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Artificial Intelligence in Physical Education and Sports: New Horizons with ChatGPT

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Abstract

While the rapid advancement of technology broadens the application areas of artificial intelligence applications, NLP technologies such as ChatGPT, which can construct a natural and fluent discourse with humans, are gaining popularity. ChatGPT imitates real-life discussions with its powerful algorithms, providing users with a more dynamic and efficient communication experience. With the increased usage of artificial intelligence technology in a variety of sectors, the potential for application in physical education and sports has begun to get attention. In this context, the research intends to explore ChatGPT's potential for application in physical education and sports, as well as its potential contributions to the field's future and use problems. In the study, a semi-structured interview method was employed as the data collection technique. The questions prepared in accordance with the purpose of the study were directed to ChatGPT by the researcher and the answers of ChatGPT were recorded. The data were analyzed using content analysis method to identify themes. As a result of the study, it has emerged that ChatGPT can be used in many areas such as creating personalized training programs in the field of physical education and sports, analyzing the performance of athletes, summarizing and reporting sports events. It has been determined that physical education teachers can provide a more effective learning experience by communicating with ChatGPT about students' interactive lesson plans, exercise programs, training methods, and health and nutrition. It was determined that ChatGPT might have a significant effect on the future of physical education and sport. Furthermore, ChatGPT has been discovered to have negative elements such as over-reliance on technology, inaccuracy of information, technological issues, and ethical concerns. The study provides recommendations on how ChatGPT might be utilized in the field of physical education and sports, and it is intended to lay the groundwork for future research.

Keywords: Artifical Intelligence, ChatGPT, Physical Education and Sports

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Beden Eğitimi ve Sporda Yapay Zeka: ChatGPT ile Yeni Ufuklar

Öz

Teknolojinin hızla gelişmesi, yapay zeka uygulamalarının kullanım alanlarını genişletirken, insanlarla doğal ve akıcı bir diyalog kurma kabiliyeti olan ChatGPT gibi NLP teknolojileri giderek daha fazla ilgi görmektedir. ChatGPT, gelişmiş algoritmaları sayesinde, gerçek insanlarla olan konuşmaları taklit ederek, kişilere daha interaktif ve verimli bir iletişim deneyimi sunmaktadır. Yapay zeka teknolojilerinin çeşitli alanlarda kullanımının artmasıyla birlikte beden eğitimi ve sporda kullanım potansiyeli de dikkat çekmeye başlamıştır. Bu bağlamda, çalışma ChatGPT'nin beden eğitimi ve sporda kullanım potansiyelini, alanın geleceğine sağlayabileceği olası katkıları ve kullanım endişelerini ele almayı amaçlamaktadır. Çalışmada, veri toplama yöntemi olarak yarı yapılandırılmış görüşme yöntemi kullanılmıştır. Çalışmanın amacına uygun hazırlanan sorular araştırmacı tarafından ChatGPT'ye yöneltilmiş ve ChatGPT'nin cevapları kaydedilmiştir. Verilerin analizinde içerik analizi yöntemi kullanılarak temalar belirlenmiştir. Çalışma sonucunda, ChatGPT'nin beden eğitimi ve spor alanında kişiselleştirilmiş antrenman programları oluşturma, sporcuların performansını analiz etme, spor olaylarını özetleme ve haberleştirme gibi birçok alanda kullanılabileceği ortaya çıkmıştır. Beden eğitimi öğretmenlerinin, öğrencilerin etkileşimli ders planları, egzersiz programları, antrenman yöntemleri, sağlık ve beslenmeleri hakkında ChatGPT ile iletişim kurarak, daha etkili bir öğrenme deneyimi sağlayabilecekleri tespit edilmiştir. ChatGPT'nin beden eğitimi ve spor alanının geleceğine potansiyel olarak büyük bir etkiye sahip olabileceği sonucuna varılmıştır. Ayrıca, ChatGPT'nin teknolojiye aşırı güven, bilgi yanlışlığı, teknik zorluklar ve etik kaygılar gibi olumsuz yönleri olduğu da tespit edilmiştir. Çalışma, ChatGPT'nin beden eğitimi ve spor alanında nasıl kullanılabileceğine dair öneriler sunmakta ve gelecekteki araştırmalar için bir yol haritası çizeceği düşünülmektedir.

Anahtar Kelimeler: Yapay Zeka, ChatGPT, Beden Eğitimi ve Spor

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Introduction

Science and technology, like many other areas, have gained speed over time and have had a substantial impact on human existence. Artificial intelligence (AI) technology is one of these advancements. McCarthy et al. (1955) coined the phrase artificial intelligence, and since then, it has evolved into a rapidly evolving technology employed in a variety of sectors (Lv et al., 2020). According to UNESCO-UNEVOC, half of all organizations in the world use AI in their operations (Shiohira, 2023). Conversational AI refers to technology that assist people in interacting with computers, such as chatbots or virtual agents (Singh and Beniwal, 2022). In November 2022, OpenAI, a lab that studies artificial intelligence, came out with a chatbot called ChatGPT (Generative Pre-trained Transformer). ChatGPT is a speech-based artificial intelligence interface (OpenAI, 2023) that interacts realistically and even uses natural language processing (NLP) to "answer follow-up questions, admit mistakes, challenge false premises, and reject inappropriate requests." ChatGPT was created to help users by acting as a natural language conversation agent, giving relevant and correct information such as customer service, chatbots, and the like (Gilson et al., 2023). ChatGPT is trained on a wide range of online texts, including books, papers, and webpages, covering a wide spectrum of themes such as news and fiction (Shen et al., 2023). Question answering, narrative, logical reasoning, code debugging, machine translation, and other natural language processing skills are integrated (Jiao et al., 2023).

Language models, such as ChatGPT, have the ability to not only considerably accelerate learning implementation, but also to function as an effective instrument for greater expression of interest (Abdelghani et al., 2022). Tlili et al., (2023) found in their study with ChatGPT users that the broad and individualized knowledge offered by ChatGPT in many disciplines (e.g., science, history, business, health, technology, and so on) or subjects was seen as valuable by many users in the study. ChatGPT can assist users learn more, offer suggestions on certain issues, do additional research, or study topics in greater depth by providing broad knowledge on various themes. This technology is still very new, and people may not have a clear consensus. Haque et al., (2022) in their Twitter sentiment analysis on the adoption of ChatGPT as a technology in general, revealed that users have divided attitudes on this issue. Tlili et al., (2023), in their study examining the sentiment analysis of tweets about ChatGPT, concluded that positive emotions (5%) outweighed negative emotions (2.5%). In the study, the majority of uncategorized emotions (92.5%) can be considered as an indication that most people are undecided about ChatGPT. The fact that the human mind is equipped with innate resistance mechanisms causes it to take a harsh attitude towards any change process. (Toboro, 2019). Therefore, the concerns and controversies that suddenly arose following the widespread release of ChatGPT seem understandable. Furthermore, various blog postings and media sites (Zhai, 2022)

commented on ChatGPT's educational benefits, and some even gave instructions for using it in the classroom (Lieberman, 2023). ChatGPT, an AI model, gives machine-generated replies and has the potential to incorporate biased data, which can result in biased output (vanDis et al., 2023). Instead of asking clarifying questions, ChatGPT makes assumptions about what the user wants to hear (Shen et al., 2023). The advent of artificial intelligence systems and chatbots in various fields should be viewed as a development opportunity rather than a danger (Kooli, 2023).

The reported benefits and drawbacks of applying AI in various sectors warrant additional exploration, particularly in light of the recent release of ChatGPT, a strong AI-based chatbot. Education (Fitria, 2023; Luo et al., 2022; Sok and Heng, 2023; Tlili et al., 2023) and health (Alkhaqani, 2023; Li et al., 2023; Mavrogenis et al., 2023; Sallam, 2023) were prominent in the literature, but no study on physical education and sports was found. ChatGPT is regarded to have a strong potential for use in physical education and sports. The study looks into how ChatGPT might impact the field of physical education and sports. The possible contributions and concerns that ChatGPT will provide to the field of physical education and sports have been tried to be revealed through an interview with ChatGPT. For this purpose, the following research questions were formed.

1. In which areas can ChatGPT be used in physical education and sports?
2. How can ChatGPT assist physical education teachers?
3. How can ChatGPT contribute to the future of the field of physical education and sports?
4. What are the potential negative situations that may arise during the use of ChatGPT in the field of physical education and sports?

Method

This study was conducted as a qualitative research to determine the purpose of using ChatGPT in physical education and sports and its potential contributions to this field. The study is based on questions prepared by the researcher, directed towards ChatGPT, and relies on the responses provided by ChatGPT. The data collection process focused on a semi-structured interview methodology. The questions identified by the researcher were used in the interviews conducted with ChatGPT, and the obtained responses were taken into consideration. In line with the research objective, the interviews with ChatGPT were conducted on April 1, 2023, and the results of these interviews were recorded. Content analysis method was employed to analyze the data and determine the themes. These themes were systematically examined to understand the potential utilization of ChatGPT in physical education and sports, and the contributions it can offer in this domain. During the research process, ChatGPT version 3.5 was utilized.

Findings

ChatGPT was asked research questions to establish which areas ChatGPT may be utilized in physical education and sports. "In which areas can ChatGPT be used in physical education and sports?" is the first research question. Table1 depicts the ChatGPT response to the query.

Table 1
Answer of the ChatGPT to the 1st Research Question

Theme	**Responses**
Physical Performance Improvement	Personalized training programs, Performance analysis, Mental conditioning
Health and Injury Prevention	Injury prevention, Nutrition advice
Technical and Tactical Support	Coaching support
Sports News and Content Creation	Sports journalism
Fan Interaction and Information	Fan engagement

"In which areas can ChatGPT be used in physical education and sports?" as shown in Table 1. Personalized training programs are included under the topics of jury prevention, Performance analysis, Nutrition counseling, Mental conditioning, Coaching assistance, Sports journalism, and Fan involvement in ChatGPT's answers to the question. The themes derived from ChatGPT's responses are identified as follows: Physical Performance Improvement, Health and Injury Prevention, Technical and Tactical Support, Sports News and Content Creation, Fan Interaction and Information. Each theme is accompanied by relevant responses provided by ChatGPT. It has been said that ChatGPT may be utilized for a variety of reasons in physical education and sports. It has been explained, for example, that it may aid athletes by establishing individualized training plans for specific athletes, preventing injuries, doing performance analysis, offering personalized dietary guidance, and boosting mental condition. It has also been stated that by providing insights into the performance of their athletes, coaches can assist them in designing effective exercise plans and strategies. ChatGPT also claims to be able to generate sports-related news stories and reports based on real-time data and analytics, as well as connect with sports fans by offering real-time updates, statistics, and predictions about forthcoming matches and events.

"How can ChatGPT assist physical education teachers?" is the second study topic. Table 2 depicts the ChatGPT response to the query.

Table 2

Answer of the ChatGPT to the 2nd Research Question

Theme	**Responses**
Personalization	Developing personalized workout plans based on individual needs
Instant Feedback	Providing real-time feedback during exercises
Answering Questions	Addressing inquiries related to fitness and nutrition
Interactive Lesson Plans	Creating interactive lesson plans to engage students actively
Student Progress Analysis	Analyzing student progress to evaluate performance

Table 2 displays the themes and corresponding responses obtained from the question "How can ChatGPT assist physical education teachers?". The themes obtained from ChatGPT's responses are determined as follows: Personalization, Instant Feedback, Answering Questions, Interactive Lesson Plans, and Student Progress Analysis. Each theme represents a distinct area where ChatGPT could provide support to physical education teachers, enabling them to enhance their instructional practices and offer more personalized guidance to students. ChatGPT has been claimed to assist physical education instructors in a variety of ways. ChatGPT allows you to create custom exercise plans based on students' individual needs and fitness goals, analyze students' movements and provide instant feedback, answer frequently asked fitness and nutrition questions, allowing teachers to focus on specific questions, create interactive lesson plans, and monitor student progress to provide teachers with student performance. It was stated that valuable information can be given about the areas of improvement and improvement.

The third research question, “How can ChatGPT contribute to the future of the field of physical education and sports?” The answer given by ChatGPT to the question is presented in Table 3.

Table 3

Answer of the ChatGPT to the 3rd Research Question

Theme	**Responses**
Personalized Training Programs	Offering personalized training programs based on individual needs
Injury Prevention	Assisting in injury prevention through analysis and insights
Performance Analysis	Analyzing athlete performance to identify areas of improvement

Nutritional Guidance	Providing guidance on proper nutrition and supplement usage
Research and Development	Identifying research areas for further exploration and study
Virtual Coaching	Delivering virtual coaching services for continuous support

Table 3 presents the themes and corresponding responses obtained from the question "How can ChatGPT contribute to the future of the field of physical education and sports?". The themes derived from ChatGPT's responses are identified as follows: Personalized Training Programs, Injury Prevention, Performance Analysis, Nutritional Guidance, Research and Development, and Virtual Coaching. Each theme represents a distinct area where ChatGPT could play a significant role in shaping the future of physical education and sports. ChatGPT claims that it can advise athletes on optimal nutrition and supplement usage, review current studies, and identify which areas require more research, and that players can always obtain help when they need it owing to virtual coaching services. He also answered that he can help in different ways, such as creating customized training programs, analyzing performance, preventing injuries, and providing virtual coaching services.

"What are the potential negative situations that may arise during the use of ChatGPT in the field of physical education and sports?" asks the fourth study question. Table 4 depicts the ChatGPT response to the question.

Table 4

Answer of the ChatGPT to the 4th Research Question

Theme	**Responses**
Overreliance on technology	Reduced emphasis on physical activity and human interaction
Inaccuracy of information	Possible inaccuracies in information provided by ChatGPT
Technical Difficulties	Potential technical issues that may disrupt usage
Lack of Personalization	Limited ability to provide personalized guidance or feedback
Ethical Concerns	Ethical implications regarding data privacy, security, and biases

Table 4 provides the themes and corresponding responses obtained from the question "What are the potential negative situations that may arise during the use of ChatGPT in the field of physical education and sports?". The themes obtained from ChatGPT's responses are determined as follows: Overreliance on technology, Inaccuracy of information, Technical Difficulties, Lack of Personalization, and Ethical Concerns. Each theme represents a distinct concern related to the

implementation of ChatGPT in this context. Excessive dependence on technology, it has been said, may lessen the need for physical exercise and engagement in physical education and sports, thereby harming the entire experience. It is also noted that the veracity of the information supplied by ChatGPT cannot always be guaranteed, which may cause students and teachers confusion and misdirection. ChatGPT may be unable to give tailored advice or feedback to specific students, resulting in a lack of customisation in the learning experience. Finally, the application of AI in physical education and sports may create ethical questions regarding data privacy, security, and possible biases.

Result

The study outcomes have been determined by considering the themes and content obtained throughout the research process. ChatGPT's potential applications and contributions in the field of physical education and sports have been categorized into various themes. These themes demonstrate that ChatGPT can be utilized in diverse areas within physical education and sports, serving different purposes. Specifically, ChatGPT's applicability in personalized training programs, injury prevention, performance analysis, nutrition consultation, mental conditioning, coaching support, sports journalism, and fan engagement has been observed.

Themes such as personalized guidance for physical education teachers, instant feedback, answering queries, interactive lesson planning, and student progress analysis reflect ChatGPT's capacity to support educators. Additionally, the study addresses how ChatGPT can contribute to the future of physical education and sports. Themes such as personalized training programs, injury prevention, performance analysis, nutrition consultation, research and development, and virtual coaching underscore ChatGPT's potential in offering guidance to athletes. The research suggests that ChatGPT can play a crucial role in fostering innovation and progress in the field of physical education and sports.

The study not only highlights the benefits of ChatGPT in this domain but also addresses potential concerns. Issues such as overreliance on technology, accuracy of information, lack of personalization, and ethical considerations are emphasized as significant factors. Furthermore, the study underscores the importance of considering ethical concerns and data privacy.

The research aims to provide guidance on comprehending and utilizing ChatGPT's potential in the field of physical education and sports effectively. In the future, further exploration of artificial intelligence technology's role in this domain and its integration within ethical standards is essential. By doing so, educators, athletes, and relevant stakeholders can best leverage the advantages offered by ChatGPT responsibly.

Discussion and Recommendations

The research attempted to highlight the potential for usage of ChatGPT in the field of physical education and sports, as well as its potential contributions to the sector's future, through an interview using ChatGPT. To minimize ambiguity, the discussion and recommendations will be provided under the topics.

Uses of ChatGPT in Physical Education and Sports

"In which areas can ChatGPT be used in physical education and sports?" ChatGPT's artificial intelligence algorithms, according to the answer to the query, can assess the qualities and aims of athletes and provide them customized training plans. As a consequence, it can aid in developing training regimens and selecting the most appropriate workouts based on the demands of the athletes. They can assess their training demands by examining the athletes' performance data. Furthermore, it can track the athletes' adherence to training schedules and change them as needed. In other words, it can assist athletes increase their performance while also lowering their chance of injury. It can detect injury risks and assist avoid injuries by assessing athletes' bodily parameters, performance data, injury histories, and other aspects. As a result, the athlete can lower his chance of injury while also improving his performance. Furthermore, ensuring that the training regimens are balanced might assist athletes in allocating time for recuperation. ChatGPT can be further expanded throughout time, contributing to numerous disciplines, including physical education and sports (Islam and Islam, 2023). When countries create a database using AI, research will provide better and more trustworthy results since the growing amount of datasets will allow for improved AI modeling (Özt et al., 2023).

ChatGPT can examine a large amount of data that may be used to evaluate performance in physical education and sports. It may assess athletes' performance by assessing their training data, competition outcomes, physical attributes, and other pertinent data. For example, by evaluating athletes' training data, it may tell which motions they are proficient at while training and which ones they need to improve. Furthermore, by studying the competition outcomes of the athletes, they may compare their performance and identify which areas require development. ChatGPT claims to be able to create a customised nutrition diet for the physical education and sports fields. With a healthy nutrition program, the general health level of the athlete is improved, injuries can be prevented and quick recovery can be achieved (Baysal et al., 2008). At the same time, the right diet accompanying training programs contributes to improving sportive performance (Ersoy, 2004). However, there are many concerns about over-reliance on artificial intelligence (Sok and Heng, 2023). A large number of studies indicate that ChatGPT can produce superficial, inaccurate or erroneous content (Cahan and Treutlein, 2023; Moons and Van Bulck, 2023; Stokel-Walker and Van Noorden, 2023). A nutritionist

should give nutritional guidance to athletes by developing a nutrition regimen that is specific to their needs. Because ChatGPT lacks the skill and experience of people, it can only give athletes with broad information about healthy nutrition rather than nutritional counseling. Although ChatGPT is on the edge of passing the United States Medical Licensing Examination (Kung et al., 2023), for specific nutritional recommendations, it is better to see a nutritionist.

ChatGPT can give information on the sleep patterns required to improve athletes' performance. It may also provide recommendations and advise to athletes on how to improve mental abilities such as collaboration, leadership, and stress management. However, ChatGPT is merely a tool, and athletes must supplement their mental training with other approaches. It can provide statistics and competition analyses to assist athletes and coaches in making tactical decisions. It can also give various strategies to deal with problems in training and increase the motivation of athletes. It cannot, however, be expected to replace personal training. AI systems can only do tasks for which they were built or configured (Dönmez et al., 2023). Aside from that, it can produce irrelevant output, which can be severe backdrop, and when users supply inadequate information, it tends to make assumptions about what the user wants to hear rather than asking clarifying questions (Shenet al., 2023). Furthermore, AI approaches cannot detect key human attributes such as critical thinking, communication skills, emotional intelligence, and creativity (Öz et al., 2023). ChatGPT can help sports journalists learn about the latest developments in the world of sports. It can provide information about different sports branches in the sports world and provide statistical analysis about these branches. It may display a wide range of data that sports writers might utilize in their reporting. This knowledge can assist sports journalists in making their writing more informative and compelling. However, technology does not completely replace the abilities necessary for fundamental sports journalism, such as research, interviewing, and experience. ChatGPT may give user help for any topic, however giving insufficient user support has the potential to create erroneous and incomplete information (Gilson et al., 2023). ChatGPT is like a wise companion, but you never know when it's speaking the truth (Dönmez et al., 2023). Sports writers must still rely on interpersonal skills to conduct thorough research, convey factual information, and make stories compelling.

ChatGPT may produce automated answers or messages for sports team and athlete fans to utilize on their social media profiles, as well as answer fans' inquiries about teams and players and offer statistical information about the team or athlete. Human contact, on the other hand, may be required for fan interaction. Fans may like to communicate directly with the team or athlete and participate in intimate exchanges. Although ChatGPT is effective in terms of innovation, it falls short in terms of originality, and the information it offers is primarily based on "Google" searches (Dönmez

et al., 2023). As a result, while ChatGPT cannot replace human contacts with fans, it may be a great tool for engaging fans and improving engagement.

Contribution of ChatGPT to Physical Education Teachers

AI can help teachers minimize their workload, obtain a better understanding of their students' learning processes, and promote classroom creativity (Rudolph et al., 2023). Because AI adoption in education is still delayed in comparison to other domains like as industrial applications (e.g., banking, e-commerce, automotive) or health, there are less research that investigate the usage of major language models in education (Salas-Pilco et al., 2022). To identify the potential benefits of ChatGPT to physical education instructors, the question "How can ChatGPT assist physical education teachers?" was posed. According to ChatGPT's response to the inquiry, the program's natural language processing tools can assist teachers in developing workout routines based on the characteristics of their pupils. Teachers can use ChatGPT to create exercise plans based on factors such as students' age, gender, body mass index, health status, and physical activity level. By monitoring students' performance, it can provide immediate feedback to teachers. It can also collect data to track student progress and provide teachers with reports on student performance. These features can help train students more effectively and guide teachers more efficiently. In their study, Student et al., (2020) concluded that the use of chatbot facilitates the transition of students to the first year of university and increases their participation in the course. Using large language models can provide accurate and relevant information, but cannot replace the creativity, critical thinking, and problem-solving skills developed through human education. As a consequence, it is recommended that teachers utilize these models as a supplement to their instruction rather than a replacement (Redecker, 2017). Teachers may use ChatGPT to gain access to more thorough information and resources, as well as provide their students with rapid and precise responses to their inquiries. They can design a tailored lesson plan depending on the kids' ages, talents, and goals. It may modify the content and intensity of classes based on students' interests, weaknesses, and abilities, and it can assist teachers in providing supplementary resources or activities to make lessons more engaging. ChatGPT can also automatically update and reorganize classes based on students' success when teachers need to adjust their lesson plans at any moment.

Contribution of ChatGPT to the Future of Physical Education and Sports

The following questions were posed to identify ChatGPT's potential contributions to the future of physical education and sports: "How can ChatGPT contribute to the future of the field of physical education and sports?" According to ChatGPT's response to the question, it can assist physical education teachers in developing a customised instruction program based on the characteristics and

performance of their pupils. Personalized education programs provide pupils with a learning experience that is tailored to their own needs and abilities (Görmez et al., 2022). According to Bashamet al. (2016), very few individuals understand what customized learning is and even fewer can put it into practice. It is not possible to call an educational process in which these resources, which are offered to each individual in the same way and at the same level, are used as personalized learning (Görmez et al., 2022). Many studies (Coronado et al., 2018; Kester et al., 2005; Villegas-Ch et al., 2020) claim that students learn better when they are represented in a personalized rather than a non-personalized way. This technology has the ability to learn from interactions with users over time to better anticipate their needs and provide more relevant results as well as personalized recommendations based on previous searches (George and George, 2023). ChatGPT can tailor an exercise plan tailored to students' individual needs, taking into account their physical abilities, goals, preferences and health status. It can uncover possible sources of damage, such as inappropriate method use, by assessing the athletes' techniques. It may also assist kids in identifying their own strengths and limitations by evaluating athletic performance. Physical education instructors and coaches may then guide players to individualized injury prevention programs, reducing the chance of injury while boosting athlete performance. Sports injuries are addressed in two ways: the first is to prevent the injury from occurring, and the second is to keep the same injury from occurring again after recovery. A regulated exercise program is the most effective strategy to prevent injuries (Griffith, 2000).

ChatGPT can keep up with the newest research and trends in physical education and sport and make it available to teachers and coaches. In this way, it can assist to design future training and training methodologies while also contributing to research and development in the field of physical education and sports. According to Lieberman, (2023) wide language models may be an effective tool for assisting teachers in the pedagogical assessment and quality of student replies. Personalized data may be returned every time thanks to the capacity to interpret complicated queries rather than depending exclusively on keyword matching techniques as in today's search engine technology (George and George, 2023). In its current form, ChatGPT information is limited to the period before 2021 based on the training datasets used (OpenAl, 2023). Therefore, ChatGPT is not currently recommended for use as a reliable, updated literature review resource (Yeo et al., 2023). Virtual coaching has become increasingly popular in physical education and sports in recent years. ChatGPT can also contribute in this area. Students can use ChatGPT as a coaching service while training and exercising. ChatGPT can support students by showing them the exercises they should do, identifying their mistakes and offering correction suggestions. Sok and Heng (2023) suggest in their study that ChatGPT has five major benefits, including generating a learning evaluation, enhancing pedagogical practice, offering virtual personal tutoring, developing an outline, and brainstorming. Tlili et al.,

(2023) explored the usage of ChatGPT in education to improve their online learning experience, and they discovered that students preferred to employ speaking agents because they gave a more interesting and dynamic experience. Many researches (Lieberman, 2023; Wang et al., 2023; Zhai, 2022) highlight the benefits of using ChatGPT in teaching.

Negative Sides of Using ChatGPT in Physical Education and Sports

What are the potential bad scenarios that may develop during the usage of ChatGPT in the sphere of physical education and sports? According to ChatGPT's response to the query, over-reliance on AI systems can lead to the omission of numerous possible concerns. Artificial intelligence systems have limitations and require adequate data to function properly. If not enough data is supplied, the system's replies may be misleading or erroneous (Dönmez et al., 2023; Yeo et al., 2023). Alike, it was established in numerous research (Cahan, and Treutlein, 2023; Moons, and Van Bulck, 2023; Stokel-Walker, and Van Noorden, 2023) that ChatGPT provided shallow, erroneous, or inaccurate material. However, technology can occasionally produce inaccurate findings when assessing and measuring the physical status of the body. Measurements of heart rate, body temperature, breathing rate, and other factors, for example, are critical for an athlete. However, ChatGPT is "no entity, but rather a complex algorithm that generates meaningful sentences" (Dwivedi et al., 2023). ChatGPT learnt everything in its database before 2021 and is unable to explore the internet to fill knowledge gaps at the moment. Instead than depending only on technology in such circumstances, it may be a better strategy to examine the opinions and advice of human experts such as coaches, physicians, and other specialists, as well as the data offered by technology.

ChatGPT and other artificial intelligence systems produce data by utilizing certain algorithms and datasets. However, factors such as the correctness and dependability of the data, the quality of the algorithms, and the scope and quality of the dataset can all have an impact on ChatGPT's response accuracy. Rudolph et al., (2023) investigated the subject of whether ChatGPT is a hoax or the end of conventional evaluations in higher education. I came to the conclusion that ChatGPT occasionally invents references and conveys nonsense. Another research (Blanco-Gonzalez et al., 2022) found that only 6% of valid references in the pretext came directly from ChatGPT. False information may affect human health and possibly cause significant injury in domains such as physical education and sports. As a result, it is critical to exercise caution while employing technologies such as ChatGPT and to double-check the veracity of the replies. Furthermore, ChatGPT may not be a perfect replacement for real specialists, and there may be times when expert opinions and guidance are required.

As ChatGPT is used in physical activities such as physical education and sports, it may experience technological issues. ChatGPT, for example, may fall short of conveying the precise form

or technical aspects of a particular workout form. Furthermore, instructions on how to perform an exercise correctly are occasionally insufficient or wrong. Similarly, when advising a training program or nutrition plan, ChatGPT may struggle to properly comprehend and consider a person's features, health state, aspirations, and other personal considerations. Consequently, utilizing ChatGPT just as a technology solution may provide deceptive results and even cause injury by recommending improper training forms or programs for physical activity. As a result, technical tools such as ChatGPT should only be used as a reference source, and human suggestions supplied by a professional trainer or nutritionist should always be verified. Each person has a unique physical structure, health state, sports background, aspirations, and so on. As a result, the exercise or training program prescribed for one individual may not be appropriate for another. ChatGPT may be restricted in its comprehension of a certain user's distinctive features and so fall short of providing a healthy and effective training schedule. Artificial intelligence technology may potentially raise ethical considerations. For example, if they rely on ChatGPT instead of an athlete, student, coach, or instructor, they may miss out on human interactions during the learning process, which may harm their personal growth. If ChatGPT gives inaccurate information or instructions, the athlete's or student's health or development may suffer as a result. Furthermore, there may be issues regarding personal data privacy and security, as the usage of technologies such as ChatGPT has the ability to track and analyze people's physical activity, training, or performance. Numerous studies (Biswas, 2023; Gao et al., 2022; Hallsworth et al., 2023; Lund and Wang, 2023; Stokel-Walker and Van Noorden, 2023) raise ethical concerns and lack openness. As a result, ChatGPT' The ethical use of technology and how this technology might effect people's life must be considered. Despite the authors' emphasis on transparency difficulties and its unsuitability for ethical usage, Wang et al., (2023) suggest that ChatGPT can be useful in producing high-precision queries for thorough systematic reviews. When handheld calculators emerged, there was much concern about the end of people's arithmetic skills. Of course, they are now an essential element of mathematics education and every smartphone (Rudolph et al., 2023). In Kostick-Quenet and Gerke's (2023) work "Artificial intelligence in the hands of flawed users," the Ferrari F2004 (highly successful Formula 1 race car) broke Formula 1 records in Michael Schumacher's hands; however, as a humble investigator with no expertise in Formula 1 driving in his own hands, they stated that it will not only break walls, but also break beyond repair. Since AI technology is a fast evolving subject of computer science, potential actions should be implemented to mitigate any future issues.

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