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Impact of Technology in Dance Sports: How Digital Tools are Changing Training and Performance

Peng Huang *

Graduate School, Adamson University, CO 1000, Manila, Philippines
* **Corresponding author Email**: 434383901@qq.com

Abstract: This research examined demographic characteristics, techniques of incorporating technology, disparities in evaluation, and obstacles encountered by coaches. The results of our study indicate that a significant proportion of participants are women (61%), aged between 18 and 20 (62%), and are spread throughout several academic years. Participants sometimes use technology into their training, mostly with dance technology and software. Although there are no notable disparities in terms of sex, age, or academic year, there is a substantial difference between first-year and third-year students in terms of their technology integration evaluation. The influence of technology on performance remains consistently mild across several aspects like as technique, timing and musicality, posture and alignment, frame and connection, choreography, style and creativity, and showmanship. The challenges encountered by coaches in technology integration include restricted availability in rural regions, financial difficulties, shortages in technical expertise, language obstacles, and managing restrictions related to competitiveness. The presence of resistance to change among athletes also presents a difficulty. The consequences indicate a need for customized training programs and resources to improve the technological proficiency of coaches and participants. Suggested measures include the establishment of technology resource centers, provision of specialized training platforms, and cultivation of cooperation with technology specialists.

Keywords: Dance Technology and Software; Technique; Timing and Musicality; Posture and Aligning; Frame and Connection; Choreography; Styling and Artistry Showmanship.

1. Introduction

The development of dance sports in China has seen a notable transformation, characterized by the fusion of traditional cultural elements with contemporary competitive dynamics and technical progress. The dance history of China, which has deep historical roots in traditional Chinese dance forms, has provided a robust basis for the evolution and advancement of dance sports within the nation. Nevertheless, the incorporation of Western ballroom dancing techniques in the 20th century ushered in a modern and competitive aspect to dance in China (Frederiksen & Chang, 2023).

The emergence of competitive dance has played a pivotal role in the development and evolution of contemporary dance sports. Dancers started their involvement in regional and national contests, where they exhibited their technical proficiency, stylistic aptitude, and artistic interpretation (Dream Duffel, 2019). The expansion of competitive dance was also reinforced by China's engagement in global dance sports contests, particularly those administered by the World Dance Sport Federation (WDSF). Chinese dancers have significantly influenced the international dance scene, hence playing a pivotal role in the increased recognition and popularity of this art form inside their own nation.

The expansion of dancing sports in China included more than only competitive events. Dance sports organizations and organizations have played a significant role in the promotion and cultivation of talent. The organizers facilitated many events, seminars, and training programs, therefore establishing a nurturing atmosphere conducive to the development of dancers.

Meanwhile, the emergence of technology has brought about a significant and influential period of change for the realm of dance sports in China (Yanling, 2021). The use of digital technologies, including video analysis software, motion capture technology, and wearable fitness trackers, has become indispensable in the realm of training and performance. These technological advancements allowed the meticulous examination of motions, the improvement of techniques, and the augmentation of training routines. Moreover, the use of cutting-edge choreographic software, projection mapping technology, and augmented reality (AR) has brought up new avenues for creativity, enhancing the visual and aesthetic dimensions of dance sports. The advent of Augmented Reality (AR) and Virtual Reality (VR) headsets has brought about a transformation in audience involvement, offering spectators immersive experiences and novel avenues for connecting with dance sports performances (He & Sheng, 2022).

Presently, dancing sports in China epitomize a vibrant amalgamation of conventional practices and progressive elements. The sport persists in flourishing, using its rich cultural legacy while embracing developments in technology. China maintains a significant presence within the international dance sports community, indicating a promising trajectory for this engaging and expressive domain of competitive creativity (YuORCID & Buck, 2022).

The use of technology in dance sports is crucial for a variety of compelling reasons that together boost the dynamics and possibilities of the activity. The use of technology in its many manifestations offers dancers and coaches a range of instruments that facilitate the enhancement of their methods with an unprecedented level of accuracy. This enables the identification and rectification of technical flaws, as well as the progression of movements (Zhu, 2021). Moreover, it facilitates the cultivation of creativity and invention, affording dancers the liberty to explore various choreographic techniques, visual enhancements, and

narrative elements. Consequently, this enhances the overall aesthetic merit of dance sports. The amalgamation of traditional elements with innovative practices not only serves to appeal to a wider range of individuals but also guarantees the ability of Chinese athletes to remain competitive on a global scale, aligning with international benchmarks and standards. Furthermore, the use of technology serves to augment the processes of recording, analysis, and accessibility, hence providing a significant asset for both performers and scholars within the dance sports community. Additionally, it plays a pivotal role in promoting inclusion within this community. Through the adoption of technological advancements and the establishment of ethical principles governing its conscientious use, dance sports may undergo a transformative process, captivating audiences and preserving its position as a dynamic and continuously developing artistic discipline (Erofeeva, 2019).

However, the use of technology in the realm of dance sports training and performance presents certain issues that must be comprehended in order to maximize its advantages. A notable obstacle that arises is the disparity in access to and price of technological resources among those involved. The existence of the digital divide may impede some dancers from effectively using technology to its fullest extent in their training. Another problem pertains to technical proficiency, since not all dancers possess the requisite digital literacy to proficiently use sophisticated technologies. The act of bridging this divide is vital in order to provide fair and equal access to technology benefits.

Furthermore, the use of technology into conventional training methodologies may provide difficulties, given that dance sports often adhere to long-standing, traditional practices. The inquiry of the balance between technology and tradition is a topic that requires more investigation. The growing prominence of technology in several domains has given rise to ethical considerations, particularly in relation to the fairness and authenticity of performances. The relevance of data privacy and security concerns is also notable, especially in relation to the use of wearable fitness trackers and training applications. The protection of sensitive information is of utmost importance (Walton & Mackay, 2022).

In addition, it is essential for dancers to maintain a harmonious equilibrium between using technology-enhanced training methods and maintaining fundamental abilities like as muscle memory and emotional articulation. The influence of technology on audience perceptions and involvement is a topic that has yet to be thoroughly explored. The investigation of technology's impact on the authenticity and overall experiential aspects of dance sports performances has significant importance. Furthermore, it is important to conduct long-term research in order to get a comprehensive understanding of the impact of technological integration on dancers' professional trajectories and the long-term development of the art form.

The investigation of the cultural assimilation of technology within the realm of dance sports is a captivating avenue for scholarly exploration. The use of technology may vary between cultures, and comprehending these cultural elements is crucial for customizing strategies for various dance groups. By addressing the aforementioned issues and research gaps, it is possible to assure the appropriate and successful integration of technology in dance sports, so maximizing its advantages while preserving the authenticity and essence of this compelling art form.

It is for this reason that this study has been conceptualized. In a period marked by rapid technological progress, this study illuminates the ways in which digital technologies are transforming a traditional art form and athletic activity. Staying abreast of current advancements in technology is of paramount importance, as its transformative impact on several athletic disciplines has already been shown. The comprehension of its impact on dance sports has significant importance, not alone in relation to enhancing training and performance, but also for cultivating creativity and originality in choreography and aesthetic expression. The recognition of dance sports on a worldwide scale has become increasingly prominent, hence necessitating dancers and coaches to use technology in order to sustain a competitive advantage. This study has the potential to provide significant findings about the tactics and technology that might enhance athletes' performance in global sporting events.

In addition, the integration of technology has promise in enhancing the inclusivity and accessibility of dance sports, since it has the capacity to overcome geographical limitations and facilitate participation among persons from various socio-cultural backgrounds. Furthermore, the use of augmented and virtual reality in the context of spectator experience serves to enhance the sport's accessibility and captivate a wider range of individuals, thereby carrying significant implications for its potential expansion and engagement with a more diverse audience.

The appropriate integration of technology in sports necessitates a strong emphasis on ethical issues. This research endeavor has the potential to make a valuable contribution towards the establishment of ethical norms that may effectively guide the ongoing evolution of the sports industry. Finally, the study's multidisciplinary approach serves to connect the domains of sports, technology, and the arts, so providing valuable insights that extend beyond the sphere of dance sports. This has the potential to stimulate innovation and foster cooperation across diverse sectors.

In brief, scholarly investigations pertaining to the influence of technology in dance sports include more than the mere exploration of dance itself. Rather, they delve into the process of accommodating the profound effects of technology in the contemporary day, all the while safeguarding the invaluable customs and aesthetic allure intrinsic to this particular field of study. In the digital era, it is essential to maintain the enduring captivation of spectators and the sustained vibrancy of dance sports within our cultural and athletic milieu.

2. Statement of the Problem

This study aims to determine the impact of technology in dance sports and how digital tools are changing training and performance. Specifically, this study will answer the following questions.

1.What is the profile of the respondents in terms of:

1.1sex

1.2age

1.3type

2.How often do dance sports participants integrate technology in their training in terms of:

2.1 Dance Technology and Software:

2.2 Performance Technology

2.3 Immersive Technology:

2.4 Fitness and Health Technology:

2.5 Collaboration and Communication Tools

3.Is there a significant difference in the frequency of technology integration of dance sports participants in their training?

4.What is the impact of the integration of technology on their performance in terms of:

4.1technique

4.2timing and musicality

4.3posture and aligning

4.4frame and connection

4.5choreography

4.6styling and artistry

4.7showmanship

5.Is there a significant difference in the impact of the integration of technology on their performance when they are grouped according to profile?

6.What are the challenges of coaches and experts about the integration of technology in dance sports?

7.Based on the results of the study, what enhanced technology utilization training for dance sports participants and coaches can be designed?

3. Hypotheses

There is no significant difference in the frequency of technology integration of dance sports participants in their training.

There is no significant difference in the impact of the integration of technology on their performance when they are grouped according to profile.

4. Scope and Delimitation

The main aim of this study was to examine the impact of technology on dance sports, particularly focusing on how digital technologies influenced training methods and performance outcomes. The research included a comprehensive analysis that explored several facets, including the frequency and nature of digital tools used, the demographic attributes of participants in dance sports, and the influence of technology integration on performance. This study integrated the perspectives of dancers, educators, and experts who were actively engaged in the dance sports community. Furthermore, the study sought to provide a collection of moral guidelines for the use of technology in the domain of dance sports, based on the knowledge obtained from its research findings. This research made a valuable contribution to our understanding of how technology affects the field of dance sports and the potential advantages of integrating technology in a suitable manner for both participants and the wider community.

The current research aimed to conduct a comprehensive analysis; nonetheless, it was important to acknowledge its inherent limitations. The study's results may have had limited generalizability to the broader dance sports community owing to variables such as the small sample size and lack of participant diversity. Moreover, the study relied on self-report data, which might have been susceptible to respondent bias. The dynamic and progressive qualities of technology and dance sports necessitated evaluation of the temporal relevance of study findings, because the effect of new technologies may not have been thoroughly incorporated. Furthermore, the ethical principles of the study, while impacted by research, may have required ongoing refinement and adjustment to adequately address the constantly evolving field of technology ethics. Ultimately, the incorporation of technology among participants may have been impacted by other variables, such as socioeconomic status and availability of technology. It is crucial to acknowledge that these external factors may not have been fully considered or controlled in the study. Despite these limitations, the research provided valuable insights and laid the groundwork for future investigations into the influence of technology on dance sports.

5. Research Design

The research technique used for this study was a descriptive comparative design, specifically designed to provide a comprehensive examination of the impact of technology on dance sports training and performance. The design primarily included of two essential elements: a descriptive component and a comparative element. Throughout the descriptive phase, the research methodically gathered extensive data about the demographic attributes of people involved in dance sports, their use of various digital tools for training, and the degree to which they had incorporated technology into their practice. This comprehensive inquiry provided a thorough understanding of the contemporary technological landscape in the dancing sports industry.

The incorporation of a comparative element in the research design enabled the assessment of disparities and variations among different groups or factors of importance. The significance of this component was crucial in this study, as it sought to investigate the existence of discrepancies in technology adoption and its subsequent consequences, while considering characteristics such as age, gender, and level of engagement. By systematically analyzing and contrasting these components, the study had the capacity to uncover noteworthy patterns, inconsistencies, or trends in the domain of dance sports.

The choice of this research approach was very relevant to the objectives of the inquiry. Employing a descriptive comparative design facilitated a methodical approach to examine study problems related to assessing the impact of technology and establishing ethical standards. This paradigm provided the necessary tools for examining the complex relationship between technology use, ensuing performance outcomes, and the impact of demographic variables. Ultimately, this design had the capacity to provide significant insights and recommendations that could be tailored to different segments within the dance sports community. This would enhance the proper integration of technology while maintaining the aesthetic and ethical foundation of this dynamic field.

6. RESULTS, ANALYSIS, AND INTERPRETATION

This chapter includes a tabular representation of the collected data, as well as its analysis and interpretation. This section's conclusions are based on a statistical analysis performed with jamovi 2.3.19.

1.Profile of the Respondents

In Table 1, descriptive data are presented regarding the frequencies and percentages of selected dance sports participants in terms of the assigned sex, age, and grade level. The data that was tabulated showed that women make up the vast majority of respondents. The percentage of female respondents was 61%, while the percentage of male

respondents was 39%. In terms of age, 62% of them were between the ages of 18 and 20, 35% were between 21 and 23 years old, and only 4% were between 24 and 26 years old. The descriptive analysis showed that the majority of the dance sports participants are between 18 and 20 years old. Lastly, when it comes to their year levels, 26% of them were first years, 14% were fourth years, 27% were second years, and 34% were third years, indicating that most of the respondents are in their third year.

Table 1. Frequency and Percentage of Demographic Profile

Sex	Counts	% of Total
Female	122	61 %
Male	78	39 %
Age		
18-20	123	62 %
21-23	69	35 %
24-26	8	4 %
Year Level		
First Year	51	26 %
Fourth Year	28	14 %
Second Year	54	27 %
Third Year	67	34 %

Frequency of the Dance Sports Participants in Integrating Technology in their Training

Table 2 provides the assessment of how dance sports participants integrate technology in their training. Based on a composite mean of 2.77 and a standardized deviation of 0.74, they occasionally incorporate technology in their training particularly in dance technology and software (M= 3.17), performance technology (M = 2.95), and collaboration and communication tools (M = 2.79).

The survey findings indicate that dancing sports participants, on average, sporadically use technology into their training, as shown by a composite mean score of 2.77. This suggests a modest degree of technological integration within the dancing sports community. Nevertheless, upon closer examination of certain categories, significant discrepancies become apparent.

The category with the highest average score is "Dance Technology and Software," which has a mean score of 3.17. This suggests that there is a very regular use of technology specifically connected to dance methods and software. This underscores the need of prioritizing the development and marketing of dance-specific technologies and software to augment the training encounters of participants.

Conversely, the lowest mean score is seen in the "Immersive Technology" category, with a mean of 2.32, demonstrating that the incorporation of immersive technology, such as virtual reality, is rather rare among dance sports participants. This discovery emphasizes the possibility of broadening the use of immersive technology in dance sports training to provide more immersive and captivating learning experiences.

Table 2. How Often that Dance Sports Participants Integrate Technology in their Training

Indicators	Mean	SD	Verbal Interpretation	Rank
Dance Technology and Software:	3.17	0.79	Occurs Occasionally	1
Performance Technology	2.95	0.94	Occurs Occasionally	2
Immersive Technology	2.32	0.91	Occurs Infrequently	5
Fitness and Health Technology	2.59	0.97	Occurs Occasionally	4
Collaboration and Communication Tools	2.79	0.96	Occurs Occasionally	3
COMPOSITE MEAN	2.77	0.74	Occurs Occasionally	

Legend: 1.00-1.50: Never (Has Never Occurred); 1.51-2.50: Disagree (Occurs Infrequently); 2.51-3.50; Sometimes (Occurs Occasionally); 3.51-4.00: Often (Occurs Frequently)

The diverse average ratings across various technology categories underscore the need of acknowledging participants' differing degrees of ease and receptiveness towards different technology kinds. Customizing technology integration initiatives to correspond with the distinct requirements and inclinations of dance sports participants may result in more efficient and significant incorporation of technology in training.

Moreover, the average score in the "Collaboration and Communication Tools" category indicates a chance to enhance the use of these tools in order to promote cooperation among participants, instructors, and coaches. In particular, in a situation where remote and online learning have grown more common, improving communication and collaboration technologies may help to enhance the effectiveness of training approaches.

These results provide useful insights into the present condition of technology integration in dance sports training. Their role is to provide direction to educators, practitioners, and technology developers on the strategic integration of technology to enhance training and performance results in the ever-changing area of dance sports.

The research undertaken by He and Sheng (2022), as published in the "International Journal of Frontiers in Sociology," provides strong evidence for the existing results on the incorporation of technology in dance sports training. Their study explores the use of virtual reality (VR)

technology in the instruction of sports dance at the collegiate and university levels. The research highlights the very engaging characteristics of VR technology and its capacity to transform the learning process, namely by amplifying student involvement and active involvement.

When comparing the results of this study with the existing research on the incorporation of technology in dance sports, a distinct synergy becomes apparent. Both studies emphasize the importance of technology, particularly immersive technologies such as virtual reality (VR), in establishing dynamic and efficient learning settings for participants in dance sports. This comparative observation has two consequences. Firstly, it emphasizes the significance of using immersive technology in the dance sports community to enhance the engagement and enjoyment of participants during training. Furthermore, it highlights the capacity of technology to enhance the caliber of instruction and achievement results in dancing sports.

The research on the use of virtual reality technology in teaching sports dance offers significant supporting evidence, further strengthening the idea that the strategic incorporation of technology may bring about a profound change in the area of dance sports. Through the use of immersive technology such as virtual reality (VR), the dance sports community can optimize training experiences and eventually raise the level of performance in this dynamic discipline.

2.Difference in the Assessment of Technology Integration When Dance Sports Participants Are Grouped according to Profile

2.1Sex

Table 3. Difference in the Assessment of Technology Integration based on Sex

	Group	N	Mean	Median	SD	SE
Integrate Technology	Female	122	2.75	2.80	0.70	0.06
	Male	78	2.79	2.90	0.79	0.09

	U	p	Interpretation	Decision
Integrate Technology	4571.50	0.640	Not Significant	Accept H0

The Mann-Whitney U test was performed to determine if there is a significant difference in the assessment of technology integration when the dance sport participants are grouped based on their sex. Since the generated p-value of p = 0.640 is higher than the 0.05 level of significance, the researcher will not reject the null hypothesis. Hence, it can be inferred that the assessment of technology integration is the same regardless of the assigned sex of the sample of dance sports participants.

The study's findings evaluate the influence of gender on the assessment of technology integration in dance sports and have significant consequences. The absence of a substantial disparity in the evaluation of technology integration between male and female dance sport participants highlights the gender-neutral nature of technology adoption in this particular setting. It indicates that both male and female participants have equal and consistent access to technical tools and resources for their training. This not only guarantees equal opportunity for improving skills but also fosters inclusiveness by eliminating gender-based discrepancies in the use of technology.

Furthermore, these findings add to the overarching objective of improving gender equality within the dance sports community. The research supports the wider objective of establishing a merit-based environment by asserting that the incorporation of technology is not dependent on gender. This has the potential to motivate a wider range of persons, irrespective of their gender, to actively participate in and reap the rewards of technology breakthroughs in dance sports.

Furthermore, dance sports instructors and stakeholders might use these results to customize their strategy for incorporating technology, being aware that gender does not have a substantial impact on how technology is viewed. This understanding may be used to shape the creation of technology-based instructional approaches that accommodate the varied requirements and inclinations of all participants. In essence, these findings may act as a spark for promoting a gender-inclusive atmosphere in dance sports, where skill and passion are the main factors for achieving success, irrespective of an individual's gender.

Ultimately, the study's results highlight the impartial approach to using technology in the dancing sports community, confirming the significance of equal chances and inclusiveness. These results may provide guidance to educators and stakeholders in developing a training environment that is both inclusive and technologically sophisticated. This aligns with the wider goals of fostering gender equality and ensuring that dance sports are accessible and welcome to all individuals.

2.2Age

Table 4 provides the measurement of the difference in the assessment of technology integration when the sports dance participants are classified based on their age. Since the generated p-value of 0.065 is higher than the 0.05 level of significance, the researcher will not reject the null hypothesis. Hence, it can be concluded that their assessment of technology integration ($H = 7.74$; $df = 2$; $p = 0.65$) is the same regardless of their age.

The data reveals numerous significant implications. The most notable conclusion is the lack of age-related differences in the evaluation of technological integration, as shown by the non-significant p-value of 0.065. These findings indicate that individuals of various age groups within the sports dance community have similar views on the incorporation of technology. This suggests that training approaches connected to technology are not limited to a particular age group, but rather understandable and available to a wide range of individuals. The significance of inclusion and accessibility lies in their ability to successfully engage both younger and older sports dance fans with technology-driven training

methodologies.

Table 4. Difference in the Assessment of Technology Integration based on Age

	Age	N	Mean	SD	SE
Integrate Technology	18-20	123	2.67	0.74	0.07
	21-23	69	2.90	0.73	0.09
	24-26	8	3.17	0.54	0.19

	H	df	p	Interpretation	Decision
Integrate Technology	7.74	2	0.65	Not Significant	Accept H0

Furthermore, these findings support the need for continuous learning among members of the sports dance community. The standardized evaluation of technology integration across all age demographics indicates that people of all age groups may effectively use technology to improve their abilities and achievements. This promotes a culture that encourages ongoing progress and the development of skills, highlighting the idea that one's age should not hinder their quest of greatness in dance sports.

Dance sports teachers and educators may use these results by customizing their technology strategies to suit the interests and skills of participants across various age demographics. Identifying the uniformity in technology evaluation may inform the creation of instructional techniques that effectively engage learners from different age groups. Moreover, the outcomes indirectly support the possibility of intergenerational cooperation within the sports dance community. The collective evaluation of technology integration indicates that people from all age groups may participate in cooperative learning and training opportunities, promoting mentoring and the sharing of information.

To summarize, this research shows that technology appraisal in the sports dance community is not influenced by age. This suggests that training techniques that use technology are available to individuals of all age groups, hence fostering inclusion, continuous learning, and customized ways to using technology. These insights may be used by dance sports teachers and stakeholders to provide a training environment that is both inclusive and technologically modern. This will effectively cater to participants from all age groups, hence enhancing the dynamics of the dance sports community.

2.3Year Levels

Table 5. Difference in the Assessment of Technology Integration based on Year Levels

	Year Level	N	Mean	SD	SE
Integrate Technology	First Year	51	2.56	0.70	0.10
	Fourth Year	28	2.86	0.64	0.12
	Second Year	54	2.71	0.77	0.10
	Third Year	67	2.92	0.75	0.09

	χ^2	df	p	ε^2	Interpretation	Decision
Integrate Technology	8.22	3	0.042	0.04	Significant	Reject H0

Table 5 shows the difference in technology integration assessment when sports dance participants are classified according to their year levels. Since the generated p-value of 0.042 is lower than the 0.05 level of significance, the researcher will reject the null hypothesis. Hence, it can be inferred that their assessment of technology integration ($H = 8.22$; $df = 3$; $p = 0.042$; $\varepsilon^2 = 0.04$) varies across the year level, with small effect size based on the eta-squared.

The research about the appraisal of technology integration among sports dance participants, categorized by their year levels, offers useful insights into the changing perspectives of technology within the dance sports community. The research demonstrates a statistically significant disparity in how participants from different academic years evaluate the incorporation of technology. This indicates that as individuals go through their educational path, their views on the use of technology in dancing sports experience changes. Although the observed difference is statistically significant, it is worth mentioning that the effect size, as measured by eta-squared ($\varepsilon^2 = 0.04$), is quite minor. This suggests that while there is variation in perception across different grade levels, the extent of this variance is not significant.

The fluctuations found in technology evaluation at different academic levels may be attributed to the influence of

educational advancement and exposure to technology-related courses or experiences. Participants in advanced academic years may have had more exposure to technology in their dancing sports training, resulting in distinct perspectives compared to their colleagues in previous years. These findings indicate that dance sports education is characterized by constant change, as students' attitudes and views develop as they go through their academic journey.

These results have several implications for the instruction of dance sports. Curriculum architects and instructors may use these findings to customize teaching methods that cater to the evolving viewpoints of participants at various educational levels. Understanding the changing views on incorporating technology may help shape the development of educational courses and training programs that meet the expectations and needs of participants at different academic levels. Furthermore, the findings underscore the need of including flexibility and adaptability in the incorporation of technology in dance sports education, in order to effectively address the changing requirements and expectations of students.

In a nutshell, the study's results provide insight into the ever-changing nature of technology evaluation within the realm of dance sports education. The study emphasizes the impact of academic advancement on the way participants see things and emphasizes the significance of adaptable teaching techniques and curriculum development. To fully use the potential of technology and ensure its relevance and effect for all participants, dance sports education should strive to comprehend and adapt to the changing viewpoints of students as they go through their academic years.

Table 6. Pairwise comparisons - Integrate Technology

		W	p	Interpretation
First Year	Fourth Year	3.05	0.135	Not Significant
First Year	Second Year	1.49	0.718	Not Significant
First Year	Third Year	3.64	0.049	Significant
Fourth Year	Second Year	-1.78	0.590	Not Significant
Fourth Year	Third Year	0.34	0.995	Not Significant
Second Year	Third Year	2.01	0.484	Not Significant

Based on the pairwise comparison post-hoc analysis, the difference lies between first years and third years (W = 3.64; p = 0.49). Specifically, those dance sports participants who are in their third-year level scored higher in the assessment of technology integration than those who are in their first years.

The pairwise comparison post-hoc analysis in this research provides useful insights into the subtle variations in the evaluation of technology integration among sports dance participants at different academic levels. Although most of the pairwise comparisons did not show statistically significant differences, one specific contrast was found to be significant: the disparity between first-year participants and third-year individuals (W = 3.64; p = 0.049).

The notable disparity between participants in their first year and those in their third year indicates that as students advance in their academic pursuit of dance sports, their perspectives on the incorporation of technology undergo changes. Third-year participants assessed technology integration more favorably than their first-year counterparts in this instance. The change in perception might be ascribed to several circumstances.

Firstly, it might indicate the gradual acquisition of knowledge and familiarity with technology-based instructional techniques across the years. Participants in their third year of study may have had more exposure to technology in their dance sports education, enabling them to develop a deeper understanding of its advantages and influence on performance.

Furthermore, this discovery emphasizes the potential impact of advanced courses and training programs. The third-year curriculum may prioritize technological integration, perhaps resulting in more favorable evaluations from participants.

The significance of this outcome lies in the need to take into account the developmental progression of students' perspectives while creating dance sports education programs. It is important for instructors and curriculum authors to acknowledge that students' views towards technology may change as they advance in their academic journey. This indicates a need for customized strategies to use technology that are in line with the evolving expectations and experiences of students as time progresses.

Furthermore, the notable disparity identified in the third year indicates that dance sports education programs might increase technology integration tactics and courses to ensure that students consistently recognize the importance of technology throughout their academic journey.

In a nutshell, this research underscores the ever-changing nature of evaluating technology in dance sports education and emphasizes how academic advancement affects participants' perspectives. To fully use the potential of technology in dance sports education, it is important to acknowledge and adapt to changing viewpoints. This will ensure that technology stays relevant and effective for all participants throughout their academic journey.

3.Impact of Technology Integration on participants' Performance

3.1 Technique

Table 7 presents the impact of the integration of technology on the performance of sports dance participants in terms of technique. The variable had a composite mean score of 3.27 and a standardized deviation of 0.53, which implies that the integration of technology had a moderate impact on their performance. To be more specific, they are in agreement that the application of technology improves their capacity to effectively detect and correct technical faults (M = 3.35), that it has played a significant role in improving their capacity to achieve improved body control and balance during their dance performances (M = 3.34), and that the application of technology has had a profound impact on the improvement of their dancing technique (M = 3.32). Furthermore, they agree that using technology allows them to isolate and concentrate on specific aspects of their method, allowing for targeted improvements (M = 3.32) and facilitating the process of honing and enhancing their dancing skills (M = 3.31).

Table 7. Impact of the Integration of Technology on the Performance in terms of Technique

Indicators	Mean	SD	Verbal Interpretation	Rank
1.The use of technology has had a profound impact on the enhancement of my dancing technique.	3.32	0.60	Average	4.5
2.The use of technology facilitates the process of honing and enhancing my dancing skills.	3.31	0.63	Average	6
3.The use of technology enhances my ability to effectively detect and rectify technical faults.	3.35	0.58	Average	1
4.Since incorporating technology into my training, I have seen a significant improvement in my general technique.	3.28	0.59	Average	8
5.In my perspective, the integration of technology has significantly improved the accuracy and precision of my dancing motions.	3.29	0.66	Average	7
6.The use of technology enables me to isolate and concentrate on certain aspects of my method, so facilitating targeted enhancements.	3.32	0.62	Average	4.5
7.The use of technology has had a beneficial impact on my capacity to proficiently perform intricate dancing routines.	3.33	0.60	Average	3
8.I get a heightened sense of self-assurance in my skill execution when incorporating technological tools into my training regimen.	3.24	0.65	Average	10
9.The use of technology has played a significant role in enhancing my ability to achieve improved body control and balance during my dance performances.	3.34	0.62	Average	2
10.The use of technology in my dance instruction has resulted in a decline in my dancing technique.	2.89	0.90	Average	9
COMPOSITE MEAN	3.27	0.53	Average	

Legend: 1.00-1.50: Strongly Disagree (Very Low); 1.51-2.50: Disagree (Low); 2.51-3.50; Agree (Average); 3.51-4.00: Strongly Agree (High)

When examining the effect of incorporating technology into dance performance in terms of technique, it is clear that participants typically have favorable impressions of the impact of technology. The statement "The use of technology enhances my ability to effectively detect and rectify technical faults" had the highest average score in this evaluation, with a mean of 3.35. This suggests that most participants believe that technology plays a key role in assisting them in identifying and rectifying technical imperfections in their dance, which is essential for enhancing their overall technique. The significance of this elevated average is that technology may be regarded as a beneficial instrument for evaluating oneself and honing skills in the realm of dance sports.

Conversely, the statement "The use of technology in my dance instruction has resulted in a decline in my dancing technique" is associated with the lowest average score of 2.89. Although the mean value remains higher than the midpoint of the scale, it implies that a small portion of participants may have apprehensions over the potential adverse effects of incorporating technology on their dance proficiency. Nevertheless, it is noteworthy that this average is rather low in relation to the other assertions, suggesting that this fear is not frequently held among participants. The underlying suggestion is that while technology is often seen as advantageous for improving skills, teachers and program architects should exercise caution to prevent it from unintentionally impeding skill development for some people.

The survey yielded a composite mean score of 3.29, suggesting that participants generally see technology as beneficial to their dance technique. These findings indicate that the dancing sports community has a positive perception of technology integration, recognizing its beneficial impact on enhancing technique. The significance of this discovery is that dance sports education programs may persist in investigating and using technology as a method to augment participants' technical abilities and overall performance. Instructors should ensure that technology is implemented in a smart and effective manner into their teaching techniques to maximize its advantages while addressing any possible problems that may emerge.

The research done by Jankorn, Prachanban, & Kusolwong (2021) examines the influence of integrating technology in a dance instruction model for undergraduate students in General Education. This study reinforces the existing evidence about the effects of technology integration in dance sports. The study's results support the present research by emphasizing that teaching approaches and models have a substantial impact on enhancing dancing abilities. Regarding the incorporation of technology, recent research indicates that technology may be a beneficial element in instructional models, assisting in the development of skills and improvement of performance.

Upon comparing, it becomes apparent that instructional models, regardless of whether they use technology or not, have the capacity to enhance dancing abilities and performance. Hence, dancing sports instruction programs need to contemplate using cutting-edge frameworks that integrate technology as a method to augment participants' proficiency. The incorporation of technology, as proven by the present research, may provide advantages in terms of enhancing techniques, aligning with the larger objectives of dance sports training. Thus, the research supports the notion that instructional models have a significant role in the development of dancing skills. The implications for dance sports education include that a strategic and cohesive teaching methodology, including technology where suitable, may result in enhanced dance proficiency and overall performance among participants.

3.2 Timing and Musicality

Table 8. Impact of the Integration of Technology on the Performance in terms of Timing and Musicality

Indicators	Mean	SD	Verbal Interpretation	Rank
1.The use of technology has significantly enhanced my ability to perceive and execute precise timing and melody within the realm of dance.	3.29	0.57	Average	5
2.The use of technology enables me to enhance the synchronization of my motions with the music.	3.33	0.56	Average	1
3.The use of technology enhances my ability to comprehend and articulate musical compositions with more efficacy.	3.30	0.59	Average	4
4.The incorporation of technology has resulted in enhancements to my timing and musicality.	3.31	0.58	Average	2.5
5.I have a heightened sense of synchronization with the musical beat and speed while using technological means.	3.31	0.55	Average	2.5
6.The use of technology facilitates the seamless practice of dancing across many music genres.	3.28	0.60	Average	6
7.The use of technology in my dance performance results in a deficiency in rhythm and musicality.	2.85	0.85	Average	10
8.The advent of technology has presented challenges in establishing emotional connections with music.	3.05	0.72	Average	7.5
9.I have difficulties in maintaining a constant temporal orientation when use technology.	2.90	0.77	Average	9
10.Regardless of the use of technology, my timing and musicality remain consistent.	3.05	0.69	Average	7.5
COMPOSITE MEAN	3.17	0.51	Average	

Legend: 1.00-1.50: Strongly Disagree (Very Low); 1.51-2.50: Disagree (Low); 2.51-3.50; Agree (Average); 3.51-4.00: Strongly Agree (High)

The effects of incorporating technology into sports dance on the timing and musicality of the participants' performances are outlined in Table 8. It generated a composite mean score of 3.17 and a standardized deviation of 0.51. The findings show that the respondents agree that the use of technology had moderate impact on their performance. They agree, in particular, that using technology allows me to improve the synchronization of my motions with the music (M = 3.33), that using technology has improved their timing and musicality (M = 3.31), and that using technology has increased their sense of synchronization with the musical beat and speed (M = 3.31). Moroever, they agree that using technology improves their ability to comprehend and articulate musical compositions more effectively (M = 3.30) and significantly improves their ability to perceive and execute precise timing and melody within the realm of dance (M = 3.29).

The statement "The use of technology enables me to enhance the synchronization of my motions with the music" has the highest mean score of 3.33. Participants have a firm belief that technology greatly contributes to enhancing the coordination of their dancing motions with the musical beat. Dance sports participants see technology as a beneficial tool for improving their timing and musicality in dance, as shown by the high mean.

Conversely, the statement "The use of technology in my dance performance leads to a lack of rhythm and musicality" is associated with the lowest average score of 2.85. Although this mean is somewhat lower than others, it still falls within the "average" range. On average, participants generally do not have a strong belief that technology has a detrimental impact on their rhythm and musicality in dancing. It suggests that most participants do not see technology as an obstacle in this regard.

In summary, the research found that dance sports participants generally perceive technology to have a beneficial effect on their performance in terms of timing and musicality, as shown by the composite mean score of 3.29. This favorable opinion is consistent with the notion that technology may serve as a beneficial tool in increasing dance performance by improving the synchronization with music and expanding the understanding of musical compositions.

The results suggest that incorporating technology into dance sports might serve as a valuable tool for dancers to improve their timing and musicality. Dance sports programs and training should use technology to enhance participants' synchronization with music and deepen their comprehension of musical compositions. Nevertheless, it is crucial to tackle any obstacles that participants may encounter in order to successfully use technology, hence preventing any adverse effects on their rhythm and musicality. In general, technology may serve as a significant resource in the endeavor to improve timing and musicality in dance sports performance.

Sun (2021) examines the use and advancement of multimedia technologies within the realm of dance in China. It emphasizes the increasing importance of technology and multimedia in dance, especially in difficult times like as the Covid-19 epidemic, when in-person dance activities were impacted by isolation and social distancing tactics. Dancers and dance instructors have progressively relied on the internet and digital media to sustain relationships and enhance dance communities. The study investigates the use of multimedia technology in dance performance and dance education, including the utilization of movies, projections, virtual reality, and interactive installations in performances and choreography. Within the realm of education, it explores the use of video, online courses, and audio to augment the instruction of dance.

This study provides significant reinforcement for the existing research on the influence of technology on dance

sports. The statement underscores the increasing significance of technology in many domains of dance, including both performance and teaching. The use of multimedia technology, including virtual reality and interactive installations, in dance performances is consistent with the research indicating that technology has a beneficial impact on the training methods and performance results of dance sports. Moreover, the focus on using multimedia, such as online courses, in dance education aligns with the notion that digital resources are influencing the techniques used in dance instruction.

The study suggests that incorporating technology, namely multimedia technology, into dance may improve both the artistic and educational elements of the art form. Dance sports may get inspiration from these advancements, by researching inventive methods to integrate multimedia technology into their training and performance techniques. Through this approach, individuals may effectively adjust to changing situations and consistently enhance the caliber of their training and performance, similar to the observations made in the realm of traditional dance. This study serves as a great reference for the prospective advantages and techniques for incorporating technology into the area of dance sports.

3.3 Posture and Alignment

Table 9. Impact of the Integration of Technology on the Performance in terms of Posture and Alignment

Indicators	Mean	SD	Verbal Interpretation	Rank
1.The impact of technology on my posture and alignment in dancing has been mostly beneficial.	3.30	0.55	Average	1.5
2.The use of technology may enhance my ability to effectively maintain correct posture and alignment.	3.30	0.55	Average	1.5
3.Technology plays a pivotal role in facilitating the identification and rectification of posture and alignment difficulties.	3.25	0.56	Average	4.5
4.There has been a notable improvement in my posture subsequent to the use of technology into my training regimen.	3.24	0.58	Average	6
5.I have an increased sense of self-assurance in keeping proper posture and alignment while using technological devices.	3.26	0.55	Average	3
6.The use of technology enables me to direct my attention towards certain facets of my posture and alignment.	3.25	0.56	Average	4.5
7.The use of electronics negatively impacts my posture and alignment.	2.82	0.85	Average	10
8.The advent of technology has presented challenges in maintaining a natural and relaxed posture.	3.04	0.71	Average	8
9.I encounter challenges in maintaining optimal alignment while using technology in my training endeavors.	2.99	0.73	Average	9
10.The maintenance of my posture and alignment remains consistent irrespective of the utilization of technology.	3.09	0.66	Average	7
COMPOSITE MEAN	3.15	0.50	Average	

Legend: 1.00-1.50: Strongly Disagree (Very Low); 1.51-2.50: Disagree (Low); 2.51-3.50; Agree (Average); 3.51-4.00: Strongly Agree (High)

Table 9 shows the effects of incorporating technology into sports dance on the posture and alignment of the participants' performances. The descriptive statistics revealed a composite mean score of 3.15 and a standard deviation of 0.50, implying that respondents agree that the impact of technology on their posture and alignment in dancing has been mostly positive (M = 3.30), that the use of technology may improve their ability to effectively maintain correct posture and alignment (M = 3.30), and that they have a greater sense of self-assurance in maintaining proper posture and alignment while using technological devices (M = 3.26). Similarly, it appears that they agree that technology is important in facilitating the identification and correction of posture and alignment issues (M = 3.25) and that it allows them to focus their attention on specific aspects of their posture and alignment (M = 3.25).

The research aimed to assess the influence of technology integration on the performance of dancing sports, specifically in relation to posture and alignment. The results provide useful insights into dance sports participants' perception of technology's influence on their posture and alignment while dancing. The findings demonstrate an overall optimistic perspective among participants, with the indicators 1 and 2 having the highest average values (3.30). This suggests that technology is widely seen as advantageous for improving posture and alignment. This demonstrates the capacity of technology to effectively contribute to assisting dancers in maintaining correct posture. Nevertheless, a significant issue arises from the lowest average score of 2.82 for indication 7, suggesting that some individuals hold the belief that electronics might adversely impact posture and alignment. This discovery implies the need of adopting a careful strategy when using electronic devices into dance instruction, highlighting the significance of guaranteeing that technology improves, rather than obstructs, posture and alignment. Moreover, the variation in reactions across many variables highlights the significance of tailored training methods, technological instruction, ongoing evaluation, and feedback systems within dance sports programs. These implications highlight the need of using technology's capabilities while minimizing any negative consequences in order to maximize posture and alignment in dance sports.

Blackler et al. (2018) explores the possibilities of self-service technologies (SSTs) in the field of dance-based fitness. Although not directly pertaining to dance sports, this study offers useful insights on the potential of technology, namely SSTs, to promote physical activity via dance. The results underscore the potential to create SSTs that enhance the acquisition of dance skills, enhance people' self-assurance,

and permit both individual and collective dance encounters. These results support the idea that technology has the ability to improve dance sports performance, particularly in terms of posture and alignment. The previous research highlights the significance of using technology to improve dance-based fitness by tackling logistical obstacles, increasing self-assurance, and fostering dance expertise and familiarity. When applied to dance sports, these results indicate that technology may also enhance performance outcomes, such as posture and alignment, by offering tools and resources that assist dancers in their training and skill advancement. It underscores the need of creating technology solutions that match the distinct demands and preferences of dance sports players, therefore maximizing the incorporation of technology into their training and presentations.

3.4 Frame and Connection

Table 10. Impact of the Integration of Technology on the Performance in terms of Frame and Connection

Indicators	Mean	SD	Verbal nterpretation	Rank
1.The use of technology has had a profound impact on enhancing both my physical form and interpersonal connection with my dancing partner.	3.28	0.53	Average	1.5
2.The utilization of technology facilitates the establishment and sustenance of a robust framework and connection.	3.28	0.57	Average	1.5
3.The utilization of technology enables me to effectively identify and rectify frame and connection issues with improved efficiency.	3.27	0.54	Average	4
4.The integration of technology with my training has resulted in noticeable improvements in both my overall frame and connection.	3.28	0.56	Average	1.5
5.I posit that technology has augmented the caliber of my physique and interpersonal bonds.	3.23	0.61	Average	7.5
6.The use of technology enhances the efficacy of my practice in frame and connection exercises.	3.25	0.59	Average	5.5
7.The impact of technology on my communication with my dance partner has been predominantly positive.	3.20	0.62	Average	9
8.I feel more secure in my frame and connection while incorporating technology in my training.	3.25	0.58	Average	5.5
9.The integration of technology has played a significant role in enhancing balance and synchronization within my relationship with my spouse.	3.23	0.60	Average	7.5
10.My frame and connection have worsened since I began utilizing technology in my training.	2.78	0.88	Average	10
COMPOSITE MEAN	3.20	0.51	Average	

Legend: 1.00-1.50: Strongly Disagree (Very Low); 1.51-2.50: Disagree (Low); 2.51-3.50; Agree (Average); 3.51-4.00: Strongly Agree (High)

Table 10 summarizes the impact of the integration of technology on the respondents' performance in terms of frame and connection. The descriptive statistics revealed a composite mean score of 3.20 and a standard deviation of 0.51, implying that sports dance participants agree that the use of technology has had a significant impact on improving both their physical form and interpersonal connection with their dancing partner (M = 3.28), that it facilitates the establishment and maintenance of a strong framework and connection (M = 3.28), and that it has resulted in noticeable improvements in both their overall frame and connection (M = 3.28). Additionally, they also agree that using technology allows them to more effectively identify and correct frame and connection issues (M = 3.27) and improves the efficacy of their practice in frame and connection exercises (M = 3.25).

The study's findings on the influence of technology integration on performance in frame and connection in dance sports provide useful insights into dancers' perception of technology's involvement in their practice. Out of all the indications, Item 1, which indicates that technology greatly improves both physical appearance and interpersonal relationships, obtained the highest average score of 3.28. This discovery highlights the beneficial impact that technology has on dance performance, specifically focusing on how it enhances physical presence and strengthens partner bonds. Nevertheless, it is crucial to take into account Item 10, which had the lowest average score of 2.78, suggesting that some dancers see a decline in their frame and connection as a result of technology use.

Initially, they emphasize the capacity of technology to serve as a means of augmenting dance performance, specifically in relation to physical embodiment and interpersonal rapport. Dancers and teachers may use technology to enhance their abilities and generate more cohesive performances. Furthermore, the results underscore the need of adopting a well-rounded strategy for incorporating technology. Although technology provides advantages, it should not dominate or supplant conventional training techniques. Dancers must preserve a strong grounding in the basic principles of dance while using technology as an auxiliary tool. Furthermore, the favorable average ratings in Items 7 and 8 indicate that technology has the potential to improve communication between dance partners and boost dancers' sense of safety in their posture and connection. This indicates a potential for technology to enhance the overall quality of dance collaborations.

To summarize, the research emphasizes the favorable and difficult elements of using technology into dance sports. This highlights the need of thoughtful deliberation when using technology, guaranteeing that it harmonizes with conventional training and improves the dancers' overall performance and rapport with their partners.

The research on dance movement recognition technology by Liu & Hu (2021), which utilizes multi-feature information

fusion, offers evidence to support the conclusions of frame and connection in dance sports. The study focuses on the incorporation of technology to examine and manipulate dance movement data acquired from various sensors. The project seeks to improve dance movement detection technology by using techniques such as structural risk reduction and picture thresholding.

Upon comparing this research with the results of the present study on frame and connection in dance sports, several implications become apparent. The use of multi-feature information fusion in dance technology underscores the capacity of technology to enhance several facets of dance performance, such as frame and connection. The integration of multisensory data may provide useful insights into the motions of dancers and their interaction with partners.

Furthermore, the research underscores the significance of sophisticated algorithms and data analysis approaches in the field of dance technology. Technological breakthroughs in dance recognition may enhance frame and connection in dance sports.

In conclusions, the study on integrating several features of information in dance technology supports the present results on the structure and connection in dance sports. It emphasizes the beneficial effects of incorporating technology into dance performances. This highlights the capacity of technology to improve dancers' skills and collaborations, emphasizing the need of a well-rounded approach to using technology in the field of dance sports`

3.5 Choreography

Table 11. Impact of the Integration of Technology on the Performance in terms of Choreography

Indicators	Mean	SD	Verbal Interpretation	Rank
1.The use of technology has significantly enhanced my ability to express originality in choreography.	3.28	0.57	Average	4.5
2.I can explore and experiment with new choreographic concepts more efficiently with technology.	3.29	0.55	Average	2.5
3.Technology lets me to visualize and develop my choreography more effectively.	3.32	0.56	Average	1
4.My choreographic abilities have increased thanks to technological integration.	3.25	0.59	Average	6
5.I feel more motivated and imaginative in crafting dance routines using technology.	3.29	0.55	Average	2.5
6.Technology helps me to readily capture and share choreographic thoughts.	3.28	0.56	Average	4.5
7.My choreography becomes less original and expressive when I depend on technology.	2.98	0.76	Average	7
8.Technology has hindered my capacity to produce distinctive and memorable routines.	2.87	0.83	Average	10
9.I struggle to preserve the emotional depth of my choreography while employing technology.	2.92	0.80	Average	9
10.My choreographic talents stay unaltered regardless of technological utilization.	2.93	0.77	Average	8
COMPOSITE MEAN	3.14	0.51	Average	

Legend: 1.00-1.50: Strongly Disagree (Very Low); 1.51-2.50: Disagree (Low); 2.51-3.50; Agree (Average); 3.51-4.00: Strongly Agree (High)

Table 11 summarizes the impact of the integration of technology on the respondents' performance in terms of their choreography, with a composite mean score of 3.14 and a standard deviation of 0.51. This implies that the respondents' assessment is average, and they agree that technology allows them to visualize and develop their choreography more effectively (M = 3.32), that technology allows them to explore and experiment with new choreographic concepts more efficiently (M = 3.29), and that technology makes them feel more motivated and imaginative when creating dance routines (M = 3.29). Similarly, they also agree that using technology has improved their ability to express originality in choreography (M = 3.28) and allows them to easily capture and share choreographic thoughts (M = 3.28).

The findings from the evaluation of the influence of technology on dance performance in relation to choreography unveil significant observations. The statement "Technology enables me to visualize and develop my choreography more effectively" has the highest average score of 3.32. Participants typically see technology as a beneficial tool for improving their capacity to conceptualize and create dance choreography. This outcome suggests that technology plays a crucial role in

facilitating dancers' artistic processes, enabling them to more effectively develop and strategize their choreographic concepts.

Conversely, the statement "Technology has hindered my ability to create unique and memorable routines" receives the lowest average score of 2.87. Some participants see technology as an obstacle to their creativity and the creation of distinctive and unforgettable dance performances. It implies that, for a certain group of dancers, technology could have restrictions or disadvantages that hinder their ability to express themselves via choreography.

The results have two implications. To begin with, technology may serve as a potent instrument for dancers, allowing them to conceptualize and enhance their choreography with more efficacy. This may result in the development of more inventive and eloquent dance routines, so enriching the creative process. Dance practitioners and instructors may promote the use of technology as an auxiliary instrument in choreographic pursuits.

Additionally, it is crucial to recognize that the influence of technology on choreography might differ across persons. While many dancers may get advantages from technology, others may see it as constraining or harmful to their creative process. Hence, it is imperative for dance experts to acknowledge the multiplicity of viewpoints and provide an equitable methodology that enables dancers to choose the degree to which they use technology into their choreography, while honoring their personal preferences and artistic requirements.

Sun (2021) offers significant perspectives on the ways in which technology might affect choreography. This study aligns with existing research on the effect of technology on dance performance. Sun's research emphasizes the growing reliance on technology and multimedia in the realm of dance, especially in response to the Covid-19 epidemic, which posed difficulties for conventional in-person dance activities due to isolation and social distancing measures.

An important finding from Sun's study is the investigation of how multimedia technology may be used in dance performance and teaching. This includes the use of movies, projections, virtual reality, and interactive installations. This is consistent with the current research indicating that technology improves dancers' capacity to conceptualize and refine their choreography with greater efficiency. Utilizing multimedia technology in dance performances enhances the choreographic experience by including visually stimulating and interactive aspects, resulting in increased innovation and engagement.

In addition, Sun's research highlights the significance of multimedia technology in dance education, including video, online courses, and audio, which facilitate the advancement of dance instruction. This aligns with the latest study results, which indicate that technology is seen as a helpful instrument for dance practitioners to augment their proficiency and ingenuity in choreography. The present research also suggests that technology might facilitate the sharing of choreographic concepts and ideas more easily.

The implications of these discoveries are substantial. The use of technology into dance may enhance and enhance the creative process, promoting originality, innovation, and engagement. Dance educators and choreographers may use the knowledge gained from these disciplines to effectively utilize multimedia technology in order to improve dance education and choreographic processes, especially in the context of advancing digital media. The convergence of dance and multimedia technology offers promising opportunities for the advancement of the art form, allowing dancers to showcase their ingenuity and uniqueness in choreography while adjusting to evolving technical environments.

7. Conclusion

1.Comprehending the demographic characteristics of individuals participating in dance sports is essential for customizing tactics for integrating technology. Given the predominance of female participants and the presence of different age groups, coaches and organizations should take into account the distinct requirements and preferences of these various cohorts when using technology into training.

2.Participants sporadically incorporate technology, demonstrating a readiness to embrace technological tools. Coaches and organizations could take advantage of this willingness to embrace new ideas by offering technological solutions that are easy to use and highly successful, while also being in line with the preferences of the participants.

3.The absence of notable disparities in technology integration evaluation based on gender, age, and academic levels implies that technology should be evenly included, accommodating all individuals irrespective of their demographic attributes.

4.The continuous and mild influence of technology on several elements of performance highlights its capacity to improve dance sports training. Coaches and players should fully use technology to enhance technique, timing, choreography, and other essential aspects.

5.Coaches encounter several obstacles, including restricted technology availability, financial limitations, language problems, and reluctance to embrace change. Organizations and governing bodies have to provide assistance systems, training initiatives, and resources to aid coaches in overcoming these obstacles and seamlessly incorporating technology into their coaching approaches.

8. Recommendations

1.Create thorough standards and optimal methods for using technology into dance sports training. These rules should be easily understandable by coaches, players, and organizations, providing explicit guidance on how to efficiently use different technology.

2.Develop training programs and seminars that specifically target the latest technology breakthroughs in dance sports. The objective of these programs is to cater to both coaches and players, providing them with the essential expertise and understanding to effectively use technology for enhancing performance.

3. Recognize the restricted availability of technology in remote regions and the cost limitations encountered by coaches and players. Facilitate the development and widespread distribution of cost-effective and accessible technological innovations that specifically address the distinct requirements of dance sports players across all geographical areas.

4.Overcome linguistic obstacles by facilitating the creation of translated iterations of technological tools and software used in dance sports. Ensure that language does not impede the adoption of emerging technology.

5.Establish financing avenues, grant initiatives, and collaborations with corporations and technical companies to

aid coaches and clubs in obtaining state-of-the-art technology. Financial limitations should not impede access to the advantages of technology.

6.Enhance awareness and advocacy efforts by organizing campaigns, seminars, and conferences that foster open dialogues among coaches, players, and technology developers. Present exemplary instances of sportsmen who have derived advantages from the use of technology to inspire others and tackle opposition towards adopting new methods.

7.Promote more investigation on the dynamic convergence of technology and dance sports. Keep abreast of developing technologies and their potential influence on performance to ensure that coaching approaches stay cutting-edge and efficient.

8.Continuously educate and assist coaches and players in comprehending and complying with competition restrictions pertaining to technology. Initiate direct lines of contact with competition organizers to address any ambiguities pertaining to the use of technology.

9.Ensure that technology integration projects are designed to be accessible and accommodating for dancing sports players of all demographic backgrounds. Customize technological solutions to cater to the distinct requirements and inclinations of individuals belonging to various genders, age groups, and academic degrees.

10.Facilitate cooperation among technology developers, dance sports professionals, and trainers to create solutions that effectively cater to the distinctive demands of the activity. Promote collaborations to enhance the area of dance sports via technological advancements.

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