



Research on Teaching Reform Innovation of Rope Skipping Course Nurturing System in Shenzhen University

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Abstract. Cultivating students' core literacy helps to complete the process of students' socialization, and figure rope skipping, because of its unique educational value and potential for nurturing people, has become a teaching carrier for cultivating students' core literacy in physical education, which will be effectively formed through the mode of “learning, practicing and competing” in the course. This paper adopts the questionnaire survey and mathematical statistics method to conduct empirical study on the rope skipping course offered by the leisure sports majors of Shenzhen University. It explores the implementation of the rope skipping course under the guidance of core literacy, analyzes the impact of the reformed rope skipping course on students' core literacy and comprehensive ability, and puts forward relevant countermeasures based on the results of the study, which provides reference for the reform of the teaching and nurturing system of the physical education curriculum.

Keywords: Quantitative research; rope skipping course; nurturing system; teaching reform

1 Introduction

The teaching reform of cultivating core literacy aims to promote the overall development of students. As an important field for cultivating outstanding talents, the teaching reform and innovation of the parenting system is indispensable for the physical education profession. Figure skipping rope, as a sport, is a combination of integrating a variety of sports and arts. In recent years, synchronized rope skipping has become popular and has also developed into an emerging sports course. Figure rope skipping course has a significant sports function and implicit nurturing function, and it's suitable for use as a teaching carrier to cultivate students' core literacy in physical education, to understand the specific situation of the implementation of the teaching reform of the rope skipping

course under the leadership of the concept of core literacy, and to analyze the existing problems ^[1]. In the context of the new era, with the promotion of the concept of core literacy, future colleges and universities will pay more attention to the cultivation of students' core literacy and comprehensive ability, and the cultivation of students' core literacy has become an important task of teaching reform ^[2].

Leisure sports major rope skipping course in School of Physical Education, Shenzhen University fulfills the implementation of “learning, practicing and competing” teaching mode, “competing” to promote “practicing”, “practicing” to promote “learning”. Through the implementation of the “learning, practicing, competing” teaching model, the course promotes “practice” and “learning” by “competition”. Learning in the classroom, practicing in the after-school time, and competing in the sports competitions, which form the core qualities of physical education disciplines, promotes the overall development of students, improves their comprehensive ability, and cultivates their professional skills and athletic abilities. Among these student, Wu Guo Qiang, an undergraduate of the class of 2019, won the world champion of rope skipping at the World Rope Skipping Championships through the rope skipping course, and a number of undergraduates of the classes of 2018, 2019, and 2020 won the national champion of rope skipping. And in the first Guangdong Province College Students' Rope Skipping Championship in 2022, they won the first place in the total group score of the college group. Therefore, this study examines how to establish a new type of physical education lecture based on core literacy and adopting the teaching mode of “learning, practicing and competing” to realize the process of cultivating core literacy through tracking and observing the whole process of the three grades in which the rope skipping course is offered. The experience of rope skipping curriculum reform based on the concept of core literacy provides reference for other universities to implement the teaching reform and innovation of physical education curriculum, helps to promote the development of physical education field, and provides inspiration and thinking for the innovation of physical education curriculum in colleges and universities and the cultivation of students' core literacy.

2 Literature Review

Wang (2023) defines that core literacy referring to the important abilities and qualities that a person has in various aspects, which are not only the basic requirements for students' future work and life, but also the key to future social change and development ^[3]. Yu (2019) believes that core literacy is the generalization and embodiment of the basic qualities and basic abilities needed for students to adapt to lifelong growth and social adaptation. Core literacy in physical education is an important quality education to promote the overall development of students, which mainly includes three teaching objectives, such as physical education emotion and character, motor ability and habit, and health knowledge and behavior. Core literacy in physical education is a part of it, and it also helps to improve the core literacy of students. Core literacy and physical education disciplinary literacy influence and promote each other ^[4]. Bai and Tian (2021) believe that core literacy actually refers to the important qualities and talents that students

should have in the learning process to adapt to the development of the society, and emphasize on the cultivation of comprehensive literacy of the students' personal by the education, including the construction of patriotic zeal and all-around talents of the students. Core literacy in physical education actually refers to the integration of core literacy into physical education teaching, aiming to cultivate students' motor skills, healthy behaviors, sports ethics and sports willpower^[5].

The physical education course is designed to develop and improve the physical fitness of students through planned physical activities. Through instruction and practice in the physical education course, students can develop self-confidence, teamwork, and a healthy outlook on life that will positively help them in their future life and work. Figure rope skipping, as a new sport, is designed to show athletes' agility, endurance, and coordination. This sport includes various forms such as single jumping, double jumping, multiple jumping, and cross jumping. He (2019) proposed that figure rope skipping activities and related courses be developed as an important means of physical education teaching in colleges and universities. Through the implementation of the teaching practice of the "figure rope skipping" curriculum, in the areas of "motor skills", "health behavior", "physical character". The core qualities of the physical education discipline have been formed in the aspects of "motor skills", "healthy behavior", "physical integrity", etc., which reflects the educational value of the physical education discipline^[6]. According to Lv (2021), in the current teaching and learning environment, figure rope skipping has a high degree of flexibility and openness compared with other sports. It is creatively choreographed, which is an effective way of exercising and helps students to think more creatively and is beneficial to overall development and overall quality improvement^[7].

Chen (2020) regards that the nurturing system of colleges and universities as an important way to cultivate high-quality sports specialists. In the current context of China's implementation of quality education, it is more important to focus on improving students' core literacy in order to make them become high-quality talents in line with the requirements of the times^[8]. Zhu (2024) believes that school sports should clarify the real situation and action mode of cultivating core literacy, constantly pinpointing, refining, and refining the goal of sports parenting, and carrying out effective parenting practices^[9]. Guo and Liu (2021) emphasize that in the system of university education, the quality of teaching depends largely on the teaching concept and practice level of teachers. Quality teaching can promote the cultivation of students' core qualities, especially focusing on the cultivation of students' personality and practical ability^[10].

Yu (2020) points out that the educational model of college student training in China is undergoing profound changes. Literacy education integrates sports into the development of college students' core qualities, not only focusing on academic progress, but also emphasizing the cultivation of physical health, encouraging teamwork and fair competition, shaping perfect personalities and social concepts, and cultivating students to become well-rounded talents in the new era^[11]. Gao and Tan (2023) argue that the innovative development of university physical education has a positive effect. By performing physical exercises, students' physical fitness, teamwork and leadership skills can be improved, thus enhancing their core literacy^[12].

In general, domestic and foreign experts generally believe that core literacy is a necessary literacy for students, and they all carry out teaching reforms with the concept of core literacy to explore and innovate talent cultivation modes. In China, rope skipping course is considered to have important parenting value, which can exercise students' core literacy such as physical fitness, teamwork and creativity. There are still some problems in physical education in domestic colleges and universities, which need to improve students' core qualities and comprehensive ability through teaching reform, and there are fewer studies on rope skipping course in foreign countries, and more studies on teaching reform of other sports. In order to improve the quality of teaching, adapt to the needs of social development, and promote the overall development of students and other purposes, the innovation and improvement in the teaching concept, teaching content, teaching methods and other aspects. Through continuous teaching reform, it adapts to the needs of social change and development, improves the quality of teaching, promotes the comprehensive ability of students, and promotes the sustainable development of education. Therefore, from the perspective of core literacy, this paper explores the cultivation of core literacy and comprehensive ability of physical education discipline in rope skipping course, improves the domestic and international research on the teaching reform of rope skipping course, and provides useful inspirations and suggestions for the development of physical education in colleges and universities through practical research and teaching practice.

3 Research Methodology and Data Collection

The current status of the cultivation of students' core literacy in the discipline of physical education is based on the structural division of core literacy in the discipline of physical education to comprehensively understand the situation of students in the three aspects of athletic ability, health behaviors and sports morality, and to assess the impact of the rope skipping course on students' core literacy in the discipline of physical education. In terms of the effect of course teaching reform, it is based on the document from Ministry of Education's "Implementation Measures for the Certification of Teacher Training Courses in General Colleges and Universities", and based on the graduation requirement decomposition indicators with the questionnaire designed for the rope skipping course.

The questionnaire was distributed through the combination of online questionnaire and on-site to the college students of School of Physical Education of Shenzhen University in three grades of 2020, 2019 and 2018. There were 47 in the 20th grade, 43 in the 19th, and 51 in the 18th, for a total of 141 in the three grades. 126 questionnaires were distributed, all of which were recovered, with a recovery rate of 100%, and 126 valid questionnaires, with an effective rate of 100%. Among them, the proportion of 45 students in the 2020 grade was 35.71%, the proportion of 40 students in the 2019 grade was 31.75%, and the proportion of 41 students in the 2018 grade was 32.54%, and the number of students in the three grades remained consistent.

Cronbach's alpha coefficient was used for measurement and standardization, and SPSS 24 was used to analyze the reliability of the statistical data. The Cronbach's alpha

coefficient was $0.964 > 0.8$, which indicated that the internal consistency of the questionnaire used in this study was high, indicating that the questionnaire's reliability is good and its value of use is high. The structural validity test was applied to analyze the validity. Based on the results of the KMO value and Bartlett's test of sphericity, it can be seen that the KMO value of the student questionnaire is 0.851, which falls within the range of 0.8 to 0.9, indicating good validity. Finally, the results of the collected questionnaire data were organized and analyzed using Excel 2016 and IBM SPSS Statistics 23.

4 Research Analyses and Results

According to the Physical Education and Health Curriculum Standards for General High Schools (hereinafter referred to as document), the athletic ability refers to the cognition and basic skill mastery of the sports students learn when participating in sports activities. Health behavior involves various actions taken by students in maintaining and promoting their physical and mental health and enhancing their ability to adapt to society, including attitudes toward physical activity, mastery and application of health knowledge, emotion regulation, and environmental adaptation. Sports character refers to the behavioral norms and moral qualities that students show in sports activities [2].

4.1 Athletic Ability Development

4.1.1 Cognition of the Sport of Rope Skipping.

The students have different levels of knowledge about rope skipping, and there are some differences in the degree of awareness of the history, techniques, tactics and spiritual and cultural connotations of the sport as shown in Table 1. The level of cognition has a positive impact on the cultivation of students' core literacy in physical education, helping them to develop holistically and appreciate the deeper value of physical activity.

Table 1. Students' perceptions of the sport of rope skipping (N=126)

Students' knowledge of the sport of rope skipping	Percentage	Number
No knowledge at all	5.56%	7
Only know the connotation	18.25%	23
Have a preliminary understanding	31.75%	40
Have a rational understanding	23.81%	30
Recognize the moral nurturing significance behind the fitness function of rope skipping	20.63%	26

4.1.2 Mastery of Basic Skills in Rope Skipping.

The status of students' performance motor skills and etiquette in the learning of rope skipping course is as shown in Table 2, 84.93% of the students could master the movement skills well in the rope skipping course, more encouragement and support should be given to consolidate and improve their skill and etiquette performance.

Table 2. Students' mastery of basic motor skills in rope skipping (N=126)

Students' mastery of the basic motor skills of rope skipping	Percentage	Number
Rigid and dull movements, only perceptual knowledge of motor skills	5.56%	7
Fewer mistakes, but easily disturbed	9.52%	12
Can complete the learned movement accurately and smoothly	45.24%	57
Deep understand the movements, can perform the movements unconsciously	31.75%	40
With smooth completion of the learned movements, "Begin with courtesy and end with courtesy"	7.94%	10

4.2 Health Behaviors

4.2.1 Attitude towards Physical Exercise.

Physical activity is essential for maintaining physical and mental health because only physically fit people can compete effectively in challenging academic and professional environments as shown in Table 3. The rope skipping course has successfully mobilized students' willingness to be physically active and most of the students held positive attitudes towards physical activity. However, there are some students who have high willingness to do physical exercise but low mobility, which needs to be further stimulated and motivated to help them overcome the obstacles and put themselves into practical action. Therefore, in future teaching and guidance, targeted measures and incentives can be adopted for different types of students to help them actively participate in physical exercise and promote the overall development of physical and mental health.

Table 3. Students' attitudes toward physical activity (N=126)

Students' attitudes toward physical activity	Percentage	Number
Very high willingness to be physically active and willing to take action	53.17%	67
High willingness to be physically active, but little action	43.65%	55
Physical activity is optional	1.59%	2
Low willingness to engage in physical activity	1.59%	2
Not willing to do physical exercise at all	0%	0

4.2.2 Acquisition and Utilization of Health Knowledge.

In assessing students' health knowledge mastery, students' health knowledge level has been analyzed by examining their knowledge of warm-up techniques and measures to cope with acute injuries as shown in Table 4 and Table 5.

Table 4. Students' acquisition of health knowledge(N=126)

	Complete mismatch	Mis-match	General	Compliant	Fully compliant
Basic mastery of pre-exercise warm-up methods	3.17%	3.17%	11.11%	69.84%	12.70%
Basic knowledge of emergency treatment of sports injuries	1.59%	3.17%	15.87%	67.46%	11.90%

Table 5. Students' utilization of health knowledge (N=126)

	Complete mismatch	Mismatch	General	Compliant	Fully compliant
Flexible application of learned health knowledge	1.59%	1.59%	11.90%	74.60%	10.32%

Overall, most of the students grasp emergency treatment methods for sports injuries and are able to take appropriate measures when necessary. It will have a positive impact on the students' future sports career and health development, and the mastery of this health knowledge will help to minimize the occurrence of sports injuries, improve the effectiveness of sports, and enhance physical fitness.

Meanwhile, most of the students are able to grasp health knowledge well and apply it flexibly to practical sports and life after experiencing the rope skipping course, and the students have strong understanding and application of the health knowledge they have learned. This also shows that the rope skipping course can achieve positive results in teaching and developing health knowledge to students and improving their overall health literacy and self-protection ability.

4.2.3 Emotion Regulation.

Emotion regulation ability is crucial to the healthy life and academic development of college students. Facing various pressures such as further education, study abroad and employment, students need to have good emotion regulation ability to cope with various challenges and difficulties in daily life.

Table 6. Emotion regulation ability of students (N=126)

	Complete mismatch	Mismatch	General	Compliant	Fully compliant
Possess basic emotional management skills	1.59%	0.79%	13.49%	69.84%	14.29%
Adopting reasonable methods to alleviate bad emotions	1.59%	1.59%	14.29%	69.05%	13.49%
Tolerating others' mistakes	0%	3.17%	22.22%	61.90%	12.70%
Maintain an optimistic and positive attitude towards life	0.79%	2.38%	12.70%	72.22%	11.90%

In Table 6, the majority of the students have demonstrated good command of emotion regulation in all aspects. 69.84% of the students have mastered basic emotion regulation skills, which is the foundation of emotion management and helps students to better cope with emotional fluctuations and challenges in their daily lives. 69.05% of the students have used reasonable methods to alleviate their negative emotions, which shows that they are able to choose effective methods to deal with negative emotions. In terms of tolerance, 61.9% of the students are able to tolerate the mistakes of others, which shows that they have a certain degree of tolerance and understanding towards others. 72.22% of the students hold optimistic and positive attitude towards life, which means that they have positive view of life, difficulties and challenges. Overall, most students demonstrate well emotion regulation skills in various aspects, including basic emotion recognition and management skills, choosing reasonable emotion regulation methods, tolerance and optimistic attitude towards life. These positive emotion regulation skills help students maintain good mental health, better adapt to life's challenges and pressures, and improve their overall health.

4.2.4 Environmental Adaptation.

The ability to adapt to the social environment is an important quality for students. With changes in personal life experiences such as further education and employment, students need to have strong social adaptation skills to adapt to new environments and challenges.

Table 7. Environmental adaptation of students (N=126)

	Complete mismatch	Mismatch	General	Compliant	Fully compliant
Having the ability to adapt to new situations	0.79%	2.38%	15.08%	70.63%	11.11%
Always nervous when facing a new environment	6.35%	36.51%	15.08%	33.33%	8.73%
Good at seeking help from others	0.79%	2.38%	14.29%	71.43%	11.11%
Good collaboration skills in team activities	0%	0.79%	15.87%	69.05%	14.29%

In Table 7, in terms of having the ability to adapt to new situations, 70.63% of the students have met the criteria of “Compliant” while 11.11% as “Fully compliant”. In terms of adapting to new environments, 36.51% of the students have not often felt anxious or uncomfortable when encountering new environments, with 71.43% of the students being good at seeking help from others, while 11.11% of the students being able to seek help in the best way. In terms of teamwork, 69.05% of the students have performed well with excellent collaborative skills. These data indicates that the rope skipping course have positive results in improving students' emotional control. Students demonstrate the ability to remain calm and handle their emotions appropriately in the face of challenges and stress, which has extremely beneficial to their ability to cope with emotional fluctuations and stress in academics and life. In the area of environmental adaptation and teamwork, students demonstrate excellent ability to adapt to new environments and work in teams, seeking help from others, coping with changes flexibly and adapting quickly to new environments while demonstrating excellent teamwork.

Overall, the rope skipping course has satisfactory results in developing students' health behaviors. The students have showed positive attitudes towards physical exercise, sports preparation, emotional control, environmental adaptation and teamwork to develop healthy lifestyle.

4.3 Cultivating Students' Sports Character

4.3.1 Sportsmanship.

The rope skipping course promotes students' moral values and sense of social responsibility through the cultivation of students' qualities and qualities, and lays solid foundation for the improvement of students' comprehensive qualities and their future development. Therefore, the rope skipping course still has positive effect on the overall quality and character development of students, helping them to become more responsible and responsive citizens as shown in Table 8.

Table 8. Statistics on students' sportsmanship (N=126)

	Complete mis- match	Mis- match	General	Compliant	Fully compliant
Maintaining Self-Confidence	0%	2.38%	8.73%	66.67%	22.22%
Maintain a high level of patriotic passion	0%	1.59%	7.14%	65.87%	25.40%
Have a strong sense of honor and shame	0%	4.76%	12.70%	65.87%	16.67%
Aggressive in the face of difficulties	0%	0.79%	10.32%	65.08%	23.81%
Recognize the importance of self-restraint	0%	1.59%	9.52%	63.49%	25.40%

4.3.2 Sports Ethics.

It shows that through the rope skipping course, practicing the character of honesty and integrity and recognizing the importance of maintaining fairness in the competition have positive impact on developing students' moral awareness and behavioral norms as shown in Table 9.

Table 9. Statistics on students' sportsmanship (N=126)

	Complete mismatch	Mismatch	General	Compliant	Fully compliant
Thinks it's important to follow the rules of the sport	0%	2.38%	5.56%	65.08%	26.98%
Can be honest	0%	3.17%	8.73%	59.52%	28.57%
Thinks it is important to maintain the fairness of the game	0%	0.79%	7.94%	63.49%	27.78%

4.3.3 Sports Character.

Sports character refers to the respect for others, civilized manners, and the correct understanding of winning and losing that students show in sports activities [2]. Physically fit students should have the qualities and behaviors of respecting opponents, referees and spectators, obeying the rules of the game, actively participating, overcoming difficulties, and enjoying the game as shown in Table 10. Generally, it shows that in the rope skipping course, students can not only develop physical fitness and skills, but also build sportsmanship and character in holistic manner. It helps them to maintain positive attitude in the face of challenges, and to demonstrate the qualities of cooperation and respect in competitions and in life.

Table 10. Statistics of students' physical character (N=126)

	Complete mismatch	Mismatch	General	Compliant	Fully compliant
Respect for teachers	0%	0.79%	9.52%	61.11%	28.57%
Respecting the referee	0%	2.38%	5.56%	61.90%	30.16%
Learn from and show respect to opponents	0%	0.79%	8.73%	57.94%	32.54%
Dress modestly and neatly in the classroom and have a humble attitude	0%	0.79%	7.14%	64.29%	27.78%
Maintain a good attitude in the face of the result of the match	0%	1.59%	7.14%	61.90%	29.37%
Enjoy the process of the game	0%	1.59%	7.94%	60.32%	30.16%

Above all, through the rope skipping course, students not only develop athletic skills, but also demonstrate exceptional personal qualities in terms of sportsmanship, spirituality, morality, and character. The rope skipping course has made positive impact in shaping the students' physical and moral qualities, which is not only reflected in their attitudes toward the game, but also in their daily actions and behaviors, and fostered the

students' overall development in the areas of sportsmanship, spirituality, morality, and character. The cultivation of the rope skipping course has achieved positive results in students' sports morality, which is worth recognizing and learning.

5 Conclusion

5.1 Learning to Teach

Learning to teach mainly includes discipline literacy and teaching ability, of which discipline literacy includes the mastery of the three basic knowledge, the ability to integrate professional theory and motor skills, and the ability to apply professional knowledge. As shown in Table 11, “mastery of the three basic knowledge”, consistent has accounted for 65.08%, with fully consistent 29.37%, and most of the students' mastery of the “three basic knowledge” being better, indicating that the students' master the relevant knowledge well. The majority of the students' mastery of the “three basic knowledge” is satisfactory, indicating that the students' mastery of the relevant knowledge is higher. For the “ability to integrate professional theoretical knowledge and sports skills”, 6.35% choose general, 62.7% are relatively in line with the standard, and 29.37% are in full compliance. The majority of the students have showed the ability to integrate professional theory and actual sports skills, while only a small number of students being unsure, with the overall performance more positive. “Ability to apply specialized knowledge”, uncertainty have accounted for 6.35%, more in line with 61.11%, and fully in line with 30.95%, most students are able to apply their professional knowledge of kinesiology to the teaching practice of the rope skipping course, and demonstrated high application ability of professional knowledge. Overall, under the guidance of the concept of core literacy, the mastery and ability of subject literacy show positive trend.

Table 11. Statistics of learning to teach

	Complete mismatch	Mismatch	Uncertain	Compliant	Fully compliant
Mastery of the three basic knowledge	0%	0.79%	4.76%	65.08%	29.37%
Ability to integrate specialized theory and motor skills	0%	1.59%	6.35%	62.70%	29.37%
Ability to apply specialized knowledge	0%	1.59%	6.35%	61.11%	30.95%
Ability of curriculum teaching research	0%	1.59%	7.94%	59.52%	30.95%
Attention to the development of teaching reform	0%	2.38%	8.73%	62.70%	26.19%
Ability to design and implement teaching	0%	2.38%	7.14%	65.08%	25.40%

Ability to analyze and solve teaching problems	0%	2.38%	6.35%	63.49%	27.78%
Ability to instruct social sports	0%	0.79%	7.14%	70.63%	21.43%
Transformation of Teaching Ability	0%	0.79%	7.14%	65.87%	26.19%
Teaching reform research ability	0%	1.59%	5.56%	71.43%	21.43%

Teaching practice ability contains teaching research, concern for teaching reform and development, teaching design and implementation, analyzing and solving teaching problems, social sports instruction, teaching transformation, teaching reform research and other abilities. As shown in Table 11, “rope skipping teaching and research ability”, 7.94% are uncertain, 59.52% are relatively consistent, and 30.95% are completely consistent. This shows that most students have solid grasp of the basics of rope skipping teaching, training, competition and research. As for “concerned about teaching reform and development”, there are students who always pay attention to the teaching reform and development of domestic and foreign rope skipping courses, comparing with 2.38% of non-conformity, 8.73% of uncertainty, 62.70% of comparative conformity, and 26.19% of full conformity. Students have a certain degree of concern and awareness of instructional reform and development. As for “Instructional design and skills implementation”, 7.14% are unsure, 65.08% are more in line, and 25.40% are fully in line. Most of the students already have the ability to design, implement and evaluate the instruction of the rope skipping course. As for “Ability to analyze and solve instructional problems”, 6.35% are unsure, 63.49% are more in line, and 27.78% are fully in line. As for “Ability to instruct social sports”, 70.63% are relatively compliant and 21.43% are fully compliant. Most of the students have acquired the knowledge of rope skipping course and can instruct social sports activities. As for “Transformation of teaching ability”, 65.87% are comparatively compliant and 26.19% are fully compliant. Students are able to transform teaching methods and tools into their own teaching ability. As for “teaching reform and research ability”, 1.59% of comparative non-conformity, 5.56% of uncertainty, 71.43% of comparative compliant and 21.43% of full compliant. The students have mastered some teaching reform research ability. Overall, students show positive results in all aspects of the indicator “learning to teach”.

5.2 Learning to Nurture

Comprehensive parenting includes curriculum parenting skills, parenting values, and curriculum teaching skills. As shown in Table 12, “whether the students have curriculum parenting ability”, 7.14% are uncertain, 66.67% are more in line, and 26.19% are fully in line. This indicates that the students are able to implement rope skipping curriculum parenting activities according to the rule of motor skill formation and show a high level of curriculum parenting ability. “Curriculum parenting value”, 6.35% are unsure, 68.25% are more consistent, and 23.81% are fully consistent. Most of the students have basic understanding of the nurturing value of the course of solving rope skipping and realized the importance of figure skipping to the cultivation and development of students after learning the course. “Whether students are able to teach the jump

rope course in combination with the physical and mental development characteristics of primary and secondary school students”, 6.35% are uncertain, 65.87% are relatively consistent, and 27.78% are fully consistent. This indicates that students are able to better combine the physical and mental development characteristics of students in teaching practice to teach the rope skipping course and improve the quality and effect of teaching.

Table 12. Statistics on learning to nurture

	Complete mismatch	Mismatch	Uncertain	Compliant	Fully compliant
Curriculum parenting capabilities	0%	0%	7.14%	66.67%	26.19%
Curriculum parenting value	0%	1.59%	6.35%	68.25%	23.81%
Curriculum teaching capability	0%	0%	6.35%	65.87%	27.78%

Overall, the students majoring in leisure sports have strong ability to teach after taking the rope skipping course which not only develop students' motor skills, realize the nurturing value of the course, but also integrate teaching with students' physical and mental development characteristics through the course. It shows that the students have achieved in comprehensive parenting, which helps to improve the quality of teaching and promote the overall development of students.

6 Strategy

6.1 New “Learning Practicing Competing” Teaching Mode

In the reform of Shenzhen University's leisure sports major rope skipping course, strengthening the teaching mode of “learning, practicing and competing” can improve the teaching effect and promote the cultivation of students' core qualities. Teachers combine classroom teaching with practical training in learning for practice. In the “practice for competition” mode, students actively participate in various kinds of rope skipping exercises and training to improve their skills and physical fitness. In the competition for learning, students show their skills through the competition, meanwhile, they find their own deficiencies through the competition, and then practice to further improve themselves. In the reform of the discipline, the integration of theory and practice, so that classroom teaching and practical training complement each other, so that students apply their knowledge in real projects; to promote cooperation and competition, to encourage teamwork and athletic competitions, and to cultivate the students' sense of teamwork and the spirit of competition. Through the teaching mode of “learning, practicing and competing”, the reform and innovation of the discipline can realize the combination of theory and practice, promote the overall development of students, cultivate the spirit of innovation and practical ability, and improve the teaching effect and students' comprehensive quality.

6.2 Teach in Line with the Student’s Ability

Rope skipping course for leisure sports majors in Shenzhen University has cultivated students' core literacy in sports, but in order to achieve better results, it is necessary to put forward solutions to the problems that still exist. The rope skipping course needs to be further targeted to teach students according to their abilities. Provide more practice and instruction to beginner level athletic students to improve their skill level, and more encouragement and support to higher level students to further solidify and improve their skill and etiquette performance. Students who are uncertain about their educational concepts are given counseling to strengthen them. Overall, the continued application of the “learning, practicing and competing” model in the reform of the leisure sports major rope skipping curriculum at Shenzhen University, as well as the adoption of targeted measures for different types of students, can help them to improve themselves and promote the all-around development of their physical and mental health as Figure 1 shown.

There are still some deficiencies in this study. First of all, as for the lack of data, this object of study only includes Shenzhen University leisure sports graduates, which may lead to the lack of data representation and geographical limitations. Secondly, it is necessary to upgrade the theoretical framework of pedagogy, physical education and psychology to form systematic analysis and opinions. In the future research, the quality and value of the research can be further improved by expanding the range of samples and improving the theoretical level of researchers, it provides more scientific and comprehensive guidance for the teaching reform of rope skipping course education system.

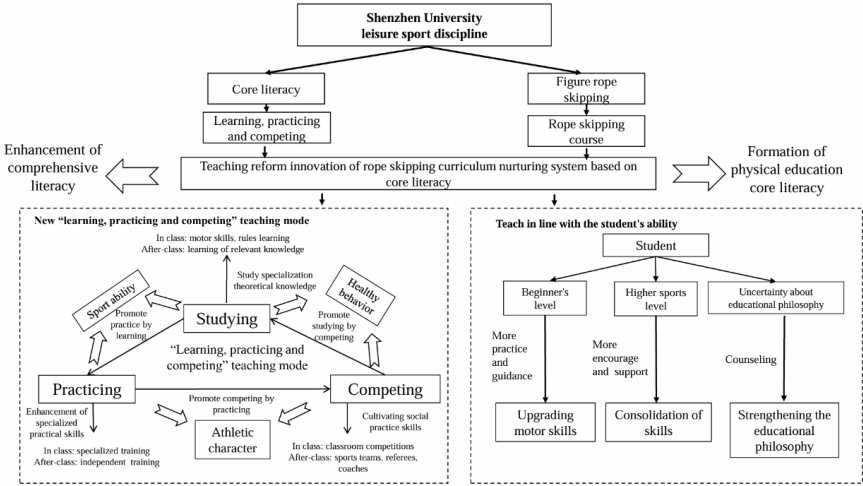


Fig. 1. Strategy for nurturing system of rope skipping curriculum based on core literacy

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