



Teachers 21st Century Skills Special Program in Sports Curriculum

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ABSTRACT

This study aimed to measure the 21st-century skills of 36 teachers in the Special Program in Sports (SPS) curriculum using a descriptive-correlational design. We employed frequency, percentage, mean, standard deviation, and one-way ANOVA to provide a comprehensive analysis, interpretation, and outcome of the data. According to the findings about the demographic profile of the teacher respondents, SPS teachers range in age from 24-32 to 47-57 years old in a remarkably homogeneous manner. Most respondents were female; the majority had a bachelor's degree as their highest level of education; they had worked as teachers for 5–15 years; and the majority of SPS instructors had a normal BMI status. The results described the teachers' 21st-century skills in the SPS curriculum as highly agreeable, interpreting them as experts in content and pedagogy, learning environment and learner diversity, curriculum and planning, and community linkages. This study demonstrates that SPS schools in Region XII have already anchored themselves to educational practices that equip learners to meet the challenges of 21st-century society, as evidenced by the study's findings. Similarly, the study found no significant difference in the 21st-century skills of special program sports teachers among the implementing schools. The study showcases the dynamic, experienced, and empowering SPS teachers, who prioritize learners' needs, create innovative teaching methods, and adapt teaching strategies for 21st-century success.

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1. INTRODUCTION

In the 21st century, educators face the challenge of preparing learners for a rapidly evolving world where traditional academic knowledge is no longer sufficient on its own. In special programs like sports curriculums, teachers not only impart an understanding of physical activities but also cultivate a wide range of skills essential for success in today's society (Koh *et al.*, 2016). These skills, frequently referred to as 21st-century skills, encompass critical thinking, communication, collaboration, creativity, and digital literacy, among others. Teachers must seamlessly integrate these skills into the sports curriculum to ensure students are well-equipped for the challenges they will face both on and off the field.

One of the most fundamental 21st-century skills for teachers in special sports programs is adaptability. Sports curricula often involve a dynamic environment in which situations can change rapidly. Teachers must be able to adjust their lesson plans and teaching strategies on the fly to meet the needs of diverse learners and capitalize on teachable moments (Evmenova, 2018). Whether it's modifying drills to accommodate different skill levels or integrating new technologies to enhance learning, adaptability is essential for effective instruction in sports education. Moreover, effective communication is paramount in sports curricula, both between teachers and students and among students themselves (Miller, 2015). Teachers must be able to convey instructions explicitly, provide constructive feedback, and foster a positive learning environment where students feel comfortable expressing themselves. Furthermore, collaboration skills are essential, as sports often involve teamwork and cooperation (McEwan & Beauchamp, 2014). Teachers must facilitate opportunities for learners to work together, teaching them how to communicate effectively, resolve conflicts, and leverage each other's strengths to achieve common goals (Aquino *et al.*, 2022).

Creativity is another critical skill that teachers in sports curricula must cultivate in their learners. Beyond mastering the fundamental techniques and strategies of various sports, learners should be encouraged to think outside the box, innovate, and devise tactics and solutions to the challenges they encounter (Lord *et al.*, 2020). It may involve designing new drills, experimenting with different training methods, or developing unique game strategies. By nurturing creativity, teachers empower learners to become not just proficient athletes but also inventive problem solvers. Lastly, digital literacy has become increasingly important in the 21st-century classroom, including sports education (Hergüner, 2016). Teachers must leverage technology to enhance learning experiences, whether through video analysis of athletic performance, virtual reality simulations of game scenarios, or online resources for research and skill development. Additionally, learners must learn how to navigate digital tools responsibly and critically evaluate the vast amount of information available online (McGrew *et al.*, 2018). By integrating digital literacy into the sports curriculum, teachers prepare students to thrive in an interlinked world where technology plays a primary role in both sports and everyday life. Teachers in special sports programs, as an assumption, play a vital role in nurturing 21st-century skills in their students, equipping them with the tools they need to succeed not only in athletics but in all aspects of their lives. Through adaptability, communication, collaboration, creativity, and digital literacy, educators empower learners to become resilient, resourceful, and lifelong learners, ready to tackle whatever challenges the future may hold.

2. LITERATURE REVIEW

The 21st century demands a shift in educational focus, placing a premium on fostering critical thinking, collaboration, and technological fluency in learners. It necessitates a

corresponding evolution in teacher skill sets. Several prominent learning theories offer valuable insights for educators within the SPS domain. It can utilize the following learning theories to refine this process: First, [Ayaz and Ismail \(2022\)](#) underscore the importance of teachers acting as effective role models for learners. Curriculum can foster a positive learning environment, promoting social and emotional development alongside athletic skills. Teachers can foster student motivation by providing opportunities for personal goals, training choices, positive reinforcement, and fostering a sense of community and belonging, as emphasized Self-Determination Theory by [Deci and Ryan \(2000\)](#). Thirdly, cognitive flexibility theory by [Tang et al., \(2020\)](#) suggests adaptability and quick decision-making are essential athletic skills. Teachers can design curricula that challenge critical thinking, problem-solving, and creative problem-solving. Lastly, the technology integration theory by [Yeni \(2022\)](#) suggests that teachers with strong technological fluency can enhance the learning experience in SPS programs by utilizing video analysis software, online resources, and collaboration platforms, creating a dynamic, 21st-century learning environment. The SPS's integration into the DepEd curriculum has significantly enhanced learners' learning experiences, equipping them with the necessary skills for success in various subjects and enhancing their civic engagement.

3. METHOD

A descriptive-correlational design was used for this study. [Lappe \(2000\)](#) uses descriptive correlational studies to characterize teachers' 21st-century competencies and the natural relationships between them. It is the most appropriate method for this research because the researcher aims to examine the levels of teachers' 21st-century skills. The study focused on schools in the region offering Special Programs for Sports (SPS) due to their success and the number of years they have been offering them. The schools included Isulan National High School, General Santos City National High School, and Tupi National High School. The study involved 36 teachers from Region XII's Special Program in Sports Curriculum of the 21st Century, selected through a complete enumeration sampling method. The researcher utilized two sets of survey questionnaires. The survey questionnaire for teachers' 21st-century skills was generated from the scale used during DepEd teachers' classroom observations. We obtained permission from the Regional Director to distribute questionnaires to schools with the SPS curriculum. A statistician helped collect, analyze, and interpret the data after granting permission. The researcher also used SPSS to analyze the data, performing statistical tests like frequency, standard deviation, mean, and one-way ANOVA to examine teachers' perceptions of the 21st century.

4. RESULTS AND DISCUSSION

Firstly, **Table 1** shows the age distribution of Special Programs in Sports Teachers, with 24-32-year-olds having the highest frequency at eight, accounting for 22% of respondents. The remaining age groups, 34–37, 39–42, 43–46, and 47–57, all had a uniform frequency of seven. [Dohle and Wansink \(2013\)](#) recommend promoting physical activity at a young age through club or school sports, especially during reduced funding and screen time. [Schover \(2019\)](#) also highlights physiological concerns in women's sports fitness. Secondly, the study reveals that female SPS teachers, comprising 58% of respondents, have the highest frequency of 21, while male teachers, comprising 42%, have the lowest frequency. [Jun et al. \(2021\)](#) highlighted that gender influences all aspects of life, including research, and these inequalities in behavior, communication, and thought have consequences for research abilities. Thirdly, **Table 1** shows the distribution of special programs in sports teachers' educational attainment. Bachelor's

degrees are the most common, with 75% of respondents holding these degrees, while master's degrees are the least common, accounting for 25%. According to [Bellibaş et al. \(2021\)](#), there is a consensus that teachers' levels of human capital development significantly influence the quality and effectiveness of their instruction and classroom management, contributing to their professional success. According to research, teachers with at least a bachelor's degree significantly enhance their students' learning compared to teachers with less education. Fourthly, **Table 1** indicates the frequency and distribution of special programs among sports teachers. Teachers with 8–10 years of service had the highest frequency (36%), followed by those with 11–15 years (22%). Teachers aged 5-7 and less than five years had the lowest frequency (17%). [Koh et al. \(2016\)](#) found that a teacher's career and experience positively impact student achievement, with efficiency gains peaking in their 20s and 30s. As teachers gain expertise, students perform better and understand standardized tests. Lastly, **Table 1** shows the BMI status of special programs in sports teachers, with normal BMI (26%) having the highest frequency (72%), and overweight BMI (28%), indicating the majority of teachers have a normal BMI. [Yetman et al. \(2021\)](#) postulate that obesity among teachers is a significant health issue linked to factors such as age, waist size, junk food consumption, lack of physical activity, and BMI. Thus, [Calixtro \(2021\)](#) posits that engaging in various physical activities can enhance teaching practices, where teachers serve as role models for their students. Further, [Calixtro \(2020\)](#) claims that a healthy lifestyle is crucial for everyone, promoting physical activity, overall well-being, and combating common diseases.

Table 1. Frequency and percentage distribution of the SPS teachers.

Demographic Profile	Frequency	Percentage (%)
Age		
24-32 years old	8	22
34-37 years old	7	19
39-42 years old	7	19
43-46 years old	7	19
47-57 years old	7	19
Gender		
Male	27	75
Female	9	25
Educational Attainment		
Bachelor's Degree	27	75
Master's Degree	9	25
Length of Service		
Less than 5 years	6	17
5-7 years	6	17
8-10 years	9	25
11-15 years	8	22
15 years and above	3	8
BMI		
Normal	26	72
Overweight	10	28
Total	36	100

Level skills are shown in **Table 2**. In short, the explanation is in the following:

- (i) The study demonstrates the 21st-century abilities of special programs for sports teachers, with a mean of 4.47, indicating expert content understanding and pedagogy. [Kim et al. \(2019\)](#) emphasize the importance of 21st-century teachers understanding how to use methods effectively in various settings.

- (ii) SPS teachers believe they possess expert-level 21st-century skills in learning environments and diverse learners, with a mean of 4.49, emphasizing the importance of student evaluation in effective teaching. [Hofer and Grandgenett \(2016\)](#) emphasize the importance of evaluating student learning to provide valuable insights for both instructors and students on how effectively students are achieving course objectives.
- (iii) The SPS program demonstrates exceptional 21st-century competence in curriculum and planning, with a mean score of 4.55 indicating their expert skills. According to [Siyam and Hussain \(2022\)](#), a curriculum plan simplifies tracking progress for teachers and schools, enabling easy identification of student-lagging or unmet objectives.
- (iv) SPS teachers are highly confident in their 21st-century skills in community connections, professional engagements, personal growth, and professional development, with a mean score of 4.52. [Harbin et al. \(2019\)](#) suggests that project participants, including students, faculty, and community members, should act as teachers and learners, respect each other, maximize active learning, and strengthen community voice.

Table 2. Level of 21st century skills of SPS teachers.

Indicators	Mean	SD	Description
Pedagogy and Content Knowledge	4.47	0.11	Strongly
Learner Diversity and the learning	4.49	0.13	Strongly
Planning and curriculum	4.55	0.11	Strongly
Connections with the community, Employment Opportunities, Development of The Self, and Career	4.52	0.16	Strongly
Mean	4.51	0.13	Strongly

The results in **Table 3** showed no significant differences in pedagogy and content knowledge. The sports teachers at General Santos City National High School, Tupi National High School, and Isulan National High School have nearly equal levels of 21st-century pedagogical and content knowledge. The study also highlighted the importance of teachers being interested in technological developments and teaching students to behave in various situations ([Agustini et al., 2019](#)). Ultimately, teachers have a responsibility to positively impact their learners' lives by teaching them how to navigate various situations, value their growth, and understand how to make decisions in specific situations ([Ferreira et al., 2020](#)). A study assessing the 21st-century abilities of SPS teachers in Region XII schools found no significant differences in their ability to adapt to diverse learning environments (see **Table 4**). The teachers in General Santos City National High School, Tupi National High School, and Isulan National High School exhibited similar skills in terms of diversity and learning environment. The findings suggest that special sports program teachers have similar 21st-century skills. Teachers prioritizing successful teaching value their students' learning environment and diversity, fostering equality and inclusion in the classroom. On the other hand, the best indicator of learning across all assessed domains was a positive learning environment ([Lundberg & Sheridan, 2015](#)).

Table 3. The F-test using analysis of variance (anova) for one-way classification result of the levels of 21st century skills of SPS teachers among implementing schools in region xii in terms of pedagogy and content knowledge.

	Sum of Squares	df	Mean Square	F	p	Interpretation
DRU	0.43	2	0.21	2.44	0.10	Not Significant
Error	2.88	33	0.09			
Total	3.31	35				

Table 4. The F-test using analysis of variance (anova) for one-way classification result of the levels of 21st century skills of SPS teachers among implementing schools in region xii in terms of learner diversity and the learning environment.

	Sum of Squares	df	Mean Square	F	p	Interpretation
DRU	0.22	2	0.17	1.93	0.16	Not Significant
Error	2.83	33	0.09			
Total	3.16	35				

A key predictor of learning was faculty comments that led to increased effort on the part of the student. A study assessing the special program in sports teachers' 21st-century abilities in Region XII schools found no significant differences in their skills in curriculum and planning (see **Table 5**). The special programs, including General Santos City National High School, Tupi National High School, and Isulan National High School, had nearly identical levels of 21st-century skills. The study suggests that teachers' role is to create connections with the material, creating an engaging learning environment through active learning and curriculum-related materials (Aboagye & Yawson, 2020). The new curriculum is crucial, according to the study's teachers, since it will foster group work, help students acquire lifelong skills, get them ready for the workforce, promote inclusive education, and gender equality, and take into account the culture and society of the students (Haryani et al., 2021).

A study comparing the 21st-century abilities of special programs in sports teachers in Region XII schools found no significant difference in their skills in community connections, professional engagements, personal growth, and professional development (see **Table 6**). The results suggest that these special programs, including General Santos City National High School, Tupi National High School, and Isulan National High School, have nearly the same level of 21st-century skills in establishing community connections, professional activities, and personal growth. Espiritu (2021) emphasizes the importance of involving stakeholders in educational goals and fostering strong community linkages for real transformation. This fosters a partnership outside the classroom, resulting in successful administration and quality teaching-learning processes.

Table 5. The F-test using analysis of variance (anova) for one-way classification result of the levels of 21st century skills of SPS teachers among implementing schools in region xii in terms of planning and curriculum.

	Sum of Squares	df	Mean Square	F	p	Interpretation
DRU	0.46	2	0.23	2.72	0.8	Not Significant
Error	2.81	33	0.09			
Total	3.27	35				

Table 6. The F-test using analysis of variance (anova) for one-way classification result of the levels of 21st century skills of SPS teachers among implementing schools in region xii in terms of connections with the community, employment opportunities, development of the self, and career.

	Sum of Squares	df	Mean Square	F	p	Interpretation
DRU	0.82	2	0.41	2.78	0.08	Not Significant
Error	4.90	33	0.15			
Total	5.72	35				

5. CONCLUSION

The study found that SPS teachers in Region XII are dynamic, experienced, and empower women. They prioritize their learners' needs and create new teaching methods for the sports curriculum. The study emphasizes the importance of adapting teaching strategies to meet the demands of 21st-century society, incorporating technology and real-world applications, and embracing innovative approaches to better equip students for success in a rapidly changing world.

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7. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

8. REFERENCES

- Aboagye, E., and Yawson, J. A. (2020). Teachers' perception of the new educational curriculum in Ghana. *African Educational Research Journal*, 8(1), 6-12.
- Agustini, K., Santyasa, I. W., and Ratminingsih, N. M. (2019). Analysis of competence on "TPACK": 21st century teacher professional development. *Journal of Physics: Conference Series*, 1387 (1), 1-9.
- Aquino, J. F., Riss, R. R., Multerer, S. M., Mogilner, L. N., and Turner, T. L. (2022). A step-by-step guide for mentors to facilitate team building and communication in virtual teams. *Medical Education Online*, 27(1), 2094529.
- Ayaz, O., and Ismail, F. W. (2022). Healthcare simulation: A key to the future of medical education—a review. *Advances in Medical Education and Practice*, 13, 301-308.
- Bellibaş, M. Ş., Gümüş, S., and Liu, Y. (2021). Does school leadership matter for teachers' classroom practice? The influence of instructional leadership and distributed leadership on instructional quality. *School Effectiveness and School Improvement*, 32(3), 387-412.
- Calixtro Jr, V. L. (2020). Fitness and wellness lifestyles of the personnel of Sultan Kudarat State university, Mindanao, Philippines. *Indonesian Journal of Teaching in Science*, 1(1), 63-68.
- Calixtro Jr, V. L. (2021). Health status and job performance of physical education instructors in higher education institutions. *Indonesian Journal of Educational Research and Technology*, 1(2), 71-76.
- Deci, E. L., and Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry*, 11(4), 227-268.
- Dohle, S., and Wansink, B. (2013). Fit in 50 years: Participation in high school sports best predicts one's physical activity after Age 70. *BMC Public Health*, 13, 1-6.
- Espiritu, R. D. (2021). Awareness and competency of pre-service teachers on the Philippine professional standards for teachers (Ppst): A basis for training program. *Journal/NX*, 7(11), 83-105.
- Evmenova, A. (2018). Preparing teachers to use universal design for learning to support diverse learners. *Journal of Online Learning Research*, 4(2), 147-171.
- Ferreira, M., Martinsone, B., and Talić, S. (2020). Promoting sustainable social emotional learning at school through relationship-centered learning environment, teaching methods and formative assessment. *Journal of Teacher Education for Sustainability*, 22(1), 21-36.

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- Harbin, M. B., Thurber, A., and Bandy, J. (2019). Teaching race, racism, and racial justice: Pedagogical principles and classroom strategies for course instructors. *Race and Pedagogy Journal: Teaching and Learning for Justice*, 4(1), 1-37.
- Haryani, E., Coben, W. W., Pleasants, B. A., and Fetters, M. K. (2021). Analysis of teachers' resources for integrating the skills of creativity and innovation, critical thinking and problem solving, collaboration, and communication in science classrooms. *Jurnal Pendidikan IPA Indonesia*, 10(1), 92-102.
- Hergüner, G. (2016). Tablet computer literacy levels of the physical education and sports department students. *Malaysian Online Journal of Educational Technology*, 4(2), 58-65.
- Hofer, M., and Grandgenett, N. (2012). TPACK development in teacher education: A longitudinal study of preservice teachers in a secondary MA Ed. program. *Journal of Research on Technology in Education*, 45(1), 83-106.
- Jun, S., Edwin, C., Rahon, M., Ann, C., Terre, E. Q., Ventayen, D. B. A., and Urbano, J. M. (2021). Gendered-analysis on research competency of 21st century learners. *Journal of Contemporary Issues in Business and Government*, 27(1), 819-827.
- Kim, S., Raza, M., and Seidman, E. (2019). *Improving 21st-century teaching skills: The key to effective 21st-century learners. Research in Comparative and International Education*, 14(1), 99-117.
- Koh, K. T., Ong, S. W., and Camiré, M. (2016). Implementation of a values training program in physical education and sport: Perspectives from teachers, coaches, students, and athletes. *Physical Education and Sport Pedagogy*, 21(3), 295-312.
- Lappe, J. M. (2000). Taking the mystery out of research: Descriptive correlational design. *Orthopaedic Nursing*, 19(2), 81.
- Lord, F., Pyne, D. B., Welvaert, M., and Mara, J. K. (2020). Methods of performance analysis in team invasion sports: A systematic review. *Journal of Sports Sciences*, 38(20), 2338-2349.
- Lundberg, C. A., and Sheridan, D. (2015). Benefits of engagement with peers, faculty, and diversity for online learners. *College Teaching*, 63(1), 8-15.
- McEwan, D., and Beauchamp, M. R. (2014). Teamwork in sport: A theoretical and integrative review. *International Review of Sport and Exercise Psychology*, 7(1), 229-250.
- McGrew, S., Breakstone, J., Ortega, T., Smith, M., and Wineburg, S. (2018). Can students evaluate online sources? Learning from assessments of civic online reasoning. *Theory and Research in Social Education*, 46(2), 165-193.
- Miller, L. (2015). Sports communication as a way to develop critical competencies in the L2 classroom. *RELC Journal*, 46(1), 89-104.
- Schover, L. R. (2019). Sexual quality of life in men and women after cancer. *Climacteric*, 22(6), 553-557.
- Siyam, N., and Hussain, M. (2022). Academic staff's attitudes towards a curriculum mapping tool. *TechTrends*, 66(2), 223-239.
- Tang, T., Vezzani, V., and Eriksson, V. (2020). Developing critical thinking, collective creativity skills and problem solving through playful design jams. *Thinking Skills and Creativity*, 37, 100696.
- Yeni, G. (2022). The effect of 21st century skills training on foreign language teachers' perceptions regarding their educational technology and materials development competencies. *Bartın University Journal of Faculty of Education*, 11(1), 118-136
- Yetman, M., Blancher, A., and Reekes, T. (2020). Establishing a health and wellness intervention program. *The International Journal of Health, Wellness and Society*, 11(1), 23.