

Research on the Construction of Teaching Case Bank System and Dynamic Update Mechanism for Sports Psychology Courses of Professional Degree Postgraduates

Wei Gu¹, Jianyu Zhang^{2, *}, Yin Ying³

¹ Yunnan Agricultural University, Kunming, China

² Yunnan Open University, Kunming, China

³ Yunnan Communications Vocational and Technical College, Kunming, China

* Corresponding author: Jianyu Zhang

Abstract: With the in-depth advancement of professional degree postgraduate education in China, the cultivation of practical abilities has become the core goal of course teaching. As a compulsory course for postgraduate students majoring in sports, the effectiveness of case teaching in sports psychology directly affects students' ability to solve psychological problems in sports practice. This study adopts the methods of literature analysis, questionnaire survey and empirical research to systematically explore the construction path of the case teaching database for sports psychology courses. The research finds that the current case database has problems such as insufficient quantity, uneven quality, and lagging management mechanism. Based on the constructivist learning theory and competency-based education theory, the study proposes to build a three-dimensional case database system of "theory - application - level", and through school-enterprise cooperation development, standardized process management and digital platform construction, form a dynamic update case resource system. The study also proposes guarantee measures from three aspects: organization, system and resources, and establishes a dual-dimensional evaluation system including usage efficiency and ability improvement, providing theoretical reference and practical model for the practical teaching of professional degree postgraduate students.

Keywords: Professional Degree Postgraduate Students, Sports Psychology, Teaching Case Library, Case Development Practical Ability.

1. Introduction

To implement the goals and requirements of the Ministry of Education and the Ministry of Human Resources and Social Security regarding the in-depth reform of the postgraduate professional degree training model, and to continuously improve the quality of high-level applied specialized talent cultivation, it is necessary to enhance the social responsibility of postgraduates to serve the country and the people, their innovative spirit of daring to explore, and their practical ability to solve problems. The talent cultivation model for education postgraduates in higher education institutions needs to keep pace with the times and social demands.[1-3] The "Opinions on Accelerating the Reform and Development of Postgraduate Education in the New Era" proposes to strengthen the ideological and political education in postgraduate courses, incorporate the correct political direction and value orientation throughout the postgraduate education process, and take the effectiveness of moral education as the fundamental criterion for evaluating postgraduate education work. The teaching case library for professional degree postgraduates is a practical platform for professional talent cultivation and the effective integration of theory and practice. The construction of the teaching case library helps to promote the effective implementation of the reform measures for the cultivation model of high-level applied specialized talents. Some developed countries have long adopted a training model that combines classroom practical teaching with relevant work fields and practical

experience in the cultivation of professional degree postgraduates. For example, the British professional degree training system that emerged in the 1960s has integrated practical teaching throughout, and all the selected cases are real-life cases. China is also increasingly emphasizing the improvement of students' practical abilities in the cultivation of professional master's degree postgraduates. For this reason, many universities have carried out reforms in the theoretical and practical teaching model and successively proposed a new engineering practice teaching system with the cultivation of practical abilities as the innovation point.[4-7]

"Sports Psychology" is an applied discipline that studies psychological phenomena and laws in sports contexts, targeting sports major students, athletes, coaches, teachers, and sports enthusiasts. The course aims to help students master core concepts and theories such as motivation, anxiety, self-confidence, attention, goal setting, and team cohesion, and understand how individual psychological traits (such as personality and attribution) and environmental influences (such as coach behavior and audience effect) affect sports performance, learning processes, participation persistence, and physical and mental health.[8] The core content is to teach key psychological skills (PST) for enhancing sports performance and optimizing experiences, including goal setting, imagery training, relaxation techniques, attention regulation, positive self-talk, and stress management strategies, and to cultivate the ability to apply this knowledge to analyze and solve actual psychological problems in training, competitions, teaching, and fitness guidance. Through learning, sports professionals (coaches, teachers, instructors)

can enhance their professional qualities in scientific guidance, effective motivation, team building, and identification of psychological problems; athletes can directly improve their competitive levels, cope with high-pressure environments, and ensure mental health; and ordinary participants can deepen their understanding of the positive benefits of sports on psychology, master skills to enhance the joy of sports, promote persistence, and cultivate positive qualities such as resilience and confidence. This course provides a key to in-depth understanding of the interaction between sports and the mind, improving professional abilities, or optimizing personal sports experiences. Therefore, promoting case teaching and establishing a complete teaching case library in this professional degree postgraduate course can not only improve the quality of course teaching and enhance students' enthusiasm for active learning, but more importantly, it can build a bridge that integrates theory and practice.[9]

2. Research Object and Method

2.1. Literature Analysis

By searching databases such as CNKI, WanFang, and PubMed, retrieve keywords like 'sports psychology', 'case database', and 'practice teaching' to organize relevant theoretical achievements and policy documents from both domestic and international sources, and construct a research theoretical framework.

2.2. Questionnaire Survey Method

400 questionnaires were distributed to 5 universities in Yunnan Province for master's degree programs in physical education, and 378 valid questionnaires were collected (effective recovery rate of 94.5%), including curriculum setting, practical teaching resources, and the current situation of school-enterprise cooperation.

2.3. Interview Method

Interviews were conducted with some teachers and industry experts in sports psychology to gain an in-depth understanding of the problems existing in the sports psychology curriculum system and improvement measures. The content of the interview mainly focused on the rationality of the curriculum setting, the integration of practical teaching resources, and the construction of the case library. Secondly, the heads of 15 enterprises (including fitness clubs, sports rehabilitation centers, and health management companies) and 20 industry experts will refine the standards for industrial talent demand.

2.4. Empirical Research Method

Use the analysis of hierarchy method (AHP) to build a practical teaching effect evaluation index system, determine the index weight through expert scoring, and evaluate the

matching degree of the existing system and industrial needs.

3. Literature Source and Screening

3.1. Document Source and Search Keywords

With the vigorous development of the discipline of sports psychology, the academic community has carried out extensive and in-depth explorations around its theoretical construction and practical application, and many research results have emerged continuously, greatly promoting the progress of the discipline. This article focuses on the development of sports psychology, comprehensively sorts out relevant domestic and foreign research results in the past 45 years (1980-June 2025), combines the course of discipline development and current application trends, and deeply analyzes the core content of its research. In terms of research methods, a systematic review strategy is adopted, with the China National Knowledge Infrastructure (CNKI) journal library as the core data retrieval platform, and supplementary search is carried out with Baidu Academic, Google Scholar, PubMed, IEEE Xplore, JSTOR and other platforms. When searching Chinese literature, we used keywords such as "sports psychology", "theoretical development", "practical application", and "discipline frontiers" to obtain a total of 922 related documents, laying a solid foundation for subsequent research.

3.2. Screening Criteria and Results

Through systematic review and quantitative analysis of the time distribution of research results in the field of sports psychology, it was found that the number of relevant documents showed a significant growth trend (see Figure 1), which intuitively reflects that the domestic and foreign academic circles have continued to increase their attention to this discipline. Since 2001, the growth trend of literature quantity has been particularly prominent, which is closely related to the promotion of the national fitness strategy and the explosive growth of mass sports demand. Especially with the implementation of the "Healthy China 2030" planning outline, the application value of sports psychology in practical scenarios such as sports psychological training, mass fitness behavior intervention, and psychological rehabilitation of sports injuries has become increasingly prominent, driving the transformation of discipline research from theoretical exploration to practical orientation. This demand not only promotes in-depth changes in sports psychology in talent training models, curriculum system construction, practical teaching innovation, etc., but also promotes the research scope to continuously expand to emerging fields such as e-sports psychology and elderly sports psychology, injecting new impetus into the development of disciplines, and also points out the direction for subsequent cross-disciplinary research and building a localized theoretical system.

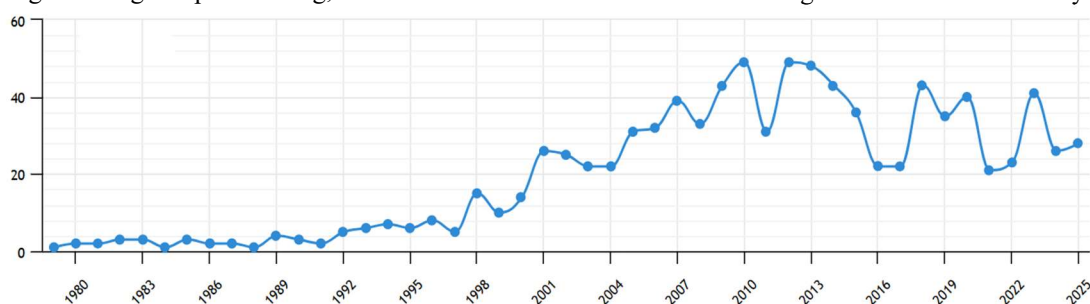


Figure 1. Statistical chart of 1980-2025

4. Research results and analysis

4.1. Analysis of teaching content of "Sports Psychology"

Table 1. Statistics of teaching content of "Sports Psychology"

Module	Core content	Teaching objectives	Application scenarios
Basic Theory	A brief history of discipline definition and development	Understand discipline positioning and research methodology, and establish scientific analytical thinking	Academic research, teaching practice design
	Research methods (experimental method, investigation method, observation method)		
	Characteristics of psychological processes during exercise		
Power system	Motivation theory (objective orientation, self-determination theory, attribution theory)	Master the motivational motivation principle and design personalized incentive plans	Athlete training management, physical education classroom teaching, mass fitness guidance
	Internal/external motivational incentive strategy		
	Exercise persistence psychological mechanism		
Cognitive and emotional regulation	Arousal, anxiety and stress theory (inverted U-shaped hypothesis, multidimensional anxiety)	Analyze the impact of psychological state on performance and master pre-match stress regulation methods	Psychological preparation for competitive competitions, examinations/selective psychological intervention
	Construction of exercise self-confidence (self-efficacy)		
	Attention control technology		
Psychological skills training(PST)	Target Settings (SMART Principle)	Proficient in using PST to improve performance and develop personalized psychological training plans	Athletes prepare for pre-match, accelerated skills learning, and psychological support during recovery
	Representation training (skill simulation, scene preview)		
	Relaxation technology (PMR, breathing method)		
	Self-talk (positive cognitive reconstruction)		
Team and social psychology	Team Cohesion Model and Measurement	Optimize team dynamic system and improve coach-athlete collaboration efficiency	Sports team management, sports event organization, campus sports culture construction
	Coach leadership style (multi-dimensional model)		
	Audience effect and aggressive behavior management		
Application expansion	Psychological rehabilitation for exercise injury	Solve psychological problems in actual scenarios and cultivate full-cycle health management capabilities	Sports rehabilitation center, community fitness projects, sports public service design
	Exercise persistence promotion strategies		
	Exercise psychological support for special groups (teenagers/disabled/elderly)		

As an important course in sports, "Sports Psychology" has rich and systematic teaching content, which is of great significance to cultivating professional talents. From the perspective of module composition, it covers six major modules including basic theory, dynamic system, cognitive and emotional regulation. The basic theory module lays a solid foundation for subsequent learning, introduces the discipline definition, a brief history of development and research methods, and allows students to clarify the discipline positioning and research paths. The power system module focuses on motivation theory and motivation strategies, allowing students to master the methods of stimulating athletes and mass sports motivation, and can be applied in

training, teaching and fitness guidance. The core content closely revolves around the themes of each module. For example, the cognitive and emotional regulation modules deeply explore theories such as awakening, anxiety, and self-confidence construction and attention control technologies, which are crucial to athletes' performance in competition and the cultivation of students' psychological regulation abilities. The psychological skills training module teaches practical skills such as goal setting and appearance training, helping students formulate personalized psychological training plans. The teaching objectives are clear and targeted. Each module has matching goals, such as the application expansion module aims to cultivate students' ability to solve practical

psychological problems and full-cycle health management, reflecting the practical orientation of the course. The application scenarios are extensive and practical. It involves competitive competitions, school sports, mass fitness and other fields, so that what students learn can be implemented in different scenarios. Knowledge such as team and social psychology modules can be used for sports team management and campus sports culture construction. Overall, the teaching content of this course is closely integrated with practice, focusing on the imparting of theoretical knowledge and emphasizing the cultivation of practical ability. Through learning different modules and core content, students can gradually build a knowledge system of sports psychology, improve their ability to solve practical problems, and lay a solid foundation for future career development in sports-related fields.

4.2. Analysis of Existing Problems in Sports Psychology Case Library

4.2.1. Quantity Shortage and Type Imbalance

The current sports psychology case library has significant problems in the number and type of cases. In terms of quantity, the existing sports psychology case library contains only 42.3 cases, which is a huge gap compared with the scale of 200+ cases in the medical professional case library. With such a limited number of cases, it is difficult to fully cover the diverse and complex scenarios in sports psychology teaching. When faced with teaching of different sports and different types of psychological problems, it is often difficult to do so. In terms of case types, there is a serious imbalance. Text cases account for as much as 90%, while video cases account for only 7%, and data visualization cases are less than 3%. Taking the common psychological problem of pre-match anxiety as an example, video cases can carefully analyze the micro-expressions of pre-match anxiety of athletes, while data visualization cases can present key information such as the correlation map of heart rate variability and psychological state. A psychological consultant from a Chinese Super League club pointed out that there are obvious shortcomings in the text cases when presenting real-time emotional fluctuations in the player's psychological intervention process. Details such as the player's pupil changes and muscle tension before the penalty kick are difficult to reflect, which makes the teaching content seriously disconnected from the actual situation, greatly affecting the quality and effectiveness of sports psychology teaching.

4.2.2. Quality Defects and Aging Lag

43% of the cases in the current sports psychology case library have structural defects and lack a closed-loop logic system of "problem description-theoretical attribution-intervention plan-effect verification". Such cases often stay at the level of phenomenon description. For example, only recording athletes' abnormal performance in competitions is recorded, but attribution theory is not used to analyze their internal attribution deviation mechanisms, and cognitive reconstruction training plans and effect evaluation links are not designed, making it difficult for case teaching to achieve the ability transfer from phenomenon cognition to practical application. This lack of structure makes it impossible for students to systematically master the complete workflow of "diagnosis of psychological problems - application of theoretical models - design of intervention strategy - empirical effect testing", weakening the value of case teaching in cultivating professional practical ability. At the

same time, 28% of cases still use old materials from before 2015. Typical examples include continuing to use Liu Xiang's withdrawal from the competition in 2008 for psychological analysis, but they are not included in the cutting-edge issues such as the Tokyo Olympics "Psychological Adaptation of Empty Competitions" and the Beijing Winter Olympics "Social Media Stress Management of Generation Z Players" and other cutting-edge issues. These outdated cases fail to reflect the new changes in the psychological characteristics of athletes in the digital age, especially the lack of psychological intervention research on emerging scenarios such as empty events and social media public opinion under the epidemic, resulting in the case library being unable to meet the psychological challenges faced by athletes in current sports practice, which in turn affects the synchronization of teaching content and industry development.

4.2.3. Institutional Flaws at the Management Mechanism Level

The current sports psychology case library has significant confusion in the classification system, and the classification standards of each university lack uniformity. Survey data shows that 34% of colleges and universities are classified by theoretical modules (such as motivational psychology, cognitive psychology, group psychology, etc.), 41% are classified by application scenarios (such as sports training, sports competitions, sports rehabilitation, etc.), and the remaining 25% adopt a classification method that mixes theory and scenes. This multi-classification standard leads to disorder in the internal logical system of the case library. Typical problems such as "athletes attribution deviation" cases appear in the two categories of "motivation theory" and "training psychology", and the repetition rate of similar cases is as high as 18%. The chaotic classification system directly leads to a significant decrease in retrieval efficiency. User survey data show that due to inconsistent classification logic, teachers and students' efficiency in case search decreased by 37%, and the average search time was extended from 5 minutes under the standard classification system to 8.3 minutes. This situation not only increases the time cost of teaching preparation, but may also lead to the reuse of inefficient cases or the missed high-quality cases, seriously affecting the systematicity and targeted nature of case teaching. The lack of a scientific and unified classification framework makes it difficult for the case library to form a structured knowledge system, which restricts the integration and optimization of sports psychology case teaching resources.

4.2.4. Lagging Update Mechanism

In the current construction of the sports psychology case library, 85% of universities have not yet established a standardized case entry review system, regular update process and inefficient case elimination mechanism, resulting in the iteration of the case library content lags behind industry development. Data shows that the average update cycle of the case library is as long as 4.2 years, while the technology iteration cycle of the sports industry during the same period was only 1.8 years. This lag makes it difficult for the case library to reflect the latest progress in the field of sports psychological intervention. What is more prominent is that the case inclusion rate in emerging practice fields such as e-sports players' attention training, wearable device biofeedback training, and virtual reality exposure therapy in the past five years is still 0% (2023 "Sports Psychology Discipline Development Report"). Taking e-sports as an

example, the attention distribution training of professional players has formed a unique psychological intervention system, but the case library has failed to include such cutting-edge content, resulting in professional degree graduate students not being able to access psychological intervention technology in the digital sports era. This structural lack of case resources has created a clear gap between the teaching content and the needs of professional sports practice, which not only restricts students' ability to solve emerging sports psychological problems, but also causes the case library to be unable to provide knowledge support for technological innovation in the sports industry, which deviates from the "practice-oriented" training goal of professional degree education.

4.3. "Theory - Application - Hierarchy" Objectives and Principles of the Three-Dimensional Case Library System in Sports Psychology

4.3.1. Construction Objectives

Building a "three-dimensional integrated" case library system, including:

(1) Theoretical dimension: covers the core theoretical modules of sports psychology, such as: Cognitive psychology: motor perception, motor representation, motor attention; Motivational psychology: achievement goals, attribution theory, self-determination theory; Psychological skills: relaxation training, biofeedback, goal setting technology

(2) Application dimension: Covering all scenarios of sports practice, including:

Sports training psychology: basketball players' free throw psychological training, swimmers pre-match psychological adjustment; Physical education psychology: Attention management in physical education classes in primary and secondary schools, motivation for learning physical education classes in colleges and universities; Sports event psychology: response to pressure in major events and psychological adjustment of referees

(3) Hierarchy dimension: Design a three-level case difficulty system:

Basic cases (undergraduate level): focus on theoretical cognition, such as "football player's attention to the moment of shooting"; Comprehensive case (professional master's level): emphasize problem solving, such as "young tennis players' game anxiety intervention"; Innovative cases (master level): focus on strategic design, such as "Professional Basketball Team Cohesion Improvement Plan"

4.3.2. Core Principles of Building a Case Library for sports Psychology

(1) The principle of unity of professionalism and professionalism

Case design needs to achieve a two-way integration of the depth of discipline theory and professional practice needs. When developing the "Psychological Fatigue Monitoring during the CBA Player Load Training Period", the theoretical model of sports psychology (such as Kellmann's Psychological Energy Recovery Scale Theory) and professional sports operation specifications (such as the "National Team Scientific Training Monitoring Guide"), and build a complete closed loop of "theoretical explanation-monitoring methods-intervention countermeasures" through training logs, salivary cortisol detection data, attention

network test (ANT) and other multiple evidence links. This principle requires case developers to have both a background in sports psychology research and professional sports practice experience, ensuring that cases can not only support the teaching of "Sports Psychological Measurement" courses, but also directly serve the cultivation of psychological consultants positions in professional clubs.

(2) Principle of equal importance to authenticity and typicality

Typical events that need to focus on real scenes for material selection, take the case of "Quan Hongchan Pre-match Psychological Adjustment" of the Chinese diving team at the 2024 Paris Olympics as an example: 1) Authenticity guarantee: Use first-hand information such as physiological monitoring data (heart rate variability HRV), coaching staff interview transcripts, athlete self-report texts and other first-hand information; 2) Typical reinforcement: This case must abstract the universal mechanism of "responsiveness of youth athlete competitions", revealing the common laws of psychological skills training (PST) in the control of movement stability, and avoid falling into individualized narrative fragments. This principle requires cases to meet the dual standards of "scenario truth-based" and "theoretical paradigm transferable".

(3) The principle of combining dynamic and shared

Establish an institutionalized update mechanism and a cross-school collaborative platform: Implement a compulsory replacement mechanism for 20% of cases per academic year, focusing on incorporating emerging cases such as e-sports cognitive load regulation, national fitness behavior persistence intervention, and AI psychological state recognition (such as the "2023 Hangzhou Asian Games E-sports Player Training Report"); Relying on the "National Sports Psychology Teaching Alliance", build a standardized case library cloud platform, adopt a five-level authority management system to realize inter-school on-demand calls, eliminate duplicate construction (such as the "VR Anxiety Regulation Cases" of Beijing Sports University open to alliance members), and ensure resource quality through annual case quality double-blind review.

4.4. "Theory - Application - Hierarchy" 3D Case Library Construction Path

4.4.1. Multi-dimensional Collaborative Case Development Mechanism

In order to improve the practical orientation of the sports psychology case library, it is necessary to build a collaborative innovation case development system of "universities-industry" and establish a normalized "case co-construction base" with professional sports clubs and sports education institutions. The specific implementation process follows a three-stage closed-loop model:

(1) Demand docking: Establish a dual-quarter demand collection mechanism (March and September each year), and collect the industry's front-line psychological service needs through questionnaires, in-depth interviews, etc. For example, a club in the Chinese Super League proposed the case development needs of "cultural adaptation psychological intervention during the period of foreign aid integration", which clearly stated that specific problem scenarios such as cross-cultural communication barriers and poor training adaptation are needed.

(2) Joint research: Adopt the on-site research model of "teacher-leader-participation + graduate student

participation", and obtain multi-dimensional materials including training logs, biofeedback data, interview recordings, etc. through training observation, psychological assessment (such as using STAI scale to collect anxiety data), semi-structured interviews, etc. In a provincial team cooperation case, the research team collected heart rate variability (HRV) data and training performance records of 12 athletes through 30 days of tracking.

(3) Dual writing: Form a dual development model of

"university theory framework + industry practice details". College teachers are responsible for the embedding of theoretical tools such as the inverted U-shaped anxiety theory and cross-cultural acculturation model. The club's psychological consultant provides practical details such as "Psychological Construction of Foreign Aid Welcome Ceremony" and "Bilingual Psychological Counseling Process". Finally, the case was written after three rounds of revisions between the two parties.

Table 2. School-enterprise cooperation development cases

Case name	Cooperation unit	Case type	Application scenarios
"Marathon athletes 'Blocking period' psychological intervention"	A marathon organizing committee	Video + Data	Endurance program training
"Aggressive Emotion Management for Youth Football Players"	A football team	Text + Scale	Youth Training Teaching
"Psychological Compensation Training for Paralympic Swimmers"	Sports Management Center for Disabled Persons in a certain province	Audio + Tactile Training Program + Interview Record	Psychological adaptation training for visually impaired athletes in water direction recognition, movement coordination and competition rhythm control
"Development of psychological strategies for classroom management of campus physical education teachers"	Physical education and research group of a key middle school in a certain city	Text + Classroom Observation Video + Student Questionnaire	Localized psychological intervention plan for students' attention maintenance, conflict mediation and motivational stimulation in primary and secondary school physical education classrooms
"Ice and Snow Sports Athletes Before the Game 'Ice Rink Fear' Desensitization"	A scientific research team of a figure skating team	VR exposure therapy + physiological indicator monitoring data	Athletes in figure skating, short track speed skating and other events relieve fear of ice environment and rebuild confidence in the ice environment before major events
"Strategy for improving cohesion of the elderly square dance team"	A community senior sports association	Text + Activity Video + Social Network Analysis	Optimization of leadership behavior, membership sense of belonging and conflict mediation psychological technology of middle-aged and elderly fitness teams in urban communities

4.4.2. Functional Architecture of Intelligent Management Platform

A case library management system developed based on cloud computing architecture realizes the intelligent operation of three core functions through data mining and machine learning technology:

(1) Intelligent recommendation system: Adopt the "three-dimensional matching algorithm" to automatically filter cases with a matching degree of $\geq 80\%$ based on the teaching objectives input by the teacher (such as "training psychology"), student ability level (such as junior college/master) and teaching form (theoretical courses/practice courses). The system has built-in tag association database. For example, when the "motor anxiety intervention" target is input, cases containing theoretical tags such as "inverted U-shaped theory", "biofeedback technology", and scenario tags such as "basketball game", "pre-match warm-up", and priority is given to high-quality cases with high frequency and excellent student evaluation.

(2) Multi-dimensional effect tracking: build a closed loop of "Usage-Evaluation-Conversion" data, automatically record the annual usage frequency of each case, the three-dimensional scores of students from "Theoretical Understanding", "Scenario Adaptation", and "Practical Guidance", and track the practical conversion rate of case strategies through internship report keyword analysis. The visual analysis report is systematically generated. As shown in the "2023 Case Library Use Heat Map" shows, the

"Volleyball Decisive Game Psychological Adjustment" case was marked as the core case due to its use 12 times and a student score of 4.8 points.

(3) Dynamic update warning mechanism: Set the "double threshold trigger" rule. When the case has not been used for more than 2 years or the industry technology iteration index (such as e-sports psychological intervention technology update) exceeds 30%, the system will automatically mark the case as "to be updated" status and push the latest industry trends to the case development team. For example, in 2024, the system automatically triggers the "traditional relaxation training case" update warning, prompting the inclusion of new cases of VR virtual relaxation technology.

4.5. The Application of the Three-dimensional Case Library System of "Theory - Application - Hierarchy" in Sports Psychology

4.5.1. In-depth Application in Classroom Teaching

Situational simulation teaching: By constructing highly simulated physical psychological intervention scenarios, the practical transformation of theoretical knowledge is achieved. Taking the case of "Psychological Intervention in the Rehabilitation Period of Athlete's Injury Rehabilitation" as an example, students were grouped as athletes (simulating postoperative anxiety of anterior cruciate ligament reconstruction), psychologists (designing cognitive behavioral intervention plans), and coaches (developing

progressive rehabilitation training plans), and completed rehabilitation conversation simulations with the assistance of standardized patient (SP) technology. Teachers conducted process evaluation based on the "Sports Psychological Intervention Assessment Scale" (including 12 indicators of three dimensions: effectiveness of intervention strategy, empathy ability, and accuracy of theoretical application). The practice of a certain university showed that this model increased the accuracy of students' intervention plan design by 41%.

Case chain teaching: build an inter-semester case teaching chain around vertical themes such as "athletes' career transformation". In the first semester, the psychological adaptation mechanism was analyzed through the case of "Professional Transformation Anxiety for Retired Basketball Players", the second semester was connected to the case of "Entrepreneurship Psychological Capital Cultivation of Retired Athletes", and the third semester was extended to the case of "Psychological Skill Transfer in Sports Management Positions", forming a spiral learning path of "Problem Identification-Strategic Design-Ability Transformation".

4.5.2. Extended Application of Practical Links

Case library-internship base linkage mechanism: establish a practical closed loop of "case search-scene comparison-scheme optimization". When a graduate student is intern in the provincial shooting team, he needs to retrieve the case "Psychological Control of Yang Qian's Finals of the 2020 Tokyo Olympics" from the case library, compare the heart rate variability (HRV) data and attention allocation characteristics of athletes in actual training, and complete the "Case Transfer Application Report" including "Case Match Analysis", "Strategic Improvement Suggestions" and "Effect Prediction Model". Data from a provincial team showed that the adoption rate of psychological intervention plans of interns increased from 28% to 63% after adopting this model.

Innovation mechanism of case analysis competition: build a three-in-one case competition system of "school-enterprise-research". The competition is set up with the "Best Theoretical Application Award" (based on the APA case analysis standards) and the "Most Practical Value Award" (rated by the Psychological Director of Professional Clubs). The winning works must pass the third-level review of "Theoretical Rigour Test", "Scene Adaptation Test" and "Intervention Validity Test". In a 2024 college competition, the case of "Biofeedback Intervention on E-sports Player Competition Stress" was adopted by the LPL club as a youth training psychological textbook for integrating eye movement tracking data and HRV monitoring technology.

5. Conclusion

The construction of the teaching case library for the sports psychology courses for professional degree graduate students is a systematic project that needs to be coordinated from multiple dimensions such as theoretical architecture, development mechanism, and management applications. This study provides a feasible solution to solving the structural contradictions in the current case library construction by building a "three-dimensional integrated" case library system and establishing a collaborative development model of schools and enterprises and a digital management platform.

Research shows that the construction of a scientific case library can effectively promote the transformation of theoretical knowledge into practical ability, which is in line with the "practice-oriented" training goals of professional degree graduate students. In the future, we need to further deepen technological integration and interdisciplinary cooperation, promote the construction of a case library and the development of the sports industry to resonate with the development of the sports industry, and provide solid support for the cultivation of high-quality sports professional talents.

Acknowledgments

Fund Project:

- (1) 2023 Yunnan Province Professional Degree Postgraduate Teaching Case Library Construction Project-"Theory and Methods of Sports Psychology";
- (2) 2024 Yunnan Province Graduate Quality Course Project Construction Project-"Theory and Methods of Sports Psychology";
- (3) Yunnan Agricultural University School-level first-class undergraduate courses (2023YLKC055);
- (4) Yunnan Agricultural University Undergraduate Teaching Reform Project(YNAUKCSZSFKC2024011).

References

- [1] Central People's Government. On Accelerating the Reform and Development of Postgraduate Education in the New Era Opinions [EB/OL]. (2020-09-22) [2022-10-18].http://www.gov.cn/zhengce/zhengceku/2020-09/22/content_5545939.html.
- [2] Mou Hui, Hao Zhuofan, Chen Jing. Comparative study of Sino-US case teaching methods [J]. *Guan Case Studies and Comments*, 2021, 14 (4): 457-463.
- [3] Huang Li. Construction path of ideological and political case library for university English courses under the new liberal arts environment Exploration[J]. *Journal of Hubei University of Economics (Humanities and Social Sciences Edition)*, 2023,20 (08): 144-146.
- [4] Zhao Xi, Wan Ying. A brief analysis of the design and application of ideological and political cases in professional courses [J].*Journal of Heihe University*, 2023 (11): 126-129.
- [5] Jessica D. Remedios. Psychology must grapple withWhiteness [J].*Nature reviews psychology*, 2022 (01): 125-126.
- [6] Zheng Xianru. A new exploration on the teaching of "Basics of Psychology" courses under the background of teacher certification Suo [J]. *Journal of Longyan College*, 2023, 41 (06): 124-128.
- [7] Yang Wenkai, Xu Hongli, Wang Xiaojun. Ideological and political cases in mechanical manufacturing engineering courses Research on case design process [J]. *China Machinery*, 2024 (11): 106-110.
- [8] Guo Yuqin, Zhang Hongzheng. Ideological and political cases in the course of "Otolaryngology, Throat, Head and Neck Surgery" Exploration of library construction[J]. *China Continuing Medical Education*, 2022, 14 (18):173-176.
- [9] Kong Weihua, Xu Xiaoyu, Zhu Jun, etc. Thoughts on the professional courses of surveying and mapping geographic information Construction and Practice of Political Case Library [J]. *Surveying and Mapping Bulletin*, 2022 (10): 152-157.