THE PRACTICAL VALUE OF THE SPORT EDUCATION MODE

IL VALORE APPLICATIVO DELLO SPORT EDUCATION MODEL

Emahnuel Troisi Lopez Institute of Applied Sciences and Intelligent Systems, National Research Council, Pozzuoli, Italy e.troisilopez@gmail.com

0000-0002-0220-2672

-.·

Double Blind Peer Review

Citazione

Lopez E.T., (2023) The pratical value of the sport education mode, Giornale Italiano di Educazione alla Salute, Sport e Didattica Inclusiva - Italian Journal of Health Education, Sports and Inclusive Didactics. Anno 7, V 2. Supplemento Edizioni Universitarie Romane

Doi:

https://doi.org/10.32043/gsd.v7i2.936

Copyright notice:

© 2023 this is an open access, peer-reviewed article published by Open Journal System and distributed under the terms of the Creative Commons Attribution 4.0 International, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

gsdjournal.it

ISSN: 2532-3296

ISBN: 978-88-6022-479-8

ABSTRACT

The educational context faces continuous challenges in adapting to the evolution of society. Even in school physical education, there is a search for an approach that can holistically impact students, promoting individual and group psychophysical well-being. The Sport Education Model will be analyzed, an educational approach to teaching sports that aims to provide a more comprehensive and engaging understanding of physical activity through a practical and structured experience.

Il contesto educativo va incontro a continue sfide per adattarsi all'evoluzione della società. Anche nell'educazione fisica a scuola si ricerca un approccio che possa intervenire sugli studenti in modo olistico, promuovendo il benessere psicofisico individuale e di gruppo. Verrà analizzato lo Sport Education Model, approccio educativo all'insegnamento dello sport che mira a fornire una comprensione più completa e coinvolgente dell'attività fisica attraverso un'esperienza pratica e strutturata.

KEYWORDS

Sport Education Model, physical exercise, school, motivation Modello di educazione allo sport, esercizio fisico, scuola motivazione

Received 18/08/2023 Accepted 19/09/2023 Published 26/09/2023

1. Introduction

Education plays a vital role in shaping individuals and societies, as it equips students with knowledge, skills, and values essential for personal and societal development (Baker, 2014). The relationship between educators and students is at the core of effective learning. A positive and supportive educator-student relationship fosters a conducive learning environment where students feel valued, respected, and motivated to actively participate in their education (Quin, 2017). In today's rapidly changing world, traditional methods of education (e.g., lectures) are no longer sufficient to meet the diverse needs and interests of students (Kovarik et al., 2022; Lee et al., 2016). Students are exposed to a vast array of information and stimuli from various sources, making it crucial for educators to develop and apply new educational strategies that stimulate interest and participation in the learning process (Thornberg et al., 2022). The relationship between teacher and student must therefore be mediated by an educational act that goes beyond mere knowledge transmission, bringing along a context and a meaning consistent with the environment in which it unfolds and oriented towards individual development.

One significant aspect of effective education is the educator's proactivity in understanding the individual characteristics, strengths, and challenges of their students. Every student is unique, and a one-size-fits-all approach may not effectively cater to their varied needs (Levy-Feldman & Libman, 2022). Instead, educators must adopt a proactive approach by observing, assessing, and adapting their teaching methods to suit the specific requirements of each student. Of course, adapting to every individual and every context simultaneously is difficult, if not impossible. However, the educator can create a dynamic environment in which the student, placed at the centre, can challenge themselves and express their own needs. By embracing new and innovative educational strategies, educators can create engaging and dynamic learning experiences for their students. Incorporating technology, interactive activities, and real-world applications of knowledge can significantly enhance students' interest and motivation to learn. Educational strategies that encourage critical thinking, problem-solving, and collaborative learning empower students to become active participants in their education, rather than passive recipients of information (Michael, 2006). Furthermore, fostering open communication and a supportive learning environment encourages students to ask questions, share their ideas, and express their opinions freely. When students feel their voices are heard and respected, they are more likely to be engaged and invested in their learning journey. Hence, the importance of developing and applying new educational strategies cannot be understated. As the world continues to evolve, so do the needs and expectations of the education system. By staying proactive and open to innovation, educators can create a transformative learning experience that prepares students for the challenges and opportunities of the future. Education is of utmost importance in shaping individuals and societies and the relationship between educators and students plays a crucial role in fostering these processes. Embracing a proactive approach and moving beyond traditional methods will empower students to become active learners, capable of navigating an ever-changing world with confidence and competence.

In the realm of education, the need for innovation doesn't stop at traditional classroom subjects; it extends to the very core of physical education as well. In today's fast-paced and technology-driven world, where physical activity is often overshadowed by screens and sedentary habits, innovative teaching approaches are essential to revitalizing the significance of physical education in schools (Woessner et al., 2021). Students in physical education classes deserve engaging and dynamic experiences that cater to their individual strengths, interests, and needs. Innovative teaching methods can breathe new life into physical education. transforming it into an environment of exploration and self-discovery. Innovative approaches can foster a lifelong love for physical activity, promoting not only physical health but also mental agility and teamwork. Ultimately, innovative teaching approaches in physical education empower students to become wellrounded individuals who value the importance of staying active and healthy. By infusing creativity and adaptability into this domain, educators have the opportunity to shape a generation that not only excels academically but also thrives physically and emotionally.

To this regard, the Sport Education Model (SEM) is an educational and instructional approach to teaching physical education and sport developed by Daryl Siedentop, a prominent scholar in the field of physical education, in 1994 (Siedentop, 1994). SEM aims to create a more meaningful and authentic learning experience for students by simulating the organization and structure of real sports teams within the school setting.

This model is based on a programming that takes into account six different characteristics that include seasons (Liao et al., 2023), affiliation through persisting groups, formal competition, a culminating event, records keeping, and festivity. In details:

- Seasons: The concept of seasons in the SEM mimics the structure of professional sports seasons. It involves organizing activities into specific timeframes, allowing students to focus on different sports or physical activities during each season. This approach provides a well-rounded exposure to various activities while also promoting consistency and commitment.
- 2. Affiliation: Affiliation in the model refers to creating teams or groups that students can identify with. These affiliations foster a sense of belonging, teamwork, and camaraderie among participants. Affiliation can instill values such as cooperation, responsibility, and collective achievement, contributing to personal and social development.
- 3. **Formal Competition:** Encouraging formal competition within the SEM introduces healthy rivalry and the pursuit of excellence. It allows students to apply skills acquired during practice in a competitive setting, promoting strategic thinking, adaptability, and resilience. Formal competition nurtures a spirit of fair play, gracious winning, and gracious losing.
- 4. Culminating Events: Culminating events mark the culmination of a season's efforts and progress. These events showcase the students' growth and achievements, providing a platform for them to demonstrate their skills to peers, educators, and parents. Culminating events reinforce the value of hard work and dedication while fostering a sense of accomplishment.
- 5. **Record Keeping:** The practice of record keeping involves tracking individual and team progress, achievements, and improvements. This aspect of the SEM encourages goal-setting and self-assessment. Students can witness their own growth over time, promoting self-motivation, self-awareness, and the pursuit of continuous improvement.
- 6. Festivity: Infusing festivity into physical education and sports creates an environment of celebration and enjoyment. By incorporating events, celebrations, and ceremonies into the model, students are more likely to view physical activities as fun and engaging rather than just obligatory. Festivity adds a layer of excitement, making participation more appealing and sustainable.

These six features collectively form a holistic framework that not only addresses physical development but also cultivates important life skills and values. The SEM's emphasis on variety, competition, and personal growth resonates with the

multifaceted needs of students (Siedentop, 1998), nurturing their physical, social, and emotional well-being. It aims to create a more student-centered and engaging physical education experience (Hastie et al., 2011). By adopting the structure of real sports teams, students have the opportunity to experience the challenges and responsibilities that come with being part of a team, as well as fostering a greater sense of teamwork and sportsmanship. Within the SEM program, students take on various roles that go beyond just being players in the sport. These roles are designed to enhance their learning experience (Manninen & Campbell, 2022), promote teamwork, and develop a broader understanding of sports and physical activities. The main student roles in SEM include:

- Player: Students take on the role of players and actively participate in the sport throughout the season. They work on developing their skills and tactics, and they compete in formal matches against other teams.
- Captain: Each team typically has a captain who takes on leadership responsibilities. The captain may help organize team practices, motivate teammates, and represent the team during meetings or competitions.
- Coach: Students have the opportunity to be coaches, assisting their teammates in skill development, strategy, and game preparation. This role promotes leadership skills, communication, and empathy.
- Official/Referee: Some students act as officials or referees during matches.
 They learn the rules of the sport and enforce fair play and sportsmanship during competitions.
- Team Manager: The team manager takes care of various administrative tasks, such as organizing equipment, keeping records, and communicating with other teams or the teacher.
- Statistician: Students in this role keep track of individual and team statistics, recording data on player performance, wins, losses, and other relevant information.
- Public Relations/Social Media: Students involved in this role handle team communications, create promotional materials, and manage social media accounts related to the team.
- Media Reporter: Some students may take on the role of reporting on the team's activities and matches, creating articles or videos to share with the school or community.

By assigning these different roles, SEM aims to create a more holistic and engaging learning experience for students. Each role allows students to develop specific skills, learn about different aspects of sports, and understand the importance of

teamwork and collaboration. The diverse roles also cater to students' varied interests and abilities, providing a more inclusive and personalized approach to physical education.

The SEM emerged from Siedentop's interest in defining physical education's subject matter in relation to play and his observations of ineffective teaching strategies. He believed that physical education should align with play education to foster collaborative social life. It was developed as a concrete form of play education, aiming to provide meaningful and contextualized sport experiences for students within the school curriculum (Siedentop, 1987).

2. Studies

The effects of the SEM on both students and teachers have been the subject of numerous studies. Many facets have been investigated in order to comprehensively grasp both participants' perceptions of this approach and its actual effects on the various aspects that the SEM addresses.

With regard to the students, the aspects that are mainly analysed are: physical health, cognitive benefits, academic performance, emotional well-being, social skills. Indeed, SEM is a multifaceted program crossing many components that are part of the individual's development. A study conducted by Liao et al. demonstrated that the physical health benefits attributed to the SEM are evident not only in children and adolescents but also in university students (Liao et al., 2023). A total of 95 students were monitored, divided into a control group and a group following the SEM protocol. It was observed that students belonging to the SEM group had developed a healthier lifestyle, along with increased engagement in physical activities overall. A review study from Tendinha et al aimed to analyze the impact of the SEM on students' motivation in physical education (Tendinha et al., 2021). Fourteen studies were included, involving 2146 students. The findings showed a significant association between the SEM and motivation, particularly in autonomy and enjoyment toward physical education. The review supports that SEM positively influences students' motivation and encourages self-determined behaviour in physical education classes. Implementing SEM in physical education programs can promote students' intrinsic motivation to participate in physical activity. Furthermore, it was noticed that also the cognitive, emotional, and behavioural aspects of the students improved significantly after the season. Furthermore, a study by Méndez-Giménez et al. aimed to investigate how a multi-season SEMbased program affects self-determined motivation, fundamental psychological

needs, emotional intelligence, life satisfaction, and the intention to engage in physical activity among physical education students over the course of a school year (Méndez-Giménez et al., 2022). More than 200 high school students participated in the study, spanning across different grade levels. The findings reported by the authors showed that SEM holds the potential to counteract declines in motivation and fulfils fundamental psychological needs during adolescence. Moreover, the study demonstrated the effectiveness of SEM in enhancing emotional intelligence dimensions within the context of physical education.

However, the well-being of teachers significantly influences their teaching effectiveness and the academic achievements of students. Consequently, teacher well-being is of paramount importance and should be a central concern for both educational researchers and practitioners. Hence, many studies also focused on the effects of SEM on teachers and their perception of the effect of SEM on students. For instance, Garcia Lopez et al. analysed coaches' perceptions of the SEM's effect on empowering children from socially vulnerable backgrounds in a communitybased program (García López & Kirk, 2022). They implemented a 36-session SEM season with diverse ethnic groups aged 9 to 11. Coaches perceived SEM roles as empowering strategies that provided meaningful participation, shared power, collaboration, and challenged gender stereotypes. The flexible implementation and clearly defined roles ensured a safe environment, and coaches demonstrated an authentic ethic of care, breaking gender stereotypes. The findings were supported by student data, with participants reporting improved cooperation with peers (Pope & Grant, 1996). Carlson and Hastie (Carlson & Hastie, 1997) suggested that the increase in socialization among students resulted from the enhanced opportunities for interaction within student-led instructional tasks, leading to personal and social development, including the development of leadership and trust skills (Chu et al., 2022). Furthermore, many studies reported that incorporating physical-sports activities into programs has shown effectiveness in diminishing work-related stress, enhancing teacher contentment, and promoting the development of coping strategies to effectively tackle challenges within the workplace (González-Valero et al., 2023).

Furthermore, this approach creates what can be called a dynamic learning experience, that offers several advantages for both students and educators. By actively engaging students in the learning process, it enhances their interest and motivation to learn (Tendinha et al., 2021). As students become more involved in the subject matter through interactive activities and hands-on experiences, they develop a deeper understanding of the content and its real-world applications. This approach also fosters critical thinking skills as students are encouraged to analyse information, solve problems, and think creatively. Dynamic learning experiences often involve collaboration and group work, promoting effective communication and teamwork among students (Kao, 2019). As they actively participate in various tasks, students gain confidence in their abilities and improve their self-esteem. The use of multiple senses and cognitive processes in dynamic learning contributes to better retention of knowledge over the long term. Educators can personalize and differentiate the learning experience to accommodate diverse learning styles and abilities, creating a more inclusive classroom environment (Menendez & Fernandez-Rio, 2017). Moreover, dynamic learning cultivates a positive and supportive atmosphere where students feel comfortable taking risks, asking questions, and exploring new ideas. Beyond the classroom, dynamic learning equips students with practical skills and prepares them for real-world challenges, making their education more relevant and applicable to their future endeavours (Ginanjar et al., 2019). Overall, dynamic learning empowers students to be active participants in their education, nurturing a culture of continuous learning and growth.

3. Discussion

Firstly, it's important to note that there is no one-size-fits-all approach to educational programs, and what works best can vary based on the context, goals, and individual needs of students. The Sport Education Model (SEM) is not necessarily "better" than normal educational programs; rather, it offers unique benefits and advantages that may be suitable for certain situations and learning objectives. For instance, SEM can be beneficial as it promotes an authentic learning experience. Indeed, SEM provides a more authentic and realistic experience by simulating the organization and structure of real sports teams or clubs. This can enhance students' engagement and motivation (Diehl et al., 2018), as they feel a

stronger connection to the activities and see the relevance of what they are learning. Furthermore, it enhances long-term skill development, since the seasonlong approach of SEM allows for a more extended period of skill development in a specific sport or activity. This can lead to greater mastery of skills and a deeper understanding of the sport's tactics and strategies. Then, by participating in teams that remain together throughout the season, students have the opportunity to develop teamwork, communication, and social skills (Kao, 2019). They learn to work together, support each other, and deal with both success and failure as a group. It must be also recognised that SEM encourages the involvement of students in various roles beyond playing, such as coaching, officiating, and managing. This promotes inclusivity and allows students with different abilities and interests to contribute to the overall sports experience. Moreover, through various roles and responsibilities within the team, students develop a sense of personal responsibility and accountability. A further aspect regards SEM encouraging students to keep records of their performance and reflect on their progress. This promotes metacognition, helping students understand their strengths and areas for improvement. Finally, SEM often leads to increased physical activity (Liao et al., 2023) levels because students are actively engaged in sports throughout the season, helping students find positive values in sport (Armstrong & Ireland, 1990).

With regard to the teacher, in the SEM, the teacher typically has a more active and involved role compared to traditional physical education settings. In SEM, the teacher acts as a facilitator, coach, and organizer, guiding students through the entire season-long experience. The teacher's role goes beyond simply instructing and demonstrating skills; they play a crucial role in creating a dynamic and authentic learning environment. Educators engage in multifaceted roles that collectively contribute to a comprehensive educational experience for students (Siedentop, 1994). Through careful planning and organization, teachers orchestrate entire seasons by making strategic choices such as selecting the sport or activity, forming teams, coordinating match schedules, and managing various roles such as coaching and officiating. Yet, their roles go far beyond logistical considerations. Within the SEM framework, teachers also serve as facilitators of learning (Goodyear & Dudley, 2015). They actively guide students through the learning process, urging them to embrace responsibility for their roles, reflect on their performances, and set personal benchmarks for self-improvement. This fosters a sense of autonomy and ownership over their development. Team management is another pivotal aspect. As overseers of team dynamics, teachers nurture an environment of cooperation. They help students work harmoniously, navigate conflicts constructively, and cultivate leadership competencies that extend beyond the playing field (Anwar et al., 2020). In the role of mentors, teachers provide consistent feedback and support. They offer insightful guidance to individual students and teams, nurturing skill enhancement and overall progress. This often extends into coaching and skill development where teachers take on the mantle of a coach. In this capacity, they impart focused skill instruction, formulate strategies, and offer tactical insights aimed at elevating team performance. The assessment of students' progress throughout the season is an integral duty. This evaluation considers various roles, whether as players, coaches, officials, or other responsibilities, ensuring a holistic perspective on growth and development (Siedentop, 1994). Crucially, teachers embed the values of sportsmanship and fair play. By emphasizing these virtues, they inculcate the essence of healthy competition and respect for others, transcending the mere outcome of the games. Within the SEM framework, inclusivity takes centre stage. Teachers actively work to provide every student with opportunities to participate, regardless of their skill level. This commitment fosters an inclusive and nurturing atmosphere that transcends individual abilities and contributes to a supportive and empowering learning environment.

In summation, the teacher's role within the SEM model encompasses meticulous planning, pedagogical guidance, team management, mentorship, skill development, assessment, values inculcation, and inclusivity promotion. These multifaceted roles collectively yield an enriched educational journey that extends far beyond the confines of the classroom, fostering holistic development and preparing students for life's challenges and victories.

While SEM offers these advantages, traditional educational programs also have their strengths, such as providing a diverse range of subjects, standardized assessment methods, and flexibility in curriculum design. The effectiveness of any educational program depends on how well it aligns with the educational goals, the needs of the students, and the expertise and enthusiasm of the educators implementing it. Therefore, the choice between SEM and other educational programs should be based on a careful assessment of the specific learning objectives and the learning environment. Indeed, SEM also has some limitations. One limitation is that implementing SEM requires careful planning and organization, which may be challenging for educators with limited time and resources. Additionally, the season-long nature of SEM may not be suitable for all schools or curricular constraints. Moreover, the success of SEM depends on the teacher's expertise and commitment to effectively facilitate the model, which can vary across different educational settings. Lastly, some students may not resonate

with the sport chosen for the season or may face difficulties in adapting to the competitive nature of the model, potentially impacting their motivation and engagement.

Conclusions

The SEM faces several challenges in traditional physical education programs. It allows to engage students more effectively, providing meaningful learning experiences, and promoting long-term skill development. SEM also focuses on fostering teamwork, sportsmanship, and lifelong physical activity. It addresses individual differences by including diverse roles within sports and encourages students to reflect on their progress and set personal goals. By addressing these needs, SEM offers a more comprehensive and student-centered approach to physical education, aiming to have a positive and lasting impact on students' overall well-being.

References

- Anwar, A. S., Hendrayana, Y., & Ma'mun, A. (2020). The Development of Responsibility and Leadership Through Sport Education Model. 183–188. https://doi.org/10.2991/ahsr.k.200214.049
- Armstrong, N., & Ireland, P. E. A. of G. B. and N. (1990). *New Directions in Physical Education*. Human Kinetics Publishers.
- Baker, D. (2014). The Schooled Society: The Educational Transformation of Global

 Culture. Stanford University Press.
- Carlson, T. B., & Hastie, P. A. (1997). The Student Social System Within Sport Education. *Journal of Teaching in Physical Education*, *16*(2), 176–195. https://doi.org/10.1123/jtpe.16.2.176

- Chu, Y., Chen, C., Wang, G., & Su, F. (2022). The Effect of Education Model in Physical Education on Student Learning Behavior. *Frontiers in Psychology*, 13. https://www.frontiersin.org/articles/10.3389/fpsyg.2022.944507
- Diehl, K., Fuchs, A. K., Rathmann, K., & Hilger-Kolb, J. (2018). Students' motivation for sport activity and participation in university sports: A mixed-methods study. *BioMed research international*, 2018.
- García López, L. M., & Kirk, D. (2022). Empowering children from socially vulnerable backgrounds through the use of roles in sport education. *Sport, Education and Society, 27*(6), 676–688. https://doi.org/10.1080/13573322.2021.1897563
- Ginanjar, A., Suherman, A., Juliantine, T., & Hidayat, Y. (2019). SPORTS

 ORIENTATION DURING LEARNING TEAM OR INDIVIDUAL SPORTS USING A

 SPORT EDUCATION MODEL. *Jurnal Cakrawala Pendidikan*, *38*(2), Articolo 2.

 https://doi.org/10.21831/cp.v38i2.24021
- González-Valero, G., Gómez-Carmona, C. D., Bastida-Castillo, A., Corral-Pernía, J. A., Zurita-Ortega, F., & Melguizo-Ibáñez, E. (2023). Could the complying with WHO physical activity recommendations improve stress, burnout syndrome, and resilience? A cross-sectional study with physical education teachers. *Sport Sciences for Health*, *19*(1), 349–358. https://doi.org/10.1007/s11332-022-00981-6

- Goodyear, V., & Dudley, D. (2015). "I'm a Facilitator of Learning!" Understanding

 What Teachers and Students Do Within Student-Centered Physical

 Education Models. Quest, 67(3), 274–289.

 https://doi.org/10.1080/00336297.2015.1051236
- Hastie, P. A., de Ojeda, D. M., & Luquin, A. C. (2011). A review of research on Sport Education: 2004 to the present. *Physical Education and Sport Pedagogy*, 16(2), 103–132. https://doi.org/10.1080/17408989.2010.535202
- Kao, C.-C. (2019). Development of Team Cohesion and Sustained Collaboration Skills with the Sport Education Model. Sustainability, 11(8), Articolo 8. https://doi.org/10.3390/su11082348
- Kovarik, M. L., Robinson, J. K., & Wenzel, T. J. (2022). Why Use Active Learning? In Active Learning in the Analytical Chemistry Curriculum (Vol. 1409, pp. 1–12). American Chemical Society. https://doi.org/10.1021/bk-2022-1409.ch001
- Lee, J., Lee, Y., Gong, S., Bae, J., & Choi, M. (2016). A meta-analysis of the effects of non-traditional teaching methods on the critical thinking abilities of nursing students. *BMC Medical Education*, 16(1), 240. https://doi.org/10.1186/s12909-016-0761-7
- Levy-Feldman, I., & Libman, Z. (2022). One size doesn't fit all educational assessment in a multicultural and intercultural world. *Intercultural*

Liao, C.-C., Hsu, C.-H., Kuo, K.-P., Luo, Y.-J., & Kao, C.-C. (2023). Ability of the Sport

Education Model to Promote Healthy Lifestyles in University Students: A

Randomized Controlled Trial. International Journal of Environmental

Research and Public Health, 20(3), 2174.

https://doi.org/10.3390/ijerph20032174

https://doi.org/10.1080/14675986.2022.2090174

- Manninen, M., & Campbell, S. (2022). The effect of the Sport Education Model on basic needs, intrinsic motivation and prosocial attitudes: A systematic review and multilevel meta-analysis. *European Physical Education Review*, 28(1), 78–99. https://doi.org/10.1177/1356336X211017938
- Méndez-Giménez, A., del Pilar Mahedero-Navarrete, M., Puente-Maxera, F., & de Ojeda, D. M. (2022). Effects of the Sport Education model on adolescents' motivational, emotional, and well-being dimensions during a school year.
 European Physical Education Review, 28(2), 380–396.
 https://doi.org/10.1177/1356336X211047866
- Menendez, J. I., & Fernandez-Rio, J. (2017). Hybridising Sport Education and Teaching for Personal and Social Responsibility to include students with disabilities. *European Journal of Special Needs Education*, 32(4), 508–524. https://doi.org/10.1080/08856257.2016.1267943

- Michael, J. (2006). Where's the evidence that active learning works? *Advances in Physiology Education*, 30(4), 159–167. https://doi.org/10.1152/advan.00053.2006
- Pope, C. C., & Grant, B. C. (1996). Student experiences in sport education. *Waikato Journal of Education*, 2. https://doi.org/10.15663/wje.v2i1.512
- Quin, D. (2017). Longitudinal and contextual associations between teacher–student relationships and student engagement: A systematic review. *Review of educational research*, 87(2), 345–387.
- Siedentop, D. (1987). The theory and practice of sport education. *Myths, models* and methods in sport pedagogy, 79–86.
- Siedentop, D. (1994). The sport education model. *Sport education: Quality PE*through positive sport experiences, 3–16.
- Siedentop, D. (1998). What is Sport Education and How Does it Work? *Journal of Physical Education, Recreation & Dance, 69*(4), 18–20. https://doi.org/10.1080/07303084.1998.10605528
- Tendinha, R., Alves, M. D., Freitas, T., Appleton, G., Gonçalves, L., Ihle, A., Gouveia, É. R., & Marques, A. (2021). Impact of Sports Education Model in Physical Education on Students' Motivation: A Systematic Review. *Children*, 8(7), 588. https://doi.org/10.3390/children8070588
- Thornberg, R., Forsberg, C., Hammar Chiriac, E., & Bjereld, Y. (2022). Teacher—
 Student Relationship Quality and Student Engagement: A Sequential

Explanatory Mixed-Methods Study. *Research Papers in Education*, *37*(6), 840–859. https://doi.org/10.1080/02671522.2020.1864772

Woessner, M. N., Tacey, A., Levinger-Limor, A., Parker, A. G., Levinger, P., & Levinger, I. (2021). The Evolution of Technology and Physical Inactivity: The Good, the Bad, and the Way Forward. *Frontiers in Public Health, 9*. https://www.frontiersin.org/articles/10.3389/fpubh.2021.655491