Analysis of the Influence of Dig Data Era on Physical Education

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Abstract: with the progress of science and technology and the development of The Times, the development trend of modern educational technology informatization in the era of big data has not only affected our production and life style, but also changed our educational concept. This paper discusses the influence of big data technology on the efficiency of physical education, and discusses the ways to improve the efficiency of physical education in the era of big data through the method of literature. Physical education teaching should follow the trend of the era of big data, introduce advanced sports teaching equipment and establish a new information evaluation system, so as to realize the teaching purpose of training new and innovative sports talents and improve the efficiency of physical education.

1. Introduction

In recent years, the word "big data" has been mentioned more and more. People use it to describe and define the massive data generated in the era of information explosion, and to name the related technological development and innovation. Data is expanding rapidly, and people are increasingly aware of the importance of data to the development of all walks of life in today's society. The purpose of this paper is to study ways to improve the efficiency of physical education teaching by using big data.PE teaching efficiency refers to the effect achieved by the sum of students' mastery of knowledge, cultivation of ability and increase of knowledge in the limited time of PE classroom. The main factors influencing and restricting PE classroom teaching efficiency are PE teachers, students and teaching methods. In unit PE teaching time, the higher the classroom teaching efficiency, the better the effect. Facts have proved that paying attention to the teaching efficiency of physical education classroom can improve students' physical quality and technical skill level, fully mobilize students' enthusiasm to learn, so as to achieve the ideal state of physical education classroom teaching. Therefore, improving the efficiency of physical education has become a problem we must study and solve. In addition to the traditional ways to improve the efficiency of physical education, we should keep pace with The Times, keep up with the development of The Times, and explore the ways and significance to improve the efficiency of physical education in the context of today's big data era.

2. The connotation of big data

Here is Gartner's definition, circa 2001 (which is still the go-to definition): Big data is data that contains greater variety arriving in increasing volumes and with ever-higher velocity. This is known as the three Vs.The amount of data matters. With big data, you'll have to process high volumes of low-density, unstructured data. This can be data of unknown value, such as Twitter data feeds, clickstreams on a webpage or a mobile app, or sensor-enabled equipment. For some organizations, this might be tens of terabytes of data. For others, it may be hundreds of petabytes. Velocity is the fast rate at which data is received and (perhaps) acted on. Normally, the highest velocity of data streams directly into memory versus being written to disk. Some internet-enabled smart products operate in real time or near real time and will require real-time evaluation and action. Variety refers to the many types of data that are available. Traditional data types were structured and fit neatly in a

relational database. With the rise of big data, data comes in new unstructured data types. Unstructured and semistructured data types, such as text, audio, and video, require additional preprocessing to derive meaning and support metadata.

Big data is a term that describes the large volume of data – both structured and unstructured – that inundates a business on a day-to-day basis. But it's not the amount of data that's important. It's what organizations do with the data that matters. Big data can be analyzed for insights that lead to better decisions and strategic business moves. Finding value in big data isn't only about analyzing it (which is a whole other benefit). It's an entire discovery process that requires insightful analysts, business users, and executives who ask the right questions, recognize patterns, make informed assumptions, and predict behavior. How to effectively analyze and utilize data, mine and obtain information, and discover the value of data is the key in this digital age. If we can effectively apply it to the field of physical education we care about, it will surely become a leap in the field of physical education research.

3. The causes of low efficiency in physical education teaching

3.1 Physical education teaching pattern that lack of innovation

At present, a lot of physical education curriculum teaching model to organize the collection and preparation activities, interpretation teaching, guiding students' exercises, relaxation activities mode, such a step-by-step process of the single teaching mode, lack of innovation, is not conducive to students' interest in physical education curriculum training, sports teaching efficiency is low. Traditional sports teaching method is currently more for interpretation method and demonstration method, the decomposition method, such as repeated teaching method, circulation method, rigid teaching methods go against the cultivation of the students of physical education curriculum autonomy, also resulted in the sports teaching efficiency is low.

3.2 Physical education teaching facilities are not perfect

Although with the development of network information technology, the concept of physical education at home and abroad is widely spread, but in raising awareness at the same time the updating of physical education facilities has not kept pace with the pace of progress, some of the advanced equipment that can be used in physical education has not been popularized. The application of Internet technology and intelligent devices has promoted the rapid development of the whole society, and the collection, collation and analysis of information have become fast and convenient. In physical education, besides infrastructure, advanced intelligent equipment should be introduced, which is the basis of improving efficiency. The imperfection of physical education facilities directly affects the improvement of physical education efficiency.

3.3 The evaluation system of PE teaching efficiency is not perfect

Problems existing in the sports teaching evaluation are: sports teaching goal understanding erroneous zone affects the direction of the physical education teaching evaluation, the one-sided pursuit of the comprehensive evaluation indexes, is not conducive to form the correct quality, emphasis on quantitative evaluation index, evaluation result respectively, the comprehensive evaluation of official influence evaluation function, the evaluation results of utilitarianism also influence the objectivity of the evaluation conclusion.

4. Ways to improve the efficiency of physical education in the era of big data

4.1 Change the inherent way of physical education teaching

In order to better realize the reform of physical education and train more sports talents, it is necessary to change the traditional mode of physical education and fully integrate the concept of the era of big data into physical education. For example, "moocs" and "love courses" are used in

traditional physical education classes. They refer to large-scale open online course education platforms. Students can watch the Shared free open courses after registration and login, preview in advance and review after class, and interact and communicate with teachers online. Through the video course views to the students interested in the physical education curriculum data statistics, so as to more targeted adjustment and arrangement of physical education curriculum. The e-learning model of physical education has changed the inherent thinking of physical education, realized the innovation of physical education, applied modern information technology to meet the requirements of the development of The Times, and improved the efficiency of physical education.

4.2 Introduce advanced physical education teaching equipment

The introduction of intelligent physical education equipment is undoubtedly one of the important ways to improve the efficiency of physical education in the era of big data. As mentioned above, the key to big data lies in how to effectively analyze and utilize data, mine and obtain information, and discover data value in this digital era. Then, the use of intelligent physical education equipment to collect data is the prerequisite for the application and analysis of big data technology. Will sports sensing equipment with advanced technology used in sports teaching process, can make the students master the movement data, including record students daily movement of data, behavior, sports techniques to master degree, etc., to make every student in every PE lessons can clearly understand their own motion, through a large amount of data analysis in order to better grasp each student individual trajectory motion state and behavior. It will be more convincing to guide students to actively achieve their own exercise standards with data, and students will also focus on improving their sports performance and physical indicators, so as to achieve the goal of improving the efficiency of physical education.

4.3 Establish the evaluation system of the efficiency of big data physical education teaching

The traditional teaching evaluation system has the defects of low student participation and single teaching evaluation. The application of big data technology has realized the extension of physical education teaching evaluation system to multiple and three-dimensional, and established an evaluation system in which schools, society and individuals participate together. (1) Students' evaluation of their own learning and teachers' self-evaluation of teaching are the core contents of physical education teaching evaluation. Students can learn by all kinds of open platform for online course education physical education curriculum theory knowledge, on the other hand to let the students make their own sports theoretical knowledge of the inspection, to extract or random Numbers of knowledge base, have a theoretical knowledge test, and the practical characteristics of sports technical characteristics of the movement to make teachers pay more attention to students, helps students to accept new motor skills quickly, big data technology provides a convenience in this respect. (2) The competent departments of the national and provincial education authorities play a macro-control role in the teaching evaluation and teaching activities of physical education courses. The establishment of the big data technology platform makes the evaluation of physical education courses more convenient, objective and comprehensive with more data information, and the education departments can also conduct remote monitoring and guidance. (3) Social evaluation of physical education curriculum is with emotion, the era of big data information for everyone in the future health of body and mind development will be according to rational can check, feedback the information more complete, true and reliable, better able to responsible for their own health, also accord with the state, society, the needs of the market.

5. Conclusion

In a word, the era of big data information has come, and physical education should follow the trend of the era of big data, introduce advanced physical education equipment, and establish a new information evaluation system, so as to realize the teaching purpose of training new and innovative talents in physical education. The application of big data technology will bring inestimable value to

the design of physical education courses, methods and management of physical education in the future, which has important guiding significance to explore the law of physical education development, change the inherent thinking of physical education, and improve the efficiency of physical education.

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