

# Badminton Teaching Mode in Network Teaching Platform Under Multimedia Environment

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## ABSTRACT

This study analyzes the necessity of introducing multimedia technology into college badminton teaching and puts forward some countermeasures and suggestions for introducing multimedia technology into college badminton teaching. Taking badminton as an example, this paper studies the design and implementation of mobile teaching platform under O2O physical education teaching mode. Firstly, a learner trust model is established by using the idea of graph model, which considers three aspects: familiarity trust, social credibility, and deep circle of friends similarity. The trust source generates a candidate set of golfers based on the trust of learners. Then, based on SVD++, a learner interest model with implicit information feedback is constructed, and learners' learning behavior and social behavior are selected as implicit feedback to generate interest candidates for learners. Finally, the trust and interest models are sorted comprehensively to generate golf recommendations for learners.

## KEYWORDS

Badminton, Multimedia Technology, O2O Teaching, Online Teaching

## INTRODUCTION

In the multimedia content business scenario, how to choose an efficient clustering algorithm and how to make full use of multimodal information to discover topics are all problems that need to be solved and considered. *The National Guiding Outline of Physical Education Course Teaching in Ordinary Colleges and Universities* points out that physical education teaching in colleges and universities should effectively combine the principles of effectiveness and selectivity (Aryanti et al., 2021). When organizing sports activities, colleges and universities should further enrich the teaching content and give students more space to choose sports items (Blanca-Torres et al., 2020). The introduction of multimedia technology can help students better master the key points of badminton technology, and promote the improvement of education and teaching quality and effect (Berhimpong et al., 2021). Badminton teaching is to guide students through teachers with certain badminton teaching abilities. At present, badminton teaching is not limited to primary and secondary schools. In some college

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physical education courses, more attention has been paid to badminton teaching. In badminton teaching, teachers should formulate personalized guidance programs, strengthen students' understanding of badminton theoretical knowledge and sports skills, conform to the trend of information technology development, and organically combine multimedia technology with badminton teaching.

In recent years, the physical health of college students has continued to decline, and the habit of college students' active physical exercise has gradually disappeared, which has become a difficult problem that cannot be solved by college physical education courses (Buckley & Smith, 2007). According to the results of the National Physical Health Survey in 2014, compared with 2010, although the height and weight of college students showed an upward trend, their physical quality continued to decline, and the detection rate of obesity among students continued to increase (Cheng et al., 2022). As we all know, there are many deficiencies in the traditional college physical education course teaching mode, such as very limited teaching time, fixed teaching content, and a lack of interest in teaching activities (Chen & Xia, 2012). Therefore, it is difficult for traditional college physical education courses to cultivate college students' fun of participating in sports, and even more difficult for them to develop the habit of active exercise (Fu & Fu, 2020). At the same time, with the spread of the concept of fitness for all and the improvement of people's fitness awareness, Keep, Xiaomi Sports, Le Power, and a series of social sports mobile apps (Griwidz & Thoms, 2021). have been rapidly popularized and deeply welcomed, which has had a great impact on people's participation in physical exercise (Gao, 2020). Physical education courses can learn from this kind of sports app to build a teaching platform to improve the teaching effect and cultivate college students' interest in sports (Guo, 2021). At present, although the mobile teaching APP on the market is convenient to use and covers a wide range of courses, the previous relevant research only involves pure cultural courses, and there are few cases of research on the mobile teaching platform of sports courses. Physical education curriculum teaching is different from pure culture curriculum. Physical education curriculum not only pays attention to the study of curriculum theory knowledge but also pays more attention to physical practice. Therefore, only relying on online learning platforms cannot carry out physical education curriculum learning. Taking badminton teaching as an example, the online learning platform can provide learners with theoretical study, physical guidance, action demonstration, etc. of badminton courses, but the real course learning must be carried out offline in the physical classroom, and students should practice and participate in the practice.

Multimedia technology refers to the integration of text, sound, animation, image, and other media technologies with the computer as the core to provide a new means of information exchange between humans and machines (Huang & Zhang, 2021). Auditory acquisition of knowledge, comprehensive use of a variety of analyzers to implement learning, enrich teaching content, help students acquire more knowledge, and effectively improve teaching efficiency (Imania et al., 2021). Multimedia teaching means that based on the requirements of quality education, combined with the goals of talent training, fully meet the interests and hobbies of students, improve learning enthusiasm and initiative, so as to better master sports skills and related theoretical knowledge, and ultimately cultivate lifelong sports awareness and ability (Jiao, 2020). As a popular sport, badminton is a confrontational sport that integrates intelligence, physical fitness, and skills (Kamaruddin et al., 2020). It has the characteristics of simplicity, entertainment, and physical strength. With the popularization of sports option courses in colleges and universities, badminton has long gone (Klasmeier et al., 2006). It has become a favorite sport for college students (Liu, 2020). The badminton project is highly technical, fast, and has many changes (Moen, 2021). It is difficult to master and improve it well. In the practice of badminton teaching in colleges and universities, college students often feel that it is difficult to master and improve (Na, 2020). Badminton-assisted teaching helps college students to actively participate in the practice process. The degree of self-involvement has a great impact on learning skills (Rahman et al., 1999). It can use more brains and hands at the same time. Visual and auditory analysis can be used at the same time, which can mobilize the brain (Sudarwati & Pranto, 2020). Potential, continuously deepening memory, prompting college students to form a profound image

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