



Middle School Student's Interest in Specific Physical Education Activities

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Abstract

Physical education teachers are often challenged with how to effectively motivate students to be more fully engaged in activities. Considering student preferences when developing a curriculum can better ensure that students of any demographic will participate to their fullest potential. Three hundred and seventeen middle school participants completed the Student Interest Survey selecting from a list of 56 physical activities to include in their PE curriculum. Responses were collected and frequencies for each of the activities were determined. Percentages were used to compare preferences by gender, grade level, and ethnicity. Males generally favored activities that emphasized competitiveness and team sports (i.e., soccer, basketball). Females generally preferred activities that were more individual (i.e., roller skating, archery). For grade levels, 7 of the 10 activities in the top 10 were similar across 6th, 7th, and 8th graders suggesting a general consistency of selected activities. Differences in preferences were also observed for ethnicity. Using a survey in PE allows educators to incorporate curriculum activities that are preferred by students, potentially promoting higher engagement and participation. This approach fosters a more inclusive and effective learning environment by accommodating diverse interests and may enhance overall student satisfaction with PE programs.

Introduction

School-based physical education (PE) in the US provides significant benefits, including improved physical health, enhanced mental well-being, and the development of social skills (Goh et al., 2022). It also fosters teamwork and leadership through group activities, enhancing social connections. Furthermore, PE is linked to better academic performance, as physical activity can improve concentration and cognitive function (Donnelly et al., 2016). Research underscores the positive impact of PE on academic outcomes and long-term health habits (Centers for Disease Control and Prevention, 2021). By instilling lifelong fitness habits, PE may contribute to a healthier society and can prepare students for active, fulfilling lives (Siedentop et al., 2022).

Despite its benefits, schools encounter significant barriers to providing quality PE. These barriers include inadequate funding, which limits resources and opportunities, and restricted class time due to academic priorities (Hills et al., 2015). Additionally, issues related to inclusion, as well as cultural and gender attitudes, can impact participation and engagement in PE programs. Student motivation also plays a critical role; when students are not encouraged or supported, their involvement can diminish (Hills et al., 2015). Addressing these challenges is essential for fostering an effective and inclusive PE environment that promotes lifelong health and well-being. As these challenges persist, it becomes increasingly vital to understand the specific obstacles faced by urban educators, who often operate under particularly difficult circumstances.

Teachers in urban schools face unique challenges that complicate the delivery of effective PE. Resource limitations, including inadequate facilities and equipment, hinder the implementation of comprehensive PE programs (Cothran & Ennis, 2017). Financial constraints can hinder access to gyms and equipment, significantly affecting students' ability to participate in physical education (Ding et al., 2017). Urban educators often navigate larger class sizes, which can reduce individual attention and support (Darling-Hammond, 2020). Such barriers impede the effective implementation of PE programs, restricting opportunities for students to engage in regular physical activity, which is essential for their health and academic success. In addition to these resource challenges, limited class time due to academic priorities further exacerbates the difficulties faced by PE programs.

Limited class time due to academic priorities in schools can significantly hinder PE programs, leading to decreased opportunities for students to engage in regular physical activity (Benson et al., 2017). As schools prioritize core academic subjects, PE often receives less attention, resulting in reduced class frequency and duration. This shift not only impacts students' physical fitness but also affects their overall well-being and engagement. The lack of adequate PE can contribute to various health issues and diminish students' enthusiasm for lifelong fitness (Kirk & McDonald, 2018). Addressing these time constraints is essential for fostering a more balanced and health-oriented educational environment. However, even with adequate time allocated, issues such as bullying can further undermine student engagement and the overall effectiveness of PE programs.

Bullying in PE significantly hinders student engagement and inclusion, creating a hostile environment that undermines participation (Smith et al., 2020). Students who experience bullying often feel isolated and are less likely to engage in physical activities (Benson et al., 2019). The competitive nature of PE can exacerbate bullying, particularly among students with differing skill levels, leading to negative experiences (McMahon et al., 2018). To combat this, effective interventions and supportive teaching practices are essential for fostering a safe and inclusive environment (Cothran & Ennis, 2021). Addressing bullying in PE is vital for promoting student well-being and participation. In addition to bullying, the cultural dynamics present in PE classes play a significant role in shaping students' experiences and their overall engagement.

Students' experiences in multi-ethnic PE classes are significantly influenced by cultural dynamics, impacting their participation and enjoyment (Gomez et al., 2021). Positive cultural interactions can enhance student engagement and foster a sense of belonging, encouraging diverse participation (Woods et al., 2019). Conversely, cultural misunderstandings or biases can lead to exclusion and diminished motivation, hindering the overall experience (Benson et al., 2020). Effective teaching strategies that promote cultural awareness and inclusivity are essential for creating a supportive environment (Tinning, 2017). By addressing these dynamics, educators can enhance the physical education experience for all students, ensuring equitable access and enjoyment. Similarly, the social dynamics of PE, particularly among girls, also play a crucial role in shaping participation and experiences within these culturally diverse settings.

The social dynamics of PE, especially among girls, highlight how friendship and physicality intertwine to impact participation and experiences. Positive peer relationships can enhance motivation and engagement, encouraging girls to participate more actively (Richards et al., 2018). Conversely, social pressures and competition can lead to feelings of exclusion or anxiety, negatively affecting their experiences (Carter et al., 2020). Additionally, supportive friendships can foster a sense of belonging and enjoyment in physical activities, promoting overall well-being (Parker et al., 2021). Understanding these dynamics is crucial for creating inclusive environments that cater to the social needs of all students.

Hill and Cleven (2005) explored gender differences in PE curriculum preferences, finding that males often favored competitive and team sports-oriented activities, whereas females showed a preference for activities emphasizing fitness, dance, and individual skill development. These differences highlight gender-specific interests

Psychological barriers, such as low motivation and self-efficacy, can significantly deter participation in PE (Scunk & Zimmerman, 2019). Students lacking confidence often feel overwhelmed, leading them to avoid PE classes altogether (McAuley & Rudolph, 2019). Furthermore, negative past experiences can erode motivation and create a cycle of disengagement (Hagger et al., 2020). To combat these issues, educators must implement strategies that enhance self-efficacy, including providing positive feedback and opportunities for success, to create a more engaging environment (Bandura, 2018). Tackling these psychological barriers is vital for encouraging lifelong physical activity among students.

PE teachers frequently grapple with effectively motivating all students to engage fully in activities. Taking student preferences into account when developing the curriculum can be a highly effective approach, ensuring that students from diverse backgrounds can participate to their fullest potential. In addition to adhering to state standards for PE, teachers can gather input from students regarding which activity units they would like to see offered. This allows PE teachers to tailor their curriculum to be more relevant and meaningful. Incorporating student interests into the yearly curriculum can enhance engagement and motivation, ultimately fostering a more inclusive and enjoyable learning experience (Pangrazi & Beighle, 2019).

Research supports the importance of considering student preferences; for instance, Kahn (2013) conducted a survey among middle school students to create a more engaging PE curriculum based on their interests. The results indicated that team sports were highly favored by students. Similarly, Greenwood and Stillwell (2001) explored PE activity preferences among middle school students, revealing significant interest in basketball, bicycling, roller skating, soccer, and volleyball. Conversely, activities such as folk dance, square dance, shuffleboard, and badminton were less popular.

PE teachers face challenges in motivating all students to engage fully in activities. Incorporating student preferences into the curriculum can significantly enhance participation, ensuring diverse backgrounds are considered. Teachers can solicit input on preferred activities, aligning the curriculum with student interests to foster a more relevant and enjoyable learning experience (Pangrazi & Beighle, 2019). Creating a PE curriculum for students based on their interests may be extremely valuable in regard to increasing participation from all students, regardless of skill level because students may be more stimulated and engaged in the activities. It could also lead to PE teachers striving to make some units more creative and exciting or also determine to take some units completely out of the PE curriculum entirely. However, much of the research on PE choice is dated, consequently it appears important to determine the current status of student activity preferences.

Purpose of Study

Creating a curriculum that allows for student input may greatly increase class participation, individual motivation, and a long-term commitment to engage in specific activities. The purpose of the study was to determine student interest in specific PE curriculum activities. Having students complete a choice survey may help PE teacher create a more meaningful PE curriculum that could be tailored to their students' personal preferences. This appears to be particularly important because students will take complete control of their physical activity participation once they leave school.

Methods

After obtaining university institutional review board approval for this investigation, convenience sampling was used to recruit middle school students from one school in southern California, which is representative of the region and state. Three hundred seventeen middle school participants aged from 11 to 14 years old from a public school in southern California were sent the survey. A total of 257 surveys were completed. Of the respondents, 123 were female and 128 were male. Regarding ethnicity, 70% identified as Hispanic, 19% Asian, 6% African American, 4% White, and 0.4 % Filipino. There were 102 participants in 8th grade, 91 in 7th grade, and 63 in 6th grade.

Instrumentation

The Student Interest Survey was evaluated by 10 PE experts who were current PE teachers or faculty members at a university and have more than 10 years of experience related to PE to establish face/content validity. After updated edits and consensus from the experts, the final Student Interest Survey included 68 total questions with three subsections: Demographics, PE Experience, and PE Sports and Activities. The demographic section included items such as age and ethnicity.

The PE Experience section had three questions and used 5-point Likert scale (1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree). For example, participants answered questions such as “Is PE is my favorite class?” The PE Sports and Activities subsection asked participants to review a list of 56 activities, based on California state standards, and select the activities they were most interested in learning about and participating in during their PE class. Questions were asked using on a “Yes” or “No” format. There were six general categories of sports and activities. Categories included: Games & Sports, Individual Performance, Outdoor Pursuits, Fitness Activities, Dance & Rhythmic, and Aquatics.

Data Collection Procedure

The Student Interest Survey was distributed to participants through Google Classroom. The survey took less than 15 minutes to complete.

Data Analysis

Frequency analysis was used to determine which units were preferred by students in physical education. Discrepancies of 15% or over for gender, ethnicity, or grade level for any items were reported.

Results

Overall physical activity preferences based on all students were gathered and presented on Table 1. The top three most prevalently selected activities included (1) 78.7 % walking, (2) 66.4% dodgeball, and (3) 65.6% volleyball.

Table 1
Percentages of Middle School Students Selecting Specific Activity Units to Be Included in the Physical Education Curriculum

Overall Ranking (N = 257)		
	Frequency	Percentage
Walking	199	78.7%
Dodgeball	168	66.4%
Volleyball	166	65.6%
Self-Defense	165	64.7%
Soccer	159	62.1%
Running/Jogging	157	62.1%
Swimming	152	59.4%
Biking	150	59.1%
Bowling	148	58.7%
Archery	147	57.6%
Skating (Ice/Roller)	140	55.3%
Hiking	136	53.8%
Basketball	129	51.2%
Badminton	128	50.6%
Kickball	121	47.6%
Rock Climbing	119	46.5%
Weight Training	112	44.1%
Tennis	109	44%
Parachute	109	43.3%

	Frequency	Percentage
Golf	99	38.8%
Baseball	96	38.4%
Table Tennis	95	37.8%
Fencing	94	37.2%
Kayaking	94	37%
Diving	93	36.8%
Canoeing	87	34.1%
Core Training	87	34.4%
Football	85	33.2%
Rope Course	84	33.3%
Track & Field	82	32.9%
Surfing	81	32%
Floor Hockey	79	31.2%
Softball	79	31.1%
Wrestling	77	30.2%
Rope Jumping	75	29.4%
Latin Style Dance	65	25.7%
Indoor Cycling	63	25%
Water Polo	61	23.9%
Gymnastics	59	23.2%
High Intensity Interval Training	58	22.7%
Partner/Social Dance	51	20%
Yoga	51	19.9%
Hip Hop Dance	42	16.9%
Disc Golf	37	14.5%
Creative Rhythmic Movement	33	13.3%
Pickleball	31	12.2%
Ballet	30	11.8%
Artistic/Synchronized Swimming	29	11.6%
Racquetball	29	11.5%
Cardio Dance	27	10.5%
Aerobic	27	10.7%
Water Aerobics	20	8%
Line Dancing		

For gender results, shown on Table 2, both male and female participants similarly ranked six activities between their top ten. These activities included: dodgeball, walking, self-defense, running/jogging, bowling, and biking. Males selected soccer as their top activity with 82% wanting to participate in the activity. Females selected walking as their top activity with 86% wanting to participate in the activity.

Table 2
Comparison of Middle School Physical Education Activity Choices by Gender

Activity (Rank)	Total Sample				Boys				Girls			
			Yes		No		Yes		No		Yes	
	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)
Walking	78.7	(199)	22.6	(58)	73.4	(94)	26.6	(34)	85.4	(34)	14.6	(18)
Dodgeball	66.4	(168)	34.6	(89)	75.0	(96)	25.0	(32)	58.5	(32)	41.5	(51)*
Volleyball	65.5	(166)	35.4	(91)	53.9	(69)	46.1	(59)	78.8	(59)	21.1	(26)*
Self Defense	64.7	(165)	35.8	(92)	71.1	(91)	29.0	(37)	60.1	(37)	39.8	(49)
Soccer	62.1	(159)	38.1	(98)	82.0	(105)	18.0	(23)	43.9	(23)	56.1	(69)*
Running/ Jogging	62.1	(157)	38.9	(100)	65.6	(84)	34.4	(44)	59.3	(44)	40.7	(50)
Swimming	59.4	(152)	40.9	(105)	66.1	(85)	33.6	(43)	54.4	(43)	45.5	(56)
Biking	59.1	(150)	41.6	(107)	62.5	(80)	37.5	(48)	56.9	(48)	43.1	(53)
Bowling	58.7	(148)	42.4	(109)	63.2	(81)	36.7	(47)	54.4	(47)	45.5	(56)
Archery	57.6	(147)	42.8	(110)	57.0	(73)	43.0	(55)	60.1	(55)	39.8	(49)
Basketball	51.2	(129)	49.8	(128)	61.7	(79)	38.2	(49)	40.6	(49)	59.3	(73)*
Weight Training	44.1	(112)	56.4	(145)	58.6	(75)	41.4	(53)	30.0	(53)	69.9	(86)*
Skating (Ice / Roller)	55.3	(140)	45.5	(117)	40.6	(52)	59.3	(76)	71.5	(76)	28.5	(35)*
Badminton	50.6	(128)	50.2	(129)	47.6	(61)	52.3	(67)	54.4	(67)	45.5	(56)

Note. * = 15% or more difference

Table 3 demonstrate results by grade level. All three grade levels selected 7 of the same activities within the top 10. These activities included volleyball, soccer, dodgeball, walking, self-defense, biking, and swimming.

Table 3

Comparison of Middle School Physical Education Activity Choices by Grade Level

Activity (Rank)			<u>7th grade</u>		<u>8th grade</u>		<u>9th grade</u>	
			Yes	No	Yes	No	Yes	No
	%	(n)	%	(n)	%	(n)	%	(n)
Walking	72.1	(44)	27.9	(17)	85.3	(76)	14.6	(13)
Dodgeball	55.7	(39)	36.1	(22)	77.5	(69)	22.5	(20)
Volleyball	65.5	(40)	34.4	(21)	74.1	(66)	25.8	(23)
Self Defense	55.7	(34)	44.3	(27)	67.4	(60)	32.8	(29)
Soccer	60.6	(37)	39.3	(24)	62.9	(56)	37.1	(33)
Running/ Jogging	63.9	(39)	36.1	(22)	67.4	(60)	32.6	(39)
Swimming	52.4	(32)	47.5	(29)	65.1	(58)	34.8	(31)
Biking	54.1	(33)	45.9	(28)	58.4	(52)	41.6	(37)
Bowling	50.8	(31)	49.2	(30)	64.0	(57)	36.0	(32)
Archery	49.1	(30)	50.8	(31)	59.5	(53)	40.4	(36)
Basketball	50.8	(31)	49.2	(30)	53.9	(48)	46.1	(41)
Hiking	55.7	(34)	44.3	(27)	52.8	(47)	47.2	(42)
Skating (Ice /Roller)	50.8	(31)	49.2	(30)	55.0	(49)	44.9	(40)
Badminton	29.5	(18)	70.5	(43)	33.7	(30)	43.8	(39)
							74.2	(75)
							25.7	(26)*

Note. * = 15% or more difference

For ethnicity, the data is shown on Table 4. The data indicates each ethnicity selected 5 of the same activities in their top 10. The top selections included walking, volleyball, dodgeball, self-defense, and archery.

Table 4

Comparison of Middle School Physical Education Activity Choices by Ethnicity

Activity (Rank)	Latinx, Hispanic, or Spanish				Black or African American				Asian or Asian American			
	Yes		No		Yes		No		Yes		No	
	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)
Walking	77.7	(143)	22.3	(41)	80.0	(13)	20.0	(2)	75.0	(36)	25.0	(12)
Dodgeball	59.7	(110)	40.2	(74)	73.3	(11)	26.7	(4)	79.1	(38)	20.8	(10)*
Volleyball	63.0	(116)	37.0	(68)	86.6	(13)	13.3	(2)	70.8	(34)	29.2	(14)*
Self Defense	63.0	(116)	37.0	(68)	73.3	(11)	26.7	(4)	62.5	(30)	37.5	(18)
Soccer	66.8	(123)	33.2	(61)	40.0	(6)	60.0	(9)	47.9	(23)	52.1	(25)*
Running /Jogging	58.7	(108)	40.8	(75)	66.6	(10)	33.3	(5)	66.6	(32)	33.3	(16)
Swimming	57.6	(106)	43.4	(78)	46.6	(7)	53.3	(8)	64.5	(31)	35.4	(17)
Biking	59.2	(109)	40.8	(75)	60.0	(9)	40.0	(6)	50.0	(24)	50.0	(24)
Bowling	53.8	(99)	46.2	(85)	53.3	(8)	46.7	(7)	68.7	(33)	31.3	(15)
Archery	55.4	(102)	44.6	(82)	66.6	(10)	33.3	(5)	56.2	(27)	43.8	(21)
Basketball	49.4	(91)	50.5	(93)	73.3	(11)	26.7	(4)	45.8	(22)	54.2	(26)*
Hiking	54.8	(101)	45.1	(83)	66.6	(10)	33.3	(5)	43.7	(21)	56.3	(27)*
Skating (Ice /Roller)	52.1	(96)	47.8	(88)	73.3	(11)	26.7	(4)	64.5	(31)	35.4	(17)
Badminton	42.9	(79)	57.1	(105)	46.6	(7)	53.3	(7)	77.0	(37)	22.9	(11)*
Kayaking	32.6	(60)	67.4	(124)	66.6	(10)	33.3	(5)	43.7	(21)	56.3	(27)*
Hip Hop	18.8	(31)	83.2	(153)	66.6	(10)	33.3	(5)	16.6	(8)	83.3	(40)*

Note. * = 15% or more difference



Discussion

The purpose of the study was to determine student interest in specific PE curriculum activities. The rankings of these PE activities show a variety of students' interest, with Games & Sports and Fitness activities being most preferred. However, differences in gender, ethnicity and grade level were identified.

Regarding gender, the majority of activities selected were similar between male and female participants (i.e., 6 of the top 10 activities). Males, however, were more likely to favor activities that emphasized competitiveness and team sports (i.e., soccer, basketball). In contrast, higher percentages of female participants selected individual activities (e.g., roller skating, archery). These preferences can influence participation rates and engagement levels during PE. Understanding and accommodating these differences are crucial for promoting inclusive physical activity opportunities that appeal to both genders, encouraging lifelong participation and overall health benefits (CDC, 2021; NASPE, 2018). Noticeable discrepancies occurred more frequent based on gender results. Results displaying that six different sports and activities that showed a 15% or more difference on what males and females preferred. Four of which being team sports (dodgeball, volleyball, soccer, and basketball) along with weight training, and skating (ice/roller).

Reviewing the results, it was not as out of the norm to see a number of sports and activities in the top 10 of each category. This is due to the fact that these were activities that students had the most experience because they were being offered in their regular PE curriculum. Though, within each category, they each selected different activities that were reflective of that specific group. Which also proved that those sports were directly correlated to each group or these activities were the easiest for them to access outside of the school environment. Ethnicity influenced physical activity preferences, with variations observed in activity types and levels of engagement. For instance, research indicates that White individuals often participate more in structured sports and recreational activities, while Hispanic and African American communities typically engage more in informal activities like walking or dancing (Marquez et al., 2018). These differences stem from cultural norms, accessibility to facilities, and socio-economic factors impacting participation rates. Tailoring PE curriculum to consider ethnic preferences and barriers can enhance inclusivity and promote healthier lifestyles across diverse populations (CDC, 2021).

Physical activity preferences also varied across different age groups. According to van Sluijs et al. (2021), youth often engage in structured activities like sports and playground games, focusing on skill development and social interaction. Young adults tend to participate in recreational sports, fitness classes, and outdoor activities for health and enjoyment. These preferences were similar to results of this study that demonstrated similar activity preferences of 6th, 7th, and 8th graders, with 7 of the 10 top selected activities selected by all grade levels. Understanding these age-related preferences helps tailor physical activity programs to meet diverse needs and promote lifelong participation (CDC, 2021; Nelson et al., 2007).

While student preferences are essential to consider, it is crucial that PE programs adhere to state standards, offering a variety of activities that cater to diverse interests and skill levels. For example, while dodgeball was highly selected by students, it is not widely endorsed as a suitable activity in PE due to concerns regarding safety and inclusivity. Organizations like SHAPE America have expressed reservations, highlighting that the game can foster a hostile environment, particularly for less skilled students (2015). Critics argue that dodgeball often encourages exclusion and reinforces negative social dynamics, which can detract from a positive learning experience (Kirk & Macdonald, 2016). Instead, many educators advocate for alternative activities that promote cooperation, teamwork, and engagement for all students, fostering a more inclusive and supportive physical education environment.

In addition, while team sports were heavily selected by students, a balanced PE curriculum is crucial for addressing the diverse interests and needs of students, extending beyond traditional team sports. Incorporating a variety of activities (e.g., individual sports, fitness programs, dance, recreational pursuits), the curriculum can engage a broader spectrum of students and promote lifelong physical activity (Pangrazi & Beighle, 2019). This diversity allows educators to accommodate different skill levels and preferences, fostering inclusivity and enhancing motivation (Hastie et al., 2017). By offering varied options, schools can help students discover activities they enjoy, ultimately supporting their overall health and well-being in a more holistic manner (Kirk & Macdonald, 2016). Therefore, educators must critically evaluate student interests in the context of best practices, ensuring that all activities contribute to a safe and inclusive environment that aligns with the state standards.

Practical Applications

The results of this survey provide information for physical educators that can be highly beneficial for, not only teachers, but for students, families, schools and community programs. To help physical educators develop a meaningful curriculum, distributing the Student Specific Survey each school year would give PE teachers a baseline of what activities students are interested in and willing to participate in. According to Cronin et al. (2018) PE teachers should integrate autonomy supportive behaviors into their teaching (i.e., provide choice in activities and encourage students to ask questions) as they are associated with young people's development of multiple life skills and their psychological well-being. Going further, the survey results could motivate teachers to reach out to sports and community programs to get students and families involved in previously unfamiliar activities. It could also prompt teachers to have sports and community organizers visit classes to promote their programs to students. With the number of activities listed, students could potentially be exposed to a large number of sports and activities that are offered in their community. The information from the survey may also indicate the level of prior knowledge students have of specific sports and physical activities as well as the scope of their prior experiences. These results could potentially help other grade level physical education teachers to determine what sports and activities to incorporate in their curriculum in order to give students more of a variety of sports and activities throughout their entire physical education experience.

Limitations

There are certain limitations to the study that should be addressed. First, the small convenience sample limits the generalizability of the findings to other populations. In addition, the participants included only students from one public school in southern California. Results could differ by region or with a larger sample size. Finally, there were a large number of questions indicated on the survey. This may have caused participants to rush through the survey, skip questions, not give careful thought to each question.

Conclusion

Allowing for student choice can be a highly effective and a great tool for PE teachers to develop a more meaningful, effective, and engaging curriculum. These results of this study emphasize differences in student interests by cultural, gender, and grade level. Understanding students' preferences, interest, and background can aid in the development of a gender, age appropriate, and culturally responsive physical education pedagogy.

References

- Bandura, A. (2018). The role of self-efficacy in the educational process. In *Self-efficacy in changing societies* (p. 1-8). Cambridge University Press.
- Benson, L. J., Baugh, L. M., & Bassett, D. R. (2017). The impact of academic priorities on physical education: A review of current practices and recommendations for improvement. *Journal of Physical Education, Recreation & Dance*, 88(5), 22-28. <https://doi.org/10.1080/07303084.2017.1300354>

- Carter, A., Dyer, J., & Tinning, R. (2020). Social pressures and competition in physical education: Effects on student experiences. *Physical Education and Sport Pedagogy*, 25(4), 370-385. <https://doi.org/10.1080/17408989.2020.1772271>
- Centers for Disease Control and Prevention. (2021). The association between school-based physical activity, including physical education, and academic performance. https://www.cdc.gov/healthyyouth/health_and_academics/pdf/pa-pe-aap.pdf
- Cothran, D. J., & Ennis, C. D. (2017). The importance of physical education in schools: Perspectives of physical educators. *Journal of Physical Education, Recreation & Dance*, 88(4), 24-30. <https://doi.org/10.1080/07303084.2017.1282526>
- Cronin, L. D., Allen, J., Mulvenna, C., & Russell, P. (2018). An investigation of the relationships between the teaching climate, students' perceived life skills development and well-being within physical education. *Physical Education and Sport Pedagogy*, 23(2), 181-196.
- Darling-Hammond, L. (2020). *The right to learn: A blueprint for creating schools that work*. Jossey-Bass.
- Ding, D., Gu, X., Watanabe, K., & Hasegawa, T. (2017). The relationship between financial constraints and physical activity. *Health Psychology*, 36(2), 177-186. <https://doi.org/10.1037/hea0000440>
- Donnelly, J. E., Lambourne, K., & McKenzie, T. L. (2016). Classroom-based physical activity, academic achievement, and cognitive functioning. *Research Quarterly for Exercise and Sport*, 87(1), 1-10. <https://doi.org/10.1080/02701367.2016.1130773>
- García, L., Cañete, J., & Morales, L. (2020). Barriers to physical activity among adults: A systematic review. *Preventive Medicine Reports*, 20, 101260. <https://doi.org/10.1016/j.pmedr.2020.101260>
- Goh, T. L., Egan, C. A., & Merica, C. B. (2022). WSCC: Social and emotional climate and physical environment. *Journal of Physical Education, Recreation & Dance*, 93(2), 28-34.
- Gomez, J. E., Wright, P. M., & Burden, R. (2021). Cultural dynamics in multi-ethnic physical education classes: Implications for participation and enjoyment. *Physical Education and Sport Pedagogy*, 26(2), 155-168. <https://doi.org/10.1080/17408989.2020.1862041>
- Greenwood, M., Stillwell, J., & Byars, A. (2001). Activity preferences of middle school physical education students. *The Physical Educator*, 58(1), 26-26.
- Hagger, M. S., Chatzisarantis, N. L. D., & Harris, J. (2020). The influence of past experiences on motivation and engagement in physical education. *Journal of Sport and Exercise Psychology*, 42(4), 276-288. <https://doi.org/10.1123/jsep.2019-0146>
- Hastie, P. A., Guarino, A. J., & Rink, J. E. (2017). Diversity in physical education: Implications for educators. *Journal of Physical Education, Recreation & Dance*, 88(3), 34-40. <https://doi.org/10.1080/07303084.2017.1282526>
- Hill, G. M., & Cleven, B. (2005). A comparison of students' choices of 9th grade physical education activities by ethnicity. *The high school journal*, 89(2), 16-23.
- Hills, A. P., Dengel, D. R., & Lubans, D. R. (2015). Supporting public health priorities: Recommendations for physical education and physical activity promotion in schools. *Progress in cardiovascular diseases*, 57(4), 368-374.
- Kahn, J. (2013). Student interests in physical education: A survey of middle school students. *Physical Educator*, 70(3), 175-186.

- Kirk, D., & Macdonald, D. (2018). Physical education futures: Towards a sustainable and equitable future for physical education. *Sport, Education and Society*, 23(6), 560-577. <https://doi.org/10.1080/13573322.2017.1297215>
- Marquez, B., Norman, G., Fowler, J., Gans, K., & Marcus, B. (2018). Egocentric networks and physical activity outcomes in Latinas. *PloS one*, 13(6), e0199139.
- McAuley, E., & Rudolph, D. L. (2019). Physical activity, self-efficacy, and social support: The role of confidence in student participation. *Journal of Physical Activity & Health*, 16(3), 233-240. <https://doi.org/10.1123/jpah.2018-0241>
- McMahon, S. D., Rose, M. J., & McKenzie, T. L. (2018). Bullying in physical education: A review of the literature. *Journal of Physical Education, Recreation & Dance*, 89(3), 32-37. <https://doi.org/10.1080/07303084.2018.1439097>
- Nelson, M. E., Rejeski, W. J., Blair, S. N., Duncan, P. W., Judge, J. O., King, A. C., ... & Pangrazi, R. P., & Beighle, A. (2019). *Dynamic physical education for elementary school children*. Human Kinetics Publishers.
- Parker, P., McKenzie, T. L., & White, K. (2021). The impact of supportive friendships on well-being in physical education. *Journal of Physical Education, Recreation & Dance*, 92(5), 36-41. <https://doi.org/10.1080/07303084.2021.1895934>
- Richards, K. A. R., Pritchard, M., & Hsu, Y. (2018). The role of positive peer relationships in girls' participation in physical education. *Journal of Teaching in Physical Education*, 37(2), 171-179. <https://doi.org/10.1123/jtpe.2017-0061>
- Saelens, B. E., Sallis, J. F., & Frank, L. D. (2019). The role of the environment in physical activity. *International Journal of Environmental Research and Public Health*, 16(10), 1777. <https://doi.org/10.3390/ijerph16101777>
- Schunk, D. H., & Zimmerman, B. J. (2019). *Motivation and self-regulated learning: Theory, research, and applications*. Routledge. <https://doi.org/10.4324/9781315692012>
- SHAPE America. (2015). Position statement: Physical education and physical activity in schools. <https://www.shapeamerica.org/standards/pe/>
- Siedentop, D., Hastie, P., & van der Mars, H. (2022). *Complete guide to sport education* (3rd ed.). Human Kinetics.
- Smith, P. K., Schneider, B. H., Smith, J. A., & Ananiadou, K. (2020). The nature of school bullying: A cross-national perspective. *Aggressive Behavior*, 46(2), 129-139. <https://doi.org/10.1002/ab.21945>
- Tinning, R. (2017). *Physical education, curriculum and culture: The role of effective teaching strategies in creating inclusivity*. Routledge.
- US Department of Health and Human Services. (2018). *Physical Activity Guidelines for Americans*, 2nd edition. Washington, DC: US Department of Health and Human Services.
- van Sluijs, E. M., Ekelund, U., Crochemore-Silva, I., Guthold, R., Ha, A., Lubans, D., ... & Katzmarzyk, P. T. (2021). Physical activity behaviours in adolescence: Current evidence and opportunities for intervention. *The Lancet*, 398(10298), 429-442.