



Development of strategic management guidelines to enhance self-practice basketball for students of Guangxi Agricultural Vocational and Technical University

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ABSTRACT

The article aimed: 1) to investigate the problems of the students about self-practice basketball; 2) to investigate the needs of students about self-practice basketball; and 3) to develop the self-practice basketball strategic management for students of Guangxi Agricultural Vocational and Technical University. This research utilized Guangxi Agricultural Vocational and Technical University as a case study. The population was 1000 students. The sample was 286 students. The research instruments employed in this study were questionnaires. The information and data collected were analyzed and presented by using frequency, percentage, mean, and standard deviation. The results of this study indicated that 1) students' problems with basketball self-practice are at a middle level; 2) students' needs for basketball self-practice are at a relatively high level. The self-practice basketball strategic management guidelines for students consist of five parts: 1) Students work on their own to manage basketball strategies; 2) The types of things that students do when they work alone; 3) How the students' independent work improves their basketball strategies; 4) The steps they take to put their strategies into action; and 5) The results and future of the students' independent work with basketball strategies.

Introduction

Basketball is one of the most popular sports in colleges and universities. the majority of students, and basketball has the characteristics of competition, cooperation, team, and other functions, such as strengthening the body, improving interpersonal skills, entertaining the body and mind, so that it has become one of the backbone courses of college physical education. We do this to ensure the overall and healthy development of college students' physical health. College sports teachers are continuously exploring and reforming the quality of their instruction. The rapid update and development of the Internet, big data, and artificial intelligence technology, along with the widespread use of mobile phones and tablets, have significantly impacted the quality of college sports teaching. In daily life, people use computers and other mobile multimedia devices. Students are increasingly favoring the internet for mobile learning. In this context, students gradually develop independent exercises. In the daily management of universities, offer physical education courses using traditional teaching methods. It has been challenging to adjust to the shifts in students' learning needs. seriously affects the teaching effect. Therefore, based on constructivism, the combination of learning theory and mastery learning theory offers significant

advantages. We use both traditional classroom teaching and Internet teaching to reconstruct the teaching process. mode of college Physical education is the key to getting out of the dilemma. Traditional teaching methods can enhance the quality of instruction. With the continuous development of information technology, the reform of education, and Teaching is imperative. Micro-class teaching is a new type of teaching mode. and manual teaching have developed rapidly across the country, and many physical education teachers are involved in the development of micro classes. (manual) teaching resources. However, in general, the quality is consistent. The number of basketball micro-class (manual) teaching resources remains unchanged. lacking. For the aforementioned reasons, the researchers decided to conduct an empirical study in order to design and apply microteaching (manuals) for basketball teaching, which can provide reference value for front-line physical education teachers.

Objectives

1. To investigate the problems of the students about self-practice Basketball.
2. To investigate the needs of students about self-practice Basketball.
3. To develop Self- Practice Basketball Strategic Management for students of Guangxi Agricultural Vocational and Technical University.

Literature review

The concept of independent practice

Peng (2008, pp. 45-46) establishing the idea of people-oriented. Students are the center of teaching. Teachers' "teaching" should be carried out according to students' "learning" and stimulate students' intrinsic learning motivation. Autonomous learning is a learning behavior based on initiative and initiative.

Self-directed practice for adaptation

Self-directed learning is a learning activity in which learners diagnose their learning needs, establish learning goals, seek learning resources, choose learning strategies and evaluate learning results.

Autonomous practice mode

Autonomous practical learning includes such basic elements as practical learning task, practical learning environment, practical learning activity, practical learning effect, teachers and students, etc. Through the course and distance learning support environment, these basic elements constitute a complete curriculum autonomous practical learning system.

Related research

Li (2018, pp. 25-29) conducted a research project titled "The use of self- directed practice method in the teaching of basketball general education course". The research results show: Through the experimental research on the use of independent practice teaching method in the basketball general education course shows that the teaching method cannot increase the number of hours of teaching and not reduce the premise of the teaching content, effective development of students' physical fitness, improve the level of technical and tactical, optimize the teaching process.

Turan & Koc (2018, pp. 33-35) used SPSS software to analyze the impact of self-learning preparation on students' critical thinking and self-efficiency by using Pearson moment correlation coefficient, while Mirzawati, Nevivarni and Rusdinal. (2020, pp. 28-33) analyzed the impact of self-learning on students' learning environment and self-efficiency, and the results showed that there was a high correlation between the two.

Jin, A. (2019, pp. 196-199) emphasizes training students to be able to solve problems independently through active practical methods and have a problem awareness in communication and cooperation, so as to adapt to the needs of modern basketball and highlight entertainment.

Conceptual framework

The research scope of this research project will focus on Guangxi Agricultural Vocational and Technical University, which is located in a specific region of China. The objectives were: 1) To investigate the problems of the students 2) To investigate the needs of students and 3) To develop Self- Practice Basketball Strategic Management for students of Guangxi Agricultural Vocational and Technical University.



Figure 1 Conceptual Framework

Methods

In this section, the research design, population and sample, research tools, data collection, data analysis, ethical considerations and the research validity are described in detail. This study aims to design and formulate a basketball teaching micro-teaching (manual) based on the problems and needs of college students in Guangxi, and form a self-practice basketball strategy management guide suitable for students. For this purpose, a quantitative correlational research design was used to examine the relationship between the research variables, and on this basis, design a feasible teaching strategy management.

1. Population and Sample: This research focused on Guangxi Agricultural Vocational and Technical University as a case study, with a population of 1000 students. The sample group of 286 students will be selected using a stratified random sampling technique (Yamane, 1973). Additionally, three specialists will participate in the focus group discussion meeting.

2. Research Tools: For this study, the researcher used questionnaires, interviews, observations, data analysis collection, and informal interviews with participants collect data.

3. Data Collection: To investigate questions and needs, the researcher himself collects data and information from the Internet via email. The data and information collected will be analyzed and interpreted in the form of frequency, percentage, mean (X), standard deviation (S.D). A five-point Likert rating scale will be used to assess the respondents' problems and needs in basketball learning.

4. The data collected in this study were analyzed using descriptive statistical methods, including frequency, percentage, mean, and standard deviation. Frequency and percentage were used to summarize and present categorical data, providing an overview of the distribution of responses. The mean was calculated to determine the average level of students' problems and needs regarding self-practice basketball. Standard deviation was used to measure the variability and dispersion of the data, indicating the extent to which individual responses deviated from the mean. These statistical methods allowed for a clear and systematic interpretation of the research findings.

Results

The main findings that emerged from this study are presented in detail, organized by research objectives.

1. The problems of basketball self-practice

The research results mainly reveal the problems existing in students' independent basketball training. Students' awareness of basketball self-practice is at a medium level. Specific areas such as training planning and goal setting, adhering to game rules during practice, and practice scheduling were identified as high-level issues among students.

Table 1 The problem of basketball self-practice

Questions	n=286		Level of problems
	\bar{x}	S.D.	
1. You have issues with physicality.	2.49	1.04	Low
2. You have problems with your training schedule and goals.	2.62	1.13	Middle
3. You have a problem with your training attitude.	3.09	1.05	Middle
4. You have a basketball problem.	2.48	0.95	Low
5. You have a problem practicing basketball.	3.19	1.16	Middle
6. You have a problem with practice dates.	3.51	1.04	Middle
7. You have problems with teamwork.	3.12	1.19	Middle
8. You have a problem with your basketball skills.	3.01	1.18	Middle
9. You have a problem with practicing basketball in a consciously simulated game situation.	3.06	1.13	Middle
10. When you practice on your own, you are consciously having problems in practicing with others.	3.11	1.07	Middle
11. You are having problems with your training plan and goals	3.56	0.84	High
12. In self-practice, you are having a trouble in creating the atmosphere and tension of the game.	3.10	1.22	Middle
13. During self-practice, you are consciously observing and correcting your motor skills	2.49	0.94	Low
14. You have problems in sticking to the rules of the game while practicing.	3.53	0.93	High
Total	3.03	1.06	Middle

According to table 1, students' opinions on basketball self-practice are at a middle level (3.03). Question 11: You are having problems with your training plan and goals (3.56), which is at a high level. Question 14: You have problems in sticking to the rules of the game while practicing (3.53), which is at a high level. Question 5: You have a problem with practice dates (3.51), which is at a high level. As can be seen about students' problems, students' opinions on basketball self-practice are at the average level, with two questions above the average level, and the highest level is the question 11 You are having problems with your training plan and goals. Nine of the questions were in the middle, three were below the middle, and the lowest-level question was the question. 4 You have a basketball problem.

2. The needs for basketball self-practice

Table 2 The needs for basketball self-practice

Questions	n=286		Level of needs
	\bar{X}	S.D.	
1. You need to practice basketball on your own.	3.49	1.35	Middle
2. You need self practice to improve your basketball level and performance.	3.53	1.26	High
3. You need to practice yourself on the basketball court.	3.46	1.53	Middle
4. You need basketball equipment.	3.48	1.55	Middle
5. You need to improve your physical fitness during basketball self practice.	3.53	1.45	High
6. In basketball self practice, you need to improve your understanding of basketball tactics.	3.59	1.28	High
7. In basketball self practice, you need to relax the mind and reduce stress.	3.63	1.23	High
8. You need to improve game performance and competitiveness in basketball self-practice.	3.56	1.43	High
9. In self practice, the instructor is knowledgeable and communicates the training content effectively.	3.53	1.40	High
10. The self-practice training inspires me to continue playing basketball and pursue further skill development in the future.	3.58	1.32	High
11. The availability and accessibility of training resources (e.g. equipment, facilities) for self-practice is satisfied with the program.	3.57	1.41	High
12. The self-practice training courses are well organized and follow a logical schedule.	3.58	1.55	High
13. The self-practice training program includes opportunities for personalized feedback and personalized tutoring.	3.63	1.26	High
14. The materials and resources for self-practice training are up to date and in line with current best practices for basketball training.	3.71	1.11	High
15. The overall quality of the self- practice training resources is in line with my expectations.	3.65	1.20	High
Total	3.57	1.36	high

It can be seen from table 2 that students' demand for basketball self-practice is at a high level (3.57). Current student independent training materials and resources are up-to-date and consistent with current best practices in basketball training (3.71), which is at a high level. The overall quality of current student self-study training resources is in line with research expectations and is at a high level. Opportunities for student self-practice training programs including personalized feedback and personalized coaching are at a high level. As can be seen about students' needs, students' demand for independent basketball practice is at a relatively high level, with 12 questions higher than the medium level. Question 14: The materials and resources for self-practice training are up to date and in line with current best practices for basketball training. It is at the highest level, and there are three other questions at the middle level. Question 3: You need to practice yourself on the basketball court. At the lowest level of overall demand. Through the above questionnaire survey, students are in great need of basketball self-practice.

3. Self- Practice Basketball Strategic Management

The purpose of design strategic management policies is to help students form good independent basketball training habits, improve their basketball skills and self-management ability, and lay a solid foundation for their development and personal growth in the basketball field. According to the above questionnaire survey on students' independent basketball practice and needs, we finally put forward the following solutions in order to achieve the goal of students' independent basketball practice strategic management in Guangxi Agricultural Vocational and Technical University:

1. Improve the basketball technical level of Guangxi Agricultural Vocational and Technical University students. Through scientific and reasonable training plans and specific guidance and demonstrations, help students accurately understand and master basketball skills, cultivate their practical ability to practice independently, and thereby improve students' technical level.

2. Cultivate the ability of independent learning and self-management. Through incentive and reward mechanisms and continuous evaluation and improvement, encourage students to actively participate in and manage their own basketball training and cultivate their independent learning and self-management abilities so that they can think independently and Make plans and solve problems.

3. Finally, to cultivate comprehensive quality, in addition to the cultivation of basketball skills, we must also focus on the cultivation of students' will quality, teamwork ability and psychological quality, so that they have comprehensive quality. This will not only benefit their development in the basketball field, but also have a positive impact on their overall development.

Discussion

First of all, personal motivation is one of the important factors that affect the ability of independent practice. An individual's level of motivation is directly related to the amount of time and effort they put into autonomous practice. Liang (2021. pp. 60-63) pointed out in his research on the Role of Independent Exercise Strategy in Basketball Skill Acquisition that the educational strategy of independent exercise in the process of basketball skill teaching can improve students' interest in basketball learning, enable students to develop good sports habits, and enhance students' enthusiasm for classroom practice. The teaching strategy of self-training has brought new challenges to the teaching organization and management. The teaching process has integrated the knowledge of educational psychology, public management and other relevant disciplines, and fully reflected the principal position of students in the teaching process, which can not only improve the educational ability of teachers, but also promote the all-round development of students.

Secondly, the level of knowledge and skill also have an impact on the ability of autonomous basketball practice. In the article "Application and Practice Methods of Basketball dribbling Technology", Wang (2021, pp. 1-3) pointed out that basketball dribbling technology, as the most basic and most skilled technical content of basketball sports, requires basketball players to fully grasp basketball dribbling technology and skills in order to better play their personal level. As a result, having enough basketball knowledge and skills can help students better plan and organize autonomous practice. At the same time, mastering the basic skills of basketball, such as dribbling, shooting and passing, is also the key to improving the ability to practice independently.

In addition, developing good habits of time management and self-discipline also has an important impact on the ability to practice basketball independently. Cui (2017, pp. 92-93) pointed out in his research on the cultivation of College Basketball Teaching and College Student Sports Self-ability that good habits are crucial to a person's growth. If a person develops the habit of adhering to exercise, he will not only have healthy physical quality, but also have significant benefits for personal development. Therefore, contemporary college students should develop the good habit of adhering to exercise to ensure that they have a healthy physical quality. Students need to develop good time management habits and be able to effectively arrange independent practice time and continuous training. At the same time, developing a

good habit of self-discipline is one of the key factors to adhere to an independent practice plan and overcome difficulties.

Finally, individual attitude and psychological factors also have an important impact on the ability of independent basketball practice. Positive attitudes and mental qualities help students overcome setbacks and difficulties, as well as maintain continuous investment in autonomous exercises. The research on independent basketball training ability in the United States is more in-depth. "The Role of Self-Directed Learning in the Development of Expertise in Basketball" by Maria-Teresa Anguera, Narcis Gusi, and Maria Assumpció Bosch (2013). It is found that the effectiveness of independent practice plays an important role in the improvement of basketball skills. Through the long-term tracking and observation of athletes, in the process of independent practice, athletes can flexibly adjust the practice plan according to their own needs and actual conditions, and improve the level of basketball skills. Some studies have shown that independent practice has a positive impact on the improvement of basketball players' skills, tactics and physical fitness. In some colleges and universities and basketball training institutions, they also begin to pay attention to improving students' independent practice ability, and help athletes quickly improve their basketball level in independent practice through personalized training plans and guidance. Through the review of the research status of basketball independent practice, it can be found that the research of basketball independent practice ability needs to be further deepened and improved.

The above research results show that independent practice in basketball to improve the level of basketball skills is correct and desirable, so, in the formulation of the strategic management guide to improve the ability of basketball independent training, we should fully consider the causes of the above needs and problems, and formulate corresponding improvement measures.

Body of knowledge

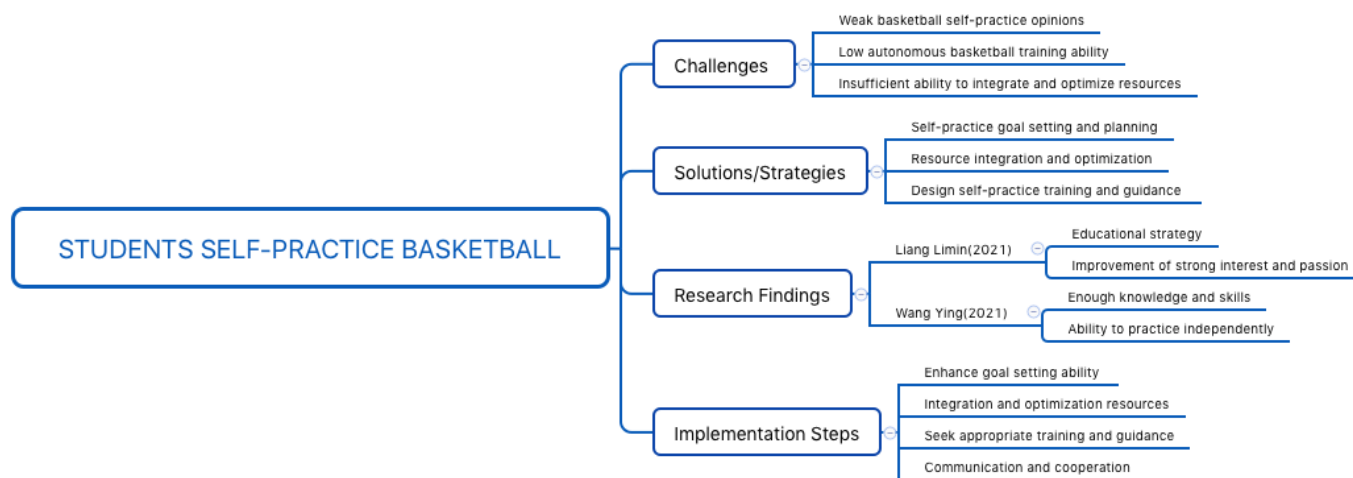


Figure 2 Body of knowledge

According to the above investigation and research on the problems and needs of students' basketball self-practice in Guangxi Agricultural Vocational and Technical University, it is concluded that the following main factors have an important impact on the ability of independent basketball practice.

First of all, there is a certain gap in autonomous basketball training ability of sample students. The survey results show that most students realize the awareness and importance of independent practice, but there are some difficulties and challenges in specific practice.

Secondly, the factors that affect the ability of autonomous basketball training mainly include personal factors, environmental factors and training factors. These factors interact with each other and affect students' autonomous basketball training ability.

To solve the above problems and needs, we come up with the following strategies. First of all, goal setting and planning, resource integration and optimization, training and guidance are important strategies to improve basketball autonomous practice ability. Second, design of basketball autonomous training based on strategic management. Design includes goal setting and planning, resource integration and optimization, training and guidance and so on which can effectively improve the students' autonomous practice ability of basketball

Suggestions

Basketball independent practice is an important way to improve the player's personal skill level, and the students of Guangxi Agricultural Vocational and Technical University, as the participants of basketball, should also pay attention to improving their own independent practice ability. Based on the investigation and analysis of the students' independent basketball practice in Guangxi Agricultural Vocational and Technical University, this study puts forward the following enlightenment and suggestions on the independent basketball practice:

1. Enhance the ability of personal goal setting and planning: Students in Guangxi Agricultural Vocational and Technical University should clarify their personal goals and make corresponding plans in the process of independent basketball practice. They need to clarify the basketball skills, tactics and physical fitness they want to improve, and arrange the practice time and content reasonably according to the actual situation.

2. Integration and optimization of diversified resources: Students can obtain relevant independent basketball practice resources through various channels, including the Internet, library, basketball club and so on.

3. Seek appropriate training and guidance: Students can attend basketball training courses or consult professional basketball coaches for guidance. This can help them find and correct the technical deficiencies in independent practice, and improve the training effect.

4. Pay attention to data collection and analysis: Students should pay attention to the collection and analysis of their own training data in independent practice. By recording and analyzing their own training results and progress, they can adjust their own training plan according to the actual situation and further improve the training effect.

5. Emphasize communication and cooperation: Students should actively participate in team activities and communicate and cooperate with other players in the process of independent practice. Through the interaction and cooperation with teammates, they can improve their individual basketball skills and enhance their sense of teamwork.

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