

Student-Centered Physical Education and Green School Curriculum

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Abstract: This study examined the effectiveness of student-centered physical education initiatives in Chinese schools, focusing on how they foster health and fitness awareness within the framework of a green school curriculum. It explored respondents' assessments of various principles like positive relationships, real-world relevance, and sustainability, while also evaluating the impact of family and community engagement on physical activity. Additionally, it sought to determine any significant differences in the assessments among respondent groups and to formulate strategies to promote health and fitness consciousness. In this study, the quantitative research method was utilized along with a descriptive correlational research design and utilized 307 students, 61 teachers and 33 administrators (total of 401 respondents) of the 3 selected universities in China. The study found that student-centered physical education initiatives in Chinese schools are effectively implemented, promoting health and fitness awareness, with no significant differences in assessments across respondent groups. However, the Green School Curriculum and these initiatives show very weak correlations, suggesting the need for further examination and the development of targeted strategies to better integrate health and fitness consciousness. School administrators should enhance "Time and Place" flexibility in physical education and strengthen family and community involvement. Additionally, the Green School Curriculum needs better integration with health and fitness initiatives, focusing on sustainability and physical well-being.

Keywords: Green Curriculum; Physical Education; Student-centered.

1. Introduction

In China, there is a growing emphasis on student-centered physical education and the integration of health and fitness into the school curriculum. The concept of "Health First" has entrusted Chinese schools with a mission of integrating sports and other physical activities with education to cultivate young talented students to be future fit ready. The physical education curriculum in Chinese schools is a compulsory part of the national curriculum, focusing on the development of students' physical fitness and overall well-being. Hence, the present study focuses on the foundation for promotional strategies for fostering fitness and school facilities integrated in a green school curriculum.

This student-centered approach is supported by the experiences of physical education teachers who have used these pedagogical approaches to teach various sports and physical activities that will be empowering students and actively engaging them in physical activities. Additionally, there are ongoing efforts to implement physical activity programs aimed at enhancing students' motivational and social outcomes, both within and outside the school environment (Dyson, et. al., 2022). Therefore, the combination of student-centered physical education and a green school curriculum provides a strong foundation for the development of promotional strategies to foster health and fitness among students in Chinese schools.

The state of physical education in Chinese schools reflects a combination of traditional and modern influences benchmarked with different practices in different practices in the region. Physical education in Chinese schools today is characterized by a combination of elements involving sustainability as well as modernization wherein recent developments spurred by the Olympic Games, Sea Games and other international sports events that emphasize

individual or group successes and winnings. Hence, efforts to improve physical education in China is evident including setting minimum times for physical activity in schools guided by implementing the curriculum model (Rui, 2023).

The influence of the healthy physical education curriculum model with green initiatives emphasizing the need for a combined effort from family, school, and society in achieving the goals of physical education (Hao & Yang, 2022). The relationship between physical education and green curriculum is an emerging area of research. Physical education programs can be effective in improving students' physical skills and enhancing their sustainability and environmental awareness (Hu, 2022). Hence, the present study was relevant as it reflects an ongoing focus on enhancing the quality and impact of physical education in Chinese schools through the use of green curriculum.

The Chinese health physical education curriculum model has also been suggested as a means of promoting sustainable development and improving students' health and fitness (Liu, et.al., 2023). Physical education can be integrated with environmental education and sustainable development goals to promote a holistic approach to education. The concept of green schools in China encompasses the development of environmentally friendly and sustainable educational institutions that emphasizes the integration of sustainable or green education into the school curriculum by utilizing various teaching techniques and resources to foster fitness supported by available facilities. However, it is necessary that initiative involves criteria as well as strategies into how implementation of greening projects will lead to attaining objectives.

While the practice of environmental education in China is more prevalent in economically abundant regions such as Shanghai (Wang, 2021). Efforts to enhance sustainability education across China focuses on the integration of green

curriculum into various subjects and the provision of training and support to teachers for effective implementation of physical education initiatives. The development of green schools in China requires commitment to integrating sustainable education practices into the curriculum that will contribute to a more holistic conscious approach to education where fitness is a subject matter with importance guided by facilities.

The foundation for promotional strategies for fostering health and fitness encompasses various marketing and community engagement approaches which the researcher is motivated to work on. These strategies aim to promote physical activity, healthy living, and fitness within communities. These strategies align with the broader goal of promoting physical activity and healthy living within the school can bring better students who will become leaders of various communities that advocates contributing to the overall public health and fitness objectives.

Generally, the researcher addresses gaps on awareness of improving school physical education programs that can help create more opportunities for students to participate in physical activity that will foster health and fitness. Integrating physical education into school curriculum as well as evaluation as part of the overall evaluation of the quality of schools in China addresses the gaps on the need for prioritizing and investing in physical education programs not only on major courses.

Physical education in Chinese schools often includes traditional Chinese games and creative activities, which can help students experience joy and motivation for sports which leads to socialization. Physical education is essential for the well-being of Chinese students as it contributes to the overall development of students, improves their health conditions, and promotes physical activity. By prioritizing and investing in physical education programs, schools can help ensure that students receive a well-rounded education that benefits their physical, intellectual, and emotional growth. Hence, the study is relevant as it emphasizes the integrated relationship of physical education, green school curriculum, health and fitness.

Furthermore, the main objective was to explore the learning initiatives for physical education among Chinese schools and its effectiveness towards fostering health and fitness consciousness guided by a green school curriculum. On a specific note, the researcher determined to provide information useful for the creation of promotional strategies. To begin with the profiling, followed by determination of student-centered physical education learning initiatives implemented in the Chinese schools as to the following principles positive relationships, whole student needs, positive identity, student ownership and agency, real-world relevant, competency progression, time and place. The researcher added assessment of how effective is student-centered learning initiatives in fostering health and fitness consciousness in terms of physical activity during school, physical activity before and after school; family and community engagement. The section on assessment of implementation of a green school curriculum in physical education as to social performance, economic relevance, regional priority, sustainability, energy resource efficiency, and environmental concern which supports addressing the knowledge and awareness gaps identified by this study. On the statistical views, measurement of the significant difference in the student-centered physical education

initiatives implemented as observed by the respondents when profile variables are considered and significant relationship between the student-centered physical education learning initiatives implemented and its effectiveness in fostering health and fitness consciousness contributes to justifying possible leverage on the modern technology to boost physical activity and address the concerns related to reduced time spent engaging in physical activity on playgrounds and in schools. The researcher is motivated to formulate promotional strategies for fostering health and fitness to strengthen the green school curriculum for physical education.

This review of related literature and studies unfolds, presenting a comprehensive exploration of existing scholarly works that lay the foundation for the present study. This review serves as a crucial bridge between the theoretical underpinnings and the empirical investigation, offering a panoramic view of the diverse academic landscape surrounding the core themes of student-centered physical education, health and fitness consciousness initiatives, and the implementation of green school curriculum for physical education.

2. Research Design

In this study, the quantitative research method was utilized along with a descriptive correlational research design. A study strategy that aims to explain the relationship between two or more variables without making assumptions about the origins and effects of the association is descriptive correlational research. It comprises collecting and analyzing data on a minimum of two distinct variables to determine whether a relationship can be found between them. The researcher believed that it is the most appropriate design to be used in this study. As explained by Devi et al., (2023), Descriptive Correlational design is a method for looking at relationships between or among groups of two or more variables that can exist at many levels. It is a kind of non-experimental design that looks at how two or more variables relate to one another. Remember that the goal of the research is not to establish a cause-and-effect relationship. There are no factors that the researcher can directly manipulate or control while employing a correlational study design. A correlation shows how strongly and/or in which direction two or more variables are related. Either a positive or negative connection can exist.

Nonetheless, the study also makes use of the quantitative technique. The researcher employed the quantitative technique since the survey questionnaire served as the main information source and made it easier for respondents to submit the data required for the study. Creswell (2014) describes that quantitative approach construes analysis of an idea by establishing narrow assumptions and use data gathering to support or controvert the assumptions. The focus of quantitative research is on using statistical techniques for data analysis, examining correlations between quantifiable variables, and maintaining objectivity. This method is essential for producing evidence-based insights, guiding decision-making, and expanding knowledge in a number of disciplines. The researcher used this method and design to achieve the study's main objectives.

3. Results and Discussions

This part presents the results and discussions, this present the tabular and textual discussions on how data was analyzed and interpreted. This was patterned in the sequence on how

statement of the problem was presented. This data analysis is used to be the basis of the researcher in formulating the desired proposed program.

3.1. Assessment of the Respondents on the Student-Centered Physical Education Learning Initiatives Implemented in Chinese School

The data reveals that all indicators are rated as "Implemented" across the three respondent groups: students, teachers, and administrators. It shows that the first indicator, which looks at the comfort level in discussing thoughts and feelings, teachers' rating received the highest mean of 2.95 with 0.46 SD, while administrators had the lowest mean of 2.79 with 0.70 SD. This implies that although the initiative is well-received, different groups have different views on its effectiveness. The second indicator, which examines the physical education teacher's genuine interest in student well-being, also received a combined mean of 2.89 with 0.68 SD. While students and teachers rated this aspect similarly, administrators gave it a lower score of 2.73 with 0.76 SD. The third indicator, related to the provision of constructive feedback, had a consistent combined mean of 2.89 with 0.61 SD, with administrators rating it higher at 2.97 with 0.59 SD, showing implementation across all groups. The fourth indicator, which assesses the creation of a positive learning environment by physical education teachers, received the highest combined mean of 2.94 with 0.51 SD, with administrators giving it a perfect score of 3.00. This means that this aspect of the program is particularly successful. On the other hand, the fifth indicator, which evaluates the encouragement of collaboration and teamwork, had the lowest combined mean of 2.86 with a 0.71 SD, and students gave it the lowest rating at 2.85 with a 0.71 SD. This indicates that while collaboration and teamwork are being promoted, they may not be as effectively implemented as other aspects of the program. Thus, the composite mean across all indicators shows consistent implementation of the programs.

The assessment indicates that the student-centered physical education learning initiatives in Chinese schools are well-implemented, particularly in creating a positive learning environment. However, to further enhance the effectiveness of these programs, schools should focus on strengthening collaboration and teamwork. Addressing this will ensure a more balanced approach to promoting positive relationships, which is a critical principle in student-centered education. Schools may integrate more structured collaborative activities into their physical education curriculum, thereby promoting not only physical fitness but also social and emotional development, which is align with the goals of holistic education. This approach will better meet the needs of students and further enhance the positive outcomes associated with student-centered physical education.

3.2. Assessment of the Respondents on the Student-Centered Physical Education Learning Initiatives Implemented in Chinese School as to Whole Student Needs

It is noted that all indicators are interpreted as "Implemented" across the three respondent groups: students, teachers, and administrators. The first indicator, which evaluates whether physical education addresses physical, emotional, and social needs, has a combined mean of 2.88

with a standard deviation (SD) of 0.68, where teachers rated it at 2.90 (SD = 0.65) and administrators at 2.88 (SD = 0.86). The second indicator, which examines the provision of opportunities for personal growth and development, received a higher combined mean of 2.91 with an SD of 0.59. Administrators gave it the highest score of 3.03 (SD = 0.68). The third indicator, on individual learning styles, received the highest combined mean of 2.97 with an SD of 0.48, with students giving it the highest rating of 2.99 (SD = 0.42), which implies a successful focus on personalized learning approaches. The fourth indicator, which looks at the development of self-awareness, had the lowest combined mean of 2.83 with an SD of 0.77, indicating that while still implemented, this aspect might require further attention. Finally, the fifth indicator, focusing on the development of responsibility for one's own learning and self-reflection, had a combined mean of 2.87 with an SD of 0.71, with consistent "implemented" ratings across all respondent groups.

Data affirms that the student-centered physical education programs in Chinese schools are well-implemented and effective as to whole student needs. However, there is a need to focus on activities that promote self-awareness and self-reflection. Schools should consider incorporating more reflective practices that encourage students to think critically about their learning and development, thus ensuring a more holistic approach to meet the needs of the whole student. This will help improve the physical education programs, supporting both personal and academic development.

3.3. Assessment of the Respondents on the Student-Centered Physical Education Learning Initiatives Implemented in Chinese School as to Positive Identity

Data shows that all indicators related to the development of a positive identity are interpreted as "Implemented" across the three respondent groups: students, teachers, and administrators. Data also shows that the fourth indicator, which evaluates how physical education helps develop a sense of self-worth, received the highest combined mean of 2.93 with a 0.65 SD. Teachers rated this aspect slightly lower with a mean of 2.92 and a 0.46 SD, while administrators gave it the lowest score of 2.76 with a 0.87 SD.

The results show that student-centered physical education initiatives in Chinese schools are effective at helping students build a positive identity, especially by improving self-worth. However, to further enhance positive identity, schools should focus on improving self-efficacy and self-determination. This can be done by giving students more chances for self-directed learning and decision-making within the physical education curriculum. By focusing on these areas, Chinese schools can further strengthen the impact of their student-centered physical education programs and support the overall development of their students.

3.4. Assessment of the Respondents on the Student-Centered Physical Education Learning Initiatives Implemented in Chinese School as to Student Ownership and Agency

Data indicates that all indicators are interpreted as "Implemented" across the three respondent groups: students, teachers, and administrators. The second indicator, which evaluates active engagement in physical education learning

initiatives, received the highest combined mean of 2.92 with a 0.64 SD. Teachers rated this aspect the highest, with a mean of 2.98 and a 0.62 SD, while administrators rated it slightly lower at 2.88 with a 0.55 SD, showing a strong emphasis on ensuring that students are actively involved in their learning experiences. Moreover, the first and fifth indicators, which assess opportunities for self-directed learning and self-assessment and reflection, both received a combined mean of 2.88 with a 0.66 SD and 0.77 SD, respectively. Administrators gave the highest score of 3.00 with a 0.50 SD for the first indicator, reflecting a positive view of the opportunities for self-directed learning. The rating of the administrators implies that this initiative is well-received at the administrative level, which means that the infrastructure or support for self-directed learning is in place, though this perception may not be fully shared by students and teachers. On the other hand, the third and fourth indicators, which evaluate opportunities for problem-solving and decision-making and the ability to set personal learning goals, received the lowest combined means of 2.81 with a 0.77 SD and 0.75 SD, respectively. Particularly, administrators rated the ability to set personal learning goals the lowest, with a mean of 2.61 and a 1.00 SD. This implies that while these aspects of student ownership are being implemented, there is less consistency in their application or effectiveness, especially when it comes to empowering students to set and achieve their own learning goals. Moreover, the composite mean value across all indicators, students, teachers, and administrators provided consistent ratings, with students and teachers having a mean of 2.86 and 2.87 respectively, and administrators at 2.83. The standard deviations (0.29 for students, 0.32 for teachers, and 0.35 for administrators) indicate an agreement among the respondents within each group. The consistency in the composite mean emphasizes that, while there are areas of strength, such as active engagement, other areas like goal-setting and problem-solving, may require further development to realize the full potential of student-centered physical education.

The finding affirms that student-centered physical education initiatives in Chinese schools are effective in promoting student ownership and agency, particularly in terms of active engagement. However, some areas need improvement, particularly in giving students more chances for problem-solving, decision-making, and setting their own goals. To support student ownership and agency, schools might revise their curriculum to include more activities that promote self-directed learning and student-led exploration. These elements help students take responsibility for their learning. In addition, addressing the different views among students, teachers, and administrators could lead to more consistent and effective practices. Schools may also provide training and support for all groups, which could ensure that everyone is working together to strengthen student ownership and agency in physical education programs.

3.5. Assessment of the Respondents on the Student-Centered Physical Education Learning Initiatives Implemented in Chinese School as to Real-World Relevant

Data demonstrates that all indicators are interpreted as "Implemented" across the three respondent groups: students, teachers, and administrators. It shows that the fourth indicator, which evaluates how physical education helps develop a sense of responsibility for health and well-being, received the

highest combined mean of 2.84 with an SD of 0.79. Students rated this aspect highest at 2.87 with an SD of 0.78, while administrators rated it lowest at 2.69 with an SD of 0.74.

The second and fifth indicators, which assess how physical education helps develop skills applicable to everyday life and the development of environmental awareness and social responsibility, both received a combined mean of 2.81 with SDs of 0.76 and 0.82, respectively. Administrators rated the second indicator slightly higher at 2.85, while teachers gave it the lowest rating of 2.67 with an SD of 0.81. The third indicator, related to opportunities for practical application in physical education, had a combined mean of 2.80 with an SD of 0.86, with administrators rating it highest at 2.91. The first indicator, which examines the relevance of physical education learning initiatives to real-world situations, received the lowest combined mean of 2.76 with an SD of 0.80. Administrators rated this highest at 2.94, while students rated it lowest at 2.72 with an SD of 0.81. Thus, the composite mean value of 2.80 with a 0.37 standard deviation. This means the student-centered physical education learning initiatives in Chinese schools as to real-world relevance reflects a positive reception.

The assessment of the respondents on the student-centered physical education learning initiatives implemented in Chinese schools as to real-world relevance indicates that these programs are well-received, particularly in improving a sense of personal responsibility for health and well-being. However, there is room for improvement in making the curriculum more relevant to real-world situations, as reflected by the lower ratings from students. To address this, schools could consider incorporating more real-world applications and practical experiences into the curriculum, such as project-based learning and community engagement. This would help bridge the gap between theory and practice, ensuring that students see the direct value of physical education in their daily lives. By doing it, the programs can be more effective in meeting both the personal and societal goals of physical education.

3.6. Assessment of the Respondents on the Student-Centered Physical Education Learning Initiatives Implemented in Chinese School as to Competency Progression

Data exhibits that all indicators are interpreted as "Implemented". Moreover, data also shows that the second indicator, which evaluates the opportunities provided for skill development and improvement, received the highest combined mean of 2.87 with an SD of 0.74. Students rated this aspect highest at 2.88 with an SD of 0.71, followed by teachers at 2.85 with an SD of 0.83. The third indicator, which assesses how physical education helps build on existing skills or mastery, received the second-highest combined mean of 2.86 with an SD of 0.78, with students giving it the highest mean of 2.90 and teachers the lowest at 2.75. The fifth indicator, related to setting and achieving learning goals in physical education, also had a combined mean of 2.86 with an SD of 0.78, with administrators rating it higher at 2.88 and students at 2.85. The fourth indicator, which focuses on opportunities for self-assessment of skill development, had a combined mean of 2.78 with an SD of 0.77, with teachers rating it highest at 2.89 and students at 2.77. Moreover, the first indicator, which examines how physical education helps develop new skills, received the lowest combined mean of

2.76 with an SD of 0.75. Administrators rated this aspect the lowest at 2.58 with an SD of 0.94, indicating a possible area for improvement. The overall composite mean across all indicators is 2.83 with a standard deviation of 0.33, reflecting a consistent implementation of these initiatives.

The assessment of respondents on the student-centered physical education programs in Chinese schools shows that these initiatives are effective in helping students improve and build on their current skills. However, there is still room for improvement, especially when it comes to developing new skills. To boost competency progression, schools could offer more chances for students to try new physical abilities and techniques, in addition to strengthening the skills they already have. Administrators may also need to provide extra support and resources to introduce new skills into the curriculum. By aligning these initiatives with personalized learning and differentiated instruction, schools can better ensure that all students, regardless of their skill level, fully benefit from these programs.

3.7. Assessment of the Respondents on the Student-Centered Physical Education Learning Initiatives Implemented in Chinese School as to Time and Place

Data reveals that most indicators are interpreted as "Implemented" across the three respondent groups: students, teachers, and administrators, and only indicator 1 in the view of the administrator has a "slightly implemented" interpretation. Moreover, the second indicator, which assesses whether physical education is held in appropriate locations, received the highest combined mean of 2.84 with an SD of 0.75. Students rated this indicator highest at 2.88 with an SD of 0.75, while teachers rated it lower at 2.77 with an SD of 0.78. Likewise, the first indicator, which evaluates the convenience of scheduling physical education, had a combined mean of 2.83 with an SD of 0.72. Teachers rated this aspect the highest at 3.02 with an SD of 0.53, while administrators rated it lowest at 2.48 with an SD of 0.97, indicating that scheduling might be less convenient for administrators. The fourth indicator, which focuses on flexibility in scheduling physical education, had a combined mean of 2.74 with an SD of 0.90. Teachers rated this the highest at 2.80 with an SD of 0.98, while administrators rated it lowest at 2.61 with an SD of 0.90. The lowest combined mean of 2.72 with an SD of 0.91 was found in both the third and fifth indicators, which examine whether physical education sessions are long enough to achieve learning goals and whether they are held in safe and comfortable environments. Administrators rated these indicators with the highest mean of 2.82 and the lowest mean of 2.70, respectively. Overall, the composite mean across all indicators is 2.77 with a standard deviation of 0.37, reflecting that the initiatives are well-implemented.

The assessment shows that student-centered physical education initiatives in Chinese schools are effective and implemented as to time and place. Appropriate locations are well-chosen, but there are concerns about scheduling, particularly from administrators. To improve, schools should focus on more flexible scheduling and ensure that physical education sessions are long enough and held in safe, comfortable environments. This would better meet all stakeholders' needs and enhance the program's overall effectiveness.

3.8. Assessment of the Respondents on the Level of Implementation of Green School Curriculum Predict in Combination of the Learning Initiatives in Fostering Health and Fitness Consciousness as to Economic Relevance

Data exhibits that all indicators are evaluated as "implemented" across the different respondent groups. The highest combined mean score of 2.77 with 0.75 SD falls under the indicator "Green school curriculum in physical education, such as potential healthcare cost savings from promoting active and healthy lifestyles," which ranked first among all indicators. Conversely, the lowest combined mean score of 2.67 with a 0.85 SD falls under indicator "Long-term cost savings associated with implementing a green school curriculum in physical education, such as reduced energy consumption or maintenance costs," ranking last. The composite mean across all indicators is 2.74 with a 0.36 SD, interpreted as "Implemented. Teachers have the highest composite mean of 2.75 with 0.34 SD, followed by students and administrators, who both have a composite mean of 2.74 and SD of 0.36.

The assessment of the respondents indicates that the Green School Curriculum is effective in fostering health and fitness consciousness concerning economic relevance, particularly in promoting active lifestyles that contribute to potential healthcare cost savings. However, there is a need for emphasis on long-term economic benefits, such as energy savings, to ensure that the curriculum fully integrates sustainability practices. To enhance the curriculum's economic impact, schools should consider developing programs that prioritize these long-term benefits, aligning future initiatives with sustainability goals.

3.9. Assessment of the Respondents on the Level of Implementation of Green School Curriculum Predict in Combination of the Learning Initiatives in Fostering Health and Fitness Consciousness as to Regional Priority

Data shows that all indicators have an "implemented" interpretation. The highest combined mean score of 2.79 with an SD of 0.79 is for the indicator "Aligning the physical education curriculum with the regional environmental priorities and sustainability goals," which ranked first among the indicators. In contrast, the lowest combined mean score of 2.71 with an SD of 0.75 is observed in the indicator "Tailor the physical education curriculum to reflect the specific environmental concerns and priorities of the local region," ranking last. The overall composite mean across all indicators is 2.75 with an SD of 0.38, interpreted as "Implemented." Among the respondents, students have the highest composite mean of 2.76 with an SD of 0.38, followed by administrators with a mean of 2.75 and SD of 0.38, while teachers have the lowest composite mean of 2.70 with an SD of 0.36.

It is evident that while the green school curriculum is successful and aligned with regional priorities, there is a need for more focused efforts to address specific local environmental concerns. Schools should consider further tailoring their programs to reflect the unique environmental challenges of their region, as emphasized by Brundiens and Wiek (2020), who advocate for the relocalization of

sustainability education. By integrating local resources, knowledge, and challenges into the curriculum, schools can ensure that their programs are not only relevant but would also be more effective in promoting sustainable practices within their communities.

3.10. Assessment of the Respondents on the Level of Implementation of Green School Curriculum Predict in Combination of the Learning Initiatives in Fostering Health and Fitness Consciousness as to Sustainability

Data demonstrates that all indicators are interpreted as "implemented." The highest combined mean score of 2.78, with an SD of 0.78, corresponds to the indicator "Green school curriculum in physical education can contribute to students' understanding of the interconnection of environmental, social, and economic systems," which ranked first. The lowest combined mean score of 2.69, with an SD of 0.85, is observed in the indicator "Integrate sustainability principles and practices into the physical education curriculum to promote environmental consciousness and responsible behavior," which ranked last. Moreover, the overall composite mean across all indicators is 2.74, with an SD of 0.36, also interpreted as "implemented." Among the respondents, administrators have the highest composite mean of 2.74, with an SD of 0.36, followed by students with a mean of 2.73 and an SD of 0.37, while teachers with the lowest composite mean of 2.72 and an SD of 0.33.

The respondents' assessment shows that the Green School Curriculum in combination with learning initiatives is implemented effectively to foster health and fitness consciousness with regards with sustainability. However, to enhance its impact, there should be a stronger emphasis on integrating practical sustainability practices into the curriculum. This could include offering more hands-on learning activities, giving teachers more support, and making sure sustainability principles are regularly emphasized in the learning process. By doing so, the curriculum can better equip students with the knowledge and behaviors needed to help build a more sustainable future.

3.11. Assessment of the Respondents on the Level of Implementation of Green School Curriculum Predict in Combination of the Learning Initiatives in Fostering Health and Fitness Consciousness as to Energy Resource Efficiency

It is noted that indicators are interpreted as "implemented", except for indicator 5 under the teacher respondent with a "slightly implemented" interpretation, with a combined composite mean of 2.74 and a standard deviation (SD) of 0.36. The highest combined mean score of 2.78, with an SD of 0.80, is the indicator "Green school curriculum in physical education can contribute to reducing energy consumption and promoting sustainable energy practices within the school community," which ranked first.

Conversely, the lowest combined mean score of 2.71, with an SD of 0.77, is the indicator "Green school curriculum in physical education on students' awareness and understanding of energy resource efficiency," which ranked last. In addition, respondent classification shows that administrators and

students share the highest composite mean score of 2.74, with teachers behind at 2.66. Likewise, the teacher group rated the integration of energy resource efficiency education into the physical education curriculum as "Slightly Implemented" for indicator 5, highlighting a disparity in perceptions among different respondent groups.

This result implies a positive assessment of the Green School Curriculum's implementation of energy resource efficiency, with all indicators rated as "implemented." The highest combined mean indicator reflects the curriculum's effectiveness in promoting sustainable energy practices within the school community, emphasizing that the curriculum is successful in fostering a culture of energy conservation and responsible resource use. The assessment of the Green School Curriculum in Combination with the learning initiatives implementation as to energy resource efficiency is positive, with all the respondents agreeing that the curriculum is effective in fostering health and fitness consciousness through sustainable energy practices. However, to further enhance the impact of these initiatives, schools should aim to strengthen their curricula by placing a stronger emphasis on deepening students' understanding of energy resource efficiency. This could be achieved by providing teachers with additional resources and training to ensure that energy conservation principles are implemented and also fully comprehended by students. Such improvements would ensure a more holistic approach to sustainability education, thereby fostering a more profound and lasting commitment to energy efficiency among students and the broader school community.

3.12. Assessment of the Respondents on the Level of Implementation of Green School Curriculum Predict in Combination of the Learning Initiatives in Fostering Health and Fitness Consciousness as to Environmental Concern

Data illustrates that all indicators are interpreted as "implemented." The highest combined mean score of 2.80, with an SD of 0.73, is the indicator "Green school curriculum in physical education on students' understanding of environmental quality and its importance for human health and well-being," which ranked first. The lowest combined mean score of 2.73, with an SD of 0.76, is observed in "Incorporate education on environmental quality and conservation into the physical education curriculum," which ranked last. The overall composite mean across all indicators is 2.76, with an SD of 0.33, also interpreted as "implemented." Among the respondents, teachers have the highest composite mean of 2.80 with an SD of 0.27, followed by students with a mean of 2.75 and an SD of 0.34, while administrators have the lowest composite mean of 2.76 with an SD of 0.33.

The respondent's assessment of the Green School Curriculum's implementation in fostering environmental concern reveals that while the curriculum is effective, specifically in raising awareness of environmental quality's importance to health, there is room for enhancement. To maximize its impact, Chinese schools should strengthen the integration of practical conservation education within the curriculum and ensure consistent delivery across all respondent groups. This approach will equip students with the knowledge and skills necessary for active environmental stewardship, which would contribute to improving

environmental quality within the school and broader community.

4. Conclusion

1) The student-centered physical education initiatives in Chinese schools are implemented effectively across all key principles: Positive Relationships, Whole Student Needs, Positive Identity, Student Ownership and Agency, Real-World Relevance, Competency Progression, and Time and Place. This means, the initiatives are well-received, supporting the study's goal of promoting health and fitness awareness.

2) There is no Significant Difference on the Assessment of the Respondents Physical Education Learning Initiatives Implemented in the Chinese Schools.

3) It is evident that the Green School Curriculum is perceived as being implemented across all indicators, including Social Performance, Economic Relevance, Regional Priority, Sustainability, Energy Resource Efficiency, and Environmental Concern. The consistent positive feedback across respondent groups indicates a shared recognition of the curriculum's presence. However, certain areas, particularly energy resource efficiency, may require further enhancement to achieve a balanced implementation and greater impact.

4) There is no Significant Difference on the Assessment of the Respondents on the Level of Implementation of Green School Curriculum Predict in Combination of the Learning Initiatives in Fostering Health and Fitness Consciousness.

5) There is no significant relationship between the implementation of the Green School Curriculum and the student-centered physical education learning initiatives aimed at fostering health and fitness consciousness. The very weak correlations across all indicators indicate that the curriculum and these initiatives do not influence each other. This outcome highlights the need for a closer examination of how these elements interact and whether adjustments are necessary to create changes to strengthen their connection.

6) There is a need to develop and implement targeted promotional strategies to effectively foster health and fitness consciousness within the Green School Curriculum.

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