



Guidelines to Promote Extra Physical Activities Under the Double Reduction Policy in Secondary School

Zhong Sheng¹, Rumpai Soonjan² and Wisute Tongdecharoen³

Faculty of Sports Science and Technology, Bangkokthonburi University, Thailand

¹E-mail: 214965073@qq.com, ORCID ID: <https://orcid.org/0009-0007-9665-4285>

²E-mail: rgymnas@gmail.com, ORCIDID: <https://orcid.org/0009-0003-6183-7410>

³E-mail: wisute.ton@bkkthon.ac.th, ORCIDID: <https://orcid.org/0009-0008-5233-7533>

Received 03/03/2025

Revised 15/03/2025

Accepted 20/04/2025

Abstract

Background and Aim: Promoting physical activities is crucial for maintaining overall health, reducing the risk of chronic diseases, and improving mental well-being. Regular exercise enhances strength, flexibility, and endurance, leading to a more active and fulfilling life. This study examines the impact of China's "Double Reduction" policy on extra physical activities (EPA) in secondary schools. As the "double reduction" work continues, schools have more time to organize extra sports activities, and students' demand for diversified extra sports activities has also become stronger. The objectives of this study were 1) to survey the current situation of extra physical activities and 2) to develop guidelines to promote extra physical activities under the "Double Reduction Policy" in secondary school. 3) to evaluate the effectiveness of guidelines to promote extra physical activities under the "Double Reduction Policy" in secondary school.

Materials and Methods: The research was a mixed-method research and development study. The methodology was phase 1) A survey of a simple random sampling of 60 teachers and purposive sampling of 5 experts in Lishui City secondary schools examined the impact of the "Double Reduction" policy on extra-curricular physical activities. Phase 2) Develop guidelines with a focus group comprised of 11 experts with purposive sampling, developing a draft guideline to promote extra physical activities under the "Double Reduction Policy" in secondary schools. Phase 3) to confirm guidelines by connoisseurship with purposive sampling of 7 experts. The statistics were mean, standard deviation, and frequency to analyze data.

Results: The results found that 1) Survey of Current Situation: The survey results, obtained through the PNI questionnaire and expert interviews, indicated a generally positive attitude towards promoting extra physical activities under the "Double Reduction Policy." However, the study identified areas for improvement, particularly in teacher involvement and external collaboration. 2) Development of Guidelines: The guidelines were developed using the POLC framework (Planning, Organizing, Leading, Controlling) to provide a comprehensive approach. The planning phase included conducting student surveys, developing yearly activity calendars, and setting participation goals (3 action plans, 3 indicators). The organizing phase focused on allocating time slots, arranging facilities, recruiting instructors, and establishing communication channels (4 action plans, 4 indicators). The leading phase aimed to create a supportive environment, promote activities, recognize achievements, and organize events (4 action plans, 4 indicators). The controlling phase involved monitoring participation, gathering feedback, tracking impact, ensuring safety, and evaluating effectiveness (5 action plans, 5 indicators). 3) Evaluation of Guidelines: The connoisseurship assessment found that all experts accepted the guidelines as practical, reliable, and suitable for implementation. Each component of the guidelines received a strong average rating between 4.57 and 4.86, indicating high levels of acceptance and perceived effectiveness.

Conclusion: The guidelines developed using the POLC framework provide a comprehensive approach to promoting extra physical activities in secondary schools under the "Double Reduction" policy. The high acceptance ratings from experts (4.57-4.86) indicate the practical value and potential effectiveness of these guidelines. By addressing planning, organizing, leading, and controlling aspects, schools can implement structured, engaging, and sustainable physical activity programs that contribute to students' holistic development.

Keywords: Double Reduction Policy; Physical Activities; Secondary Schools

Introduction

In 2021, the General Office of the Central Committee and the General Office of the State Council issued opinions on further reducing the burden of homework and out-of-school training for students in the stage of compulsory education. After the issuance of the "Double Reduction" policy, provinces and cities took action to promote the implementation of the "Double Reduction" work in place. Beijing municipality promoted "double reduction" work in an orderly and steady manner with "three insistences (Ministry of





Education of the People's Republic of China, 2021a). Shanghai has made every effort to reduce the number of subject-based training institutions at the compulsory education stage (Ministry of Education of the People's Republic of China, 2021b), Shenyang insists on teaching from zero in secondary schools (Ministry of Education of the People's Republic of China, 2021c), Guangzhou provides students with a variety of course lists (Ministry of Education of the People's Republic of China, 2021d), and Chengdu realizes full coverage of after-school services in compulsory education schools (Ministry of Education of the People's Republic of China, 2021e). The level of homework management, after-school service, and quality of classroom teaching had been effectively improved, and the goal of "reducing the burden" that had been talked about for many years had been realized, with the burden of schoolwork on students effectively curbed, and the time of after-school service realizing the full coverage of "5+2". In addition to answering questions after school, a variety of activities had been carried out, such as sports, arts, reading, interest groups, and clubs, which had increased the attractiveness of after-school services, and the proportion of students who voluntarily participate in after-school services had increased by 42.8% based on the original. However, "reducing the burden" was not the ultimate goal of the "Double Reduction", and the key to the future work is how to catch up with the victory and promote the "Double Reduction" policy from the "ground" to the depth, to realize the high-quality development of basic education (Li, 2024). As far as secondary school sports are concerned, it is crucial to integrate resources and innovate based on the existing forms of sports activities, to practically solve the problems of school sports, increase the competitiveness and attractiveness of after-school sports services, and increase the actual sense of achievement of students within a limited period, to further promote the work of the "double-reduced" policy.

As the "double reduction" work continues, schools have more time to organize extra sports activities, and students' demand for diversified extra sports activities has also become stronger. However, due to the long-term existence of "exam-oriented education", there were many obstacles to the development of extra physical activities in schools. Based on this background, this study explores the current situation and influencing factors of extra physical activities in secondary schools after the "Double Reduction", and formulates a path to optimize their implementation, to provide references for schools to carry out extra physical activities.

Objectives

This study's Objectives were as follows:

1. To survey the current situation of extra physical activities.
2. To develop guidelines to promote extra physical activities under the "Double Reduction Policy" in secondary school.
3. To evaluate the effectiveness of guidelines to promote extra physical activities under the "Double Reduction Policy" in secondary school.

Literature review

In this study, we searched the literature through the websites of the China Journal Full Text Database (CNKI), GOOGLE, Baidu Academic, and so on. Organizing and analyzing the existing literature and summarizing the previous research hotspots and opinions provides an important theoretical foundation for the research of this paper and provides a reference for the writing of the paper. The literature review of this study includes the following parts:

1. Double Reduction Policy: The Double Reduction Policy is defined as the Chinese government's introduction of an education reform policy to reduce the burden of homework and extracurricular training for students in compulsory education. The specific content mainly includes the following aspects. Reducing the burden of homework: Schools need to formulate a homework management mechanism that is in line with the current situation of the school, by the spirit of the relevant documents and specific guidelines, to reduce low-quality, low-efficiency, punitive, and mechanically repetitive homework. Teachers were encouraged to innovate in homework design, such as layering and categorizing assignments, as well as designing experiential, research and inquiry assignments, so that students can choose on their own according to their respective abilities and give full play to the positive educational function of homework. 2. Reduce the number of examinations: no paper-and-pencil examinations for the first and second grades of elementary school, one final examination for each semester for other grades, a mid-term examination for junior high school grades, and no weekly or monthly examinations for other grades. 3. Strictly implement the regulations on homework and examination management: it was strictly forbidden to assign or disguise





homework to parents, not to ask parents to check and correct homework, to eliminate repetitive and punitive homework, and not to ask students to approve and correct their own homework.4. Strengthening after-school services: promoting comprehensive coverage of after-school services, meeting the diversified needs of students, and improving the quality of classroom teaching, including increase physical education class hours, diversify physical education, organize extra sports activities, encourage family participation in sports activities, establish school and community sports resource sharing mechanism, provide psychological counseling and guidance (Ministry of Education of the People's Republic of China, 2021f).

2. Extra physical activities: "Extra physical activity is understood as physical activity that takes place outside the classroom. Liu (2011) pointed out that extra physical activity was an important part of school sports, refers to physical education activities organized by the school according to the plan for students to carry out all kinds of physical exercises after school hours and to review and consolidate classroom teaching content, developing the body, promoting health, improving the level of sports skills and enriching spare time and cultural life; it can be the activities organized within the school, i.e., school extra physical activities, such as morning exercises, recess exercises, large classroom physical activities, class physical activities and so on. They can be activities organized within the school, i.e. extra physical activities within the school, such as morning exercises, recess exercises, recess sports activities, class sports activities, etc., or activities organized outside the school, i.e. extra physical activities, such as family sports, community sports, sports clubs, etc., which were related to school sports. Zhao and Zhang (2008) said in "Survey on the Status Quo of Participation in Extra Physical Education Activities of Secondary School Students and Countermeasures Research" that: Extra physical education activities were an important part of school, an extension and supplement of physical education classes, and physical education activities that students participate in after school hours to exercise and enjoy themselves physically and mentally.

3. POLC theory: The POLC theory of management has been applied in sports management, such as in the study of Li et al (2024) suggested that for the POLC framework, organizers can effectively manage the economic aspects of the Guangzhou Marathon, maximizing its economic impact and contributing to its overall success. For physical education management, the POLC theory, which stands for Planning, Organizing, Leading, and Controlling, was a fundamental management concept that can be applied to promote physical activity under the Double Reduction policy. This policy aims to alleviate educational burdens and reshape the educational ecosystem, providing a unique opportunity to integrate physical activity promotion into educational settings. The application of POLC theory can facilitate the structured implementation of physical activity initiatives, ensuring they are effectively planned, organized, led, and controlled to achieve desired outcomes.

Planning involves setting objectives and determining the best course of action to achieve them. In the context of promoting physical activity, this could include identifying target groups, such as students, and setting specific goals for physical activity levels. Effective planning requires understanding the factors that facilitate the adoption and maintenance of physical activity interventions, such as stakeholder involvement and communication (Muellmann et al., 2017).

Organizing entails arranging resources and tasks to implement the plan. This could involve integrating physical activity programs into school curricula and ensuring access to facilities like parks and recreation areas (Kruger, 2008). Tailoring materials and training staff to meet the needs of diverse groups was crucial for a successful organization (Muellmann et al., 2017).

Leading focuses on motivating and guiding individuals to achieve the set objectives. Leadership in promoting physical activity can involve advocacy and creating a supportive environment for physical activity through policy approaches and community engagement. Effective leadership can address social gradients and health inequities by ensuring that interventions are inclusive and equitable (Kohler et al., 2023).

Controlling involves monitoring progress and making necessary adjustments. This can include evaluating the effectiveness of physical activity programs and ensuring they are embedded in organizational structures for sustainability (Muellmann et al., 2017). Surveillance measures and collaborative research can help document the impact of physical activity initiatives and guide future improvements (Kruger, 2008).

While the POLC theory provides a structured approach to promoting physical activity, it is important to consider the broader context of health equity and the need for tailored interventions. Population-based approaches can be effective but may inadvertently increase health inequities if not carefully designed and implemented (Kohler et al., 2023). Therefore, integrating health equity considerations into the POLC



framework was essential for achieving comprehensive and sustainable physical activity promotion under the Double Reduction policy.

Conceptual Framework

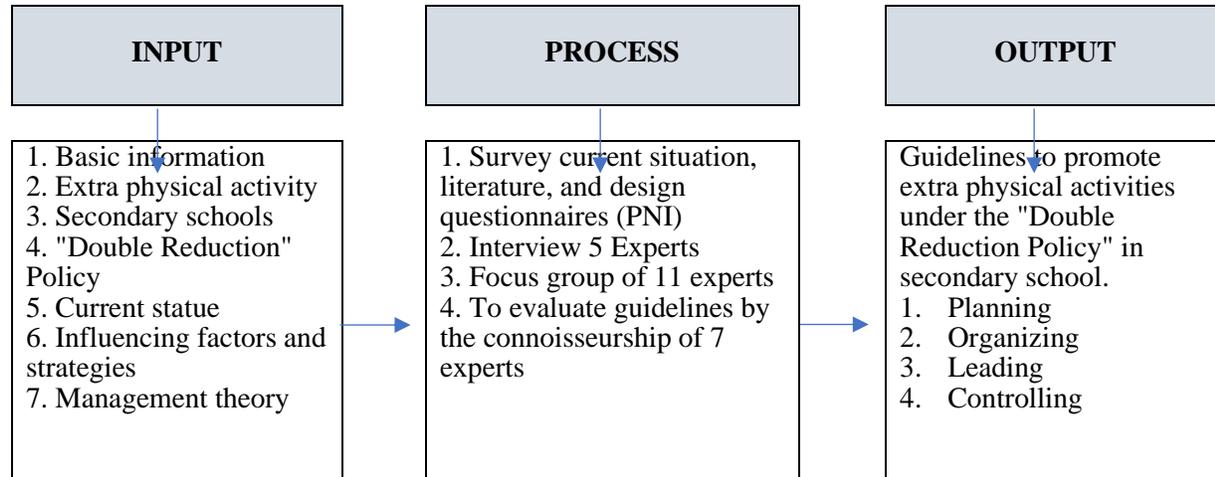


Figure 1 Conceptual Framework

Methodology

Population: The population of this study was specified as the number used in the research from 15 secondary schools in Lishui City, namely: Lishui Economic Development Zone Middle School, Lishui School Affiliated to Huashi University, Lishui Experimental School, Beijing Normal University, Lishui Jishiyu Middle School, Lishui Tourism School, Kuocang Secondary School, Liancheng Secondary School, Bihu Secondary School, Chuzhou Secondary School, Huayuan Secondary School, Tianning Secondary School, Meishan Secondary School, Dagantou Secondary School, and Laozhu National Secondary School, Yaxi Secondary School.

Sample: The simple random sample of this study was 10 secondary schools in Lishui City, namely: Kuocang Secondary School, Liancheng Secondary School, Bihu Secondary School, Chuzhou Secondary School, Huayuan Secondary School, Tianning Secondary School, Meishan Secondary School, Dagantou Secondary School, Laozhu National Secondary School, and Yaxi Secondary School. Sixty teachers came from 10 schools, with each school having 6 teachers: 1 principal, 1 vice principal of physical education, 1 physical education team leader, and 3 physical education teachers. Using the purposive sampling method.

Research participation

1. Invite 3 experts for the Index of Item-Objective Congruence test. These 3 experts have more than 15 years of teaching experience and hold the title of subject leader. Using the purposive sampling method. Request to maintain communication with me and participate in my research throughout the entire process.

2. Invite 5 experts for interviews, they were: 1 physical education researcher, 2 physical education group leaders, and 2 physical education teachers with 10 years of teaching experience.

3. Invite 11 experts for a focus group. They were: 3 physical education principals, 3 physical education vice principals, 3 physical education team leaders, and 2 physical education teachers with the title of subject leader.

4. Invite 7 experts for connoisseurship. They were: 3 physical education researchers and 3 physical education principals, and 1 vice principal of physical education.



Research Instrument

1. The questionnaire on extra physical activities under the double reduction consisted of Part 1, 5 items on sample characteristics, and Part 2, 19 items on extra physical activities. The content validity was 80-1.00 by the index of item-objective congruence, and the reliability was 80 from test-retest.

2. Semi-structured interview consists of two parts: Part 1 was about qualifications and expertise, 5 items, and Part 2 was about extra physical activities under the double reduction policy in secondary school management, 19 items. The content validity was 1.00, and the reliability was 80% by the test-retest method.

3. The questionnaire to develop guidelines to promote extra physical activities under the double reduction policy in secondary school for a focus group consists of two parts: part 1 was about qualifications and expertise, 5 items, and part 2 was about extra physical activities under the double reduction policy in secondary school management, 19 items. The content validity was 1.00, and the reliability was 80% by the test-retest method.

4. The questionnaire to evaluate the effectiveness of guidelines to promote extra physical activities under the double reduction policy in secondary school for connoisseurship consists of two parts. Part 1 was about qualifications and expertise, 5 items; Part 2 was about extra physical activities under the double reduction policy in secondary school management, 19 items. The content validity was 87, and the reliability was 80 by the test-retest method.

Results

In this study, the results were presented in 3 parts as follows:

Part 1: Survey the status of extra physical activities under the "Double Reduction Policy" in secondary school.

The survey results from the questionnaire regarding the status of extra physical activities under the "Double Reduction Policy" in secondary schools provide valuable insights into the planning, organizing, leading, and controlling aspects of physical education management. The findings were summarized below, categorized by the PNI (Present Needs Index) order.

Planning which teacher involvement that the highest priority (PNI: 0.473) was given to involving teachers in the planning process for extra physical activities. This ensures that the activities are relevant and effective, fostering a sense of ownership among educators. Student Preferences, that the second priority (PNI: 0.471), emphasizes the importance of considering student preferences when planning activities. This approach was likely to enhance student engagement and satisfaction. Professional Staffing that provides professional teachers for extra physical activities ranks third (PNI: 0.452), indicating a commitment to quality education and effective implementation of the policy. Resource Allocation The allocation of sufficient resources (PNI: 0.443) was crucial for the successful execution of planned activities, ensuring that schools can meet the demands of the program. Clear Planning Lastly, having a clear plan for promoting extra physical activities is essential (PNI: 0.374), reflecting a structured approach to policy implementation.

Organizing which equipment and Facilities that the provision of adequate equipment and facilities ranks highest (PNI: 0.492) in organizing activities, ensuring that students have the necessary resources for participation. Content Enrichment that enriches the content and forms of activities was also vital (PNI: 0.471), as it enhances the educational value and attractiveness of the programs. Communication that a clear schedule for activities (PNI: 0.465) was important for effective organization, ensuring that students and parents were well-informed. Accessibility, ensuring that activities were accessible to all students (PNI: 0.418), was crucial for inclusivity. Collaboration that collaborating with external organizations (PNI: 0.450) can diversify the offerings and enrich the students' experiences.

Leading Teacher Enthusiasm: The enthusiasm of teachers for leading activities was paramount (PNI: 0.503), as it directly impacts student participation and program quality. Professional Development that provided opportunities for professional development (PNI: 0.492) was essential for enhancing teachers' competencies in physical education. Supportive Environment that creates a positive and inclusive environment (PNI: 0.484) encourages student participation and enjoyment in physical activities. Administrative Support that is actively encouraged by school administrators (PNI: 0.460) fosters a supportive climate for implementing extra activities.

Controlling which feedback Mechanisms that gathering feedback from students, teachers, and parents (PNI: 0.537) was critical for understanding the effectiveness of activities and identifying areas for improvement. Monitoring and Evaluation regular monitoring of activities (PNI: 0.465) ensures timely adjustments and improvements, maintaining the quality of the programs. Emergency Planning that has a





plan for handling emergencies (PNI: 0.494) reflects a commitment to student safety during activities. Continuous Improvement that adjusts programs based on feedback (PNI: 0.468) demonstrates a commitment to meeting the evolving needs of students.

In summary, the PNI questionnaire highlights the importance of structured planning, effective organization, enthusiastic leadership, and robust control mechanisms in enhancing the quality and effectiveness of extra physical activities in secondary schools under the "Double Reduction Policy."

Part 2: Develop the guideline to promote extra physical activities under the “Double Reduction Policy” in secondary school with a focus group.

Development of Guidelines: The guidelines were developed using the POLC framework (planning, organizing, leading, controlling) to provide a comprehensive approach by 11 experts with the focus group method. The summary of opinions that developed the action plan and indicators in the guideline to promote extra physical activities under the “Double Reduction Policy” in secondary school follows in the table below:

Element	Action Plan	Indicator
Planning	<ol style="list-style-type: none"> 1. Conduct student surveys to assess activity preferences and interests. 2. Develop a yearly activity calendar with diverse offerings (sports, dance, fitness classes, outdoor activities). 3. Set participation goals for different activities and track progress throughout the year. 	<ol style="list-style-type: none"> 1. Number of activities offered. 2. Percentage of students participating in various activities. 3. Student satisfaction with activity choices.
Organizing	<ol style="list-style-type: none"> 1. Allocate dedicated time slots for extracurricular activities within the school schedule. 2. Arrange necessary facilities and equipment for various activities. 3. Recruit and train qualified instructors or collaborate with external organizations. 4. Establish clear communication channels to inform students and parents about activity schedules and updates. 	<ol style="list-style-type: none"> 1. Availability and accessibility of facilities and equipment. 2. Number of qualified instructors or partnerships with external organizations. 3. Time allocation for extracurricular activities in the school schedule. 4. Effectiveness of communication channels (website, newsletters, social media groups).
Leading	<ol style="list-style-type: none"> 1. Create a supportive and inclusive environment that encourages participation. 2. Promote activities through engaging announcements, posters, and demonstrations. 3. Recognize and reward student participation and achievements in extracurricular activities. 5. Organize events or competitions to showcase student talents and foster a sense of community. 	<ol style="list-style-type: none"> 1. Student satisfaction with the extracurricular program. 2. Attendance rates at extracurricular activities. 3. Number of students involved in leadership roles within activities. 5. Feedback from students and parents on the program's impact.
Controlling	<ol style="list-style-type: none"> 1. Monitor student participation and engagement in activities. 2. Gather feedback from students, parents, and instructors to identify areas for improvement. 	<ol style="list-style-type: none"> 1. Number of safety incidents reported during activities. 2. Student feedback on program satisfaction and suggestions for improvement. 3. Data on student fitness levels or health indicators.



Element	Action Plan	Indicator
3.	Track the program's impact on student health and well-being through fitness assessments or surveys.	4. Adherence to school policies and safety protocols.
4.	Ensure compliance with safety regulations and school policies.	6. Program evaluation reports and recommendations for adjustments.
6.	Regularly evaluate the program's effectiveness and adjust as needed.	

Part 3: The evaluated effectiveness of the guideline to promote extra physical activities under the “double reduction policy” in secondary school

Summary of Connoisseurship Results: The study employed connoisseurship methodology with 7 experts to assess the appropriateness and feasibility of guidelines promoting extra physical activities under the "Double Reduction Policy" in secondary schools. The evaluation was structured using the POLC framework (Planning, Organizing, Leading, and Controlling).

All guideline components received "Very high" ratings across all POLC elements, with mean scores ranging from 4.50±0.35 to 4.89±0.53. The highest-rated item was "Conduct student surveys to assess activity preferences and interests" (4.89±0.42) under Planning. Other highly rated elements included "Develop a yearly activity calendar" (4.87±0.35) and "Monitor student participation" (4.87±0.35).

The complete guideline incorporates specific action plans for each POLC element:

1. Planning: Conducting surveys, developing activity calendars, and setting goals
2. Organizing: Allocating time slots, arranging facilities, recruiting instructors
3. Leading: Creating supportive environments, promoting activities, and recognizing achievements
4. Controlling: Monitoring participation, gathering feedback, tracking impact

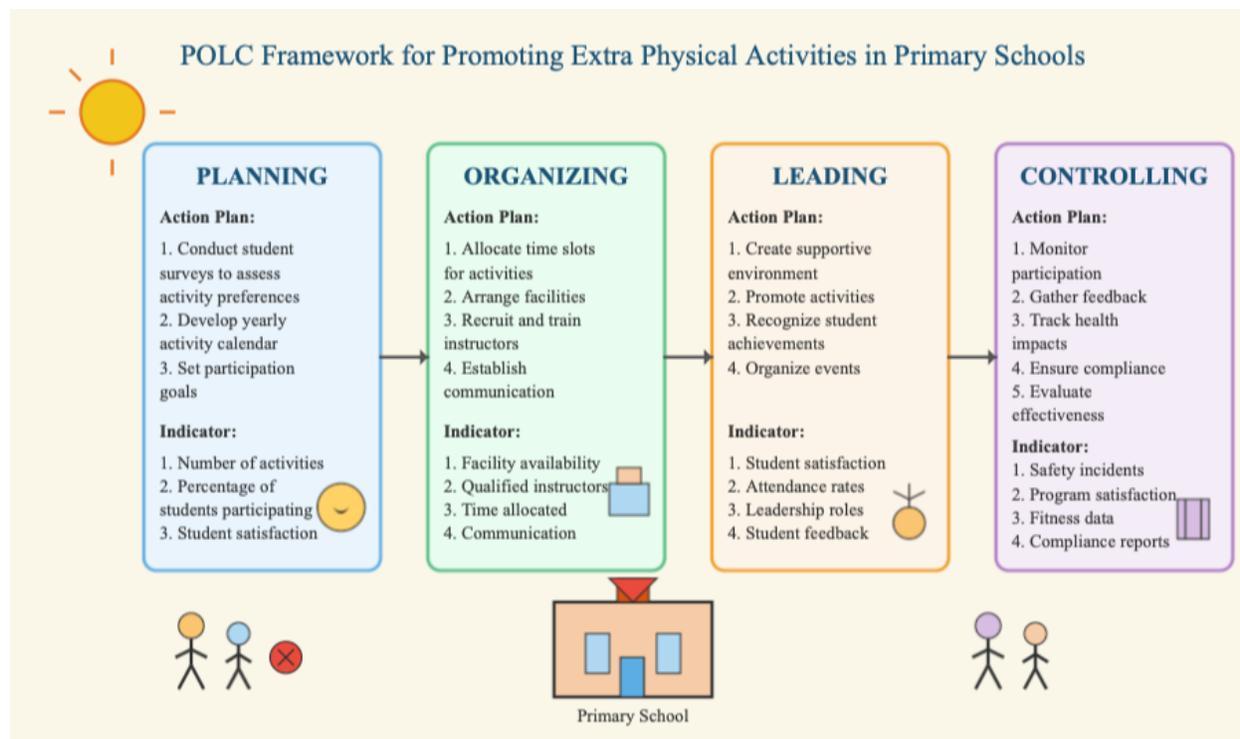


Figure 2 Guidelines to Promote Extra Physical Activities Under the Double Reduction Policy in Secondary School (Zhong Sheng,2025)



Discussion

The guidelines developed in this study are particularly relevant in the context of China's "Double Reduction" policy implementation. The POLC framework (Planning, Organizing, Leading, Controlling) provides a comprehensive structure for promoting extra physical activities in secondary schools, addressing both the opportunities and challenges presented by this educational reform.

Planning Phase: The planning phase establishes a solid foundation for implementing extra physical activities by focusing on student preferences, diverse activity offerings, and measurable participation goals. This student-centered approach aligns with contemporary physical education management principles that emphasize personalization and engagement (Chen, 2022). The study correctly identifies that understanding student interests through surveys was crucial for program success, as students were more likely to participate in activities, they find appealing. The development of a yearly activity calendar with diverse offerings represents a strategic approach to physical activity promotion. As Li et al. (2021) demonstrated, offering a variety of physical activities caters to different student interests and skill levels, thereby increasing participation rates. This diversity is particularly important in the "Double Reduction" context, where schools have more flexibility to implement varied activities beyond traditional sports. Setting participation goals and tracking progress throughout the year introduces accountability into the system. This approach was supported by research showing that specific, measurable goals motivate students and help them monitor their improvement (Sun et al., 2021). However, the guidelines could benefit from more specific metrics for measuring success beyond simple participation numbers.

Organizing Phase: The organizing phase addresses the logistical aspects of implementing extra physical activities, including time allocation, facility arrangement, instructor recruitment, and communication channels. The emphasis on dedicated time slots within the school schedule was particularly important, as Wang and Zhang (2021) found that structured time for physical activity significantly increases participation rates. The guidelines appropriately recognize the importance of adequate facilities and equipment, which Liu et al. (2020) identified as critical factors in enhancing student engagement in physical activities. However, the study could have elaborated on strategies for schools with limited resources to maximize their existing facilities or collaborate with community organizations. The recommendation to recruit qualified instructors or collaborate with external organizations acknowledges the importance of expertise in delivering effective physical activity programs. Chen et al. (2022) demonstrated that instructors with appropriate knowledge and skills enhance student learning and motivation. This was especially relevant in the context of the "Double Reduction" policy, which encourages schools to diversify their educational offerings.

Leading Phase: The leading phase focuses on creating a supportive environment, promoting activities, recognizing achievements, and organizing events. The emphasis on inclusivity aligns with Zhang and Chen's (2020) research showing that accessible physical activities maximize participation across diverse student populations. The guidelines correctly identify the importance of effective promotion strategies through various channels. Wang et al. (2021) found that engaging announcements and demonstrations significantly increase student awareness and interest in physical activities. The recognition of student achievements through rewards and acknowledgments serves as positive reinforcement, which Li et al. (2020) demonstrated can boost self-esteem and encourage continued participation. The organization of events and competitions adds an important social dimension to physical activities. Chen and Liu (2022) found that such events enhance student motivation, sportsmanship, and community building. This aspect was particularly valuable in the "Double Reduction" context, where schools were encouraged to develop students' non-academic skills and interests.

Controlling Phase: The controlling phase ensures program quality through monitoring, feedback collection, impact tracking, safety compliance, and regular evaluation. The emphasis on gathering feedback from multiple stakeholders (students, parents, instructors) aligns with Chen et al.'s (2021) findings on the importance of comprehensive program assessment. The guidelines appropriately highlight safety considerations, which Zhang and Chen (2020) identified as fundamental to any physical activity program. Regular evaluation and adjustment based on program outcomes, as recommended by Liu et al. (2021), ensure continuous improvement and responsiveness to changing needs. However, the controlling phase could benefit from more specific metrics for evaluating program impact on student health and well-being beyond fitness assessments. Psychological benefits, social development, and academic performance improvements could also be considered as indicators of program success.





Conclusion: The guidelines developed using the POLC framework provide a comprehensive approach to promoting extra physical activities in secondary schools under the "Double Reduction" policy. The high acceptance ratings from experts (4.57-4.86) indicate the practical value and potential effectiveness of these guidelines. By addressing planning, organizing, leading, and controlling aspects, schools can implement structured, engaging, and sustainable physical activity programs that contribute to students' holistic development.

Recommendation

1. Establishment of a trinity mechanism of home, school, and community to form a new situation of synergy and sharing among multiple subjects.
2. Improve the protection system of the physical education teachers' team and fully mobilize the work enthusiasm of organizers.
3. Coordinated planning and full utilization of sports infrastructure resources inside and outside the school.
4. Enrich the content and form of extra sports activities to stimulate students' internal motivation.

References

- Chen, X., & Li, Y. (2020). Emergency Preparedness and Response in Extra Physical Activity Programs: Guidelines and Recommendations. *Journal of School Health, 90*(11), 865-873.
- Chen, X., Li, Y., & Wang, Z. (2022). The Impact of Instructor Quality on Student Participation and Enjoyment in Extra Physical Activities. *Journal of Teaching in Physical Education, 41*(1), 104-112.
- Chen, Y., & Liu, X. (2022). The Impact of Events and Competitions on Student Motivation and Social Skills in Extra Physical Activities. *Journal of Sport and Health Science, 11*(2), 182-189.
- Köhler, T., Luscher, A., Falconnet, L., Resch, G., McBride, R., Mai, Q.A., Simonin, J.L., Chanson, M., Maco, B., Galiotto, R., Riat, A., Civic, N., Docquier, M., McCallin, S., Chan, B., van Delden, C. (2023). Personalized aerosolized bacteriophage treatment of chronic lung infection due to multidrug-resistant *Pseudomonas aeruginosa*. *Nat Commun.* 14(1), 3629. doi: 10.1038/s41467-023-39370-z.
- Kruger, J. J. (2008). Productivity and Structural Change: A Review of the Literature. *Journal of Economic Surveys, 22*, 330-363. <https://doi.org/10.1111/j.1467-6419.2007.00539.x>
- Li et al (2024). Effects of Marathon Competition on Economic Aspects in Guangzhou City. *International Journal of Sociologies and Anthropologies Science Reviews, 4*(5), 371-382. <https://doi.org/10.60027/ijsasr.2024.4837>.
- Li, J., & Wang, L. (2022). Effective Communication Strategies for Promoting Extra Physical Activities in Secondary Schools. *Chinese Journal of School Health, 43*(5), 718-722.
- Li, M. (2024). Analysis of the Changes in Obligations and Rights of Students and Teachers under the "Double Reduction" Policy. *World Journal of Educational Research, 11*(3), 94. <https://doi.org/10.22158/wjer.v11n3p94>.
- Li, W., Wang, Y., & Zhang, L. (2020). The Effect of Positive Reinforcement on Student Participation and Enjoyment in Extra Physical Activities. *Physical Education and Sport Pedagogy, 25*(3), 268-280.
- Li, W., Wang, Y., & Zhang, L. (2021). The Impact of Activity Choice and Variety on Physical Activity Participation in School-Based Programs. *Sport, Education and Society, 26*(4), 405-418.
- Liu, H. Y. (2011). *School Physical Education Program*. Beijing: Beijing Sport University Press.
- Liu, X., Chen, S., & Zhang, Y. (2020). The Role of a Supportive Environment in Promoting Physical Activity among Adolescents. *Journal of Adolescent Health, 66*(3), 344-350.
- Liu, X., Chen, S., & Zhang, Y. (2021). Continuous Improvement in Extra Physical Activity Programs: A Framework for Evaluation and Adjustment. *Journal of Teaching in Physical Education, 40*(3), 358-366.
- Liu, X., Chen, S., & Zhang, Y. (2021). Continuous improvement in extra physical activity programs: A framework for evaluation and adjustment. *Journal of Teaching in Physical Education, 40*(3), 358-366.
- Ministry of Education of the People's Republic of China (2021a). Beijing Municipality Promotes "Double Reduction" in an Orderly and Steady Manner with "Three Insistences. Retrieved from





- https://www.moe.gov.cn/jyb_xwfb/moe_2082/2021/2021_z153/sdal/202110/t20211028_575804.html.
- Ministry of Education of the People's Republic of China (2021b). *Shanghai's two-pronged approach to promote the pilot work of "double reduction" by "double increase"*. Retrieved from https://www.moe.gov.cn/jyb_xwfb/moe_2082/2021/2021_z153/sdal/202110/t20211028_575803.html.
- Ministry of Education of the People's Republic of China (2021c). *Shenyang Municipal Government Coordinates and Promotes High-Point Planning to Create "Happy Teaching" with the Pilot Work of "Double Reduction" as the Leader*. Retrieved from https://www.moe.gov.cn/jyb_xwfb/moe_2082/2021/2021_z153/sdal/202110/t20211028_575802.html.
- Ministry of Education of the People's Republic of China (2021d). *Strengthening Responsibility and Promoting Actively and Effectively Guangzhou Municipality Creates a Fresh Case for "Double Reduction" Work Example*. Retrieved from https://www.moe.gov.cn/jyb_xwfb/moe_2082/2021/2021_z153/sdal/202110/t20211028_575801.html.
- Ministry of Education of the People's Republic of China (2021e). *Early and Steady Progress in Chengdu City Continuously Deepens the National Pilot Work of "Double-Reduce"*. Retrieved from https://www.moe.gov.cn/jyb_xwfb/moe_2082/2021/2021_z153/sdal/202110/t20211028_575800.html.
- Ministry of Education of the People's Republic of China (2021f). *Opinions on Further Reducing the Burden of Homework and Extra Training for Students in Compulsory Education*. Retrieved from https://www.gov.cn/zhengce/2021-07/24/content_5627132.htm.
- Muellmann, S., Steenbock, B., De Cocker, K. *et al.* (2017). Views of policymakers and health promotion professionals on factors facilitating implementation and maintenance of interventions and policies promoting physical activity and healthy eating: results of the DEDIPAC project. *BMC Public Health*, *17*, 932. <https://doi.org/10.1186/s12889-017-4929-9>
- Sun, H., & Chen, X. (2021). Teacher Enthusiasm and Its Influence on Student Motivation in Physical Activity. *Journal of Teaching in Physical Education*, *40*(2), 238-246.
- Wang, Z., & Li, J. (2020). Fostering Student Leadership in Extra Physical Activities: Strategies and Benefits. *Chinese Journal of School Health*, *41*(6), 875-879.
- Wang, Z., & Zhang, L. (2021). Time Allocation and Its Impact on the Implementation of Extra Physical Activities in Secondary Schools. *Chinese Journal of School Health*, *42*(2), 212-216.
- Wang, Z., & Zhang, L. (2022). Data-Driven Decision Making for Enhancing Extra Physical Activity Programs: A Case Study. *Journal of Sport and Health Science*, *11*(5), 482-489.
- Wang, Z., Li, J., & Zhang, Y. (2020). Evaluating the Impact of Extra Physical Activities on Student Health and Well-being: A Longitudinal Study. *Chinese Journal of School Health*, *41*(1), 58-62.
- Wang, Z., Li, J., & Zhang, Y. (2021). Effective Promotion Strategies for Extra Physical Activities in Secondary Schools. *Journal of Physical Education and Sport*, *21*(3), 1348-1355.
- Zhang, Y., & Chen, X. (2020). Promoting Inclusivity in Extra Physical Activities: Strategies and Considerations. *Journal of Sport and Health Science*, *9*(3), 264-271.
- Zhao, L. X., & Zhang, M. J. (2008). Survey and Research on the Current Situation of Extra Sports Activities of Secondary School Students. *Teaching Administration*, *8*, 2-10. <https://doi.org/CNKI:SUN:JXGL.0.2008-24-057>.

