

Research on the Influence and Path of Setbacks Education in Physical Education on the Cultivation of Students' Psychological Resilience

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Abstract: Under the current educational background, teenagers face multiple challenges such as academic pressure and social competition, and their mental health problems are becoming increasingly prominent. Therefore, the cultivation of psychological resilience has become a highly concerned issue. Psychological resilience refers to an individual's ability to adapt and recover in the face of pressure and difficulties, which is of great significance for the comprehensive development of students. As an effective educational method, setback education can significantly enhance students' ability to cope with setbacks and provide support for the cultivation of psychological resilience by guiding them to face challenges and failures. The purpose of this research is to examine the efficacy of setback instruction in fostering psychological resilience in athletic settings among youths. Particular implementation tactics are first proposed in the study, including the development of motivating feedback systems, the organization of challenging sporting events, and the provision of individualized mental care. Once children learn to handle and regulate difficulties, they may use these strategies to increase their psychological resilience. Students may develop their ability to self-regulate, their knowledge of social support, and their psychological resilience via the research's case study implementation of setback education in physical education classes. The study's results provide new theoretical and practical recommendations for PE instructors and highlight the unique role of PE in improving mental health.

1. Introduction

In today's society, teenagers generally face multiple challenges such as academic pressure, social competition, and interpersonal communication, which puts higher demands on their mental health. As an individual's ability to adapt and recover in the face of adversity, psychological resilience is considered an important guarantee for the comprehensive development and mental health of adolescents. However, in reality, many students exhibit significant psychological vulnerability when facing failure and pressure, such as anxiety, depression, or avoidance, which not only affects their academic and life performance, but may also hinder their long-term development. This situation indicates that the cultivation of adolescent psychological resilience urgently requires attention and practical exploration in the field of education.

Physical education, due to its natural challenges and interactivity, has become an excellent carrier for cultivating students' psychological resilience. The competitiveness, physical challenges, and teamwork in sports activities can provide students with real-life setbacks, enabling them to learn how to regulate their emotions, persevere, and gradually build resilience in the face of failure and adversity. As a form of education, setback education focuses on designing appropriate situations to help students cope with challenges, overcome difficulties, and enhance their psychological resilience and self-adjustment ability through experiencing setbacks. However, currently many schools' physical education courses do not pay enough attention to setback education, and tend to focus more on skill teaching and competition results, ignoring the psychological education function contained in physical education. This singular teaching model deprives students of valuable opportunities to cultivate psychological resilience through setback education.

Therefore, exploring the impact of setback education on the cultivation of students' psychological resilience in physical education, analyzing its internal mechanisms, and designing feasible implementation paths not only has important theoretical significance, but also provides practical guidance for educators. This study will provide new ideas for better achieving the comprehensive development of students' psychological and physical fitness, while also injecting new vitality into mental health education.

2. Theoretical Basis and Conceptual Definition

2.1. The Connotation of Setback Education

Setback education is an educational method that guides students to experience failure, difficulties, and pressure by setting appropriate setback situations. Its purpose is to help students develop resilience, cultivate resilient personalities, and develop positive psychological coping strategies in the process of constantly facing and overcoming difficulties. Setback education does not aim to create difficulties artificially, but emphasizes the use of well-designed educational contexts to enhance students' psychological resilience through the experience of setbacks. The core of it is to help students realize that failure and difficulties are a part of life, and to gain the strength to grow from them. This educational approach not only focuses on students' ability to solve problems in the short term, but also emphasizes their adaptability to complex environments in the long term, laying the foundation for students to face greater challenges in the future ^[1].

2.2. Connotation of Psychological Resilience

Psychological resilience is the positive adaptability and resilience exhibited by individuals in the face of setbacks, adversity, or stressful situations, reflecting the core elements of individual mental health. Psychological resilience includes multiple characteristics: firstly, resilience, which refers to an individual's psychological strength to withstand and face difficulties; The second is self-regulation ability, including the individual's ability to regulate emotions, behavior, and cognition; The third is the social support system, which refers to an individual's ability to utilize external resources (such as family, friends, teachers, etc.) to cope with difficulties; The fourth is proactive coping strategies, such as problem-solving, seeking help, and positive thinking. Psychological resilience is not only an important resource for individuals to resist psychological pressure, but also a key factor affecting their mental health, academic achievement, and interpersonal relationship development ^[2].

2.3. The Relationship between Physical Education and Frustration Education

The competitive and challenging nature inherent in physical education makes it an ideal carrier for implementing setback education. In sports activities, students can experience setbacks firsthand by participating in various forms of competition and challenges, such as the outcome of matches, conflict resolution in teamwork, or high-intensity tasks in physical training. This experience is not only authentic and contextual, but can also be transformed into an opportunity for learning under the guidance of teachers. In a safe and controllable sports environment, students can learn strategies and methods to face setbacks through failure and reflection, gradually developing higher resilience and psychological resilience. In addition, physical education provides a platform for group interaction, which helps students establish a social support system through teamwork and further promote the comprehensive development of psychological resilience ^[3]. Therefore, physical education is not only a way to cultivate physical fitness, but also an important way to improve students' psychological quality. The integration of setback education highlights its comprehensive educational value.

2.4. Literature Review

In recent years, the impact of sports culture on ethnic identity has become a hot topic of concern in academia. For example, Smith (2022) pointed out that sports events can enhance national pride and promote social cohesion ^[4]. However, existing research mainly focuses on the cultural backgrounds of Europe and America, with relatively few case studies involving the East or other countries. In addition, most studies focus on how sports culture promotes national identity, while there is

insufficient exploration of its role in cross-cultural exchange (Jones, 2023) ^[5]. For example, the dissemination of European football culture on a global scale has been widely studied, but there is less discussion on how Asian countries can engage in cross-cultural communication through sports culture (Wang&Li, 2024) ^[6]. Therefore, this article will focus on analyzing how sports culture can become a bridge for cross-cultural communication and make up for the shortcomings of existing research.

2.5. Case Study: 2024 Sports Event Interview Data

Taking the 2024 Paris Olympics as an example, the research team interviewed sports event participants from different countries (IOC Report, 2024) ^[7]. Interview data shows that cross-cultural sports communication not only promotes mutual understanding among athletes from different countries, but also affects the audience's acceptance of different cultures. For example, an athlete from Southeast Asia stated that exchanging training methods with European and American athletes not only enhanced their technical and tactical skills, but also deepened their understanding of each other's cultural backgrounds. In addition, social media has played an important role in sports culture exchange, allowing global audiences to learn about the sports culture characteristics of different countries through short videos, live broadcasts, and other forms (Brown et al., 2024) ^[8].

2.6. Theoretical Framework: Application of Cultural Capital Theory

This article will use Pierre Bourdieu's theory of cultural capital (Bourdieu, 1986) to construct an analytical framework ^[9]. Cultural capital includes three forms: internalized cultural capital (personal knowledge and skills), materialized cultural capital (sports facilities and equipment), and institutionalized cultural capital (sports education and events). Sports culture, as a cultural capital, can promote cultural identity and exchange between different countries through cross-border events, international sports organizations, and other forms. For example, the FIFA World Cup is not only a platform for competitive.

3. The Impact Mechanism of Setback Education on Psychological Resilience in Physical Education

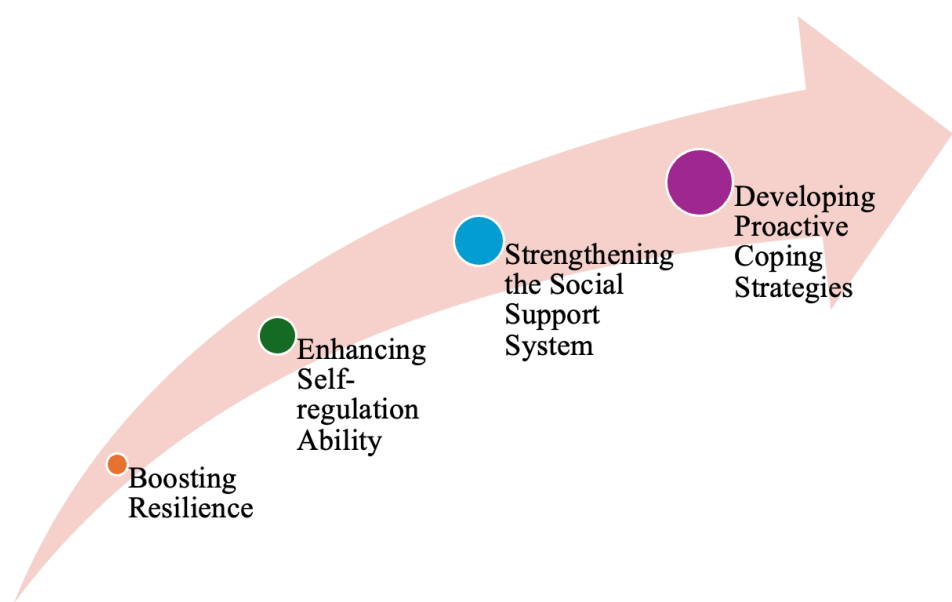


Figure1: The impact mechanism of setback education on psychological resilience in physical education

The impact mechanism of setback education on psychological resilience in physical education is shown in Figure 1. Frustration education in physical education teaching enhances students' psychological resilience, self-regulation ability, and social support awareness by helping them cope

with challenges and develop positive strategies. In a multicultural context, setback education promotes cross-cultural understanding and adaptation, and students enhance their cross-cultural abilities by interacting with peers from different cultural backgrounds. Teamwork, teacher support, and a multicultural perspective are key resources that enhance students' sense of belonging and psychological security, promoting social integration ^[10]. Physical education not only improves students' physical fitness but also helps them better cope with the pressure and challenges in life, cultivating psychological resilience and cross-cultural sensitivity.

3.1. Boosting Resilience

Frustration education in sports activities helps students face challenges and cultivate psychological resilience by creating situations of failure and difficulty. Students accumulate experience in dealing with setbacks through the process of reflecting on failures and developing solutions. Meanwhile, in a multicultural environment, they interact with peers from different cultural backgrounds, learn diverse coping strategies and values, and enhance cross-cultural awareness ^[11]. By participating in challenging activities such as long-distance running and rock climbing, students not only experience a sense of achievement in overcoming difficulties through perseverance, but also further enhance their psychological resilience and cross-cultural adaptability.

3.2. Enhancing Self-regulation Ability

In sports, frustration education may educate children to control their emotions, therefore enabling them to cope with demands of life. In times of mental or physical stress, students learn to relax, deepen their breathing, and locate their inner power. Apart from guiding pupils to overcome challenges head-on, this kind of instruction helps them to avoid negative self-criticism and substitute constructive self-evaluation. Frustration education is a fantastic tool for many reasons in helping children learn to regulate their emotions and actions. In many different cultural settings, addressing demanding circumstances depends on having these skills. The variety of nationalities in the class means that pupils might perhaps perceive issues from fresh angles. Children learn increased self-awareness, cultural competence, resilience, and adaptation by engaging with peers from all backgrounds. Children who participate in cross-cultural learning develop greater flexibility and intercultural awareness, which are psychological foundations of the success and global advancement of modern civilization.

3.3. Strengthening the Social Support System

Enhancing one's capacity for endurance Physical education classes depend much on group projects and interaction. In sports, kids become united and friendly as they cooperate to reach shared objectives and conquer shared problems ^[12]. Learning communication and problem-solving strategies from various cultures helps students to improve their coping strategies and cross-cultural awareness. Teachers are very important in this process as they help students overcome obstacles, stop emotions of isolation and helplessness, and grow from their mistakes by giving quick encouraging words and support. Strong social support systems that enable students to feel like they belong and are sheltered allow them to overcome challenges and preserve psychological resilience.

3.4. Developing Proactive Coping Strategies

Apart from helping students to actively look for answers when confronted with challenges, physical education motivates them to build adaptable coping techniques. In running training, for instance, students could overcome their physical limitations by adjusting their speed or scheduling frequent rests; in team activities, after looking at errors, communication can help to enhance collaboration. Living in a cross-cultural setting exposes children to multiple ways of approaching issues from classmates from different backgrounds, which enables them to be more flexible and adaptable. Moreover, physical education emphasizes goal planning and process management, which enables pupils to progressively overcome obstacles by setting reasonable and fair objectives. These connections enable pupils to manage personal problems and navigate cross-cultural relationships, as well as to become more mentally resilient.

4. The Practical Path of Setback Education in Physical Education

4.1. Designing Diverse Setback Scenarios

Design of setback events is a crucial element of setback education as it directly affects the learning and development of students. Students who experience difficulties in a variety of contexts develop their ability to recognize and handle failures. Making a lot of reasonable setback situations can help pupils learn how to identify and handle failures. < These exercises enable students to build psychological resilience by placing them in circumstances wherein they experience stress and failure but simultaneously inspire them to consider their behavior and find ways to handle their challenges. As illustrated in Figure 2, students might have the chance to develop psychological resilience by means of events such blunders in sports, bad performance in contests, and other like circumstances. Should pupils decide to deliberately go through this setback, they may be more suited to meet their own demands down road.



Figure 2: Designing diverse setback scenarios.

4.1.1. Competitive Activities

By organizing sporting activities like basketball and relay races, children might experience directly the emotional swings brought about by success and defeat. Should anything go wrong, students develop to analyze, combine their experiences, learn from them, and purposefully face next challenges by shifting their viewpoint. Students who are about to succeed might perceive it rationally, know the effort and persistence needed instead of becoming lazy. This experience not only helps students boost their psychological resilience and adapt to various challenges but also strengthens their competitive spirit, therefore allowing them to maintain justice and respect of others in rivalry. These sports simultaneously teach children how to accept every new challenge, maintain a positive attitude in fierce competition, and progress personally growth and teamwork.

4.1.2. Physical Challenge

Designing sports events with either high-intensity or long-term nature would help kids in building their willpower and psychological resilience effectively. Among such pursuits include weight-bearing walking, long-distance running, and intensive physical training. Ren, Q. and Jiang, S. (2021) found that giving pupils physical challenges spanning thirty to sixty minutes will help them to build their psychological resilience and tenacity. While protecting kids from becoming too tired, the activities they engage in during this interval could help them to break beyond their psychological and physical limitations. For example, a forty-five-minute long-distance running training session may greatly boost students' endurance as well as their capacity for self-control and development of enhanced psychological resilience ^[13].

However, it is worth noting that prolonged high-intensity physical activity exceeding 90 minutes may lead to diminishing effectiveness, as sustained physical exertion can cause fatigue and reduce

motivation, thereby affecting student engagement and progress. A study by . A., Yudiana, W., & Fadilah, S. H. (2022) showed that after experiencing more than 90 minutes of intense physical activity, students' enthusiasm and participation significantly decreased, and dropout rates increased ^[14]. Therefore, when designing sports tasks, it is necessary to carefully control the training duration and intensity, avoid overexertion, and ensure that students can achieve sustained positive results through long-term participation.

Constant high-intensity physical activity lasting more than 90 minutes, however, may limit efficacy since extended physical effort may generate tiredness and lower motivation, therefore decreasing student involvement and progress. After more than 90 minutes of intense physical exercise, students' interest and involvement declined significantly, while dropout rates rose according to a 2022 research by A., Yudiana, W. and Fadilah, S. H ^[14]. Therefore, even when creating athletic difficulties, it is essential to closely control training length and intensity to prevent overexertion and guarantee that children benefit over the long run from their involvement.

In a multicultural context, students may have varying levels of endurance and coping strategies, so it is important to tailor physical challenges to individual needs and cultural backgrounds to maximize their positive impact on perseverance and resilience.

4.1.3. Situational Simulation

Build specific scenarios, such as simulating the tense atmosphere of a competition or facing unexpected situations (such as suddenly changing competition rules or adding obstacles), to allow students to exercise their coping abilities under psychological pressure. This simulated environment provides a real but controllable experience of setbacks, which helps to enhance students' psychological resilience.

4.2. Paying Attention to Individual Differences and Psychological Counseling

The effectiveness of setback education is closely related to individual characteristics. Teachers should fully consider students' age, personality, and psychological resilience, and develop personalized educational strategies. For example, for students who are psychologically sensitive or have weaker tolerance, increasing encouragement and providing positive feedback can help them enhance their confidence; For students with strong psychological resilience, the difficulty of setback tasks can be appropriately increased, such as increasing training intensity or shortening task completion time, to further stimulate their growth potential. At the same time, in the implementation of setback education, teachers should pay attention to students' psychological state, help them relieve negative emotions through conversation, comfort, and emotional communication, and avoid psychological distress caused by excessive pressure ^[15].

4.3. Building A Supportive Environment

A supportive environment is an important guarantee for the smooth implementation of setback education. Physical education teachers are not only organizers of activities in setback education, but also guides and supporters of students. They should help students find confidence and motivation to solve problems in setbacks through positive motivation and guidance. Peer support is equally important. By establishing a team working atmosphere, students can gain emotional support and a sense of belonging from the encouragement and help of their teammates. In addition, emotional support and cooperation from parents are also indispensable, creating a warm and supportive educational environment through interaction with schools.

4.4. Strengthening Educational Evaluation and Feedback

The value of setback education lies in making students aware of their own growth through feedback. Teachers should pay attention to the diversity and immediacy of evaluation methods in educational practice. For example, having students share their insights on setbacks through classroom discussions, helping them summarize their experiences through one-on-one conversations, or promoting self-awareness through writing reflective notes. At the same time, teachers can combine students' performance in setback education, point out their strengths and weaknesses, and provide

clear directions for their future development. Timely feedback not only helps students recognize the significance of setbacks, but also enhances their growth motivation and self-efficacy.

5. Suggestions

The promotion of setback education in physical education teaching is of great significance for the development of students' psychological resilience. To achieve effective implementation, it is necessary to incorporate setback education into the core content of physical education curriculum and strengthen its execution through policy support and teacher training. At the same time, strengthening the synergy between family and society, creating a practical environment for students to experience moderate setbacks, can help comprehensively cultivate their resilience. In addition, by integrating psychological counseling with physical education, schools can help students better cope with setbacks, master skills such as stress management and teamwork, and achieve balanced physical and mental development, laying a solid foundation for future challenges. Figure 3 shows suggestions for implementing setback education for students in physical education.

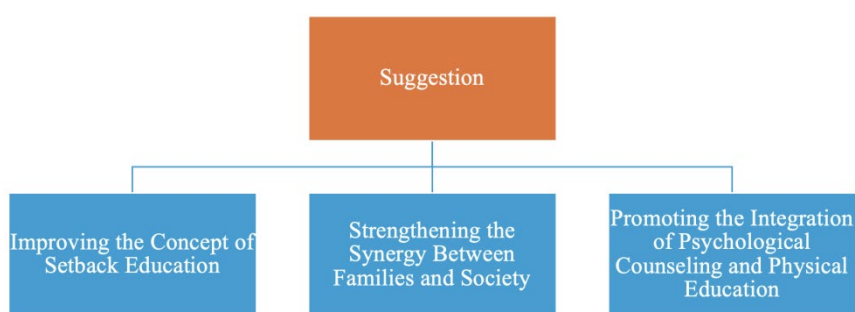


Figure 3: Suggestion.

5.1. Improving the Concept of Setback Education

The establishment and promotion of the concept of setback education is a prerequisite for its effective implementation. Schools should incorporate setback education into the core content of physical education curriculum and clarify its important role in students' mental health development. This requires the education management department to formulate relevant policies and incorporate setback education into the guidance outline of physical education teaching. In addition, schools need to regularly provide professional training for physical education teachers to master the theory and practical methods of setback education and improve their ability to implement setback education in teaching. For example, teaching demonstrations, case sharing, and experience exchange can be used to help teachers design setback situations that are more in line with students' psychological characteristics. In classroom teaching, teachers should focus on cultivating students' correct understanding of setbacks, strengthening the concept that "setbacks are a necessary path to growth", and helping students maintain a positive attitude when facing failures and difficulties.

5.2. Strengthening the Synergy Between Families and Society

The implementation of setback education not only relies on schools, but also requires extensive participation from families and society. As important supporters of students' growth, parents should recognize the importance of setback education in cultivating psychological resilience and avoid overprotection of their children^[16]. Organizing family sports events and other activities can create a moderate experience of setbacks for students, allowing them to learn to face challenges with the support of their families. At the same time, communities can also play a positive role, such as regularly organizing community sports events or challenge activities, providing students with more opportunities to practice setback education. In these activities, students can enhance their ability to cope with setbacks through cooperation and competition with family members or neighbors. In addition, schools can establish close communication and cooperation with parents and communities,

form educational synergy through special lectures, parent teacher conferences, or community activities, and create a social environment conducive to the implementation of setback education.

5.3. Promoting the Integration of Psychological Counseling and Physical Education

The integration of physical education and psychological counseling can comprehensively enhance the effectiveness of setback education. Schools can introduce mental health education into physical education courses to help students better understand setbacks and their coping strategies through psychological counseling. For example, conducting psychological counseling courses before and after sports activities, encouraging students to share their experiences of failure or success, and helping them adjust their mentality through professional guidance. At the same time, schools can set up dedicated psychological counseling rooms, equipped with professional psychological teachers, to provide personalized counseling and support for students who show obvious psychological pressure in setback situations. In addition, psychological counseling can also be combined with sports activities to help students master skills such as stress management, goal setting, and teamwork, comprehensively enhancing their psychological resilience. Through the synergistic effect of mental health education and physical education, students can achieve balanced development in both physical and psychological aspects.

6. Conclusion and Prospect

This article focuses on the impact of setback education on the cultivation of students' psychological resilience in physical education, and deeply explores the theoretical basis, impact mechanism, and practical path of setback education. Research has found that setback education can effectively promote the comprehensive development of psychological resilience by enhancing students' resilience, self-regulation ability, and social support awareness. By designing diverse setback scenarios, focusing on individual differences, building supportive environments, and strengthening educational feedback, physical education can fully leverage its advantages in setback education.

However, there are still some problems in the practical implementation of setback education, such as insufficient attention to individual differences among students, insufficient synergy between family and society, and limited integration of psychological counseling and physical education. Therefore, this article proposes suggestions to improve the concept of setback education, strengthen the synergy between families and society, and promote the integration of psychological counseling and physical education, providing practical guidance for schools and educators.

Future research can further explore the specific implementation effects of setback education in different cultural backgrounds, genders, and educational stages, and explore diverse setback scenario designs and their applicability. At the same time, more scientific and effective evaluation tools should be developed to quantify the impact of setback education on the cultivation of psychological resilience, and to form a comprehensive theoretical and practical system. Through deeper research and practical exploration, setback education will play a more important role in students' mental health education, laying the foundation for cultivating new era teenagers with good psychological qualities.

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