number of students lack the practical guidance needed to effectively develop and implement their career plans. This gap is often due to limited access to career counseling and mentorship, leaving students uncertain about how to navigate their career paths. The increasing availability of resources and tools for career planning presents an opportunity for institutions to better support students in developing clear, actionable career plans. A key challenge is the rapidly changing job market, especially in fields

related to sustainability, which requires students to remain adaptable in their career planning to avoid misaligned career goals if not properly guided.

To promote the career planning of these students, several strategies should be implemented. Strategy 1: Establishing clear goals and plans for their careers is crucial, as it provides students with direction and purpose in their professional development. Strategy 2: Seeking advice and guidance from mentors, teachers, or career advisors is essential for helping students refine their career plans and make informed decisions. Strategy 3: Actively seeking internships and job opportunities related to their career goals will allow students to gain practical experience and build a foundation for their future careers. Strategy 4: Considering long-term development in career planning is important for ensuring that students do not focus solely on immediate job opportunities but also on sustained career growth. Strategy 5: Understanding the job market demand and adjusting career development directions accordingly will help students remain competitive and aligned with industry needs, ensuring their career plans are both realistic and achievable.

**Interviewee 2:**

**1. What is the current state of sustainable development students' career ethics in higher vocational college in Hunan province? How can the sustainable development students' career ethics be promoted?**

To address the current state of sustainable development students' career ethics in higher vocational colleges, Hunan Province, we can analyze various factors influencing the situation. The vocational colleges in Hunan have a robust framework for imparting ethical education, which is well-integrated into their curriculum, providing students with a foundational understanding of professional ethics. However, despite the structured curriculum, there is a noticeable disparity between theoretical knowledge and its practical application, as students often struggle to apply ethical principles in real-world situations. The increasing emphasis on sustainable development within educational frameworks offers an opportunity to further embed ethical considerations into all aspects of vocational training, aligning with global trends. A significant challenge lies in the inconsistency in the implementation of ethical

education across different institutions, which could result in a fragmented understanding and application of career ethics among students.

To promote the career ethics of sustainable development students, the following strategies can be employed. Strategy 1: Ensuring that students possess the necessary professional knowledge for their respective career positions will help them better understand the ethical standards required in their fields. Strategy 2: Implementing effective time management strategies will not only ensure task completion but will also reinforce the importance of adhering to ethical practices in meeting deadlines. Strategy 3: Encouraging teamwork and efficient communication will enhance collaborative efforts, leading to a collective approach to ethical decision-making in the workplace. Strategy 4: Developing problem-solving skills will prepare students to address ethical dilemmas they may encounter, promoting ethical thinking and action. Strategy 5: Fostering adaptability will enable students to navigate the complexities of ethical challenges in the workplace, ensuring they can uphold ethical standards even in changing environments.

## **2.What is the current state of sustainable development students' career skills in higher vocational college in Hunan province? How can the sustainable development students' career skills be promoted?**

The current state of sustainable development students' career skills in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. The curriculum in these colleges is well-designed to incorporate essential career skills, with a particular emphasis on the knowledge and technical abilities necessary for careers in sustainability-related fields. This foundation equips students with a basic understanding of the skills required in their professional roles. However, despite the solid theoretical foundation, there is a significant gap in practical skill application, particularly in problem-solving and the use of modern technologies. Students often lack hands-on experience and proficiency in essential tools, which limits their effectiveness in real-world scenarios. The increasing need for sustainability professionals offers an opportunity to enhance career skills training, especially by integrating more practical, technology-driven approaches. A major challenge is the

inconsistency in the level of skill development across different institutions, potentially leading to disparities in graduates' preparedness for the workforce.

To effectively promote career skills among these students, several strategies can be implemented. Strategy 1: Ensuring that students acquire the professional knowledge required for their specific career positions is fundamental, as this knowledge is the basis upon which all other skills are developed. Strategy 2: Developing the ability to solve problems encountered at work is crucial, as it prepares students to address challenges effectively and find practical solutions. Strategy 3: Encouraging proficiency in using computer software and tools related to their career is vital, as it enhances their ability to perform tasks efficiently and stay competitive in the job market. Strategy 4: Supporting active participation in professional training and continuing education is essential for keeping students' skills up-to-date and ensuring their competitiveness in an evolving job market. Strategy 5: Cultivating strong verbal and written communication skills is necessary for students to articulate their ideas clearly and collaborate effectively with others. Strategy 6: Promoting the understanding and application of the latest technologies and methods related to their profession will ensure that students are equipped to utilize cutting-edge tools and practices in their future careers.

### **3.What is the current state of sustainable development students' career psychology in higher vocational college in Hunan province? How can the sustainable development students' career psychology be promoted?**

The current state of sustainable development students' career psychology in higher vocational colleges, Hunan Province can be understood through a comprehensive analysis of various factors. These institutions have been successful in instilling a foundational understanding of the importance of sustainability in students' future careers, which contributes to a generally positive outlook and helps build a sense of purpose and direction among students. However, there is often insufficient focus on developing the psychological resilience necessary to manage career-related stress and uncertainties, which can lead to difficulties in emotional control and coping with pressure during career progression. The growing awareness of the need for mental health support in educational settings offers an opportunity to implement programs

focused on emotional resilience and psychological well-being, tailored specifically to career challenges. A significant challenge is the lack of consistent psychological support across different institutions, which may result in varying levels of mental preparedness among students, potentially affecting their ability to handle career pressures and achieve long-term success.

To enhance the career psychology of these students, the following strategies should be implemented. Strategy 1: Encouraging a positive and optimistic outlook on future careers is crucial, as it helps students approach their professional lives with confidence. Strategy 2: Developing psychological resilience to cope with career pressure is essential for maintaining mental health and stability in challenging situations. Strategy 3: Promoting good emotional control, even under high work pressure, will enable students to manage stress effectively and maintain productivity. Strategy 4: Supporting the ability to balance work and personal life is key to sustaining mental health, preventing burnout, and fostering a fulfilling career. Strategy 5: Mentally preparing students for the difficulties that may arise during their careers will help them approach challenges with a problem-solving mindset. Strategy 6: Emphasizing the importance of achieving self-worth and satisfaction in a career will encourage students to pursue careers that align with their values and personal goals. Strategy 7: Promoting effective coping strategies for career changes and uncertainties will help students maintain psychological stability and adaptability. Strategy 8: Supporting the maintenance of self-motivation and continuous progress is vital for long-term career success and personal growth.

#### **4.What is the current state of sustainable development students' career planning in higher vocational college in Hunan province? How can the sustainable development students' career planning be promoted?**

The current state of sustainable development students' career planning in higher vocational colleges, Hunan Province can be understood through an in-depth analysis of various factors. Students generally demonstrate a strong understanding of the importance of career planning, especially in fields related to sustainability. This awareness often leads to a proactive approach to setting career goals and pursuing



relevant opportunities. However, many students face challenges in regularly evaluating and adjusting their career plans due to a lack of access to consistent guidance and mentorship. This gap often results in uncertainty about the specific skills and knowledge required to achieve their career objectives. The availability of career counseling services and tools presents an opportunity for institutions to enhance support for students, helping them refine their career plans and align them with industry demands. A significant challenge is the dynamic nature of the job market, particularly in sustainability-related fields, which poses a risk for students whose career plans may become outdated or misaligned with evolving industry needs.

To promote effective career planning among these students, the following strategies should be implemented. Strategy 1: Establishing clear goals and plans for their careers is essential for providing direction and focus. This will help students prioritize their efforts and stay on track toward their professional objectives. Strategy 2: Regularly evaluating and adjusting career goals is important to ensure that students remain aligned with their evolving interests and the changing job market. Strategy 3: Seeking advice and guidance from mentors, teachers, or career advisors will provide students with valuable insights and help them navigate their career paths more effectively. Strategy 4: Understanding the specific skills and knowledge needed to achieve career goals is crucial for ensuring that students are well-prepared to meet industry expectations. Strategy 5: Actively seeking internships and job opportunities related to their career goals will provide students with practical experience and strengthen their resumes. Strategy 6: Considering long-term development in career planning will encourage students to think beyond immediate job opportunities and focus on sustained career growth. Strategy 7: Understanding job market demand and adjusting career development directions accordingly will help students stay competitive and relevant in their chosen fields. Strategy 8: Conducting effective risk assessment and management in career development will equip students with the tools to anticipate and mitigate potential challenges, ensuring a smoother career trajectory.

**Interviewee 3:**

**1. What is the current state of sustainable development students' career ethics in higher vocational college in Hunan province? How can the sustainable development students' career ethics be promoted?**

The current state of sustainable development students' career planning in higher vocational colleges, Hunan Province can be understood through a detailed examination of various factors. Students generally show a strong awareness of the importance of career planning, particularly in sustainability-related fields. This awareness often drives a proactive approach to setting career goals and seeking relevant opportunities. However, many students struggle with regularly evaluating and adapting their career plans due to limited access to consistent guidance and mentorship. This gap frequently leads to uncertainty regarding the specific skills and knowledge needed to achieve their career objectives. The availability of career counseling services and tools provides an opportunity for institutions to better support students in refining their career plans and aligning them with industry demands. A key challenge remains the dynamic nature of the job market, especially in sustainability-related sectors, which risks leaving students' career plans outdated or misaligned with the evolving needs of the industry.

To effectively promote the career ethics of sustainable development students, several strategies should be implemented. Strategy 1: Ensuring that students acquire the professional knowledge necessary for their specific career positions will solidify their understanding of the ethical standards required in their respective fields. Strategy 2: Implementing time management strategies is crucial to instill a sense of responsibility and ethical discipline in completing tasks, thereby reinforcing ethical practices. Strategy 3: Encouraging effective teamwork and communication will not only enhance collaborative efforts but also foster a collective sense of responsibility towards ethical behavior in the workplace. These strategies will collectively ensure that sustainable development students are well-equipped to navigate the ethical challenges they may encounter in their professional careers.

**2.What is the current state of sustainable development students' career skills in higher vocational college in Hunan province? How can the sustainable development students' career skills be promoted?**

The current state of sustainable development students' career skills in higher vocational colleges, Hunan Province can be effectively assessed through a comprehensive analysis of various factors. These institutions have developed a curriculum that provides a strong foundational knowledge base, particularly emphasizing the importance of sustainability and the necessary skills for careers in this field. This structured approach equips students with the theoretical understanding required for their professional roles. However, there remains a considerable gap in the practical application of these skills, especially in areas such as problem-solving and the use of specialized software tools, which are crucial in modern workplace environments. The increasing demand for sustainability professionals offers an excellent opportunity for colleges to enhance their training programs, particularly by integrating the latest technologies and methods into the learning process. A significant challenge is the inconsistency in training quality across different institutions, which may lead to disparities in skill levels among graduates, potentially affecting their job readiness.

To promote the career skills of sustainable development students, the following strategies are recommended. Strategy 1: Ensuring that students acquire the professional knowledge required for their specific career positions is essential, as this forms the basis for their ability to excel in their roles. Strategy 2: Developing the ability to solve work-related problems is vital, as it equips students with the necessary tools to handle challenges effectively in the workplace. Strategy 3: Encouraging proficiency in using relevant computer software and tools will significantly enhance students' technical capabilities, making them more competitive in the job market. Strategy 4: Cultivating strong verbal and written communication skills is crucial for enabling students to convey their ideas clearly and collaborate efficiently with colleagues. Strategy 5: Promoting the understanding and application of the latest technologies and methods related to their profession is key to ensuring that students remain at the forefront of industry developments and can adapt to new advancements.

**3.What is the current state of sustainable development students' career psychology in higher vocational college in Hunan province? How can the sustainable development students' career psychology be promoted?**

The current state of sustainable development students' career psychology in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. Students in these institutions generally possess a strong sense of purpose and are motivated by the prospect of contributing to sustainability, which creates a positive psychological foundation and fosters optimism about their future careers. However, there is often insufficient support for developing the psychological resilience needed to manage career-related stress and pressure. Many students struggle to balance their work and personal lives, leading to burnout and decreased mental health. The growing recognition of the need for psychological support in education provides an opportunity to implement programs that focus on mental health and resilience, specifically tailored to the challenges students will face in their careers. A significant challenge is the inconsistent psychological support across different institutions, which can result in varying levels of career preparedness and mental stability among graduates, potentially impacting their long-term success and well-being.

To promote the career psychology of these students, several strategies should be implemented. Strategy 1: Encouraging students to maintain an optimistic and positive outlook on their future careers is crucial, as it fosters confidence and motivation. Strategy 2: Developing psychological resilience to cope with career pressure is essential for students to handle stress and challenges effectively. Strategy 3: Supporting the ability to balance work and personal life is key to maintaining mental health and preventing burnout, ensuring long-term career satisfaction. Strategy 4: Mentally preparing students for the difficulties they may encounter during their career development will help them approach challenges with a problem-solving mindset. Strategy 5: Encouraging students to seek help and support when facing difficulties at work will promote a healthier approach to overcoming obstacles and ensure they do not feel isolated in their challenges. Strategy 6: Emphasizing the importance of

achieving self-worth and satisfaction in a career will motivate students to pursue roles that align with their values and personal goals, leading to greater fulfillment. Strategy 7: Promoting effective coping mechanisms for career changes and uncertainties will help students maintain psychological stability and adaptability, which are crucial for long-term success.

#### **4.What is the current state of sustainable development students' career planning in higher vocational college in Hunan province? How can the sustainable development students' career planning be promoted?**

The current state of sustainable development students' career planning in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. Students are generally aware of the importance of career planning and often establish initial goals aligned with their aspirations in sustainability, reflecting a proactive attitude toward their future careers. However, there is a tendency for students to overlook the regular evaluation and adjustment of their career plans, which can lead to misalignment with evolving industry trends and personal growth. Additionally, a lack of clear understanding of the specific skills and knowledge required to achieve their goals can hinder progress. There are growing opportunities for career guidance and mentorship programs that can provide students with the necessary advice and direction to refine their career plans. A significant challenge is the rapidly changing job market, particularly in sustainability sectors, which poses a risk for students who do not regularly update their career strategies, potentially leaving them unprepared for future challenges.

To promote effective career planning among these students, the following strategies are recommended. Strategy 1: Establishing clear career goals and plans is fundamental for providing direction and motivation. This clarity will help students focus their efforts on achieving their desired outcomes. Strategy 2: Regularly evaluating and adjusting career goals is essential to ensure alignment with both personal growth and market demands, preventing stagnation. Strategy 3: Seeking advice and guidance from mentors, teachers, or career advisors will provide valuable insights, helping students navigate their career paths more effectively. Strategy 4: Understanding the specific skills

and knowledge needed to achieve career goals is crucial for ensuring that students are adequately prepared for their chosen fields. Strategy 5: Balancing career planning with personal life goals is important for achieving overall development, ensuring that students do not sacrifice personal well-being for career success. Strategy 6: Considering long-term development in career planning encourages students to think beyond immediate job prospects, fostering sustained growth and adaptability. Strategy 7: Understanding job market demand and adjusting career development direction accordingly will help students remain competitive and aligned with industry trends, ensuring the relevance of their career plans over time.

**Interviewee 4:**

**1.What is the current state of sustainable development students' career ethics in higher vocational college in Hunan province? How can the sustainable development students' career ethics be promoted?**

The current state of sustainable development students' career ethics in higher vocational colleges, Hunan Province can be understood through a comprehensive analysis of various factors. The curriculum in these institutions has been thoughtfully designed to incorporate ethical principles, providing students with a strong theoretical foundation in understanding career ethics. However, despite this solid foundation, there is a notable deficiency in practical application, as students often lack the experience necessary to effectively translate theoretical knowledge into ethical practices within the workplace. The growing emphasis on sustainable development in the global job market offers an opportunity for colleges to further develop their ethics programs, ensuring they remain relevant and competitive. A significant challenge is the potential for inconsistency in the ethical standards being taught across various institutions, which could result in a workforce with uneven ethical competencies.

To enhance the career ethics of sustainable development students, several strategies can be employed. Strategy 1: Ensuring that students have the requisite professional knowledge for their career positions will lay the groundwork for understanding and applying ethical principles effectively. Strategy 2: Implementing robust time management strategies will help students develop a disciplined approach

to their work, ensuring tasks are completed ethically and efficiently. Strategy 3: Promoting teamwork and fostering a culture of efficient communication will enable students to navigate ethical dilemmas collectively, drawing on diverse perspectives to arrive at sound decisions. Strategy 4: Developing problem-solving abilities is essential for students to effectively address and resolve ethical issues that arise in the workplace. Strategy 5: Fostering adaptability will empower students to remain ethically grounded even in the face of changes and challenges, ensuring their actions are consistent with ethical standards regardless of the circumstances.

**2.What is the current state of sustainable development students' career skills in higher vocational college in Hunan province? How can the sustainable development students' career skills be promoted?**

The current state of sustainable development students' career skills in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. The curriculum is well-structured, providing students with essential theoretical knowledge and a solid understanding of sustainability concepts, which forms a strong foundation for career skills development. However, there is a significant gap in the practical application of these skills, particularly in problem-solving and the use of advanced technologies, which are critical for adapting to real-world job requirements. The growing emphasis on sustainability in the global job market presents a unique opportunity for these institutions to enhance and expand their training programs, especially by incorporating more hands-on experiences and the latest technological advancements. A key challenge is the inconsistency in the quality of training across different institutions, which could lead to disparities in the skill levels of graduates, ultimately affecting their ability to compete in the job market.

To effectively promote the career skills of these students, the following strategies are recommended. Strategy 1: Ensuring that students acquire the professional knowledge required for their specific career positions is essential, as this forms the foundation for their practical skills and professional development. Strategy 2: Developing the ability to solve problems encountered at work is crucial, as it equips students with the tools necessary to navigate challenges effectively in their careers.

Strategy 3: Supporting active participation in professional training and continuing education is vital for enhancing career competitiveness, enabling students to stay current with industry trends and advancements. Strategy 4: Cultivating strong verbal and written communication skills will help students articulate their ideas clearly and collaborate effectively in professional settings. Strategy 5: Promoting the understanding and application of the latest technologies and methods related to their profession will ensure that students are prepared to adapt to and excel in rapidly changing work environments.

**3. What is the current state of sustainable development students' career psychology in higher vocational college in Hunan province? How can the sustainable development students' career psychology be promoted?**

The current state of sustainable development students' career psychology in higher vocational colleges, Hunan Province can be understood through a comprehensive analysis of various factors. These students generally exhibit a strong sense of purpose and a positive outlook toward their future careers in sustainability. This optimism is reinforced by a clear understanding of the value and impact of their chosen field, which provides them with motivation and a sense of direction. However, many students face challenges in developing the psychological resilience necessary to cope with the pressures and uncertainties inherent in their career paths. Emotional control under stress and balancing work with personal life are areas where students often struggle, potentially leading to burnout. The increasing focus on mental health in educational settings offers an opportunity to enhance support systems, fostering resilience and better emotional regulation among students. A significant challenge is the inconsistent access to psychological support and guidance across different institutions, which can lead to varying levels of mental preparedness among graduates, potentially affecting their career success and overall well-being.

To promote the career psychology of these students, the following strategies should be implemented. Strategy 1: Encouraging an optimistic and positive outlook on future careers is essential, as it helps students maintain confidence and motivation. Strategy 2: Developing psychological resilience to cope with career pressure is crucial



for enabling students to manage stress effectively and maintain emotional stability. Strategy 3: Promoting the ability to maintain good emotional control, even under high work pressure, will help students navigate challenging situations without compromising their mental health. Strategy 4: Supporting the ability to balance work and personal life is key to sustaining mental health and preventing burnout, ensuring long-term career satisfaction. Strategy 5: Mentally preparing students for the difficulties they may face during their career development will help them approach challenges with a proactive and resilient mindset. Strategy 6: Encouraging students to seek help and support when encountering difficulties at work is vital for fostering a healthy approach to problem-solving and stress management. Strategy 7: Emphasizing the importance of achieving self-worth and satisfaction in their careers will motivate students to pursue roles that align with their personal values and goals. Strategy 8: Promoting effective coping mechanisms for career changes and uncertainties will help students maintain psychological stability and adaptability. Strategy 9: Supporting self-motivation and continuous progress in their careers will ensure that students remain driven and committed to their professional growth, even in the face of challenges.

#### **4. What is the current state of sustainable development students' career planning in higher vocational college in Hunan province? How can the sustainable development students' career planning be promoted?**

The current state of sustainable development students' career planning in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. Many students have a foundational understanding of the importance of career planning and are motivated to establish goals that align with their aspirations in sustainability. This foundational knowledge provides a solid starting point for effective career planning. However, there is often a lack of regular evaluation and adjustment of career goals, which can lead to misalignment with industry trends and personal development. Additionally, some students may not fully grasp the specific skills and knowledge required to reach their career objectives, limiting their progress. The increasing availability of internships and job opportunities in the sustainability sector offers students valuable practical experiences to refine their career plans. A

significant challenge is the dynamic nature of the job market, particularly in sustainability fields, which requires students to conduct ongoing risk assessment and management in their career planning. Without this, they risk falling behind industry demands.

To promote effective career planning among these students, the following strategies should be implemented. Strategy 1: Regularly evaluating one's career goals and plans is crucial for ensuring that they remain aligned with both personal aspirations and market demands. This ongoing assessment will allow for necessary adjustments to keep career paths relevant. Strategy 2: Understanding the specific skills and knowledge required to achieve career goals is essential for ensuring that students are well-prepared to meet industry expectations. Strategy 3: Actively seeking internships and job opportunities related to career goals will provide students with the practical experience needed to succeed in their chosen fields. Strategy 4: Conducting effective risk assessment and management in career development is vital for anticipating and mitigating potential challenges, ensuring that students are equipped to navigate the uncertainties of their career paths.

**Interviewee 5:**

**1. What is the current state of sustainable development students' career ethics in higher vocational college in Hunan province? How can the sustainable development students' career ethics be promoted?**

The current state of sustainable development students' career ethics in higher vocational colleges, Hunan Province can be understood through a detailed examination of various factors. These institutions have made considerable efforts to integrate ethical principles related to sustainable development into their curricula, providing students with a solid foundation in career ethics. However, the practical application of these ethics remains limited, with students often lacking opportunities to engage in real-world scenarios that test their ethical decision-making skills. The increasing importance of sustainability in the global market creates a favorable environment for further enhancing ethical education, particularly through experiential learning. A significant challenge lies in ensuring consistency across institutions in

teaching ethical standards, which could result in varying levels of ethical competence among graduates.

To promote the career ethics of sustainable development students, the following strategies are recommended. Strategy 1: Ensuring that students possess the necessary professional knowledge for their specific career paths is crucial for grounding them in the ethical standards relevant to their fields. Strategy 2: Implementing effective time management strategies will instill a sense of responsibility and accountability, essential components of ethical behavior. Strategy 3: Promoting teamwork and fostering effective communication skills will not only enhance collaboration but also ensure that ethical considerations are integrated into group decision-making processes. Strategy 4: Developing problem-solving abilities is key to equipping students with the skills needed to address ethical dilemmas effectively and find solutions that align with professional standards. Strategy 5: Fostering adaptability will help students maintain ethical integrity even when faced with changes or challenges in the workplace, ensuring they remain committed to ethical principles regardless of external pressures.

## **2.What is the current state of sustainable development students' career skills in higher vocational college in Hunan province? How can the sustainable development students' career skills be promoted?**

The current state of sustainable development students' career skills in higher vocational colleges, Hunan Province can be understood through a comprehensive analysis of various factors. The institutions have established a curriculum that provides students with foundational knowledge of sustainability principles, which is essential for developing career-related skills. This theoretical grounding gives students a strong start in understanding their future professional roles. However, the transition from theoretical knowledge to practical skill application remains challenging. Students often lack the hands-on experience needed to effectively solve real-world problems, particularly in using modern tools and technologies. The growing demand for professionals with strong sustainability skills presents an opportunity for these institutions to enhance their training programs by incorporating more practical experiences and technology-driven learning. A significant challenge is the uneven

quality of skills training across different colleges, which could lead to inconsistencies in the preparedness of graduates, potentially affecting their employability.

To enhance the career skills of sustainable development students, several strategies should be implemented. Strategy 1: Developing the ability to solve problems encountered at work is essential, as it equips students with the practical skills needed to navigate and overcome challenges in their careers. Strategy 2: Encouraging proficiency in using computer software and tools related to their careers will help students stay competitive and efficient in their work. Strategy 3: Supporting active participation in professional training and continuing education is crucial for keeping students' skills current and relevant, ensuring they remain competitive in the job market. Strategy 4: Cultivating good verbal and written communication skills is vital for effective collaboration and professional success. Strategy 5: Promoting the understanding and application of the latest technologies and methods will prepare students to adapt to industry advancements, ensuring they can contribute effectively to their professions.

### **3.What is the current state of sustainable development students' career psychology in higher vocational college in Hunan province? How can the sustainable development students' career psychology be promoted?**

The current state of sustainable development students' career psychology in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. Students generally display a strong sense of purpose and optimism regarding their future careers in sustainability. This positive mindset is reinforced by their understanding of the impact they can make in their chosen field, which provides motivation and direction. However, many students lack the psychological resilience needed to cope with the pressures and challenges of their careers. Issues such as maintaining emotional control under stress and balancing work with personal life are common, potentially leading to burnout and decreased mental well-being. The growing emphasis on mental health within educational institutions offers an opportunity to enhance support structures, enabling students to develop greater resilience and better emotional regulation. A significant challenge is the

inconsistent availability of psychological support across different institutions, which could result in uneven levels of preparedness among graduates, potentially impacting their career success and personal well-being.

To promote the career psychology of these students, several strategies should be implemented. Strategy 1: Encouraging students to maintain an optimistic and positive outlook on their future careers is essential, as it helps sustain motivation and confidence. Strategy 2: Developing psychological resilience to cope with career pressure is crucial, allowing students to handle stress and challenges more effectively. Strategy 3: Promoting good emotional control, even under high work pressure, is vital for ensuring that students can navigate stressful situations without compromising their mental health. Strategy 4: Supporting the ability to balance work and personal life is key to maintaining overall well-being, preventing burnout, and ensuring long-term career satisfaction. Strategy 5: Mentally preparing students for potential difficulties in their career development will equip them with a proactive mindset, ready to tackle challenges head-on. Strategy 6: Encouraging students to seek help and support when facing difficulties at work is important for promoting a healthy approach to managing stress and overcoming obstacles. Strategy 7: Emphasizing the importance of achieving self-worth and satisfaction in a career will motivate students to pursue paths that align with their values and goals. Strategy 8: Supporting the maintenance of self-motivation and continuous progress in their careers will help students remain driven and committed to their professional growth, ensuring long-term success.

#### **4.What is the current state of sustainable development students' career planning in higher vocational college in Hunan province? How can the sustainable development students' career planning be promoted?**

The current state of sustainable development students' career planning in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. Many students demonstrate a strong motivation to plan their careers, often setting initial goals that align with their aspirations in sustainability. This reflects an understanding of the importance of career planning and a proactive attitude toward their professional futures. However, there is often a lack of clarity in

how to implement these goals effectively. Students may not seek sufficient guidance from mentors or career advisors, leading to gaps in their planning process. Additionally, there is sometimes inadequate consideration of how to balance career planning with personal life goals, which can result in stress and burnout. The availability of internships and job opportunities in sustainability sectors provides practical avenues for students to gain relevant experience and refine their career plans. A significant challenge is the rapidly changing job market, particularly in sustainability fields, which requires students to be adaptable in their career planning. Without effective risk assessment and management, career plans may become misaligned with market realities.

To enhance the effectiveness of career planning among these students, the following strategies are recommended. Strategy 1: Establishing clear and specific career goals is essential, as it provides direction and a framework for decision-making. Strategy 2: Seeking advice and guidance from mentors, teachers, or career advisors is crucial for refining career plans and ensuring they are realistic and achievable. Strategy 3: Actively seeking internships and job opportunities related to career goals will give students practical experience and enhance their employability. Strategy 4: Balancing career planning with personal life goals is important for maintaining overall well-being and ensuring sustainable career growth. Strategy 5: Considering long-term development in career planning will help students focus on sustained career growth rather than short-term gains. Strategy 6: Understanding job market demand and adjusting career development direction accordingly will keep students competitive and aligned with industry needs. Strategy 7: Conducting effective risk assessment and management in career development is vital for anticipating potential challenges and making informed decisions that support long-term success.

**Interviewee 6:**

**1. What is the current state of sustainable development students' career ethics in higher vocational college in Hunan province? How can the sustainable development students' career ethics be promoted?**

The current state of sustainable development students' career ethics in higher vocational colleges, Hunan Province can be understood through a comprehensive

analysis of various factors. There is a well-established emphasis on ethical education within the curriculum, providing students with a foundational understanding of career ethics. This focus aligns with the global trend towards sustainable development, ensuring that students are exposed to essential ethical principles. However, despite this strong theoretical base, the practical application of ethical principles in real-world settings remains underdeveloped. Students often struggle to translate these principles into actions within real-world scenarios. The growing importance of ethical behavior in the workplace, particularly in industries focused on sustainability, offers an opportunity to enhance and adapt educational programs to better prepare students for the ethical challenges they will face. A significant challenge is the potential disparity in how different institutions implement ethical education, which could lead to inconsistencies in the ethical readiness of graduates entering the workforce.

To effectively promote the career ethics of sustainable development students, the following strategies are recommended. Strategy 1: Implementing time management strategies is crucial to ensure tasks are completed efficiently and ethically, as time management directly impacts the quality and integrity of work. Strategy 2: Promoting teamwork and fostering effective communication skills will be essential for students to navigate ethical challenges collaboratively, ensuring that diverse perspectives are considered in ethical decision-making. Strategy 3: Developing problem-solving abilities will empower students to address and resolve ethical dilemmas in the workplace, enabling them to find solutions that uphold ethical standards while achieving organizational goals. By focusing on these strategies, students will be better equipped to handle the complexities of ethical decision-making in their professional careers.

**2.What is the current state of sustainable development students' career skills in higher vocational college in Hunan province? How can the sustainable development students' career skills be promoted?**

The current state of sustainable development students' career skills in higher vocational colleges, Hunan Province can be understood through a detailed examination of various factors. The colleges offer a well-rounded curriculum that

integrates fundamental sustainability concepts with essential career skills, providing students with a strong theoretical foundation. This foundation prepares them to enter the workforce with a basic understanding of their professional responsibilities. However, a significant challenge lies in the gap between theoretical knowledge and practical application. Students often struggle to apply their learning to real-world scenarios, particularly in problem-solving and the use of specialized tools and technologies. The increasing demand for sustainability professionals presents an opportunity for these colleges to refine their training programs, especially by incorporating more hands-on experiences and up-to-date technological training. A key challenge is the inconsistency in training quality across different institutions, which can lead to disparities in the skill levels of graduates, potentially affecting their ability to compete in the job market.

To enhance the career skills of sustainable development students, the following strategies are recommended. Strategy 1: Developing the ability to solve work-related problems is crucial, as it equips students with the practical skills needed to address challenges effectively in their careers. Strategy 2: Encouraging proficiency in using relevant computer software and tools is essential for ensuring that students can perform their tasks efficiently and meet industry standards. Strategy 3: Supporting active participation in professional training and continuing education is key to enhancing students' competitiveness, enabling them to stay current with industry advancements and maintain their relevance in the job market. Strategy 4: Cultivating strong verbal and written communication skills is necessary for effective collaboration and clear articulation of ideas in professional settings. Strategy 5: Promoting the understanding and application of the latest technologies and methods in their profession will ensure that students are equipped to handle the evolving demands of their careers, making them more adaptable and effective in their roles.

**3.What is the current state of sustainable development students' career psychology in higher vocational college in Hunan province? How can the sustainable development students' career psychology be promoted?**

The current state of sustainable development students' career psychology in higher vocational colleges, Hunan Province can be understood through a detailed



analysis of various factors. Students often exhibit a strong sense of purpose and optimism about their future careers, driven by the belief in the positive impact they can make in the field of sustainability. This optimism provides a solid psychological foundation for their career development. However, there is a noticeable lack of psychological resilience among students, particularly when dealing with career pressures and the emotional demands of their chosen profession. Many students struggle to maintain emotional control under stress and find it challenging to balance work with personal life, which can lead to burnout. The increasing awareness of the importance of mental health in educational settings offers an opportunity to introduce more robust psychological support systems aimed at enhancing resilience and emotional regulation among students. A significant challenge is the inconsistent access to psychological resources and support across different institutions, which may lead to varied levels of career readiness and psychological stability among graduates, potentially hindering their professional success.

To enhance the career psychology of these students, the following strategies should be implemented. Strategy 1: Encouraging a positive and optimistic outlook on future careers is crucial, as it helps maintain motivation and a proactive approach to career challenges. Strategy 2: Developing psychological resilience to cope with career pressure is essential for students to handle stress and uncertainty effectively, ensuring long-term mental health. Strategy 3: Promoting good emotional control, even under high work pressure, will enable students to manage stressful situations without compromising their well-being. Strategy 4: Supporting the ability to balance work and personal life is key to preventing burnout and maintaining overall mental health, which is vital for sustained career satisfaction. Strategy 5: Mentally preparing students for potential difficulties in their career paths will help them approach challenges with a problem-solving mindset, enhancing their ability to overcome obstacles. Strategy 6: Promoting effective coping strategies for career changes and uncertainties will help students maintain psychological stability, ensuring they remain adaptable and resilient in the face of evolving career demands. Strategy 7: Supporting self-motivation and

continuous progress in their careers is crucial for ensuring that students remain driven and committed to their professional growth, leading to long-term success.

**4.What is the current state of sustainable development students' career planning in higher vocational college in Hunan province? How can the sustainable development students' career planning be promoted?**

The current state of sustainable development students' career planning in higher vocational colleges, Hunan Province can be understood through a comprehensive analysis of various factors. Many students exhibit an awareness of the importance of career planning and often set initial goals aligned with their aspirations in sustainability, reflecting a proactive approach to career development. However, there is often a lack of regular evaluation and adjustment of these career plans, leading to misalignment with evolving industry demands. Additionally, students may not fully understand the specific skills and knowledge required to achieve their career goals, which can hinder their progress. The availability of internships and practical job opportunities in sustainability sectors offers students the chance to gain relevant experience and refine their career plans. A significant challenge is the dynamic nature of the job market, especially in sustainability, which requires students to regularly reassess and adapt their career plans. Without effective risk assessment, students may find their career paths misaligned with market realities.

To enhance career planning among these students, several strategies should be implemented. Strategy 1: Establishing clear and specific career goals is essential for providing direction and focus in career development. Strategy 2: Regularly evaluating and adjusting career goals and plans is crucial to ensure they remain aligned with both personal growth and industry demands. Strategy 3: Seeking advice and guidance from mentors, teachers, or career advisors is important for refining career strategies and making informed decisions. Strategy 4: Understanding the specific skills and knowledge needed to achieve career goals is necessary for ensuring students are well-prepared to meet industry expectations. Strategy 5: Actively seeking internships and job opportunities related to career goals provides practical experience, helping students build a strong foundation for their future careers. Strategy 6: Considering long-term

development in career planning ensures that students focus not just on immediate job opportunities but also on sustained career growth. Strategy 7: Understanding job market demand and adjusting career development direction accordingly will help students stay competitive and aligned with industry trends. Strategy 8: Conducting effective risk assessment and management in career development is vital for anticipating and mitigating potential challenges, ensuring long-term career success.

**Interviewee 7:**

**1. What is the current state of sustainable development students' career ethics in higher vocational college in Hunan province? How can the sustainable development students' career ethics be promoted?**

The current state of sustainable development students' career ethics in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. Hunan's vocational colleges have made significant progress in embedding ethical education within their curricula, particularly focusing on sustainability, which provides students with a solid theoretical foundation in career ethics. However, there is a noticeable gap between theoretical understanding and practical application. Students often struggle to implement ethical principles effectively in real-world work environments, indicating a need for more hands-on training. The increasing demand for ethically aware professionals in the global workforce, especially within sustainability-focused industries, presents a strong opportunity to enhance the practical aspects of ethics education, making students more market-ready. A significant challenge lies in the inconsistencies across different institutions in teaching and applying ethical standards, which could lead to uneven levels of ethical competence among graduates, potentially affecting their professional credibility.

To effectively promote the career ethics of sustainable development students, the following strategies should be considered. Strategy 1: Ensuring that students possess the necessary professional knowledge for their career paths is essential for grounding them in relevant ethical standards, helping them to make informed decisions. Strategy 2: Implementing time management strategies is crucial for

fostering a disciplined approach to work, ensuring that tasks are completed on time and ethically. Strategy 3: Promoting teamwork and encouraging effective communication will help students collaborate on ethical decision-making, allowing them to consider diverse viewpoints and arrive at more ethical solutions. Strategy 4: Developing problem-solving skills is vital for students to effectively address and resolve ethical dilemmas they may encounter in their careers. Strategy 5: Fostering adaptability will empower students to maintain their ethical standards even when facing new or challenging situations in the workplace, ensuring they can navigate changes without compromising on ethics.

## **2.What is the current state of sustainable development students' career skills in higher vocational college in Hunan province? How can the sustainable development students' career skills be promoted?**

The current state of sustainable development students' career skills in higher vocational colleges, Hunan Province can be understood through a comprehensive analysis of various factors. The educational programs in these institutions are designed to provide a strong theoretical foundation in sustainability, ensuring that students are well-versed in the basic principles required for their future careers. This approach equips students with essential knowledge that aligns with industry needs. However, despite this solid theoretical grounding, there is a noticeable gap in practical skills, particularly in problem-solving and the use of modern software tools. Students often lack the hands-on experience necessary to apply their knowledge effectively in real-world situations. The growing demand for professionals skilled in sustainability offers a significant opportunity for these colleges to enhance their programs by incorporating more practical training and technology-focused learning. A key challenge is the inconsistent quality in skill development across different institutions, which could lead to disparities in graduate preparedness, impacting their ability to compete in the job market.

To promote the career skills of sustainable development students, the following strategies are recommended. Strategy 1: Ensuring that students acquire the professional knowledge required for their specific career positions is fundamental, as

this knowledge forms the basis for their success in the workforce. Strategy 2: Developing the ability to solve problems encountered at work is crucial, as it prepares students to address challenges effectively and find viable solutions in their professional roles. Strategy 3: Encouraging proficiency in using computer software and tools related to their careers is vital, as it enables students to perform tasks efficiently and stay competitive in their fields. Strategy 4: Supporting active participation in professional training and continuing education is essential for enhancing students' career competitiveness, ensuring they remain current with industry trends and advancements. By implementing these strategies, students will be better equipped to meet the demands of their careers and succeed in a rapidly evolving job market.

**3.What is the current state of sustainable development students' career psychology in higher vocational college in Hunan province? How can the sustainable development students' career psychology be promoted?**

The current state of sustainable development students' career psychology in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. These students generally exhibit a strong sense of purpose and optimism about their future careers in sustainability, reinforced by their belief in the meaningful impact they can have in their chosen field. However, many students lack the psychological resilience necessary to handle career pressures effectively. They often struggle with the emotional demands of their roles, highlighting the need for better mental preparation to face potential difficulties during their career development. The increasing focus on mental health in education provides an opportunity to introduce programs that build psychological resilience and prepare students for the challenges they will encounter. A significant challenge is the uneven availability of psychological support across different institutions, which may lead to inconsistent levels of mental preparedness among graduates, potentially affecting their ability to succeed in their careers.

To promote the career psychology of these students, several strategies should be implemented. Strategy 1: Encouraging students to maintain an optimistic and positive outlook on their future careers is essential, as it fosters confidence and

motivation. Strategy 2: Developing psychological resilience to cope with career pressures is crucial, enabling students to manage stress and challenges effectively. Strategy 3: Mentally preparing students for difficulties that may arise during their career development will equip them with the tools to face obstacles with a proactive mindset. Strategy 4: Encouraging students to seek help and support when encountering difficulties at work is important for promoting a healthy approach to managing stress and overcoming challenges. Strategy 5: Emphasizing the importance of achieving self-worth and satisfaction in their careers will inspire students to pursue paths that align with their values and personal goals. Strategy 6: Promoting effective coping strategies for career changes and uncertainties will help students maintain psychological stability and adaptability. Strategy 7: Supporting the maintenance of self-motivation and continuous progress in their careers will ensure that students remain driven and committed to their professional growth, leading to long-term success.

4. What is the current state of sustainable development students' career planning in higher vocational college in Hunan province? How can the sustainable development students' career planning be promoted?

The current state of sustainable development students' career planning in higher vocational colleges, Hunan Province can be understood through a comprehensive analysis of various factors. Students often demonstrate a proactive approach to career planning, with many establishing clear initial goals aligned with their sustainability aspirations. This reflects a strong commitment to their future careers. However, there is often a lack of regular evaluation and adjustment of these career plans, leading to potential misalignment with industry developments and personal growth. Additionally, students may not fully grasp the specific skills and knowledge required to achieve their goals, which can hinder their progress. The availability of internships and practical job opportunities in sustainability sectors provides students with the opportunity to refine their career plans and gain valuable experience. A significant challenge is the rapidly changing job market, particularly in sustainability fields, which necessitates continuous adaptation. Without effective risk assessment and

management, students' career plans may become outdated or misaligned with market needs.

To promote effective career planning, the following strategies should be implemented. Strategy 1: Establishing clear career goals and plans is essential for providing direction and ensuring that students remain focused on their objectives. Strategy 2: Regularly evaluating and adjusting career goals and plans is crucial for staying aligned with both personal development and industry demands. Strategy 3: Seeking advice and guidance from mentors, teachers, or career advisors is vital for refining career strategies and making informed decisions. Strategy 4: Understanding the specific skills and knowledge needed to achieve career goals is necessary to ensure that students are well-prepared for their chosen fields. Strategy 5: Actively seeking internships and job opportunities related to career goals provides practical experience and enhances employability. Strategy 6: Balancing career planning with personal life goals is important for achieving overall development and maintaining well-being. Strategy 7: Considering long-term development in career planning encourages students to focus on sustained career growth rather than just immediate job prospects. Strategy 8: Understanding job market demand and adjusting career development direction accordingly helps students remain competitive and aligned with industry trends. Strategy 9: Conducting effective risk assessment and management in career development is crucial for anticipating and mitigating potential challenges, ensuring long-term success.

**Interviewee 8:**

**1. What is the current state of sustainable development students' career ethics in higher vocational college in Hunan province? How can the sustainable development students' career ethics be promoted?**

The current state of sustainable development students' career ethics in higher vocational colleges, Hunan Province can be understood by analyzing various factors. These institutions have integrated ethical education into their curriculum, emphasizing sustainability and providing students with a theoretical foundation in ethical practices. This establishes a base for understanding the relevance of ethics in professional life.

However, despite this strong foundation, the practical application of these ethical principles remains underdeveloped. Students often lack real-world experiences to practice and refine their ethical decision-making skills. With the global shift towards sustainability and ethical practices in the workplace, there is a significant opportunity to enhance ethical training, particularly through experiential learning and case studies that mirror real-world challenges. A potential concern is the inconsistency in the quality of ethical training across different institutions, which could result in disparities in the ethical competencies of graduates entering the workforce.

To effectively promote the career ethics of sustainable development students, the following strategies should be implemented. Strategy 1: Ensuring that students acquire the professional knowledge required for their career positions is critical, as it provides the foundation for making informed ethical decisions relevant to their field. Strategy 2: Implementing effective time management strategies is essential for developing a disciplined approach to work, ensuring that tasks are completed on time without compromising ethical standards. Strategy 3: Promoting teamwork and fostering strong communication skills will enable students to collaborate effectively, ensuring that ethical considerations are thoroughly discussed and integrated into group decisions. Strategy 4: Developing problem-solving abilities is crucial for students to navigate and resolve ethical dilemmas they may encounter in their professional lives. Strategy 5: Fostering adaptability will help students remain ethically grounded even when faced with new challenges or changes in the workplace, ensuring that they can maintain their ethical standards in various situations.

## **2.What is the current state of sustainable development students' career skills in higher vocational college in Hunan province? How can the sustainable development students' career skills be promoted?**

The current state of sustainable development students' career skills in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. The institutions provide a comprehensive curriculum that equips students with a solid foundation in sustainability principles, essential for their future careers. This theoretical background helps students grasp the core concepts necessary



for their professional roles. However, there is a significant gap in the practical application of these skills, particularly in problem-solving and the use of modern software tools. Students often lack the real-world experience needed to effectively implement their knowledge in the workplace. The increasing demand for professionals with expertise in sustainability presents an opportunity for vocational colleges to enhance their programs by integrating more practical, hands-on training and up-to-date technological education. A significant challenge is the variability in the quality of training across different institutions, which may result in uneven skill levels among graduates, affecting their ability to secure competitive positions in the job market.

To effectively promote the career skills of these students, several strategies should be implemented. Strategy 1: Ensuring that students possess the professional knowledge required for their career positions is crucial, as this knowledge is the foundation upon which all other skills are built. Strategy 2: Developing the ability to solve problems encountered at work is essential for preparing students to navigate challenges and find effective solutions in their professional roles. Strategy 3: Encouraging proficiency in using computer software and tools related to their careers will help students perform tasks efficiently and remain competitive in their fields. Strategy 4: Supporting active participation in professional training and continuing education is vital for keeping students' skills current and enhancing their career competitiveness. Strategy 5: Cultivating good verbal and written communication skills is necessary for effective collaboration and professional success. Strategy 6: Promoting the understanding and application of the latest technologies and methods related to their profession will ensure that students are prepared to adapt to industry advancements and maintain a competitive edge.

**3.What is the current state of sustainable development students' career psychology in higher vocational college in Hunan province? How can the sustainable development students' career psychology be promoted?**

The current state of sustainable development students' career psychology in higher vocational colleges, Hunan Province can be understood through an analysis of various factors. Students in these institutions generally maintain a positive and

optimistic outlook on their future careers, often rooted in their understanding of the importance of sustainability and the impact they can have in their chosen field. However, there is a notable challenge in maintaining emotional control under high work pressure. Many students struggle with balancing work and personal life, leading to stress and decreased mental well-being. Additionally, there is often insufficient preparation for the psychological difficulties that may arise during career development. The increasing recognition of mental health's importance in educational settings offers an opportunity to integrate more support systems that help students develop emotional resilience and stability. A significant challenge is the inconsistent access to psychological resources across different institutions, which may result in varying levels of mental readiness among graduates, potentially affecting their career progression and overall well-being.

To enhance the career psychology of these students, the following strategies should be implemented. Strategy 1: Encouraging a positive and optimistic outlook on future careers is essential, as it helps sustain motivation and confidence. Strategy 2: Promoting the ability to maintain good emotional control, even under high work pressure, is crucial for ensuring that students can manage stress effectively and maintain productivity. Strategy 3: Supporting the balance between work and personal life is key to maintaining mental health and preventing burnout, which is vital for long-term career satisfaction. Strategy 4: Mentally preparing students for the potential difficulties they may face during their career development will equip them with the resilience needed to navigate challenges. Strategy 5: Encouraging students to seek help and support when encountering difficulties at work is important for fostering a healthy approach to overcoming obstacles and managing stress. Strategy 6: Promoting effective coping strategies for career changes and uncertainties will help students maintain psychological stability and adaptability. Strategy 7: Supporting the maintenance of self-motivation and continuous progress in their careers will ensure that students remain driven and committed to their professional growth, leading to sustained success.

**4.What is the current state of sustainable development students' career planning in higher vocational college in Hunan province? How can the sustainable development students' career planning be promoted?**

The current state of sustainable development students' career planning in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. Many students demonstrate an initial awareness of the importance of career planning and often set clear goals related to their sustainability interests, reflecting a strong commitment to their future careers. However, students often lack the habit of regularly evaluating and adjusting their career plans, which can lead to misalignment with industry trends and personal growth. Additionally, some students may not fully understand the specific skills and knowledge required to achieve their career goals, resulting in potential gaps in their preparation. The increasing availability of resources and opportunities for career guidance and mentorship can help students refine their career plans and stay aligned with market demands. A significant challenge is the rapidly evolving job market, particularly in sustainability-related fields, which requires students to continuously update their career plans to avoid their goals becoming outdated.

To enhance the effectiveness of career planning among these students, the following strategies are recommended. Strategy 1: Establishing clear career goals and plans is crucial for providing direction and helping students focus their efforts. Strategy 2: Regularly evaluating and adjusting career goals and plans is essential to ensure alignment with personal development and changing industry demands. Strategy 3: Seeking advice and guidance on career planning from mentors, teachers, or career advisors will provide valuable insights and help students navigate their career paths more effectively. Strategy 4: Understanding the specific skills and knowledge needed to achieve career goals is necessary for ensuring students are adequately prepared for their chosen fields. Strategy 5: Considering long-term development in career planning encourages students to think beyond immediate job opportunities, focusing on sustained career growth and adaptability. Strategy 6: Understanding job market

demand and adjusting career development direction accordingly is key to maintaining competitiveness and relevance in the rapidly changing job market.

**Interviewee 9:**

**1.What is the current state of sustainable development students' career ethics in higher vocational college in Hunan province? How can the sustainable development students' career ethics be promoted?**

The current state of sustainable development students' career ethics in higher vocational colleges, Hunan Province can be understood through a comprehensive analysis of various factors. The educational framework in these institutions is designed to incorporate ethical principles, particularly focusing on sustainability, providing students with a strong theoretical foundation in career ethics. However, there is a notable gap in translating this theoretical knowledge into practical applications. Students often find it challenging to apply ethical principles effectively in real-world scenarios, highlighting the need for more hands-on experiences. The rising global demand for sustainability-focused professions presents a significant opportunity to refine and expand ethics education, particularly through practical training that aligns with industry needs. A potential concern lies in the inconsistency across different institutions in teaching ethical standards, which may lead to varying levels of ethical competence among graduates, potentially affecting their career prospects.

To promote the career ethics of sustainable development students, the following strategies are recommended. Strategy 1: Ensuring that students possess the necessary professional knowledge for their respective career paths is fundamental to their ability to make ethically sound decisions in their professional roles. Strategy 2: Implementing effective time management strategies is crucial, as it fosters a sense of responsibility and discipline, ensuring that tasks are completed ethically and within deadlines. Strategy 3: Promoting teamwork and developing strong communication skills will enhance students' ability to collaborate effectively, integrating ethical considerations into their collective decision-making processes. Strategy 4: Fostering adaptability will empower students to navigate ethical challenges and changes in the

workplace, ensuring they can uphold ethical standards even in dynamic or uncertain environments.

**2.What is the current state of sustainable development students' career skills in higher vocational college in Hunan province? How can the sustainable development students' career skills be promoted?**

The current state of sustainable development students' career skills in higher vocational colleges, Hunan Province can be understood through a comprehensive analysis of various factors. The educational programs are well-structured, providing students with a strong theoretical foundation in sustainability and career-specific knowledge. This foundation equips students with the essential concepts and understanding needed for their professional roles. However, despite this robust theoretical background, there is a noticeable gap in the practical application of these skills, particularly in areas such as problem-solving and the use of industry-specific software tools. Students often lack the hands-on experience necessary to effectively transition from theory to practice. The increasing demand for sustainability experts in various industries offers a significant opportunity to enhance these programs by integrating more practical and technology-driven training. A key challenge is the inconsistency in the quality of education across different vocational institutions, which may lead to varying levels of skill among graduates, potentially affecting their ability to compete effectively in the job market.

To enhance the career skills of sustainable development students, the following strategies should be considered. Strategy 1: Ensuring that students possess the professional knowledge required for their specific career positions is critical, as it lays the groundwork for their overall skill development. Strategy 2: Developing the ability to solve problems encountered at work is crucial for enabling students to address challenges effectively and find practical solutions. Strategy 3: Encouraging proficiency in using computer software and tools related to their career is essential for ensuring students are equipped with the necessary technical skills to succeed in their roles. Strategy 4: Cultivating good verbal and written communication skills is vital for students to articulate their ideas clearly and collaborate efficiently in professional

settings. Strategy 5: Promoting the understanding and application of the latest technologies and methods in their profession will ensure that students remain competitive and are able to adapt to new advancements in their field.

**3.What is the current state of sustainable development students' career psychology in higher vocational college in Hunan province? How can the sustainable development students' career psychology be promoted?**

The current state of sustainable development students' career psychology in higher vocational colleges, Hunan Province can be understood through an analysis of various factors. Students often exhibit a positive and optimistic attitude toward their future careers in sustainability, driven by a sense of purpose and the meaningful impact they hope to achieve. This optimism is a valuable asset as they prepare to enter the workforce. However, many students lack the psychological resilience needed to manage the pressures associated with their careers. They may struggle with maintaining emotional control under stress and balancing their work and personal lives, which can lead to burnout and reduced mental well-being. The growing emphasis on mental health in education provides an opportunity to implement programs that build emotional resilience, prepare students for career challenges, and promote psychological stability. A significant challenge is the inconsistent psychological support across institutions, which may result in varying levels of preparedness, potentially hindering students' ability to cope with career changes and uncertainties.

To promote the career psychology of these students, several strategies should be implemented. Strategy 1: Encouraging a positive and optimistic outlook on future careers is crucial, as it helps sustain motivation and confidence. Strategy 2: Developing psychological resilience to cope with career pressures is essential, enabling students to manage stress and challenges more effectively. Strategy 3: Promoting the ability to maintain good emotional control, even under high work pressure, is key to ensuring that students can handle demanding situations without compromising their mental health. Strategy 4: Supporting the balance between work and personal life is vital for maintaining overall mental health and preventing burnout. Strategy 5: Mentally preparing students for potential difficulties during their career development will equip

them with the tools to approach challenges with a proactive mindset. Strategy 6: Encouraging students to seek help and support when encountering difficulties at work is important for fostering a healthy approach to overcoming obstacles. Strategy 7: Emphasizing the importance of achieving self-worth and satisfaction in a career will motivate students to pursue paths that align with their values and goals. Strategy 8: Promoting effective coping mechanisms for career changes and uncertainties will help students maintain psychological stability and adaptability. Strategy 9: Supporting self-motivation and continuous progress in their careers will ensure that students remain driven and committed to their professional growth, leading to long-term success.

#### **4.What is the current state of sustainable development students' career planning in higher vocational college in Hunan province? How can the sustainable development students' career planning be promoted?**

The current state of sustainable development students' career planning in higher vocational colleges, Hunan Province can be evaluated through a comprehensive analysis. Many students have a foundational understanding of the importance of career planning and often set initial goals that align with their sustainability aspirations. This proactive approach demonstrates their awareness and commitment to shaping their future careers. However, there is often a lack of regular evaluation and adjustment of these career plans, leading to potential misalignment with industry trends and personal growth. Additionally, students may not fully grasp the specific skills and knowledge needed to achieve their goals, resulting in preparation gaps. The increasing availability of internships and career guidance resources offers students the chance to refine their career plans and gain practical experience. A significant challenge is the dynamic nature of the job market, especially in sustainability-related fields, which requires students to regularly update their career strategies to stay prepared for industry shifts.

To enhance career planning among these students, the following strategies should be implemented. Strategy 1: Establishing clear career goals and plans is essential to provide students with a sense of direction and purpose. Strategy 2: Regularly evaluating and adjusting career goals and plans is crucial for staying aligned with both personal development and market demands. Strategy 3: Seeking advice and

guidance on career planning from mentors, teachers, or career advisors is important for refining strategies and making informed decisions. Strategy 4: Understanding the specific skills and knowledge needed to achieve career goals is necessary to ensure that students are well-prepared to meet industry expectations. Strategy 5: Actively seeking internships and job opportunities related to career goals will provide students with valuable experience and help them build a strong foundation for their careers. Strategy 6: Balancing career planning with personal life goals is vital to ensure that students achieve overall development and well-being. Strategy 7: Considering long-term development in career planning encourages students to focus on sustained growth rather than short-term gains. Strategy 8: Understanding job market demand and adjusting career development direction accordingly will help students remain competitive and aligned with industry trends.

**Interviewee 10:**

**1. What is the current state of sustainable development students' career ethics in higher vocational college in Hunan province? How can the sustainable development students' career ethics be promoted?**

The current state of sustainable development students' career ethics in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. The integration of ethical education with a focus on sustainability has become a cornerstone of the curriculum, providing students with a strong theoretical grounding in ethical practices. However, despite this solid foundation, the practical application of ethics in real-world scenarios remains underdeveloped, creating challenges in bridging the gap between theory and practice. The global shift towards sustainable practices presents an excellent opportunity to enhance ethical education, particularly through experiential learning and industry partnerships that offer students hands-on ethical decision-making experiences. A significant challenge is the inconsistency in the delivery of ethical education across different institutions, which may result in varied levels of ethical competence among graduates, potentially affecting their integration into the workforce.



To effectively promote the career ethics of these students, several strategies should be implemented. Strategy 1: Ensuring that students possess the professional knowledge required for their respective career positions is critical, as this knowledge forms the basis for making informed ethical decisions. Strategy 2: Implementing strategies to manage time effectively is essential, as this instills a disciplined approach to completing tasks on time, which is fundamental to ethical work practices. Strategy 3: Promoting teamwork and effective communication within the educational framework will encourage collaborative ethical decision-making, allowing students to navigate complex ethical issues together. Strategy 4: Developing the ability to solve problems encountered in the workplace is crucial for preparing students to address and resolve ethical dilemmas effectively. Strategy 5: Fostering the ability to adapt flexibly to changes and challenges will help students maintain their ethical standards in dynamic professional environments, ensuring that they can respond appropriately to unforeseen circumstances while upholding ethical principles.

**2.What is the current state of sustainable development students' career skills in higher vocational college in Hunan province? How can the sustainable development students' career skills be promoted?**

The current state of sustainable development students' career skills in higher vocational colleges, Hunan Province can be understood through an analysis of various factors. These institutions have established a curriculum that provides a strong theoretical foundation in sustainability, equipping students with the necessary knowledge to understand their roles in the workforce. This educational framework ensures that students are well-prepared in terms of fundamental concepts related to their careers. However, there is a gap in translating this theoretical knowledge into practical skills, particularly in problem-solving and the use of industry-specific software tools. Students often find it challenging to apply what they have learned in real-world situations, which hinders their readiness for the job market. The increasing importance of sustainability across various industries presents an opportunity to enhance vocational training programs by incorporating more hands-on, technology-driven learning experiences. A significant challenge is the variation in the quality of education

across different institutions, which could lead to disparities in the skill sets of graduates, potentially affecting their competitiveness in the job market.

To promote the career skills of sustainable development students, several strategies are recommended. Strategy 1: Ensuring that students possess the professional knowledge required for their specific career positions is fundamental, as this forms the basis for all other skill development. Strategy 2: Developing the ability to solve work-related problems is crucial, as it prepares students to address and overcome challenges effectively in their professional roles. Strategy 3: Encouraging proficiency in using computer software and tools relevant to their careers is essential for enabling students to perform their tasks efficiently and remain competitive in their fields. Strategy 4: Supporting active participation in professional training and continuing education is vital for ensuring that students continue to grow and adapt their skills to meet evolving industry demands. Strategy 5: Cultivating strong verbal and written communication skills is necessary for successful collaboration and effective expression of ideas in the workplace. Strategy 6: Promoting the understanding and application of the latest technologies and methods related to their profession will help students stay current and innovative, ensuring they can thrive in their careers.

### **3.What is the current state of sustainable development students' career psychology in higher vocational college in Hunan province? How can the sustainable development students' career psychology be promoted?**

The current state of sustainable development students' career psychology in higher vocational colleges, Hunan Province can be understood through a comprehensive analysis of various factors. Students generally display a strong sense of optimism and purpose regarding their future careers in sustainability, driven by their awareness of the meaningful contributions they can make in this field. However, despite this optimism, many students lack the psychological resilience needed to handle the pressures of their careers. Challenges such as maintaining emotional control under high stress and balancing work with personal life are common, potentially leading to burnout and compromised mental health. The growing emphasis on mental health in education presents an opportunity to develop programs that strengthen

emotional resilience and prepare students to cope with the inevitable challenges of their careers. A significant challenge is the inconsistent availability of psychological support across institutions, which may result in uneven levels of preparedness among students, potentially affecting their long-term career success and well-being.

To enhance the career psychology of these students, the following strategies are recommended. Strategy 1: Encouraging a positive and optimistic outlook on their future careers is essential, as it helps maintain motivation and confidence. Strategy 2: Developing psychological resilience to cope with career pressures is crucial, enabling students to handle stress and challenges more effectively. Strategy 3: Promoting the ability to maintain good emotional control, even under high work pressure, will help students manage stress without compromising their mental health. Strategy 4: Supporting the ability to balance work and personal life is vital for sustaining mental health and preventing burnout. Strategy 5: Mentally preparing students for difficulties that may arise during their career development will equip them with the tools to face challenges head-on. Strategy 6: Encouraging students to seek help and support when encountering difficulties at work is important for fostering a healthy approach to stress management. Strategy 7: Emphasizing the importance of achieving self-worth and satisfaction in a career will motivate students to pursue roles that align with their personal values and goals. Strategy 8: Promoting effective coping mechanisms for career changes and uncertainties will help students maintain psychological stability and adaptability. Strategy 9: Supporting self-motivation and continuous progress in their careers will ensure that students remain driven and committed to their professional growth, leading to long-term success.

#### **4.What is the current state of sustainable development students' career planning in higher vocational college in Hunan province? How can the sustainable development students' career planning be promoted?**

The current state of sustainable development students' career planning in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. Students generally exhibit a strong awareness of the importance of career planning, with many actively setting goals that align with their

interests in sustainability. This proactive approach reflects their commitment to their future careers. However, there is often a lack of regular evaluation and adjustment of these goals, leading to potential misalignment with evolving industry trends and personal growth. Additionally, students may not always fully understand the specific skills and knowledge required to achieve their career objectives, which can hinder their progress. The availability of internships and job opportunities in the sustainability sector provides practical avenues for students to gain experience and refine their career plans. A significant challenge is the rapidly changing job market in sustainability-related fields, which necessitates effective risk assessment and management. Without this, students risk pursuing career paths that may not align with future market demands.

To enhance career planning for these students, several strategies are recommended. Strategy 1: Establishing clear goals and plans for their careers is essential for providing direction and focus, ensuring that students are working towards achievable objectives. Strategy 2: Regularly evaluating and adjusting career goals and plans is crucial to ensure that students remain aligned with both their personal development and the dynamic demands of the job market. Strategy 3: Seeking advice and guidance from mentors, teachers, or career advisors is important for gaining insights that can help students refine their career strategies and make informed decisions. Strategy 4: Understanding the specific skills and knowledge needed to achieve career goals is necessary to ensure that students are well-prepared to meet industry expectations. Strategy 5: Actively seeking internships and job opportunities related to their career goals will provide students with practical experience, enhancing their readiness for the workforce. Strategy 6: Balancing career planning with personal life goals is important for achieving overall well-being and long-term career satisfaction. Strategy 7: Conducting effective risk assessment and management in career development is essential to anticipate potential challenges and ensure that students' career paths are resilient and adaptable to future changes.

**Interviewee 11:**

**1. What is the current state of sustainable development students' career ethics in higher vocational college in Hunan province? How can the sustainable development students' career ethics be promoted?**

The current state of sustainable development students' career ethics in higher vocational colleges, Hunan Province can be effectively understood through a comprehensive analysis of various factors. The curriculum in these colleges places a strong emphasis on ethical education, particularly in the context of sustainability, providing students with a solid theoretical understanding of career ethics. However, a significant challenge is the gap between theory and practice; students often struggle to apply their ethical knowledge in practical, real-world situations, which limits their preparedness for the workforce. The growing global focus on sustainability and ethical practices presents a unique opportunity to enhance the practical aspects of ethics education, particularly through partnerships with industries that can provide real-world ethical challenges. A potential concern is the variability in the quality and consistency of ethical education across different institutions, which may result in a workforce with uneven levels of ethical competence.

To promote the career ethics of sustainable development students, the following strategies should be considered. Strategy 1: Ensuring that students possess the professional knowledge required for their career positions is crucial, as this knowledge underpins their ability to make informed ethical decisions in their respective fields. Strategy 2: Implementing effective time management strategies is essential, as it instills discipline and ensures that tasks are completed on time, which is a critical component of ethical professionalism. Strategy 3: Promoting teamwork and enhancing communication skills will enable students to collaborate more effectively, ensuring that ethical considerations are integrated into group decision-making processes. Strategy 4: Developing problem-solving abilities is key to preparing students to navigate and resolve ethical dilemmas in the workplace, ensuring that they can find solutions that align with ethical standards. Strategy 5: Fostering adaptability will help students maintain their ethical standards even when faced with changes or challenges in the

workplace, ensuring that they can respond flexibly while upholding their ethical principles.

2. What is the current state of sustainable development students' career skills in higher vocational college in Hunan province? How can the sustainable development students' career skills be promoted?

The current state of sustainable development students' career skills in higher vocational colleges, Hunan Province can be assessed through a detailed analysis. The curriculum in these institutions provides students with a robust foundation in sustainability and related career skills. This educational background equips students with essential knowledge, preparing them for the demands of the workforce. However, despite this strong theoretical foundation, there is a noticeable gap in practical application. Students often struggle to translate their knowledge into real-world problem-solving, particularly in using specialized software and tools relevant to their careers. The growing emphasis on sustainability across various industries offers an opportunity for these institutions to enhance their training programs by incorporating more hands-on experiences and up-to-date technological training. A significant challenge is the variability in training quality across different institutions, which could lead to discrepancies in the skill levels of graduates, potentially affecting their competitiveness in the job market.

To promote the career skills of sustainable development students, the following strategies are recommended. Strategy 1: Developing the ability to solve problems encountered at work is crucial, as it equips students with the practical skills needed to address challenges effectively in their careers. Strategy 2: Encouraging proficiency in using computer software and tools related to their careers is essential for ensuring that students can perform tasks efficiently and stay competitive in their fields. Strategy 3: Supporting active participation in professional training and continuing education is vital for keeping students' skills current and enhancing their career competitiveness. Strategy 4: Cultivating good verbal and written communication skills is necessary for effective collaboration and professional success. By focusing on these

strategies, students will be better prepared to meet the demands of their careers and excel in the professional world.

**3.What is the current state of sustainable development students' career psychology in higher vocational college in Hunan province? How can the sustainable development students' career psychology be promoted?**

The current state of sustainable development students' career psychology in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. These students generally exhibit a strong sense of purpose and motivation, driven by the meaningful impact they aim to achieve in their careers. This sense of purpose provides a solid psychological foundation, helping them remain positive about their future prospects. However, there is often a lack of psychological resilience among students, particularly when faced with career pressures. Many struggle to cope with stress and uncertainty, which can undermine their emotional stability and overall well-being. The increasing emphasis on mental health within educational institutions offers a significant opportunity to implement targeted programs that build resilience and equip students with strategies to manage career-related challenges effectively. A key challenge is the inconsistent access to psychological support and resources across institutions, which could lead to disparities in mental preparedness, affecting students' ability to navigate career changes and uncertainties successfully.

To promote the career psychology of these students, several strategies are recommended. Strategy 1: Developing psychological resilience to cope with career pressure is crucial for enabling students to handle stress and maintain emotional stability throughout their professional journeys. Strategy 2: Encouraging students to seek help and support when encountering difficulties at work is essential for fostering a healthy approach to managing stress and overcoming challenges. Strategy 3: Emphasizing the importance of achieving self-worth and satisfaction in a career will motivate students to pursue roles that align with their values and goals, leading to greater personal and professional fulfillment. Strategy 4: Promoting effective coping mechanisms for career changes and uncertainties will help students maintain psychological stability, ensuring they can adapt to evolving career demands. Strategy

5: Supporting the maintenance of self-motivation and continuous progress in their careers is key to ensuring that students remain committed to their growth and long-term success, even in the face of challenges.

**4. What is the current state of sustainable development students' career planning in higher vocational college in Hunan province? How can the sustainable development students' career planning be promoted?**

The current state of sustainable development students' career planning in higher vocational colleges, Hunan Province can be evaluated through a detailed analysis. Many students display a proactive attitude toward career planning, often setting initial goals that align with their aspirations in sustainability, demonstrating a solid understanding of its importance for long-term success. However, students frequently neglect the regular evaluation and adjustment of their career plans, leading to potential misalignment with evolving industry demands. Additionally, there is often a gap in understanding the specific skills and knowledge required to achieve these career goals, which can hinder their progress. The growing availability of internships and job opportunities in sustainability fields provides students with practical experiences that can refine their career planning. A significant challenge is the fast-paced changes in the job market, especially in sustainability sectors, which pose a risk to students who do not regularly assess and manage these changes in their career planning.

To enhance career planning among these students, the following strategies should be implemented. Strategy 1: Regularly evaluating and adjusting career goals and plans is essential to ensure alignment with both personal development and market demands. This continuous assessment will help students stay on track and adapt to changes in the industry. Strategy 2: Understanding the specific skills and knowledge needed to achieve career goals is crucial for ensuring that students are adequately prepared to meet industry expectations. Strategy 3: Actively seeking internships and job opportunities related to career goals will provide students with the practical experience necessary to enhance their employability and refine their career paths. Strategy 4: Understanding job market demand and adjusting career development direction accordingly is vital for staying competitive and relevant in a rapidly changing



job market. Strategy 5: Conducting effective risk assessment and management in career development is critical to anticipating potential challenges and ensuring that students' career plans are resilient and adaptable to future changes.

**Interviewee 12:**

**1.What is the current state of sustainable development students' career ethics in higher vocational college in Hunan province? How can the sustainable development students' career ethics be promoted?**

The current state of sustainable development students' career ethics in higher vocational colleges, Hunan Province can be understood through a comprehensive analysis of various factors. The educational framework in these institutions places a strong emphasis on ethical training, particularly in relation to sustainability, providing students with a comprehensive understanding of ethical principles relevant to their future careers. However, there is a significant gap between the theoretical knowledge provided and its practical application, with students often lacking the real-world experience necessary to implement ethical decision-making effectively. The increasing demand for professionals who are both ethically aware and skilled in sustainability practices offers a substantial opportunity for these institutions to expand and refine their ethical training programs. A key challenge is the inconsistent application of ethical education across different colleges, which may result in varying levels of ethical competency among graduates, potentially undermining their professional success.

To enhance the career ethics of sustainable development students, the following strategies are recommended. Strategy 1: Implementing effective time management strategies is crucial, as it fosters a disciplined approach to completing tasks on time, thereby reinforcing the importance of accountability and reliability in professional settings. Strategy 2: Developing the ability to solve problems encountered at work is essential for equipping students with the skills needed to navigate ethical dilemmas and find solutions that uphold both professional standards and ethical principles. By focusing on these strategies, students will be better prepared to meet the ethical challenges they may face in their careers, ensuring they can maintain high standards of professionalism and integrity in the workplace.

**2.What is the current state of sustainable development students' career skills in higher vocational college in Hunan province? How can the sustainable development students' career skills be promoted?**

The current state of sustainable development students' career skills in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. The colleges have successfully integrated sustainability concepts into their curricula, providing students with a solid theoretical foundation. This foundation equips students with essential knowledge, preparing them for roles that require an understanding of sustainability principles. However, there is a significant gap in the practical application of these skills, particularly in problem-solving and the use of modern technologies. Students often lack the hands-on experience necessary to apply theoretical knowledge effectively in real-world scenarios. The growing need for sustainability professionals presents an opportunity to enhance these programs by incorporating more practical training and exposure to the latest industry technologies. A key challenge is the inconsistency in the quality of education across different institutions, which may result in varying levels of preparedness among graduates, potentially affecting their ability to secure competitive positions in the workforce.

To effectively promote the career skills of sustainable development students, the following strategies are recommended. Strategy 1: Developing the ability to solve problems encountered at work is essential, as it equips students with the skills needed to address and overcome challenges in their careers. Strategy 2: Cultivating good verbal and written communication skills is crucial for ensuring that students can articulate their ideas clearly and collaborate effectively with colleagues. Strategy 3: Promoting the understanding and application of the latest technologies and methods related to their profession will help students stay current and competitive in their fields, ensuring they can adapt to industry advancements. By focusing on these strategies, students will be better equipped to meet the demands of their careers and excel in a rapidly evolving job market.

**3.What is the current state of sustainable development students' career psychology in higher vocational college in Hunan province? How can the sustainable development students' career psychology be promoted?**

The current state of sustainable development students' career psychology in higher vocational colleges, Hunan Province can be understood through a comprehensive analysis of various factors. Students typically possess a strong sense of purpose, driven by their commitment to sustainability. This focus provides them with a positive outlook on their future careers, fostering motivation and a sense of direction. However, many students struggle with managing career-related stress, as they often lack the psychological resilience needed to cope with pressure. Balancing work and personal life is another challenge, which can lead to burnout and negatively impact mental health. The growing recognition of the importance of mental health in education presents an opportunity to implement programs that focus on building resilience, supporting work-life balance, and preparing students for the psychological demands of their careers. A significant challenge is the inconsistent access to psychological support across institutions, which may lead to disparities in how well-prepared students are to handle career challenges, potentially affecting their long-term success and well-being.

To enhance the career psychology of these students, the following strategies are recommended. Strategy 1: Developing psychological resilience to cope with career pressure is essential, as it equips students with the tools to manage stress and maintain stability in their professional lives. Strategy 2: Supporting the ability to balance work and personal life is crucial for maintaining overall mental health and preventing burnout, ensuring long-term career satisfaction. Strategy 3: Mentally preparing students for potential difficulties in their career development will help them face challenges with a proactive and resilient mindset. Strategy 4: Encouraging students to seek help and support when encountering difficulties at work is important for promoting a healthy approach to managing stress and overcoming obstacles. Strategy 5: Emphasizing the importance of achieving self-worth and satisfaction in a career will motivate students to pursue paths that align with their personal values and goals, leading to greater

fulfillment. Strategy 6: Supporting the maintenance of self-motivation and continuous progress in their careers is vital for ensuring that students remain driven and committed to their professional growth, even when faced with challenges.

**4. What is the current state of sustainable development students' career planning in higher vocational college in Hunan province? How can the sustainable development students' career planning be promoted?**

The current state of sustainable development students' career planning in higher vocational colleges, Hunan Province can be understood through a detailed analysis of various factors. Students generally possess a clear understanding of the importance of career planning and often take initial steps to outline their career goals. This awareness is a positive indicator of their commitment to their future careers. However, there is a noticeable gap in understanding the specific skills and knowledge required to achieve these goals, which can hinder progress. Additionally, students may struggle to balance career planning with personal life goals, potentially leading to stress or burnout. The availability of internships and job opportunities provides valuable avenues for students to gain practical experience and refine their career strategies. A significant challenge is the fast-evolving nature of the job market, particularly in sustainability fields, which requires students to engage in effective risk assessment and management to ensure their career plans remain relevant and achievable.

To promote effective career planning among these students, the following strategies are recommended. Strategy 1: Understanding the specific skills and knowledge needed to achieve career goals is crucial for ensuring that students are well-prepared for their chosen careers. Strategy 2: Actively seeking internships and job opportunities related to career goals will provide students with practical experience, enhancing their readiness for the workforce. Strategy 3: Balancing career planning with personal life goals is essential for achieving overall development and maintaining well-being, which is vital for long-term career satisfaction. Strategy 4: Considering long-term development in career planning encourages students to focus not only on immediate job prospects but also on sustained career growth. Strategy 5: Conducting effective risk assessment and management in career development is critical for anticipating

challenges and ensuring that students' career paths are adaptable and resilient to changes in the job market.

Through the implementation of semi-structured interviews with the participants and subsequent organization and analysis of the interview data, the findings reveal that:

**Question 1: What is the current state of sustainable development students' career ethics in higher vocational college in Hunan province? How can the sustainable development students' career ethics be promoted?**

The analysis of sustainable development students' career ethics in higher vocational colleges, Hunan Province, based on insights from twelve interviewees, presents a multifaceted perspective. Students demonstrate a solid foundational understanding of ethical principles, particularly showing a strong commitment to sustainability and social responsibility. However, challenges arise in the inconsistent application of these principles in real-world settings, often due to limited practical experience and gaps in professional knowledge. The increasing focus on sustainability across various industries offers significant potential for integrating ethical practices into students' career development. Nevertheless, the rapidly evolving job market and the potential for complex ethical dilemmas pose significant challenges that students may not be fully equipped to navigate.

To promote career ethics among these students, several strategies can be derived. 1) Ensure employees possess the professional knowledge required for the career position. 2) Implement strategies to effectively manage time to ensure tasks are completed on time. 3) Promote performing well in teamwork, capable of efficient communication and collaboration with others. 4) Develop the ability to solve problems encountered at work and find effective solutions. 5) Foster the ability to adapt flexibly to changes and challenges in the workplace. These strategies collectively aim to strengthen the ethical foundation of students, preparing them for the complexities of their future careers.

**Question 2: What is the current state of sustainable development students' career skills in higher vocational college in Hunan province? How can the sustainable development students' career skills be promoted?**

Based on insights from twelve interviewees, the current state of sustainable development students' career skills in higher vocational colleges, Hunan Province presents a diverse landscape. Students exhibit a solid foundation in sustainability and a strong enthusiasm for applying their knowledge to their future careers. However, there are challenges in the limited practical application of these skills, particularly in problem-solving and the use of modern tools and technologies. Additionally, gaps in communication skills, crucial for effective collaboration in professional environments, are evident. The growing availability of professional training programs and advancements in technology provide valuable opportunities to enhance students' skills and increase their competitiveness in the job market. Nonetheless, the rapidly changing demands of the job market pose challenges, as students may find it difficult to keep pace without ongoing learning and skill development.

To promote the career skills of these students, several strategies can be implemented. 1) Ensure employees possess the professional knowledge required for the career position. 2) Develop the ability to solve problems encountered at work and find effective solutions. 3) Encourage proficiency in using computer software and tools related to career. 4) Support active participation in professional training and continuing education to enhance one's own career competitiveness. 5) Cultivate good verbal and written communication skills. 6) Promote understanding and application of the latest technologies and methods related to the profession.

**Question 3: What is the current state of sustainable development students' career psychology in higher vocational college in Hunan province? How can the sustainable development students' career psychology be promoted?**

Based on insights from twelve interviewees, the current state of sustainable development students' career psychology in higher vocational colleges, Hunan Province reveals a complex landscape. Students generally maintain a positive outlook on their future careers, with a strong sense of purpose driven by their commitment to

sustainability. This optimism forms a solid psychological foundation for their career growth. However, challenges arise from a lack of psychological resilience, particularly in managing career-related pressures and maintaining emotional stability under stress. Many students also face difficulties in balancing work and personal life, which can lead to burnout and mental health issues. The increasing recognition of the importance of mental health in education presents an opportunity to implement support systems that bolster students' resilience and emotional well-being. Nonetheless, the rapidly evolving job market and related uncertainties pose significant challenges to students' psychological stability if they are not sufficiently prepared.

To promote the career psychology of these students, several strategies can be implemented. 1) Encourage feeling optimistic and positive about the future career. 2) Develop psychological resilience to cope with career pressure. 3) Promote maintaining good emotional control even under high work pressure. 4) Support the ability to balance work and personal life, maintaining mental health. 5) Mentally prepare for difficulties that may arise during career development. 6) Encourage seeking help and support when encountering difficulties at work. 7) Emphasize the importance of achieving self-worth and satisfaction in a career. 8) Promote effectively coping with career changes and uncertainties while maintaining psychological stability. 9) Support maintaining self-motivation and continuously pursuing progress in the career.

**Question 4: What is the current state of sustainable development students' career planning in higher vocational college in Hunan province? How can the sustainable development students' career planning be promoted?**

Based on insights from twelve interviewees, the current state of sustainable development students' career psychology in higher vocational colleges, Hunan Province can be summarized with a nuanced perspective. Students generally exhibit a proactive approach to career planning, often setting clear career goals and showing strong commitment to achieving them. This forward-thinking mindset provides a robust foundation for their career development. However, challenges arise from the infrequent evaluation and adjustment of these goals, which may result in a misalignment with the evolving demands of the industry and personal growth.

Additionally, there is often a gap in understanding the specific skills and knowledge required to effectively pursue these goals. The availability of internships and career guidance resources presents valuable opportunities for students to refine their career strategies and gain essential practical experience. Nonetheless, the ever-changing nature of the job market poses significant challenges, requiring students to continuously adapt and manage risks to ensure their career plans remain relevant and achievable.

To promote the career psychology of these students, several strategies can be implemented. 1) Establish clear goals and plans for one's own career. 2) Regularly evaluate one's career goals and plans, and make adjustments as needed. 3) Seek advice and guidance on career planning from mentors, teachers, or career advisors. 4) Understand the specific skills and knowledge needed to achieve career goals. 5) Actively seek internships and job opportunities to gain experience related to career goals. 6) Balance career planning with personal life goals, ensuring overall development. 7) Consider long-term development in career planning, not just the immediate job. 8) Understand the job market demand and adjust one's career development direction accordingly. 9) Conduct effective risk assessment and management in career development.

**The details of the interview are as follows:**

The research team conducted 12 individual online interviews, each held in a one-on-one setting to maintain confidentiality and prevent any external distractions for the interviewees. The data from these interviews are systematically analyzed and presented in Table 4.10



Table 4.10 The interview content

Questions	Suggestions	Interviewer1	Interviewer2	Interviewer3	Interviewer4	Interviewer5	Interviewer6	Interviewer7	Interviewer8	Interviewer9	Interviewer10	Interviewer11	Interviewer12	Frequency	Percentage
<b>Q1 Career ethics</b>															
1. Ensure employees possess the professional knowledge required for the career position.		√	√	√	√	√	-	√	√	√	√	√	-	10	83 %
2. Implement strategies to effectively manage time to ensure tasks are completed on time.		-	√	√	√	√	√	√	√	√	√	√	√	11	91 %
3. Promote performing well in teamwork, capable of efficient communication and collaboration with others.		√	√	√	√	√	√	√	√	√	√	√	-	11	91 %
4. Develop the ability to solve problems encountered at work and find effective solutions.		√	√	-	√	√	√	√	√	-	√	√	√	10	83 %
5. Foster the ability to adapt flexibly to changes and challenges in the workplace.		√	√	-	√	√	-	√	√	√	√	√	-	9	75 %
<b>Q2 Career skills</b>															
1. Ensure employees possess the professional knowledge required for the career position.		√	√	√	√	-	-	√	√	√	√	-	-	8	67 %

Table 4.10 (Continued)

Questions	Suggestions	Interviewer1	Interviewer2	Interviewer3	Interviewer4	Interviewer5	Interviewer6	Interviewer7	Interviewer8	Interviewer9	Interviewer10	Interviewer11	Interviewer12	Frequency	Percentage
2. Develop the ability to solve problems encountered at work and find effective solutions.		-	√	√	√	√	√	√	√	√	√	√	√	11	91%
3. Encourage proficiency in using computer software and tools related to career.		-	√	√	-	√	√	√	√	√	√	√	-	9	75%
4. Support active participation in professional training and continuing education to enhance one's own career competitiveness.		√	√	-	√	√	√	√	√	-	√	√	-	9	75%
5. Cultivate good verbal and written communication skills.		-	√	√	√	√	√	-	√	√	√	√	√	10	83%
6. Promote understanding and application of the latest technologies and methods related to the profession.		-	√	√	√	√	√	-	√	√	√	-	√	9	75%
<b>Q3 Career psychology</b>															
1. Encourage feeling optimistic and positive about the future career.		√	√	√	√	√	√	√	√	√	√	-	-	10	83%
2. Develop psychological resilience to cope with career pressure.		-	√	√	√	√	√	√	-	√	√	√	√	10	83%

Table 4.10 (Continued)

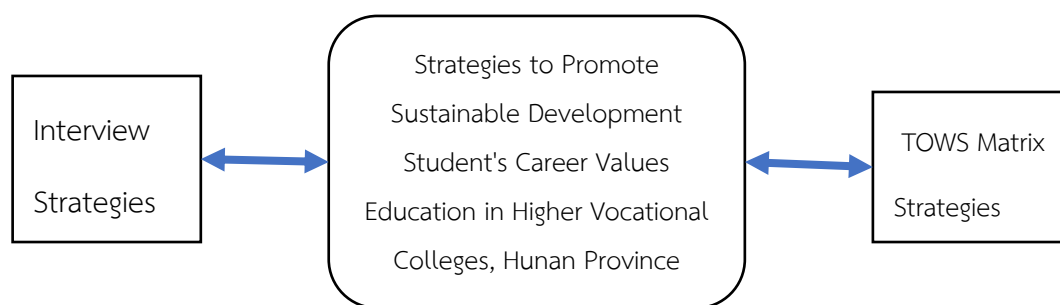
Questions	Suggestions	Interviewer1	Interviewer2	Interviewer3	Interviewer4	Interviewer5	Interviewer6	Interviewer7	Interviewer8	Interviewer9	Interviewer10	Interviewer11	Interviewer12	Frequency	Percentage
3. Promote maintaining good emotional control even under high work pressure.		-	√		√	√	√	-	√	√	√	-	-	7	58%
4. Support the ability to balance work and personal life, maintaining mental health.		-	√	√	√	√	√	-	√	√	√	-	√	9	75%
5. Mentally prepare for difficulties that may arise during career development.		√	√	√	√	√	√	√	√	√	√	-	√	11	91%
6. Encourage seeking help and support when encountering difficulties at work.		-	-	√	√	√	-	√	√	√	√	√	√	9	75%
7. Emphasize the importance of achieving self-worth and satisfaction in a career.		√	√	√	√	√	-	√	-	√	√	√	√	10	83%
8. Promote effectively coping with career changes and uncertainties while maintaining psychological stability.		-	√	√	√	-	√	√	√	√	√	√	-	9	75%
9. Support maintaining self-motivation and continuously pursuing progress in the career.		√	√	-	√	√	√	√	√	√	√	√	√	11	91%

Table 4.10 (Continued)

Questions	Suggestions	Interviewer1	Interviewer2	Interviewer3	Interviewer4	Interviewer5	Interviewer6	Interviewer7	Interviewer8	Interviewer9	Interviewer10	Interviewer11	Interviewer12	Frequency	Percentage
<b>Q4</b>	<b>Career planning</b>														
1. Establish clear goals and plans for one's own career.		√	√	√	--	√	√	√	√	√	√	-	-	9	75%
2. Regularly evaluate one's career goals and plans, and make adjustments as needed.		-	√	√	√	-	√	√	√	√	√	√	-	9	75%
3. Seek advice and guidance on career planning from mentors, teachers, or career advisors.		√	√	√	-	√	√	√	√	√	√	-	-	9	75%
4. Understand the specific skills and knowledge needed to achieve career goals.		-	√	√	√	-	√	√	√	√	√	√	√	10	83%
5. Actively seek internships and job opportunities to gain experience related to career goals.		√	√	-	√	√	√	√	-	√	√	√	√	10	83%
6. Balance career planning with personal life goals, ensuring overall development.		-	-	√	-	√		√	-	√	√	-	√	6	50%
7. Consider long-term development in career planning, not just the immediate job.		√	√	√	-	√	√	√	√	√	-	-	√	9	75%

Table 4.10 (Continued)

Questions	Suggestions	Interviewer1	Interviewer2	Interviewer3	Interviewer4	Interviewer5	Interviewer6	Interviewer7	Interviewer8	Interviewer9	Interviewer10	Interviewer11	Interviewer12	Frequency	Percentage
8. Understand the job market demand and adjust one's career development direction accordingly		√	√	√	-	√	√	√	√	√	-	√	-	9	75 %
9. Conduct effective risk assessment and management in career development.		-	√	-	√	√	√	√	-	-	√	√	√	8	67 %



**Figure 4.2** Strategies to Promote Sustainable Development Student's Career Values Education in Higher Vocational Colleges,Hunan Province

According to the results of the second part of the questionnaire analysis and the third part of the interview, SWOT- analysis interview content, it can be found that the sustainable development of career values education in higher vocational colleges , Hunan Province requires optimization in terms of the enhancement of career ethics, improvement of career skills, strengthening of career psychology, refinement of career planning, and the overall adaptability and feasibility of the proposed strategies. Based on the questionnaires and interviews, this research proposed strategies for the sustainable development of career values education in higher vocational colleges, Hunan Province, which mainly include four aspects, comprising a total of 29 measures.

**Table 4.11** Strategies to Promote Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province

Aspect	Strategies
Career ethics	<ol style="list-style-type: none"> <li>1. Ensure employees possess the professional knowledge required for the career position.</li> <li>2. Implement strategies to effectively manage time to ensure tasks are completed on time.</li> <li>3. Promote performing well in teamwork, capable of efficient communication and collaboration with others.</li> <li>4. Develop the ability to solve problems encountered at work and find effective solutions.</li> <li>5. Foster the ability to adapt flexibly to changes and challenges in the workplace.</li> </ol>

Table 4.11 (Continued)

Aspect	Strategies
Career skills	<ol style="list-style-type: none"> <li>1. Ensure employees possess the professional knowledge required for the career position.</li> <li>2. Develop the ability to solve problems encountered at work and find effective solutions.</li> <li>3. Encourage proficiency in using computer software and tools related to career.</li> <li>4. Support active participation in professional training and continuing education to enhance one's own career competitiveness.</li> <li>5. Cultivate good verbal and written communication skills.</li> <li>6. Promote understanding and application of the latest technologies and methods related to the profession.</li> </ol>
Career psychology	<ol style="list-style-type: none"> <li>1. Encourage feeling optimistic and positive about the future career.</li> <li>2. Develop psychological resilience to cope with career pressure.</li> <li>3. Promote maintaining good emotional control even under high work pressure.</li> <li>4. Support the ability to balance work and personal life, maintaining mental health.</li> <li>5. Mentally prepare for difficulties that may arise during career development.</li> <li>6. Encourage seeking help and support when encountering difficulties at work.</li> </ol>

Table 4.11 (Continued)

Aspect	Strategies
	<p>7. Emphasize the importance of achieving self-worth and satisfaction in a career.</p> <p>8. Promote effectively coping with career changes and uncertainties while maintaining psychological stability.</p> <p>9. Support maintaining self-motivation and continuously pursuing progress in the career.</p>
Career planning	<p>1. Establish clear goals and plans for one's own career.</p> <p>2. Regularly evaluate one's career goals and plans, and make adjustments as needed.</p> <p>3. Seek advice and guidance on career planning from mentors, teachers, or career advisors.</p> <p>4. Understand the specific skills and knowledge needed to achieve career goals.</p> <p>5. Actively seek internships and job opportunities to gain experience related to career goals.</p> <p>6. Balance career planning with personal life goals, ensuring overall development.</p> <p>7. Consider long-term development in career planning, not just the immediate job.</p> <p>8. Understand the job market demand and adjust one's career development direction accordingly.</p> <p>9. Conduct effective risk assessment and management in career development.</p>



According to table 4.11, the researcher provided the strategies for improving the sustainable development of students' career values education in higher vocational colleges, Hunan Province, divided into four aspects, which contain 29 measures. There are 5 measures for enhancing career ethics, 6 measures for enhancing career skills, 9 measures for enhancing career psychology, and 9 measures for enhancing career planning.

### **Part 3: Evaluation of Appropriateness and Feasibility**

The strategies proposed for improving career values education were evaluated by experts based on their appropriateness and feasibility. The evaluation was conducted using structured forms and presented through mean and standard deviation. This analysis determined the overall effectiveness of the proposed strategies, ensuring that they align with the needs of students and educators in higher vocational colleges.

**Table 4.12** The average value and standard deviation of the evaluation of the adaptability and feasibility of strategies for improving the sustainable development of students' career values education in higher vocational colleges, Hunan Province in four aspects.

(n=6)

Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province	Adaptability			Feasibility		
	$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	Level
<b>Career ethics</b>						
1. Ensure employees possess the professional knowledge required for the career position.	4.67	0.52	highest	4.83	0.41	highest
2. Implement strategies to effectively manage time to ensure tasks are completed on time.	4.83	0.41	highest	4.67	0.82	highest
3. Promote performing well in teamwork, capable of efficient communication and collaboration with others.	4.67	0.82	highest	4.83	0.41	highest
4. Develop the ability to solve problems encountered at work and find effective solutions.	4.83	0.41	highest	4.50	1.22	high
5. Foster the ability to adapt flexibly to changes and challenges in the workplace.	4.83	0.41	highest	4.83	0.41	highest
<b>Total</b>	<b>4.77</b>	<b>0.50</b>	<b>highest</b>	<b>4.73</b>	<b>0.69</b>	<b>highest</b>

Table 4.12 (Continued)

Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province	(n=6)					
	Adaptability			Feasibility		
	$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	Level
<b>Teaching ability</b>						
1. Ensure employees possess the professional knowledge required for the career position.	4.67	0.82	highest	4.83	0.41	highest
2. Develop the ability to solve problems encountered at work and find effective solutions.	4.67	0.82	highest	4.67	0.82	highest
3. Encourage proficiency in using computer software and tools related to career.	4.83	0.41	highest	4.83	0.41	highest
4. Support active participation in professional training and continuing education to enhance one's own career competitiveness.	4.83	0.41	highest	4.83	0.41	highest
5. Cultivate good verbal and written communication skills.	4.62	0.82	highest	4.62	0.82	highest
6. Promote understanding and application of the latest technologies and methods related to the profession.	4.50	1.22	high	4.50	1.22	high
<b>Total</b>	<b>4.69</b>	<b>0.75</b>	<b>highest</b>	<b>4.72</b>	<b>0.70</b>	<b>highest</b>

Table 4.12 (Continued)

(n=6)

Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province	Adaptability			Feasibility		
	$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	Level
<b>career psychology</b>						
1. Encourage feeling optimistic and positive about the future career.	4.83	0.41	highest	4.83	0.41	highest
2. Develop psychological resilience to cope with career pressure.	4.83	0.41	highest	4.83	0.41	highest
3. Promote maintaining good emotional control even under high work pressure.	4.83	0.41	highest	4.83	0.41	highest
4. Support the ability to balance work and personal life, maintaining mental health.	4.67	0.82	highest	4.83	0.41	highest
5. Mentally prepare for difficulties that may arise during career development.	4.50	1.22	high	4.57	0.79	highest
6. Encourage seeking help and support when encountering difficulties at work.	4.83	0.41	highest	4.83	0.41	highest
7. Emphasize the importance of achieving self-worth and satisfaction in a career.	4.83	0.41	highest	4.83	0.41	highest
8. Promote effectively coping with career changes and uncertainties	4.83	0.41	highest	4.83	0.41	highest

Table 4.12 (Continued)

(n=6)

Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province	Adaptability			Feasibility		
	$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	Level
while maintaining psychological stability.						
9. Support maintaining self-motivation and continuously pursuing progress in the career.	4.67	0.82	highest	4.67	0.82	highest
<b>Total</b>	<b>4.76</b>	<b>0.61</b>	<b>highest</b>	<b>4.78</b>	<b>0.5</b>	<b>highest</b>
<b>Career planning</b>						
1. Establish clear goals and plans for one's own career.	4.67	0.82	highest	4.83	0.41	highest
2. Regularly evaluate one's career goals and plans, and make adjustments as needed.	4.83	0.41	highest	4.83	0.41	highest
3. Seek advice and guidance on career planning from mentors, teachers, or career advisors.	4.83	0.41	highest	4.57	0.79	highest
4. Understand the specific skills and knowledge needed to achieve career goals.	4.67	0.52	highest	4.83	0.41	highest
5. Actively seek internships and job opportunities to gain experience related to career goals.	4.50	1.22	high	4.67	0.82	highest

Table 4.12 (Continued)

Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province	Adaptability			Feasibility		
	$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	Level
	6. Balance career planning with personal life goals, ensuring overall development.	4.67	0.82	highest	4.83	0.41
7. Consider long-term development in career planning, not just the immediate job.	4.83	0.41	highest	4.83	0.41	highest
8. Understand the job market demand and adjust one's career development direction accordingly.	4.83	0.41	highest	4.83	0.41	highest
9. Conduct effective risk assessment and management in career development.	4.83	0.41	highest	4.83	0.41	highest
<b>Total</b>	<b>4.74</b>	<b>0.62</b>	<b>highest</b>	<b>4.78</b>	<b>0.5</b>	<b>highest</b>
<b>Evaluation level of scale strategies</b>	<b>4.74</b>	<b>0.62</b>	<b>highest</b>	<b>4.76</b>	<b>0.58</b>	<b>highest</b>

According to table 4.12, the adaptability and feasibility of strategies for improving the sustainable development of students' career values education in higher vocational colleges, Hunan Province in four aspects were at the highest level with the values between 4.50 and 5.00 ( $\bar{x}$ = 4.74 and  $\bar{x}$ = 4.76), which means the strategies for improving the sustainable development of students' career values education are adaptable and feasible.

## Chapter 5

### Conclusion Discussion and Recommendations

This research focused on the development of strategies for sustainable development of career values education in higher vocational colleges in Hunan Province. The objectives of the study were as follows: 1) to study the current situation that enhance the sustainable development of students' career values education in higher vocational colleges in Hunan Province; 2) to develop strategies for the sustainable development of students' career values education in higher vocational colleges in Hunan Province; 3) to evaluate the adaptability and feasibility of the proposed strategies.

The sample group for this research comprised 384 students selected through systematic random sampling from six higher vocational colleges in Hunan Province, and 12 career guidance experts selected through purposive sampling. The research instruments included 1) questionnaires, 2) structured interviews, 3) strategy development forms, and 4) strategy evaluation forms. The data were analyzed using percentages, mean, standard deviation, and content analysis to present the research results systematically.

#### Conclusion

The research in the strategies for improving the sustainable development of students' career values education in higher vocational colleges in Hunan Province. The researcher summarizes the conclusion into 3 parts, details as follows:

Step 1: Results of Studying the Current Situation of Career Values Education for Enhancing Sustainable Development in Higher Vocational Colleges, Hunan Province.

Step 2: Results of developing the strategies for sustainable development of career values education in higher vocational colleges, Hunan Province.

Step 3: Results of evaluating the adaptability and feasibility of the strategies for sustainable development of career values education in higher vocational colleges, Hunan Province.

The details of the research conclusions were as follow:

**Step 1: Results of Studying the Current Situation of Career Values Education for Enhancing Sustainable Development in Higher Vocational Colleges, Hunan Province.**

The current situation for the sustainable development of career values education in higher vocational colleges in Hunan Province were assessed across four key areas: career ethics, career skills, career psychology, and career planning. Each area showed varying degrees of development and needs, as follows:

In terms of career ethics, there is a moderate level of development, but several key areas still require improvement. The study revealed that strengthening ethical standards, fostering integrity, and promoting social responsibility among students are essential for enhancing career ethics. Key improvements include integrating ethical decision-making frameworks into the curriculum, ensuring that students not only focus on their professional skills but also on ethical behavior in the workplace. Supporting factors include institutional backing for ethics-focused courses, training programs for educators on ethics education, and collaboration with industries to emphasize ethical conduct in professional environments.

Career skills were found to be the most developed area in higher vocational colleges. The current situation reflects strong institutional support for skill-based learning, with students receiving ample opportunities to engage in hands-on practice through internships, workshops, and mentorship programs. However, there is still a need for continuous improvement to keep pace with industry trends. Focus should be placed on refining these skills further to meet evolving market demands. Supporting factors for the sustainable development of career skills include partnerships with industries, investment in updated educational technologies, and continuous faculty development.



Career psychology, which includes resilience, motivation, and mental readiness for professional challenges, was moderately developed. The study indicated that students often face challenges related to career uncertainty and pressure, impacting their psychological preparedness. Efforts should focus on cultivating positive career psychology by integrating counseling services, stress management programs, and motivational workshops into the curriculum. Supporting factors for career psychology include institutional mental health support, training for faculty on psychological resilience, and providing resources for students to manage career-related stress.

Career planning emerged as the area with the greatest need for improvement. The current situation revealed that students lack clarity in setting and achieving long-term career goals. Focus should be on providing students with more structured career planning support, including goal-setting workshops, career coaching, and enhanced access to professional networks. Supporting factors include increased institutional focus on career counseling services, collaboration with industries to provide mentorship opportunities, and offering students resources such as career fairs and job shadowing programs.

This analysis laid the groundwork for the strategic development of career values education, and the next section will focus on the strategies developed to address these identified needs. The SWOT analysis and TOWS matrix will be used to align the development strategies with the needs assessment results.

### **Step 2: Results of developing the strategies for sustainable development of career values education in higher vocational colleges, Hunan Province.**

The development of strategies for sustainable development of career values education in higher vocational colleges in Hunan Province was based on the analysis of the current situation. The strategic formulation utilized SWOT and TOWS matrix analysis to address challenges and maximize opportunities. The strategies are focused on four key areas: career ethics, career skills, career psychology, and career planning. The details are as follows:

## 2.1 Vision

1) To equip students in higher vocational colleges in Hunan Province with comprehensive career values, including ethical standards, professional skills, and effective career planning, enabling them to excel in their future careers.

2) To create a balanced approach that integrates career ethics, skills, psychology, and planning into the educational framework, ensuring holistic development of students.

3) To foster a culture of continuous improvement, collaboration, and innovation, encouraging both educators and students to actively participate in career values education.

## 2.2 Mission

1) Develop and implement practical training programs aimed at enhancing students' career ethics, professional skills, and psychological resilience.

2) Foster strong partnerships between colleges and industries, providing students with hands-on career development opportunities such as internships and mentorships.

3) Build a supportive environment that promotes ethical decision-making and social responsibility as integral components of career development.

## 2.3 Goals

1) Enhance the career ethics of students through targeted programs that emphasize integrity and social responsibility.

2) Strengthen the professional skills of students by providing practical learning experiences and continuous skill development.

3) Develop students' career psychology to foster resilience, adaptability, and motivation for long-term career success.

4) Improve career planning abilities by offering clear guidance, resources, and support for goal-setting and professional growth.

## 2.4 Analysis for Strategic Planning

The strategic planning process involved leveraging the strengths of the higher vocational colleges, such as strong institutional support and industry partnerships,

while addressing weaknesses in career planning and moderate development in career ethics and psychology. The strategies were categorized into proactive, preventive, defensive, and corrective approaches to ensure a comprehensive response to the challenges identified in the study.

1) Proactive Strategies (SO): These strategies leverage strengths to take advantage of opportunities, focusing on improving and expanding capabilities.

- Strengthen career ethics education programs to foster social responsibility.
- Enhance professional skills training to align with industry needs.
- Expand career planning resources to support students in setting and achieving long-term goals.

2) Preventive Strategies (ST): These strategies focus on preventing potential risks by utilizing existing strengths.

- Strengthen career psychology programs to build students' resilience and adaptability.
- Promote collaboration with industries to provide students with real-world experiences.
- Improve teacher training programs to ensure high-quality instruction in career values education.

3) Defensive Strategies (WT): These strategies aim to minimize weaknesses and defend against potential threats.

- Implement regular evaluations of students' progress in career values education.
- Provide additional support for career planning, particularly for students struggling with setting clear goals.
- Develop intervention programs to address gaps in career ethics and psychology development.

4) Corrective Strategies (WO): These strategies address existing shortcomings by taking advantage of opportunities.

- Improve the integration of career values education into the overall curriculum.
- Offer professional development opportunities for educators to stay updated on best practices in career values education.
- Strengthen partnerships with industries to enhance practical training and mentorship opportunities.

This strategic framework is designed to guide the sustainable development of career values education in higher vocational colleges in Hunan Province, addressing current challenges while capitalizing on opportunities for growth and improvement. It provides a clear path for creating a more balanced, comprehensive approach to career development that aligns with the needs of both students and the labor market.

**Step 3: Results of evaluating the adaptability and feasibility of the strategies for sustainable development of career values education in higher vocational colleges, Hunan Province.**

The adaptability and feasibility of the 29 strategies in four key areas-career ethics, career skills, career psychology, and career planning-were assessed at a high level. The results of the evaluation showed that the strategies for the sustainable development of career values education in higher vocational colleges in Hunan Province were highly adaptable and feasible, indicating that they can be effectively implemented in practice.

1) The analysis results of the adaptability of the 29 strategies across the four areas ranged between 4.10 and 4.80, all at high or highest levels. This indicates that the strategies are well-suited to the specific educational contexts of higher vocational colleges in Hunan Province and can be adapted to meet the evolving needs of students and institutions.

2) The analysis results of the feasibility of the 29 strategies also ranged between 4.15 and 4.85, with all strategies being rated at high or highest levels. This confirms that the strategies are not only applicable but also practical and implementable within the existing infrastructure and resources of the vocational

colleges. The high feasibility scores reflect the realistic nature of the strategies in terms of cost, time, and resource allocation, ensuring that they can be successfully executed in the colleges.

Overall, the strategies for sustainable development of career values education were evaluated as highly adaptable and feasible, demonstrating their potential to effectively enhance career values education in higher vocational colleges across Hunan Province.

## Discussion

The research in the strategies for improving the sustainable development of students' career values education in higher vocational colleges in Hunan Province. The researcher summarizes the conclusion into 3 parts, details as follows:

Step 1: Results of Studying the Current Situation of Career Values Education for Enhancing Sustainable Development in Higher Vocational Colleges, Hunan Province.

Step 2: Results of developing the strategies for sustainable development of career values education in higher vocational colleges, Hunan Province.

Step 3: Results of evaluating the adaptability and feasibility of the strategies for sustainable development of career values education in higher vocational colleges, Hunan Province.

The details of the research conclusions were as follow:

**Step 1: Results of Studying the Current Situation of Career Values Education for Enhancing Sustainable Development in Higher Vocational Colleges, Hunan Province.**

In the study of the current situation that enhance the sustainable development of career values education in higher vocational colleges in Hunan Province, the analysis was conducted across four key aspects: career ethics, career skills, career psychology, and career planning. The results indicate that while career ethics is moderately developed, there is a significant need to improve its integration into the curriculum. This includes fostering integrity, ethical decision-making, and promoting social responsibility among students. Career skills, on the other hand, are

well-developed, supported by strong institutional backing and industry partnerships, but there is still a need to keep updating the curriculum with the latest industry demands and educational tools to ensure continued relevance. Career psychology is also moderately developed, but more attention is needed to address students' mental health and resilience, equipping them with the psychological tools to navigate career challenges. The greatest area in need of development is career planning, where students often struggle with setting clear career goals and creating actionable plans for their future. It was recommended that career planning resources, such as mentorship programs, career coaching, and workshops, be significantly enhanced. These findings align with the research of Liu and Yang (2018), who emphasized the importance of holistic career education that balances professional skills with ethical and psychological development. Moreover, Li et al. (2022) stressed the need for stronger career planning mechanisms in vocational education, while Shao (2023) highlighted the necessity of continuous institutional support and professional development for educators to foster sustainable career growth in students.

### **Step 2: Results of developing the strategies for sustainable development of career values education in higher vocational colleges, Hunan Province.**

The current state that enhance the sustainable development of career values education in higher vocational colleges in Hunan Province were examined across several key areas, focusing on career ethics, career skills, career psychology, and career planning. The analysis revealed that career ethics, while moderately developed, needs greater emphasis in the curriculum, particularly in fostering ethical decision-making, integrity, and social responsibility. The study highlighted that embedding these values within practical and theoretical instruction would ensure that students are better prepared for the ethical challenges they may face in their professional lives. Career skills development was found to be the strongest area, supported by institutional partnerships with industries that provide students with practical, hands-on experiences. However, there is still a need for ongoing curriculum updates to match the fast-evolving demands of the workforce, ensuring students remain competitive and well-equipped with up-to-date skills. Career psychology was found to be moderately

developed but needs enhancement, particularly in addressing students' mental health and resilience. The findings suggest that incorporating programs that focus on stress management and career motivation will help students better cope with the uncertainties and pressures of their future careers. Career planning emerged as the area most in need of development, with students often lacking clear, actionable goals for their professional futures. To address this, the study recommends enhanced career planning resources, including more structured mentorship programs, career coaching, and increased access to professional networks.

The study's conclusions align with existing research, such as Liu and Yang (2018), who emphasized the importance of a balanced career education that integrates ethical, psychological, and professional skills development. Furthermore, Wang et al. (2022) highlighted the critical role of career planning in ensuring students are not only equipped with the necessary skills but also with clear, strategic career goals, thus enhancing their employability and long-term success. Shao (2023) also supported the notion that continuous collaboration between educational institutions and industries is essential for providing students with real-world experiences and ensuring that career values education aligns with industry needs. The findings underscore the need for sustainable strategies that not only address current gaps in career education but also adapt to the changing educational and industrial landscape, ensuring that students are well-prepared for the challenges and opportunities of the modern workforce.

### **Step 3: Results of evaluating the adaptability and feasibility of the strategies for sustainable development of career values education in higher vocational colleges, Hunan Province.**

The evaluation of the adaptability and feasibility of the strategies for the sustainable development of career values education in higher vocational colleges in Hunan Province revealed that both the adaptability and feasibility were rated at high and highest levels, respectively. These findings indicate that the strategies were meticulously formulated based on expert evaluations and data analysis to ensure their effectiveness in promoting sustainable career values education. According to the evaluation results, the strategies scored between 4.50 and 5.00, reflecting their strong

potential for practical application. As emphasized by the research, effective strategy evaluation is critical for ensuring alignment with educational goals, promoting continuous improvement, and adapting to evolving vocational education environments (Xu, 2023; Bhati, 2022; Lin, 2021).

## Recommendations

### General Recommendation

In applying the strategies that emerged from this research, they can be applied at various levels, including:

**1. For Students:** Students should actively engage with the career values education strategies outlined in this research to enhance their professional development. By focusing on career ethics, skills, psychology, and planning, students can build a strong foundation for their future careers. They are encouraged to utilize these strategies to align their personal values and career goals with the evolving demands of the workforce, fostering resilience and adaptability in a dynamic job market. Additionally, students should regularly evaluate their career plans to ensure they are continuously improving and making informed decisions that will support their long-term professional growth.

**2. For Schools:** Higher vocational institutions should integrate the proposed strategies into their curricula and extracurricular activities to systematically enhance career values education. Schools are recommended to develop multi-year implementation plans that incorporate these strategies, ensuring a gradual yet comprehensive approach to improving students' career readiness. By creating an environment that emphasizes the importance of ethics, skills, psychology, and career planning, institutions can better equip students for both immediate job success and long-term career development.

**3. For Society:** The implementation of sustainable career values education in vocational institutions has broader societal implications. By nurturing students with strong career ethics and skills, society benefits from a workforce that is not only technically proficient but also ethically responsible. These graduates contribute



positively to social and economic development, supporting industries in need of high-quality talent. Society should actively support these initiatives by encouraging collaborations between educational institutions and industry, facilitating internships, mentorship programs, and other practical experiences that bridge the gap between education and employment.

### **Suggestions for Further Research**

1. Conduct comparative studies across different provinces or internationally, implementing longitudinal research to track the development of career values education over time. Such studies will help identify best practices, regional differences, and the long-term impact of career values education on students' professional success.

2. Investigate the influence of cultural factors on career planning and skills development, as well as the role of technology in supporting career ethics and psychology. This research will provide valuable insights into how traditional cultural values and modern digital tools can enhance career education in vocational colleges.

3. Examine the relationship between student well-being and career success, studying students' perceptions of career values education, and analyzing the impact of educational policies on the development of career values. These areas of research will help inform future strategies and refine policies to better support the holistic development of students in vocational education settings.

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## Appendices

## Appendix A

List of Specialists and Letters of Specialists Invitation  
for IOC Verification



### Specialists for IOC Verification

NO.	Name	Personal Introduction
1	Wen XueYu	Degree: PhD Work unit: Hunan polytechnic of Environment and Biology Research direction: Student Ideological and Political Education Graduated from: Nan Hua University
2	Yang Ning	Degree: PhD Work unit: Hunan polytechnic of Environment and Biology Research direction: Student Ideological and Political Education Graduated from: Hunan Agricultural University
3	Fang shi	Degree: PhD Work unit: Hunan polytechnic of Environment and Biology Research direction: Student Ideological and Political Education Graduated from: Hu Nan University
4	Song Guangtao	Degree: PhD Work unit: Hunan polytechnic of Environment and Biology Research direction: Student Ideological and Political Education Graduated from: Hu Nan University
5	Feng Zhonghua	Degree: PhD Work unit: Hunan polytechnic of Environment and Biology Research direction: Student Ideological and Political Education Graduated from: Hu Nan University

Appendix B

Official Letter

MHESI 0643.14/ *special*

Bansomdejchaopraya  
Rajabhat University  
1061 Soi Itsaraphap 15,  
Itsaraphap Road, Hiranruchi,  
Thonburi, Bangkok, Thailand  
10600

3 May 2024

Subject Invitation to validate research instrument  
Dear Professor Dr. Fang shi , Hunan polytechnic of Environment and Biology  
Attachment Questionnaire

Regarding Mrs. Xu Hui with student code 6473139021, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Strategy Development for Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province." The thesis committee is as follows:

- |   |               |
|---|---------------|
| 1. Assistant Professor Dr.Luxana Keyuraphan     | Major Advisor |
| 2. Assistant Professor Dr.Phadet Kakham         | Co-advisor    |
| 3. Assistant Professor Dr.Sarayuth Sethakhajorn | Co-advisor    |

In this research, the researcher requires to check the content validity of the instrument to get the most complete research instrument. Knowing your experience in the field of the said research, the researcher would like to ask for your assistance in validating the said instrument. Your suggestions will be useful for improving the quality and suitability of research instruments for use in collecting data for this research.

Thank you for your kind considerations.

Yours faithfully

(Assistant Professor Dr.Nukul Sarawong)  
Dean of Graduate School

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E-mail: gradabsru.ac.th

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Rajabhat University  
1061 Soi Itsaraphap 15,  
Itsaraphap Road, Hiranruchi,  
Thonburi, Bangkok, Thailand  
10600

3 May 2024

Subject      Invitation to validate research instrument  
Dear          Professor Dr. Wen Xueyu, Hunan polytechnic of Environment and Biology  
Attachment   Questionnaire

Regarding Mrs. Xu Hui with student code 6473139021, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Strategy Development for Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province." The thesis committee is as follows:

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Thonburi, Bangkok, Thailand  
10600

3 May 2024

Subject Invitation to validate research instrument  
Dear Professor Dr. Yang Ning , Hunan polytechnic of Environment and Biology  
Attachment Questionnaire

Regarding Mrs. Xu Hui with student code 6473139021, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Strategy Development for Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province." The thesis committee is as follows:

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1061 Soi Itsaraphap 15,  
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Thonburi, Bangkok, Thailand  
10600

3 May 2024

Subject Invitation to validate research instrument  
Dear Professor Dr. Song Guangtao , Hunan polytechnic of Environment and Biology  
Attachment Questionnaire

Regarding Mrs. Xu Hui with student code 6473139021, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Strategy Development for Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province." The thesis committee is as follows:

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10600

3 May 2024

Subject Invitation to validate research instrument  
Dear Professor Dr. Feng Zhonghua , Hunan polytechnic of Environment and Biology  
Attachment Questionnaire

Regarding Mrs. Xu Hui with student code 6473139021, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Strategy Development for Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province." The thesis committee is as follows:

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Thonburi, Bangkok, Thailand  
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10 May 2024

Subject Request for data collection  
Dear President of Loudi Vocational and Technical College  
Attachment 1. Questionnaires  
2. Structured interview

Regarding Mrs. Xu Hui with student code 6473139021, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Strategy Development for Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province." The thesis committee is as follows:

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Thank you for your kind considerations.

Yours faithfully

(Assistant Professor Dr.Nukul Sarawong)

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Rajabhat University  
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Itsaraphap Road, Hiranruchi,  
Thonburi, Bangkok, Thailand  
10600

10 May 2024

Subject Request for data collection  
Dear President of Chenzhou Vocational and Technical College  
Attachment 1. Questionnaires  
2. Structured interview

Regarding Mrs. Xu Hui with student code 6473139021, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Strategy Development for Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province." The thesis committee is as follows:

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10 May 2024

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Dear President of Changsha Social Work College  
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10600

10 May 2024

Subject Request for data collection  
Dear President of Yongzhou Vocational Technical College  
Attachment 1. Questionnaires  
2. Structured interview

Regarding Mrs. Xu Hui with student code 6473139021, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Strategy Development for Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province." The thesis committee is as follows:

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10 May 2024

Subject Request for data collection  
Dear President of Hunan Financial and Industrial Vocational-technical College  
Attachment 1. Questionnaires  
2. Structured interview

Regarding Mrs. Xu Hui with student code 6473139021, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Strategy Development for Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province." The thesis committee is as follows:

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10 May 2024

Subject Request for data collection  
Dear President of Hunan polytechnic of Environment and Biology  
Attachment 1. Questionnaires  
2. Structured interview

Regarding Mrs. Xu Hui with student code 6473139021, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Strategy Development for Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province." The thesis committee is as follows:

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Thonburi, Bangkok, Thailand  
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28 July 2024

Subject Request for evaluation of strategy  
Dear Professor Dr.Qin Xiaotian, Loudi Vocational and Technical College  
Attachment Evaluation sheets

Regarding Mrs. Xu Hui with student code 6473139021, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Strategy Development for Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province." The thesis committee is as follows:

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| 2.Assistant Professor Dr.Phadet Kakham         | Co-advisor    |
| 3.Assistant Professor Dr.Sarayuth Sethakhajorn | Co-advisor    |

The research will focus on the development of strategies for sustainable development, specifically regarding student career values education in higher vocational colleges. Knowing you have experience in this field, the researcher would like to ask for your assistance in evaluating these strategies. The researcher welcomes your suggestions for improving the development of strategies for sustainable Development Student's career values education in higher vocational colleges. Your positive response is greatly appreciated.

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28 July 2024

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Dear Professor Dr.Fang Dejing, Chenzhou Vocational and Technical College  
Attachment Evaluation sheets

Regarding Mrs. Xu Hui with student code 6473139021, a doctoral student majoring in Sustainable Development Education Management at Bansomdejchaopraya Rajabhat University. The thesis is entitled "Strategy Development for Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province." The thesis committee is as follows:

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28 July 2024

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28 July 2024

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Appendix C  
Research Instrument

## Questionnaire

Title: Strategy Development for Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province

### Explanation

This questionnaire investigates the current status of Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province. Its purpose is to examine the primary manifestations of sustainable Development Student's Career Values in Higher Vocational Colleges, Hunan Province

2. The survey questionnaire on the current status of sustainable Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province. divided into two sections. The first section collects personal information, while the second section investigates the primary manifestations of Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province comprising 36 questions.

3. Please click √ on the column that represents your opinion on the current status of Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province.

Thankyou

Mrs. Xu Hui

A doctoral student in Sustainable Development Education

Bansomdejchaopraya Rajabhat University

### Part 1: Personal Information of respondents

- 1 Gender:  Male  Female
- 2 Long-term Residence Before Enrollment :
- Rural area
- Urban area
- 3 Grade :
- Grade One
- Grade Two
- Grade Three
- 4 Family Annual Income :
- 10,000RMB-30,000RMB
- 40,000RMB-90,000RMB
- Above 100,000RMB

### Part 2: The current state of Sustainable Development Student's Career Values

#### Education at your college

5 = Always, it expresses that the level of sustainable professional competence among university lecturers was at the highest level

4= Often, it expresses that the level of sustainable professional competence among university lecturers was at a high level

3 =Sometimes, it expresses that the level of sustainable professional competence among university lecturers was at a middle level

2 = Rarely, it expresses that the level of sustainable professional competence among university lecturers was at a low level

1 = Never, it expresses that the level of sustainable professional competence among university lecturers was at the lowest level

No.	Sustainable Development Student's Career Values Education in Higher Vocational Colleges,Hunan Province	Level				
		5	4	3	2	1
<b>Career ethics</b>						
1	Believe maintaining honesty and integrity in work is very important.					
2	Comply with all the rules and regulations of the company or organization.					
3	Even without supervision, conscientiously complete their work tasks.					
4	In the face of a conflict of interest, choose the action that is most beneficial to the company.					
5	Fairness and justice in the workplace are crucial for career development.					
6	Maintain respect and courtesy towards colleagues and clients at all times.					
7	Avoid any form of discriminatory behavior in the workplace.					
8	In a career, it is necessary to continuously improve personal ethical standards and behavior norms.					
9	In the face of pressure and temptation at work, adhere to career ethical principles.					

No.	Sustainable Development Student's Career Values Education in Higher Vocational Colleges,Hunan Province	Level				
		5	4	3	2	1
<b>Career skills</b>						
1	Possess the professional knowledge required for the career position.					
2	Effectively manage time to ensure tasks are completed on time.					
3	Perform well in teamwork, capable of efficient communication and collaboration with others.					
4	Possess the ability to solve problems encountered at work and find effective solutions.					
5	Proficiently use computer software and tools related to career.					
6	Adapt flexibly to changes and challenges in the workplace.					
7	Actively participate in professional training and continuing education to enhance one's own career competitiveness.					
8	Possess good verbal and written communication skills.					
9	Understand and apply the latest technologies and methods related to the profession.					



No.	Sustainable Development Student's Career Values Education in Higher Vocational Colleges,Hunan Province	Level				
		5	4	3	2	1
Career psychology						
1	Feel optimistic and positive about the future career.					
2	Possess psychological resilience to cope with career pressure.					
3	Maintain good emotional control even under high work pressure.					
4	Able to balance work and personal life, maintaining mental health.					
5	Mentally prepare for difficulties that may arise during career development.					
6	Willing to seek help and support when encountering difficulties at work.					
7	Achieving self-worth and satisfaction in a career is very important.					
8	Effectively cope with career changes and uncertainties while maintaining psychological stability.					
9	Maintain self-motivation and continuously pursue progress in the career.					

No	Sustainable Development Student's Career Values Education in Higher Vocational Colleges,Hunan Province	Level				
		5	4	3	2	1
Career planning						
1	Have established clear goals and plans for one's own career.					
2	Regularly evaluate one's career goals and plans, and make adjustments as needed.					
3	Seek advice and guidance on career planning from mentors, teachers, or career advisors.					
4	Understand the specific skills and knowledge needed to achieve career goals.					
5	Actively seek internships and job opportunities to gain experience related to career goals.					
6	Able to balance career planning with personal life goals, ensuring overall development.					
7	Consider long-term development in career planning, not just the immediate job.					
8	Understand the job market demand and adjust one's career development direction accordingly.					
9	Able to conduct effective risk assessment and management in career development.					

Recommendation

Thank you for your kind cooperation in completing the questionnaire!

Researcher

Mrs.Xu Hui

## Structured Interview

Strategy Development for Sustainable Development Student's Career Values  
Education in Higher Vocational Colleges, Hunan Province

This Interview is divided into two parts:

Part 1: Personal Information

Part 2: The current status of sustainable development students' career values  
education in higher vocational colleges, Hunan Province

.....

Part 1: Personal Information

Interview Date & Interview Time:

Interviewer:

Interviewee:

Education background:

Identity:

From university:

Part 2: The current status of sustainable development students' career values  
education in higher vocational colleges, Hunan Province

Instruction: Please provide your opinion on the following statement

What is the current state of sustainable development students' career ethics  
in higher vocational college in Hunan province. ? How can the sustainable  
development students' career ethics be promoted?

What is the current state of sustainable development students' career skills in higher vocational college in Hunan province. ? How can the sustainable development students' career skills be promoted?

3.What is the current state of sustainable development students' career psychology in higher vocational college in Hunan province. ? How can the sustainable development students' career psychology be promoted?

4.What is the current state of sustainable development students' career planning in higher vocational college in Hunan province. ? How can the sustainable development students' career planning be promoted?

Evaluation Form

Development of strategies to promote sustainable development student's career values education in higher vocational colleges,Hunan Province













## Appendix D

The Results of the Quality Analysis of Research Instruments



No.	Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province	experts						
		Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	IOC	Validity
7	Avoid any form of discriminatory behavior in the workplace.	1	1	0	1	1	0.8	valid
8	In a career, it is necessary to continuously improve personal ethical standards and behavior norms.	1	1	1	1	1	1	valid
9	In the face of pressure and temptation at work, adhere to career ethical principles.	0	1	1	1	1	0.8	valid
Career skills								
1	Possess the professional knowledge required for the career position.	1	1	1	1	1	1	valid
2	Effectively manage time to ensure tasks are completed on time.	1	0	1	1	1	0.8	valid
3	Perform well in teamwork, capable of efficient communication and collaboration with others.	1	1	1	1	1	1	valid
4	Possess the ability to solve problems encountered at work and find effective solutions.	1	1	0	1	1	0.8	valid







## Appendix E

### Certificate of English





This is to certify that

***Mrs. Hui Xu***

Achieved BSRU English Proficiency Test (BSRU-TEP) level

**C2**

Given on 12<sup>th</sup> February 2022

(Assistant Professor Dr Kulsirin Aphiratvoradej)  
Director

## Appendix F

The Document for Acceptance Research

**World Journal of Education**

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August 27, 2024

Graduate School  
Bansomdejchaopraya Rajabhat University  
Bangkok, Thailand

**Dear Luxana Keyuraphan,**

Thanks for your submission to *World Journal of Education*.

We have the pleasure to inform you that your manuscript has been accepted for publication. It will be published on the Vol. 14, No. 3, in September 2024.

Title: Strategies Development for Sustainable Development Student's Career Values Education in Higher Vocational Colleges, Hunan Province

Authors: Xu Hui, Luxana Keyuraphan, Phadet Kakham, Sarayuth Sethakhajorn, & Chawa JuJia

If you have any questions, please do not hesitate to contact with us.

Sincerely,

A handwritten signature in black ink, appearing to read "Sara M. Lee".

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[www.sciedupress.com](http://www.sciedupress.com)

Sara M. Lee

On behalf of,  
The Editorial Board of *World Journal of Education*  
Sciedu Press

## Researcher Profile

**Name-Surname:** Mrs. Xu Hui  
**Birthday:** July 4, 1987  
**Place of Birth:** Hengyang, Hunan, China

### **Educational background:**

- Doctor of Philosophy Program in Educational Management for Sustainable Development, Bansomdejchaopraya Rajabhat University, Thailand, 2024
- Master of Marxism Theory, Nanhua University, China, 2020
- Bachelor of English, Hengyang Normal University, China, 2010

### **Work experience:**

- served as an English teacher at Malukou Primary School, from 2010 to 2020
- served as a faculty member in the Student Affairs Office at Hunan polytechnic of Environment and Biology, from 2020 to present

### **Office Location:**

Hunan polytechnic of Environment and Biology, Hengyang, Hunan, China

### **Current Contact Location:**

1061 Soi Itsaraphap15, Hiranruchi Thon Buri, Bangkok 10600, Thailand