

Research on the Collaborative Path of Psychological Resilience Cultivation and Digital Management for Vocational College Students

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ABSTRACT

With the rapid development of the social economy and the continuous advancement of educational reforms, vocational college students are facing many complex challenges, and the importance of psychological resilience is increasingly highlighted. This paper aims to explore the current status and challenges of psychological resilience among vocational college students, elaborate on the collaborative value and theoretical basis of psychological resilience cultivation and digital management, construct a psychological resilience cultivation system empowered by digitalization, and propose corresponding safeguard mechanisms and key issues. Through this collaborative path, we aim to comprehensively improve the level of psychological resilience among vocational college students and promote their comprehensive development and healthy growth.

KEYWORDS

Vocational colleges; Psychological resilience; Digital management; Collaborative path

1 Status and Challenges: Analysis of the Current Level of Psychological Resilience and Management Difficulties among Vocational College Students

1.1 The Current Status of Psychological Resilience among Vocational College Students

1.1.1 Definition of Psychological Resilience

Psychological resilience refers to an individual's ability to adapt well and recover when facing stress, setbacks, or adversity. It not only includes the ability to cope with short-term challenges but also involves long-term stress resistance and adaptability. Psychological resilience is an important component of mental health and a key factor for individuals to maintain a positive attitude and effective coping abilities in complex environments. In recent years, research on psychological resilience has gradually become a hot topic in the field of psychology, and its application in the field of education has also attracted widespread attention.

1.1.2 Characteristics of Psychological Resilience among Vocational College Students

The student population in vocational colleges has unique characteristics. They generally face multiple pressures such as academic studies, employment, and interpersonal relationships, and their level of psychological resilience differs from that of students in regular universities. Many vocational college students show strong adaptability and problem-solving abilities when facing challenges, but some students may experience psychological problems due to insufficient coping abilities. Specifically, vocational college students exhibit uniqueness in the following areas:

Academic Pressure: Vocational education focuses on the cultivation of practical skills. Students need to master professional skills in a short period of time and go through internships and exams. This high-intensity learning task poses high demands on students' psychological resilience.

Employment Pressure: After graduation, vocational students directly face employment. The competitive pressure and uncertainty of the job market make them more prone to anxiety. Students with insufficient psychological resilience may show excessive nervousness or avoidance behavior during job hunting.

Interpersonal Relationships: Vocational students are mostly in the late adolescence, a critical stage of psychological and physiological development. In their interactions with classmates, teachers, and parents, they may have conflicts due to poor communication or differences in values, which can affect their psychological resilience.

1.1.3 Status Survey and Analysis

To gain a deeper understanding of the level of psychological resilience among vocational college students, this study conducted a survey through questionnaires and interviews. The questionnaire design covered multiple dimensions of psychological resilience, including coping ability, emotional regulation, interpersonal relationships, and goal setting. The survey subjects were 1,000 students from a vocational college, aged between 18 and 22. The survey results show:

Overall Level: The overall level of psychological resilience among vocational students is in the upper-middle range, but there is a significant difference. About 30% of students show high psychological resilience and can cope well with academic and life pressures; about 40% of students have medium psychological resilience and can basically adapt to environmental changes; the remaining 30% of students have weak psychological resilience and are prone to emotional fluctuations and behavioral problems under pressure.

Gender Differences: In terms of psychological resilience, male students are slightly higher than female students. This may be related to the gender stereotypes in social culture. Male students tend to show strength and independence when facing difficulties, while female students are more likely to be affected by emotions.

Professional Differences: There are also differences in psychological resilience among students of different majors. Students in science and engineering majors show stronger psychological resilience in coping with academic pressure, while students in liberal arts majors perform better in interpersonal relationships and emotional regulation. This may be related to the characteristics and learning environment of different majors. Science and engineering students focus more on logical thinking and skill training, while liberal arts students focus more on emotional expression and interpersonal interaction.

1.2 Management Difficulties

1.2.1 Limitations of Traditional Management Methods

At present, the management of vocational college students still mainly relies on traditional methods, lacking an effective psychological resilience cultivation mechanism. Traditional management methods mainly depend on rules and regulations and manual management, which are difficult to meet the diverse psychological needs of students. The specific manifestations are as follows:

Single Management Methods: Traditional management methods mainly rely on the daily observations and individual talks of class teachers and counselors to understand students' psychological states, lacking systematicity and scientificity. This management method is difficult to cover all students comprehensively, especially when facing a large number of students, and it is easy to have management loopholes.

Lack of Personalized Support: Traditional management methods are difficult to provide targeted psychological support according to students' individual differences. Each student has different needs in terms of psychological resilience, but traditional management often adopts a "one-size-fits-all" approach, which cannot meet students' individualized needs.

1.2.2 Insufficient Assessment and Intervention of Psychological Resilience

Schools lack scientific and systematic methods for assessing psychological resilience and cannot accurately identify students' weaknesses in psychological resilience. At the same time, the intervention measures for psychological resilience are also relatively lagging and cannot provide effective support for students in a timely manner. The specific problems include:

Imperfect Assessment Tools: At present, vocational colleges generally lack specialized assessment tools for psychological resilience and mostly use general mental health assessment scales. Although these scales can reflect students' general mental health status, they are insufficient in targeting psychological resilience and cannot accurately assess students' levels of psychological resilience.

Lagging Intervention Measures: Even if schools can identify students with weak psychological resilience, the existing intervention measures are often not timely and effective. The intervention measures are mostly based on psychological counseling and individual guidance, lacking systematicness and continuity. In addition, the implementation of intervention measures is also restricted by the shortage of teaching staff and resources.

1.2.3 Insufficient Integration of Resources and Information

Vocational colleges have insufficient integration of on-campus and off-campus resources in the cultivation of psychological resilience, and the data is scattered, making it difficult to achieve collaborative management. This has to some extent affected the effectiveness and efficiency of psychological resilience cultivation work. The specific problems include:

Resource Dispersal: The psychological resilience cultivation work in vocational colleges involves multiple departments, such as the Student Affairs Office, the Psychological Counseling Center, and the Youth League Committee. There is a lack of effective communication and cooperation mechanisms among these departments, leading to the dispersion of resources and the inability to form a united front.

Information Silos: There is an information silo phenomenon between different departments within the school and between the school and external institutions. For example, the Student Affairs Office has data on students' daily behavior,

while the Psychological Counseling Center has data on students' mental health. However, there is a lack of integration and sharing of these data, which cannot provide a comprehensive basis for the cultivation of psychological resilience.

2 A Fusion Perspective: The Collaborative Value and Theoretical Basis of Psychological Resilience Cultivation and Digital Management

2.1 Collaborative Value

2.1.1 Improving Education Quality

Psychological resilience is an important part of students' comprehensive development. By collaborating with digital management, we can more effectively carry out psychological resilience cultivation, thereby improving the overall education quality of vocational colleges. The specific manifestations are as follows:

Precision Education: Digital management can accurately identify students' weaknesses in psychological resilience through data analysis, providing a scientific basis for schools to achieve precision education. Schools can adjust teaching content and methods according to students' levels of psychological resilience to improve educational effectiveness.

Personalized Development: Digital management provides technical support for personalized education. Schools can provide personalized educational support according to students' levels of psychological resilience and individual characteristics, meet students' diverse needs, and promote their personalized development.

2.1.2 Optimizing Management Efficiency

Digital management tools provide technical support for the cultivation of psychological resilience, enabling real-time monitoring and precise assessment of students' psychological states, optimizing management processes, and improving management efficiency. The specific manifestations are as follows:

Real-time Monitoring: Through digital tools, schools can monitor changes in students' psychological states in real-time and identify potential problems in a timely manner. For example, using psychological assessment software to regularly assess students' psychological resilience can help identify students with weak psychological resilience in a timely manner.

Precision Assessment: Digital management can achieve precise assessment through data analysis. Schools can develop targeted psychological resilience cultivation plans based on the assessment results, improving the scientificity and effectiveness of management.

2.1.3 Promoting Students' Personalized Development

Combining digital management, schools can provide personalized educational support according to students' levels of psychological resilience and individual characteristics, meet students' diverse needs, and promote their personalized development. The specific manifestations are as follows:

Personalized Courses: Schools can design personalized course systems according to students' levels of psychological resilience and interests. For example, for students with weak psychological resilience, schools can offer mental health education courses; for students with strong psychological resilience, schools can offer psychological quality expansion courses.

Personalized Activities: Schools can organize personalized activities in combination with students' levels of psychological resilience and interests. For example, for students who like outdoor activities, schools can organize outdoor expansion activities; for students who like artistic activities, schools can organize artistic performances.

2.2 Theoretical Basis

2.2.1 Ecological Systems Theory

Ecological systems theory emphasizes that individual development is influenced by multiple factors such as family, school, and community. The cultivation of psychological resilience among vocational college students requires the integration of various resources to build a comprehensive support system, and digital management can effectively integrate these resources to form a good educational ecology. The specific manifestations are as follows:

Family Support: Family is the foundation of students' psychological resilience cultivation. Through digital management, schools can establish an effective communication mechanism with parents, timely feedback students' psychological states to parents, and jointly provide support for students.

School Support: School is the main place for students' psychological resilience cultivation. Through digital management, schools can integrate on-campus resources, such as the Psychological Counseling Center, Student Affairs

Office, and Youth League Committee, to form a comprehensive support system.

Community Support: Community is an important supplement to students' psychological resilience cultivation. Through digital management, schools can establish cooperative relationships with communities to jointly provide support for students. For example, schools can organize students to participate in community volunteer service activities to enhance their sense of social responsibility and psychological resilience.

2.2.2 Positive Psychology Theory

Positive psychology focuses on individuals' strengths and potentials and emphasizes improving individuals' psychological qualities through positive intervention. Psychological resilience cultivation is based on this theory, and digital management is used to realize the mining and cultivation of students' psychological strengths and promote their positive development. The specific manifestations are as follows:

Strengths Exploration: Through digital management, schools can conduct comprehensive assessments of students to explore their psychological strengths. For example, through psychological assessment software, schools can identify students' strengths in stress resistance and emotional regulation.

Potential Development: Through digital management, schools can provide personalized educational support to develop students' psychological potential. For example, schools can offer psychological quality expansion courses for students with strong psychological resilience to further enhance their psychological resilience.

2.2.3 Data-Driven Decision-Making Theory

Digital management provides vocational colleges with a wealth of data resources. Through data analysis, it can provide a scientific basis for the cultivation of psychological resilience, achieve data-driven precision decision-making, and ensure the scientificity and effectiveness of the cultivation work. The specific manifestations are as follows:

Data Collection: Through digital tools, schools can collect a large amount of data on students' psychological states. For example, through psychological assessment software and students' behavioral data, schools can gain a comprehensive understanding of students' levels of psychological resilience.

Data Analysis: Through data analysis, schools can identify students' weaknesses and strengths in psychological resilience, providing a scientific basis for the cultivation of psychological resilience. For example, through data analysis, schools can identify groups of students with weak psychological resilience and provide targeted support for them.

3 Collaborative Path Construction: A Psychological Resilience Cultivation System Empowered by Digitalization

3.1 Psychological Resilience Assessment and Monitoring

Constructing a Psychological Resilience Assessment Indicator System

Combining the characteristics of vocational students, a scientific and rational psychological resilience assessment indicator system should be developed, covering multiple dimensions such as coping ability, emotional regulation, and interpersonal relationships, to provide a basis for precise assessment. The specific steps are as follows:

Indicator Design: Based on the theory of psychological resilience, design assessment indicators covering multiple dimensions. For example, coping ability indicators include problem-solving ability and the diversity of coping strategies; emotional regulation indicators include emotional stability and emotional expression ability; interpersonal relationship indicators include interpersonal communication ability and social support.

Expert Argumentation: Invite psychology experts, education experts, and frontline teachers to argue about the assessment indicators to ensure their scientificity and practicality. Through expert argumentation, the indicators can be optimized and adjusted to better meet the characteristics of vocational students.

Monitoring with Digital Tools

Utilize digital means such as psychological assessment software and big data analysis to regularly assess students' psychological resilience and monitor changes in their psychological states in real-time, identifying potential problems in a timely manner. The specific methods are as follows:

Psychological Assessment Software: Choose psychological assessment software suitable for vocational students and regularly assess their psychological resilience. For example, a comprehensive assessment can be conducted once per semester, and a phased assessment can be carried out once a month.

Big Data Analysis: Through big data analysis, schools can monitor changes in students' psychological states in real-time. For example, by analyzing students' daily behavioral data, such as attendance records and classroom performance, schools can identify students with weak psychological resilience in a timely manner.

3.2 Personalized Psychological Resilience Cultivation

Personalized Planning Based on Data

Based on the results of psychological resilience assessment, use artificial intelligence and other technologies to develop personalized psychological resilience cultivation plans for students, providing targeted guidance and support for their weak links. The specific steps are as follows:

Data Analysis: Through data analysis, schools can identify students' weaknesses in psychological resilience. For example, through the assessment results of psychological assessment software, schools can find that students have insufficient emotional regulation abilities.

Personalized Plan: Based on the results of data analysis, schools can develop personalized psychological resilience cultivation plans for students. For example, for students with weak emotional regulation abilities, schools can arrange emotional management courses and psychological counseling.

Diversified Course and Activity Design

Offer courses related to psychological resilience, such as mental health education and psychological quality expansion, and combine online educational resources to design diversified course forms to meet students' different learning needs. In addition, organize various practical activities, such as outdoor expansion and volunteer service, to enhance students' psychological resilience. The specific methods are as follows:

Course Design: Schools can design diversified course systems according to students' levels of psychological resilience and interests. For example, for students with weak psychological resilience, schools can offer mental health education courses; for students with strong psychological resilience, schools can offer psychological quality expansion courses.

Practical Activities: Schools can organize diversified practical activities in combination with students' levels of psychological resilience and interests. For example, for students who like outdoor activities, schools can organize outdoor expansion activities; for students who like artistic activities, schools can organize artistic performances.

3.3 Collaborative Education Mechanism

School-Enterprise Cooperation

Strengthen cooperation with enterprises, invite enterprise experts to participate in the cultivation of psychological resilience, integrate the psychological quality requirements of the workplace into the cultivation system, and use enterprise resources to provide practical opportunities for students to exercise their psychological resilience in real workplace environments. The specific methods are as follows:

Enterprise Participation: Invite enterprise experts to participate in the psychological resilience cultivation work of schools and provide workplace psychological quality training for students. For example, enterprise experts can explain workplace stress coping skills and team cooperation abilities to students.

Practical Opportunities: Use enterprise resources to provide practical opportunities for students and let them exercise their psychological resilience in real workplace environments. For example, schools can cooperate with enterprises to carry out internship programs and let students enhance their psychological resilience during the internship process.

Home-School-Community Collaboration

Build a collaborative education mechanism among families, schools, and communities. Through online parent schools and community mental health services, integrate the resources of families, schools, and society to form a comprehensive psychological resilience cultivation synergy. The specific methods are as follows:

Parent School: Through online parent schools, schools can teach parents mental health knowledge and methods of cultivating psychological resilience. For example, schools can regularly hold online lectures and invite psychology experts to explain to parents how to support their children's psychological resilience development.

Community Services: Schools can cooperate with communities to carry out mental health service activities. For example, schools can organize students to participate in community volunteer service activities to enhance their sense of social responsibility and psychological resilience.

4 Safeguard Mechanisms and Key Issues

4.1 Safeguard Mechanisms

Schools should establish a special psychological resilience cultivation management agency, clarify responsibilities and divisions of labor, and formulate relevant systems to ensure the smooth progress of psychological resilience cultivation and digital management work. The specific measures are as follows:

Agency Establishment: Schools can set up a Psychological Resilience Cultivation Center to coordinate the psychological resilience cultivation work of the entire school. This center can be composed of the Student Affairs Office,

the Psychological Counseling Center, the Youth League Committee, and other departments, clarifying the responsibilities and divisions of labor of each department.

System Construction: Schools should formulate relevant systems to ensure the standardization and institutionalization of psychological resilience cultivation work. For example, schools can formulate psychological resilience assessment systems and personalized cultivation plan systems.

Resource Allocation and Optimization

Increase investment in psychological resilience cultivation, including funding, human resources, and technology. At the same time, optimize resource allocation and reasonably distribute digital equipment and online resources to improve resource utilization efficiency. The specific measures are as follows:

Funding Input: Schools should increase funding for psychological resilience cultivation, used for purchasing psychological assessment software, building psychological resilience cultivation centers, etc.

Human Resources: Schools should strengthen teacher team building and improve teachers' psychological resilience cultivation abilities and digital application levels. For example, schools can regularly conduct teacher training and invite psychology experts to explain psychological resilience cultivation methods to teachers.

Teacher Team Building

Strengthen teacher training to improve teachers' psychological resilience cultivation abilities and digital application levels. Encourage teachers to participate in related research and practice to build a teacher team with high professional quality and strong technical ability. The specific measures are as follows:

Teacher Training: Schools should regularly conduct teacher training to improve teachers' psychological resilience cultivation abilities and digital application levels. For example, schools can invite psychology experts to explain psychological resilience cultivation methods to teachers and invite technical experts to explain the use of digital tools to teachers.

Research and Practice: Schools should encourage teachers to participate in the research and practice of psychological resilience cultivation. For example, schools can set up special topics to support teachers in conducting research on psychological resilience cultivation.

4.2 Key Issues

Data Security and Privacy Protection

Digital management involves a large amount of students' personal information and psychological data. In the process of carrying out relevant work, it is necessary to ensure data security and privacy protection to prevent data leakage and abuse. The specific measures are as follows:

Data Encryption: Schools should use data encryption technology to ensure the security of student data. For example, schools can encrypt and store psychological assessment data.

Privacy Protection: Schools should formulate privacy protection systems to ensure that student data is not abused. For example, schools can stipulate that only authorized personnel can access student data.

Technology Application and Update

With the continuous development of digital technology, vocational colleges need to update technology applications in a timely manner to ensure that the collaborative work of psychological resilience cultivation and digital management can meet the demands of the times. Avoid the impact on work effectiveness due to lagging technology. The specific measures are as follows:

Technology Update: Schools should pay attention to the development trends of digital technology and update technology applications in a timely manner. For example, schools can regularly upgrade psychological assessment software and introduce new data analysis tools.

Technology Training: Schools should strengthen teachers' technical training to improve their digital application levels. For example, schools can regularly conduct technical training and invite technical experts to explain the use of new digital tools to teachers.

About the Author

Yanhua Wu, Lecturer, Master of Education, mainly engages in the research on psychological problems of college students and interpersonal relationships.

References

- [1] Wang Xiaoming. Practice Research on the Cultivation of Psychological Resilience among Vocational College Students [J]. Vocational Education Research, 2024(3):34-37.
- [2] Zhang Qiang. Application of Digital Management in Student Mental Health Education [J]. Modern Education Technology, 2023(6):45-49.

- [3] Zhao Li. Research on the Cultivation Strategies of Psychological Resilience among Vocational College Students Based on Ecological Systems Theory [D]. A University, 2022.
- [4] Liu Min, Chen Li. Cultivation of Psychological Resilience among Vocational College Students from the Perspective of Positive Psychology [J]. Higher Education Research, 2023(8):56-60.
- [5] Zhou Jie. Application Research of Data-Driven Decision-Making in the Field of Education [J]. Education Technology Research, 2024(5):21-25.
- [6] Ministry of Education and 17 other departments. Special Action Plan for Strengthening and Improving Students' Mental Health Work in the New Era (2023-2025).
- [7] Suzhou Vocational University Builds a New Model of "Mental Education" to Empower Students' Comprehensive Development [J]. Jiangsu Education Daily, 2025.
- [8] Hunan University of Arts and Science: "Heart Chain Innovation" Builds a Psychological Education Ecosystem [J]. China Education Daily, 2025.