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A proposed vision for developing the structure of physical education curriculum within the framework of digital giving and technologies of the age of artificial intelligence

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Abstract

The importance of the study is due to arranging curricula to make learning more interactive and enjoyable, striving towards modern trends in curricula and providing more personalized and effective educational experiences. Sustaining education and making it more accessible. The study aims to “a proposed vision for developing the structure of physical education curriculum within the framework of digital giving and technologies of the age of artificial intelligence.” Study methodology: The researcher used the descriptive survey method and the experimental method in order to suit the nature of the study. Study Design: The study was designed by collecting data via questionnaires in a way that allows for the collection of appropriate data to test the hypothesis. The study was applied in the period from 5/5/2023 AD to 5/10/2023 AD. The following conclusions can be drawn. There was a statistical significance in restructuring physical education curriculum to improve educational outcomes in physical education, especially in the field of social (emotional) skills and physical skills. I found statistical significance in restructuring physical education curricula to improve curricular content outcomes in physical education, especially in the field of developing students' physical, cognitive, and social skills, using modern teaching methods, providing appropriate educational methods and tools, and training teachers to Use appropriate standards and tools to evaluate educational outcomes., I found statistical significance in restructuring physical education curricula to improve evaluation outcomes in physical education, especially in the field of accuracy and objectivity, developing appropriate standards and tools, training teachers to use them, and using various evaluation methods., The following is Recommended: Applying the intervention that was used in the study On a broader scale to evaluate its impact on educational outcomes in physical education. Increase the duration of the intervention to enhance its impact on educational outcomes. Develop the intervention to improve its quality and effectiveness. Study other factors that may affect educational outcomes to determine how to control them or mitigate their impact.

Keywords: Structuring physical education curricula - digital giving - techniques of the age of artificial intelligence

Introduction

With the development of digital giving technologies and the era of artificial intelligence, technology has become an essential part of our daily lives, including the field of physical education. Technology can provide a variety of benefits for physical education students and the rapid development of artificial intelligence (AI) and digital technologies have led to major changes in education, including physical education curricula. Artificial intelligence technologies have been introduced to enhance teaching methods and learning assessment Learning In physical education, and the use of artificial intelligence technology in physical education to Use Computerized assessment and evaluation methods. (Aldewan *et al.*, 2022) [3]. The rapid development of artificial intelligence has led to systemic changes in education, including physical education, by influencing elements such as curriculum content, teaching methods and assessment of learning. And curricula in physical education to develop smart physical education tracking systems.

The introduction of artificial intelligence technologies in education has brought great benefits

to teaching, learning, student and teacher assessment and training (Lazem *et al.*, 2024) ^[8].

Artificial intelligence-based systems have been proposed, e.g. AI-Its and IPETS, to enhance physical education. These systems use wearable technology, IoT and cloud platforms to collect and process data, allowing students to practice independently without assistance. Teacher Integrating smart sensor technology with digitalization has improved physical education teaching by providing highly accurate and recognizable actions (Xavier, 2023) ^[22].

The use of information and communications technology was also highlighted (ICT), with applications for learning, motion monitoring, video processing, and evaluation for curricula. These developments have allowed for more precise teaching of complex and precise movements in physical education. Overall, the integration of artificial intelligence and digital technologies into physical education curricula has led to significant improvements in teaching methods and student performance. (Muhammad, 2024) ^[9].

The study Problem

Due to the tremendous development in technology, modern digitization, and the structural structure of buildings and private electronic laboratories, the teaching process, the researcher seeks to aim for that topic the Important and the interesting. desire in exploring how technological developments such as artificial intelligence and digital technologies can be applied to physical education curricula. You can further work on this topic by analyzing the impact of these technologies on the learning and teaching experience in physical education, as well as exploring the potential challenges and opportunities that may arise as a result of these developments. To reach the structure and directions of curricula in physical education the importance of studying.s

1. Arrangement of curricula Make learning more interactive and fun.
2. Striving towards modern trends in curricula Providing more personalized and effective learning experiences.
3. Sustainability The learning makes it more accessible.

Objectives of the study

The study aims to "A proposed vision for developing the structure of physical education curricula within the framework of digital giving and technologies of the age of artificial intelligence"

Study questions

1. What are the potential benefits of restructuring physical education curricula within the framework of digital giving and technologies of the artificial intelligence era?
2. How can physical education curricula be restructured to promote active learning, personalized learning and lifelong learning?
3. What are the challenges that may face the process of restructuring physical education curricula?

Study assignments

- There is statistical significance in restructuring physical education curricula within the framework of digital giving and artificial intelligence era technologies to improve outcomes objectives in physical education.

- There is a statistical significance in restructuring physical education curricula to improve outcomes contenting physical education.
- There is a statistical significance in restructuring physical education curricula Improving assessment outcomes in physical education
- There are rates of improvement in repetition restructuring physical education curricula. In Improving goal outcomes, improve content outputs, Improving evaluation outcomes

Study variables

Independent variable: Digital giving and technologies of the age of intelligence

Dependent variable: Developing the structure of physical education curricula

Terminology of study

- **Structuring physical education curricula:** It is a set of principles and standards that regulate the way physical education curricula are organized, designed and implemented. Structuring usually includes elements such as objectives, contents and evaluation (Awad *et al.*, 2022) ^[5].
- **Digital Giving:** It is a concept that refers to the use of technology and digital tools to positively impact society. Digital giving can include a variety of activities. (Al-Diwan *et al.*, 2007) ^[4].
- **Artificial intelligence era technologies:** The period of time in which artificial intelligence (AI) becomes AI is an essential element in our daily lives. This era is believed to have already begun, as we are already seeing applications of AI in a variety of fields, such as healthcare, education, and manufacturing.

Similar studies

Developing physical education curricula in the context of digitalization and artificial intelligence presents challenges and opportunities. One challenge is the limited application of AI algorithms in teaching physical education, leading to ineffective teaching and low student engagement. (Al Diwan, 2009) ^[1] However, the rapid development of artificial intelligence has the potential to bring about systemic changes in the education system, including physical education. Artificial intelligence can impact various aspects of physical education, such as curriculum content, teaching methods, learning assessment and management. In addition, integrating smart sensor technology with digitalization can improve physical education teaching by accurately capturing and teaching complex and precise movements. This approach has shown promising results in enhancing students' performance in various physical activities, and providing a theoretical foundation and direction for improving teaching in other courses (Khdhim, 2023) ^[6]. Therefore, while there are challenges in integrating digitalization and artificial intelligence into physical education, there are also opportunities to enhance teaching effectiveness and student learning outcomes.

Study entitled "The value meaning and strategy for developing teaching physical education in the era of artificial intelligence" "It aims to investigate the impact of technology on the body, movement, exercise, and health in

physical education. The paper explores the challenges and possibilities of digitalization in sport, physical education, physical activity and play, going beyond simplistic views of its impacts and emphasizing the need for interwoven pedagogical approaches.

Dhir's head (Junfei-Chen 2023) ^[19] Titled "A Towards developing digital physical education teaching by integrating smart sensor technology "Aims to Integrating smart sensing technology » The paper explores the application of smart sensing technology in teaching digital physical education to improve the accuracy and effectiveness of teaching complex physical movements. The study conducted experiments on students specializing in physical education and found that the experimental group, which received digital education with smart sensors, performed better than the control group in various physical activities.

Study (Young-Tang 2023) titled "Applications of artificial intelligence and the Internet of Things in developing education management And teaching The paper is intended to be used "Applications of artificial intelligence and the Internet of Things in developing education management And teaching physical education» The paper proposes a school physical education management system based on artificial intelligence technology to ensure objective assessment of the performance of students and teachers using intelligent algorithms.

Study (2021 Xing Zhao Yuan) Titled "Prospects for applying artificial intelligence in the field of physical educationalist paper: Prospects for applying artificial intelligence in physical education using literary research methods and logical analysis research methods. Manifestations of artificial intelligence in physical education include accurate diagnosis, process monitoring, personal services, and intelligent decision-making. Prospects for artificial intelligence in physical education focus on modernization, building a learning society, and physical education teaching methods. Innovative.

The extent of benefit from reference studies in the current study

The current study benefited greatly from reference studies, as they helped it to

- Determine the field of study and its objectives Reference studies helped the researcher determine the field of study and its objectives, by providing an overview of previous research in the field of artificial intelligence in physical education.
- Formulate research questions Reference studies helped the researcher formulate research questions by identifying important variables in the study.
- Study design Reference studies helped the researcher design the study, by providing examples of previous studies that used specific tools and techniques.
- Data analysis Reference studies helped the researcher analyze the data by providing examples of previous data analyses.
- Writing the research report Reference studies helped the researcher write the research report, by providing examples of previous research reports.

The reference studies were a valuable resource for the researcher at all stages of the study, as they helped him to conduct a comprehensive and high-quality study.

Below are some specific examples of how the current study benefits from benchmark studies

- Study helped Meier., Daniela, Rode., Sebastian, Ruin 2023 The researcher has identified that artificial intelligence has the potential to make a positive impact on physical education by providing new opportunities for learning and engagement, improving the efficiency and effectiveness of teaching, supporting personalization and differentiation, and promoting health and well-being.
- Study helped junfei-chen2023 the researcher determined that smart sensor technology could be a useful tool for tracking and analyzing physical movements, which could help teachers provide more accurate feedback to students and improve their learning.
- Study helped Yudong-Tang 2023 the researcher determined that artificial intelligence could be a useful tool for improving physical education management, which could help provide accurate and objective data about the performance of students and teachers, which could help make better decisions about education and training.
- The 2021 study helped Researcher Xing Zhao Yuan has determined that artificial intelligence has the potential to revolutionize the field of physical education, which can help improve the quality of education and student outcomes, enhance personalization and differentiation, and support health and well-being.

The study was conducted

Study Approach

The researcher used the descriptive survey method and the experimental method due to its suitability to the nature of the study.

Study Design: The study was designed by collecting data through questionnaires in a way that allows the collection of appropriate data to test the hypothesis. The study was implemented in the period from 5/5/2023 AD to 5/10/2023 AD.

Data collection methods

Through interviews, questionnaires are distributed to specialists in developing curricula and methods of teaching physical education to most physical education teachers and in the Department of Curricula and Methods of Teaching Physical Education and in Arab and foreign countries. Their number is (50) experts in curricula and methods of teaching physical education, and communication was made through academic communication sites ((Research Gate - Academy Gate - Google Scholar - Sc space AI.

The proposed model for visioning and developing the structure of physical education curricula within the framework of digital giving and technologies of the age of artificial intelligence

The proposed model is based on a set of basic principles, namely

- Emphasis on active learning, personalized learning and lifelong learning: Confirms (Aldewan *et al.*, 2016) ^[2] (2023 Besa, Dogani) (Musharraf & Al-Hadithi, 2022) ^[10] He must the proposed model seeks to promote active learning, where students create their own knowledge through active engagement in learning. The model also

seeks to promote personalized learning, where students learn according to their individual needs and interests. The model also seeks to promote lifelong learning, where students continue to learn throughout their lives. Via -Understand concepts better-Developing skills and capabilities-Building self-confidence (LAMYAA *et al.*, 2020) [7].

- Taking advantage of digital technology, the proposed model seeks to take advantage of digital technology, including digital giving and artificial intelligence era technologies, to improve the structure of physical education curricula. Everyone agrees (Ega, Arif, Nur, Hidayat., Ghullam, Hamdu., Eva, Riyanto. (2023). (Othman *et al.*, 2023) [11] Taking advantage of digital technology in developing and structuring physical education curricula through. Using virtual reality to train students in specific mathematical skills, use data analysis to monitor student performance, using artificial intelligence to customize training programs for students
- Justice and inclusiveness the proposed model seek to ensure fairness and inclusiveness in structuring physical education curricula, so that all students are able to benefit from physical education regardless of their backgrounds or circumstances. Everyone agrees Amaury, Samalot-Rivera., Willy, Kipkemboi, Rotich. (2023) that it allowed all students to benefit from physical education regardless of their background or circumstances. This idea is supported by literature showing when physical educators teach and reinforce

social skills, students improve their behaviors and become more socially aware of diversity, equity, and inclusion. In addition, physical education curricula must be revamped and transformed to meet the challenges faced by students this generation and Alpha, such as cyberbullying and mental health issues Decolonizing the gaming curriculum is also essential for a more equitable and inclusive educational environment. By implementing an objective, diversity-focused academic assessment, physical education teachers can promote equity, diversity, and inclusion in their classrooms.

Main elements of the proposed model

The proposed model includes a set of main elements, namely

- **Objectives** define what students want to learn from physical education curricula. Goals should focus on developing students' physical, mental, social, and emotional skills. (The skilled-Cognitive-emotional (social).
- **Contents:** Contents include the information and skills students need to learn to achieve goals. Contents must be diverse and interesting, and must meet the needs of all student's school grade.
- **Evaluation:** Assessment evaluates students' progress toward achieving goals. Assessment should be fair and comprehensive, and should provide useful feedback to students. (Principle-continuous-concluding).

Table 1: Within the framework of the following title, the proposed model for visioning and developing the structure of physical education curricula within the framework of digital giving and technologies of the age of artificial intelligence

Evaluation	Contents	Objectives
Fair and comprehensive assessment provides useful feedback to students	Diverse and interesting information and skills that meet the needs of students of all grade levels	Developing students' physical, mental, social and emotional skills
Students' progress toward achieving goals	Content that meets the needs of students of all grades	Determine students' physical, mental, social and emotional skills
Continuous evaluation of students' progress and achievement of goals	Diverse and interesting content	Developing social, cognitive, and emotional skills
A summative assessment of students' progress and achievement of goals	Fair and comprehensive evaluation	Enhancing students' social and emotional interaction

How can the proposed model be applied

The proposed model can be applied through a set of steps, namely.

Table 2: Developing a clear vision for the future of physical education the vision must define what the educational system wants to achieve through physical education curricula

Administrator	Expected time to complete	Step
Head of the Physical Education Department	One month	Analysis of the current situation of physical education
Educational development team	Two months	Designing a future vision for sports education
Director of educational development	3 months	Training teachers to use digital technology in physical education
Educational development team	4 months	Updating the curriculum to reflect the future vision
Director of Physical Education	Continuous	Evaluate plan implementation and ensure goals are achieved

Table 3: Analyze the current situation of the physical education system the analysis must identify the strengths and weaknesses of the current physical education system

Weak points	Strength points	Current situation
Lack of modern and advanced academic materials	Diversity of sports and physical activities	Curricula and study materials
Lack of training on the use of modern technology in sports education	The existence of continuous training programs for teachers in the field of physical education	Training and professional development for teachers
Lack of maintenance and periodic updating of equipment	The presence of good sports facilities and advanced equipment	Facilities and Tools Sports
Lack of effective partnerships that contribute to developing the system	The existence of cooperation programs with external parties and the local community	External programs and partnerships

This table helps identify the strengths and weaknesses of the current physical education system. You can modify this schedule according to your needs and the circumstances of

your school or educational institution. If you need additional assistance or assistance.

Table 4: Create a development plan the plan must specify the steps that will be taken to develop the structure of physical education curricula

Administrator	Expected duration	Step
Director of Physical Education	1 month	Evaluating current needs for sports curricula
Physical education team	2 weeks	Analyze the preferences and challenges in current curricula
Physical education team	3 months	Develop new curricula that reflect the latest practices and standards
Director of educational development	1 month	Evaluate and develop a plan to train teachers on the new curricula
Educational development team	2 months	Implementing training programs for teachers on the new curricula
Director of Physical Education	continuous	Evaluate plan implementation and ensure goals are achieved

Implement the plan

Table 5: The plan must be implemented carefully and precisely

Administrator	Expected duration	Step
Director of Physical Education	1 month	Evaluating current needs for sports curricula
Physical education team	2 weeks	Analyze the preferences and challenges in current curricula
Physical education team	3 months	Develop new curricula that reflect the latest practices and standards
Director of educational development	1 month	Evaluate and develop a plan to train teachers on the new curricula
Educational development team	2 months	Implementing training programs for teachers on the new curricula
Director of Physical Education	Continuous	Evaluate plan implementation and ensure goals are achieved

Practical applications of the proposed model

- **Using digital technology to provide new opportunities for learning and engagement:** Digital technology, such as virtual reality and augmented reality, can be used to provide new opportunities for learning and engagement in physical education. For example, virtual reality can be used to provide a simulated experience of participating in a particular sport, such as football or basketball.
- **Using digital technology to improve the efficiency and effectiveness of teaching:** Digital technology can be used to improve the efficiency and effectiveness of teaching in physical education. For example, digital technology can be used to track and analyze students' physical movements, which can help teachers provide more accurate feedback to students.
- **Using digital technology to support personalization and differentiation:** Digital technology can be used to support personalization and differentiation in physical education. For example, digital technology can be used

- to create personalized training programs for students based on their individual needs and interests.
- Challenges that may face applying the proposed model
- Implementing the proposed model faces a number of challenges, including.
- **The need for teacher training:** Teachers need training on how to use digital technology in physical education.
- **The cost:** Digital technology can be expensive, which may limit accessibility.
- **Privacy:** Digital technology may raise privacy concerns.
- **Conclusion:** The proposed model presents a new vision for the future of structuring physical education curricula. The model focuses on active learning, personalized learning and lifelong learning, and seeks to leverage digital technology, including digital giving and AI-era technologies, to better structure physical education curricula.

Presentation and discussion of results

First assumption

Table 7: There is statistical significance in Restructuring physical education curricula within the framework of digital giving and artificial intelligence era technologies to improve outcomes Objectives In physical education

Measure the extent of improvement of outcomes Objectives In physical education	Experimental group		Control group		The difference between the means of the two groups	value (v)	Effect size	Meaning of effect size
	Arithmetic mean	standard deviation	Arithmetic mean	standard deviation				
Improve physical skills	45.3	3.21	44.2	2.35	1.1	17.2	1.25	High
Improve skills IDY About Curricula	46.2	3.01	41.2	3.21	0.21	16.5	2.36	High
Improving teachers' efficiency in the operation Teaching Yeh	47.2	3.56	40.2	2.35	1.21	18.3	1.98	High
to improve social skills (Emotionalism) about curricula	47.8	3.32	41.2	3.21	2	17.4	1.65	High

Significance level 0.05 = 0.23 Effect size (small = 0.2, medium = 0.5, large = 0.8)

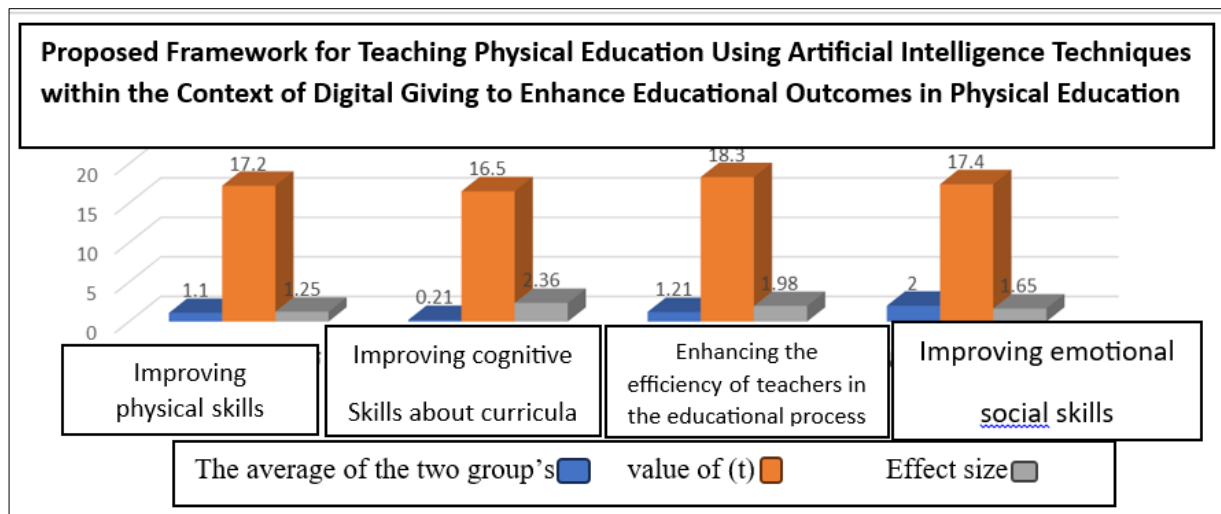


Fig 1: Proposed framework for teaching physical education using artificial intelligence techniques within the context of digital giving to enhance educational outcomes in physical education

It is clear from Table No. (7) and Figure No. (1) Based on the results; we can conclude that there is a difference in the means of the two groups in every variable except improving cognitive skills about the curriculum. Regarding the variable of improving physical skills, the difference was between the means of the two groups 1.1 unit of measurement, the effect size was 0.4. This means that the difference between the means of the two groups was relatively large, and was statistically significant at the 0-significance level. 0.05. Regarding the variable of improving teachers' efficiency in the teaching process, the difference was between the means of the two groups 1.21 unit of measurement, the effect size was 0.6. This means that the difference between the means of the two groups was relatively large, and was statistically significant at a significance level 0.05. Regarding the variable of improving social (emotional) skills regarding curricula, the difference between the means of the two groups was 2.6 unit of measurement, the effect size was 1.2 This means that the difference between the means of the two groups was very large, and was statistically significant at the 0 significance level 0.05 The results indicate that the intervention that was applied to the experimental group was effective in improving educational outcomes in physical education, especially in the field of social (emotional) skills and physical skills. Based on the results, it is recommended

that the intervention used in the study be applied on a larger scale to evaluate its impact on learning outcomes in PE And he agrees with everyone Irina Kleine, Arunas Emelyanova's, Mindaugas DuBose's (2023) The physical education program had a positive impact on the mental health of children aged 9 to 10 years, specifically in reducing physical anxiety, personality anxiety, and social anxiety. The program also led to statistically significant improvements in children's cognitive abilities across nine functions, including spatial orientation, sequencing, recognizing relationships and patterns, and information processing. Social anxiety levels decreased after the program School PE, indicating a positive impact on well-being. The results supported the hypothesis that school physical education programs positively impact student well-being and cognitive achievement, consistent with previous research on the positive effects of physical activity interventions in schools. These findings suggest that implementing physical activity initiatives in schools can improve the well-being and cognitive abilities of primary school children. And agree with everyone (Computational, 2023) (Feng, 2023) (Strategy, 2023)

2. The second hypothesis

Table 8: friendship Statistical significance in restructuring physical education curricula to improve outcomes Curriculum content in physical education

Measure the extent of improvement of outcomes Objectives In physical education	Control group		Experimental group		The difference between the means of the two groups	value (v)	Effect size	Meaning of effect size
	Arithmetic mean	standard deviation	Arithmetic mean	standard deviation				
Developing students' physical, cognitive and social skills.	41.1	2.1	42.3	2.21	0.21	14.2	1.2	High
Using modern teaching methods that rely on active and interactive learning	42.0	2.0	44.3	2.3	0.3	13.5	1.3	High
Providing appropriate educational means and tools that help achieve educational goals	41.2	2.1	41.2	2.4	0.3	14.3	2.2	High
Training teachers to use appropriate standards and tools to evaluate educational outcomes.	43.1	2.2	44.2	2.4	0.2	13.4	2.6	High

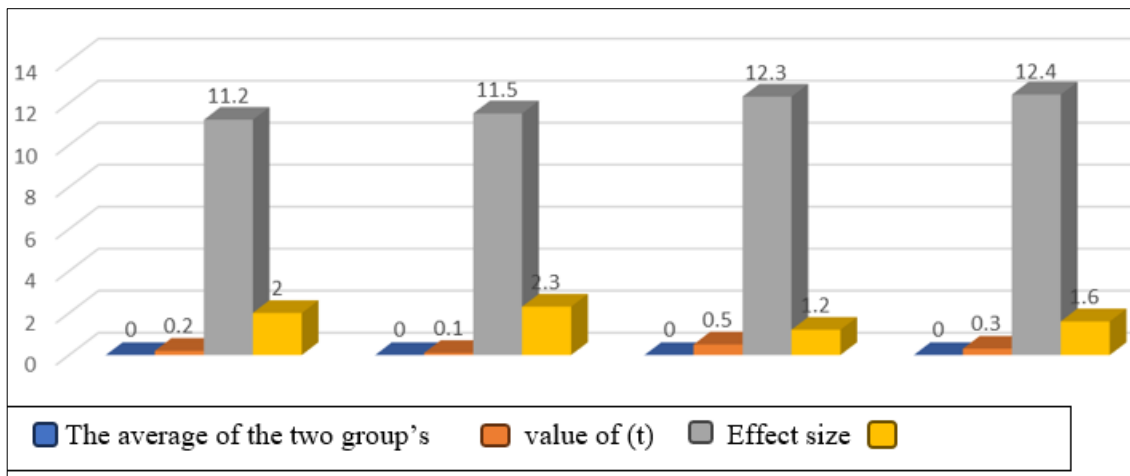


Fig 2: Improving curriculum outcomes in physical education

It is clear from Table No. (8) and Figure No. (2) Based on the results, we can conclude that there is a difference in the means of the two groups on each variable, and the effect size was large in all cases. This means that the intervention that was applied to the experimental group was effective in improving the outcomes of curriculum content in physical education. The results indicate that the intervention that was used in the study is effective in improving the outcomes of curricular content in physical education, especially in the field of developing students' physical, cognitive and social skills, using modern teaching methods, providing appropriate educational methods and tools, and training teachers to use standards and tools. Appropriate for evaluating educational outcomes. Interpreting the results of each variable

Developing students' physical, cognitive, and social skills: The difference between the means of the two groups indicates that students in the experimental group showed a slight improvement in developing physical, cognitive, and social skills compared to students in the control group. This can be explained by the fact that the intervention applied in the study focused on developing these skills through a variety of methods, including: *Using various sports activities that develop students' physical skills.* *Providing theoretical and practical information and activities that develop students' cognitive skills.* *Activities and practices that develop students' social and emotional skills

Using modern teaching methods that rely on active and interactive learning: The difference between the averages of the two groups indicates that students in the experimental group have shown a slight improvement in using modern teaching methods that rely on active and interactive learning compared to students in the control group. This can be explained by the fact that the intervention that was applied in the study focused on training teachers to use these methods, which are characterized by the following: *Students participate actively in the learning process.* *Encouraging students to think critically and solve problems.* *Provide opportunities for students to learn from each other. Providing appropriate educational means and tools that help achieve educational goals:

The difference between the averages of the two groups indicates that students in the experimental group have shown a slight improvement in providing appropriate educational means and tools that help achieve educational goals compared to students in the control group. This can be explained by the fact that the intervention that was applied in the study focused on providing these means and tools to students, which contribute to achieving educational goals, through: *Make the learning process more effective and interesting.* *Facilitating learning for students with special needs.* * Providing opportunities for students to learn in a diverse environment. This agrees with all.

3. The third hypothesis

Table 9: There is a statistical significance in restructuring physical education curricula Improving assessment outcomes in physical education

Measure the extent of improvement of outcomes Objectives In physical education	Control group		Experimental group		The difference between the means of the two groups	value (v)	Effect size	Meaning of effect size
	Arithmetic mean	standard deviation	Arithmetic mean	standard deviation				
Assessment is accurate and objective, so that it correctly reflects students' performance levels.	41.1	2.1	42.3	2.21	0.21	14.2	1.2	high
Continuously developing standards and tools for evaluating educational outcomes in physical education	42.0	2.0	44.3	2.3	0.3	13.5	1.3	high
Training teachers to use appropriate standards and tools to evaluate educational outcomes.	41.2	2.1	41.2	2.4	0.3	14.3	2.2	high
Using various methods to evaluate learning outcomes in physical education.	43.1	2.2	44.2	2.4	0.2	13.4	2.6	high

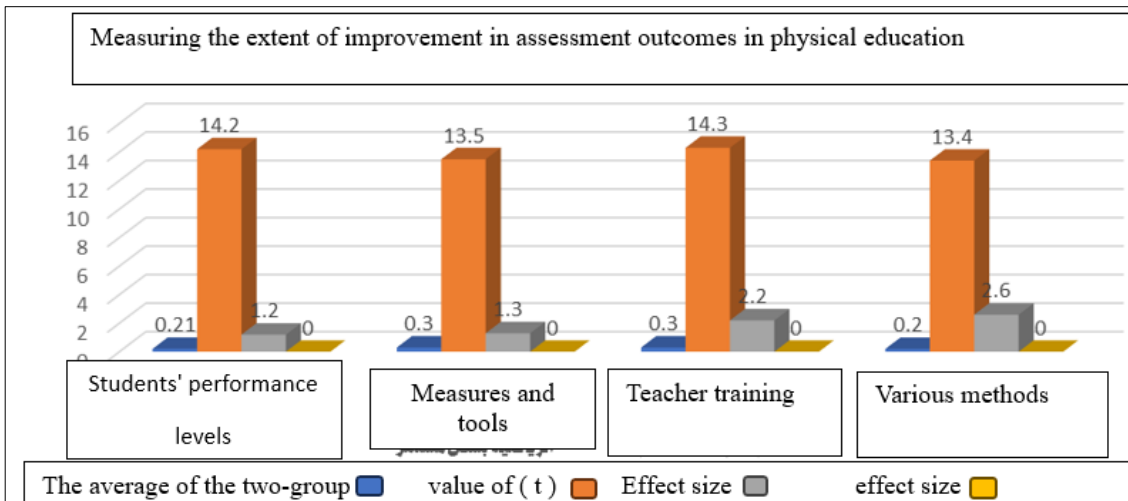


Fig 3: Measuring the extent of improvement in assessment outcomes in physical education

4. The fourth hypothesis: There are rates of improvement in repetition restructuring physical education curricula. In improving goal outcomes, improve content outputs, improving evaluation outcomes

Table 10: Measurements of differences between averages to calculate and know improvement rates

Improvement rates	The difference between the two averages	Standards
2.74%	1.13	Improving goal outcomes
0.63%	0.275	Improving content output
0.62%	0.27	Improving evaluation outcomes

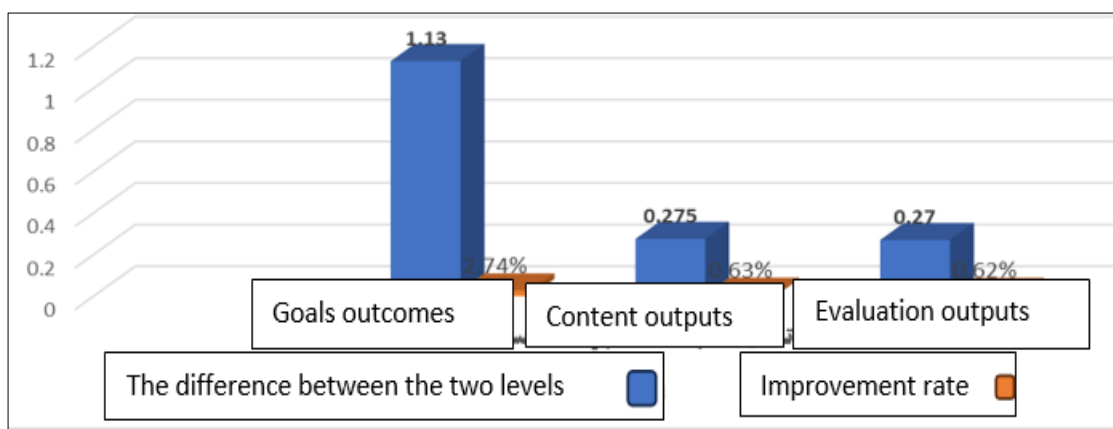


Fig 4: Measuring difference between the groups to calculate improvement ratios

The percentage of improvement is calculated by dividing the difference between the two means by the control group's mean, then multiplying the result by 100%. If the difference between the averages of the control and experimental groups is 10 units, and the average of the control group is 50 units, the percentage of improvement is: Percentage of improvement = (10 / 50) * 100%=20% Example application in the case I presented, the percentage of improvement in the outcomes of the objectives is: Improvement percentage = (1.13 / 41.1) * 100%=2.74. The percentage of improvement in content outcomes is: Improvement percentage = (0.275 / 42.0) * 100%=0.62 The percentage of improvement in the evaluation outcomes is: Percentage of improvement = (0.27 / 43.1) * 100%=0.62 The percentage of improvement in the objectives, content, and evaluation outcomes in this study is small, but positive. This indicates that the intervention that was applied contributed to improving educational outcomes in physical education, albeit to limited extents. Factors that may affect the rate of improvement There are a number of factors that may affect

the rate of improvement, including: *Duration of intervention: The longer the intervention, the greater the chance of achieving better results. *Quality and effectiveness of the intervention: The greater the quality and effectiveness of the intervention, the greater the chance of achieving better results. *Other variables that may affect educational outcomes Such as the characteristics of students, the level of teachers, and the learning environment. Based on the results obtained, the following is recommended: *Increase the duration of the intervention to enhance its impact on educational outcomes. *Developing the intervention to improve its quality and effectiveness. *Study other factors that may affect educational outcomes to determine how to control them or mitigate their impact.

Conclusion
Based on the results obtained in this study, the following conclusions can be drawn: Statistical significance was found in restructuring physical education curricula to improve educational outcomes in physical education,

especially in the field of social (emotional) skills and physical skills.

- There was a statistical significance in restructuring physical education curricula to improve the outcomes of curricular content in physical education, especially in the field of developing students' physical, cognitive, and social skills, using modern teaching methods, providing appropriate educational methods and tools, and training teachers to use appropriate standards and tools to evaluate educational outcomes.
- Statistical significance was found in restructuring physical education curricula to improve evaluation outcomes in physical education, especially in the field of accuracy and objectivity, developing appropriate standards and tools, training teachers to use them, and using various methods of evaluation.

Recommendations

Based on the results obtained, the following is recommended

- Apply the intervention that was used in the study on a larger scale to evaluate its impact on learning outcomes in physical education.
- Increase the duration of the intervention to enhance its impact on educational outcomes.
- Developing the intervention to improve its quality and effectiveness.
- Study other factors that may affect educational outcomes to determine how to control them or mitigate their impact.

References

1. Al Diwan LH. Effective Methods of Teaching Physical Education. Basra: Al-Nakhil Press; c2009.
2. Aldewan LH, Jaber Salam, Yassin S. The effect of the impact of the use of guided discovery method to teach some skills in epee fencing game. *Journal of Studies and Researches of Sport Education*. 2016;49:11-25. Available from: <https://www.iasj.net/iasj/article/126002>
3. Aldewan LH, Noori AB, Oda MJ. The Influence of the Rofini Model on Learning Some Basic Skills and Sensory Perceptions in the Game of Female Tennis. *Journal of Studies and Researches of Sport Education*. 2022;32(1):16-28. DOI:10.55998/jsrse.v32i1.285
4. Al-Diwan LH, Ghazi M, Qader AA. Evaluating practical education for fourth-year students in the College of Physical Education University of Basra from the students' point of view. *Journal of Studies and Researches of Sport Education*; c2007. p. 20.
5. Awad YO, Lamia HD, Shehab GS. Building a Cognitive Achievement Scale for The Skills Of Smash Hitting And Defending The Court In Volleyball For Students. *Journal of Positive School Psychology*, 2022, 6(6). Available from: <https://journalppw.com/index.php/jpsp/article/view/7238>
6. Khdhim MAA. The Effect of Using Wheatley's Strategy in Learning the Technical Performance of the Javelin Throwing Event for Students. *Journal of Studies and Researches of Sport Education*, 2023, 33(1). DOI: 10.55998/jsrse.v33i1.395
7. Lamyaa HMA-D, Mustafa ARK, Yassin HA. The Effect of Constructive Learning Model in Teaching the Constructive Learning of Freestyle Swimming for First Grade Students. *Journal of Studies and Researches of Sport Education*; c2020. p. 63. Available from: <https://www.iasj.net/iasj/article/205247>
8. Lazem MA, Ghazi MA, Mohammed LH. The Impact Of Curriculum Engineering, Artificial Intelligence Strategies, And Digital Methodology On Teaching Physical Education. *Journal of Studies and Researches of Sport Education*, 2024, 34(2). DOI: 10.55998/jsrse.v33i1.480
9. Muhammad QJ. The effect of technological sports applications for smart phones on learning some basic football skills for students aged 13-14 years. *Journal of Studies and Researches of Sport Education*. 2024;34(1):290-305. DOI:10.55998/jsrse.v34i1.490
10. Musharraf MAJ, Al-Hadithi KIS. The effect of exercises using the method of learning for mastery and performance simulation tools in developing the skills of standing on the hands and the human wheel for the floor movements carpet in the artistic gymnastics for men. *Sciences Journal of Physical Education*, 2022, 15(5).
11. Othman IA, Mohamed LH, Shabib SS. The effect of Top Play and Top Sport cards using recreational games in developing children's creative abilities. *Journal of Studies and Researches of Sport Education*, 2023, 33(2). DOI: 10.55998/jsrse.v33i2.466
12. Ghazi MA. Artificial intelligence and its metabolite in motor learning in physical education. 1st ed. Jordan: Dar Al-Bitkar for Publishing and Distribution; c2021.
13. Ghazi MA. A proposed vision for developing physical education curricula within the framework of Egypt's Educational Vision 2023. 1st ed. Jordan: Dar Al-Wefaq for Publishing and Distribution; c2021.
14. Ghazi MA. Time series in sports performance using artificial intelligence techniques. 1st ed. Jordan: Dar Al-Ebtikar for Publishing and Distribution; c2022.
15. Ismail M, Karaz M, Ghazi MA. Developing physical education curricula within the framework of artificial intelligence era technologies. 1st ed. Jordan: Dar Al-Hamid for Publishing and Distribution; c2023.
16. Besa D. Active learning and effective teaching strategies. DOI: 10.59287/ijanser.578.
17. Computational Intelligence and Neuroscience. Retracted: Application and Prospect Analysis of Artificial Intelligence in the Field of Physical Education. DOI: 10.1155/2023/9831968.
18. Feng CM. Intelligent Physical Education Teaching Tracking System Based on Multimedia Data Analysis and Artificial Intelligence. *Mobile Information Systems*. DOI: 10.1155/2022/7666615.
19. Junfei CB. Development Trend of Digital Physical Education Teaching by Integrating Intelligent Sensor Technology. Security and Communication Networks. DOI: 10.1155/2022/3039349.
20. S MD. Digitalization challenging physical culture and education - Current issues in sport pedagogical research. *Current issues in sport science*. DOI: 10.36950/2023.3ciss001.
21. Strategy D. The Value Meaning and of Physical Education Teaching in the Era of Artificial Intelligence. *Frontiers in Sport Research*. DOI: 10.25236/fsr.2023.050405.
22. Xavier L. Artificial Intelligence and Digital Technologies in the Future Education.

- DOI: 10.32388/07ve29.
23. Xingzhao Y. The Application Prospects of Artificial Intelligence in the Field of Physical Education. DOI: 10.23919/WAC50355.2021.9559508.
 24. Yudong TT. Applications of Artificial Intelligence and IoT in the Development of Sports Training Education Management. *Wireless Communications and Mobile Computing*; c2022. p. 1-8. DOI: 10.1155/2022/1061461.
 25. Yujia W. Exploration on the Operation Status and Optimization Strategy of Networked Teaching of Physical Education Curriculum Based on AI Algorithm. *International Journal of Information Technologies and Systems Approach*. DOI: 10.4018/ijitsa.3.