WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Enhanced Strategy in Teaching Modern Dance among Grade 10 Students

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A B S T R A C T

This study aimed to determine the effectiveness of an Enhanced Strategy in teaching modern dance among Grade 10 students at Dayap National High School. Specifically, it aimed to assess students' performance in terms of cognitive skills through a 20-item multiple-choice post-test and motor skills through a performance task based on a rubric that evaluated creativity, synchronization, adherence to dance style, and overall performance quality. The Enhanced Strategy utilized a printed module combined with tablet-based video support, whereas the Conventional Strategy used the standard teacher-centered strategy. The research utilized a post-test-only control group design, with two distinct sections of students being exposed to one of the two teaching strategies. The results showed that the Enhanced Strategy group performed significantly better in both cognitive and motor tests than the participants in the Conventional group. Enhanced group students reported gains in their knowledge of hip-hop dance styles and created more quality and stylistically correct dance routines. A significant difference was observed in post-test scores between the two groups, favoring the enhanced strategy, as indicated by a statistically significant difference using the independent t-test. These results suggest that incorporating technology, such as instructional videos and structured modules, into dance instruction can enhance student engagement and learning. The integration of multimedia content not only supports theoretical understanding but also provides visual and kinesthetic reinforcement, which is crucial in a performance-based subject like Physical Education. Therefore, enhanced instruction should be considered in dance education to develop both cognitive and motor skills.

Keywords: Modern Dance; Enhanced Strategy; Conventional Strategy; Teaching Strategies; Cognitive Skills; Motor Skills; Hip-Hop dance; Performance Assessment; Physical Education

1. Introduction

Dance is a universal means of expression that serves as a language, transcending cultural and linguistic boundaries to convey stories, emotions, and ideas. From ancient rituals to modern contemporary performances, dance has played a significant role in human expression, allowing people from diverse backgrounds to connect through movement. In its very nature of being both a physical and an intellectual practice, it can be seen as a type of sensory response to the world, taking cognizance of the mind, body, and soul in ways unlike any other (White Space Global, 2024).

Modern dance is one of the many forms of dance, distinguished by its emphasis on improvisation, emotional depth, and freedom of expression. Developed in the early 20th century as a response to classical ballet, modern dance has evolved through the incorporation of contemporary motifs, ideologies, and life values. It encourages openness, individuality, and inclusivity, and thus is a relevant genre in today's educational sphere (Zhang, 2022; Britannica, 2024).

Within the spectrum of modern dance, hip-hop dance has evolved into a worldwide phenomenon associated with urban culture, characterized by its energetic and spontaneous nature, as well as its expressive qualities. Involving styles such as popping, locking, breaking, and krumping, hip-hop dance is a vibrant space for creativity, tenacity, and identity-building among young learners (Dance Vision, 2024). However, it is a challenge to teach hip-hop dance in a formal classroom setting, especially at the junior high school level, which raises instructional issues. Teachers need not only to impart technique, but also to put the cultural import of hip hop in a palatable and relevant context.

In dance training, emphasis is typically placed on rhythm, synchronization, and texture among other aspects. However, the movement texture, the subtlety of action, with which dancers dance, is vitally important for assessing professionalism and the effect of performance depending on movement texture (Zhang, 2023). However, many students and even instructors fail to see this dimension and become concerned with step accuracy or an alignment to music.

With the advancement of technology, dance education is experiencing a change. The implication of technology has led to a more engaging and accessible learning environment, not only for students. Current digital tools enable learners to experience choreography, receive immediate feedback, and create

something unique, which is not possible in traditional instruction (Wang, 2024). These technologies aim to cultivate not only technical skills but also artistic expression, teamwork, and critical thinking. Demands for 21st-century lesson-related characteristics.

Dance education is transforming due to the emergence of digital innovation. The introduction of technology has availed more interactive, convenient, and learner-centered learning spaces. Digital resources, ranging from mobile apps to virtual reality platforms, can today enable learners to experiment with choreography and receive instant feedback, as well as develop creative routines – features that traditional instruction cannot guarantee (Wang, 2024). These tools not only develop technical abilities but also foster artistry, teamwork, and critical thinking, all of which are essential in 21st-century education.

Despite the growing significance of modern hip-hop dance as part of the school curriculum, there remains a lack of research on effective teaching methods for Grade 10 students. Although previous studies have explored general tendencies in the field of dance education or focused on higher education, there is a lack of literature on the influence of technology-enhanced and learner-centered approaches on the performance of younger learners, from both cognitive and physical performance perspectives.

This gap is what this study aims to address by examining the effectiveness of an enhanced strategy in teaching both modern dance and hip-hop to Grade 10 students. While comparing it with the standard method, the study aims to determine if this approach can enhance students' understanding of dance and motor performance. The findings are expected to make worthy contributions to the innovation of inclusive and effective strategies in dance education at the secondary level.

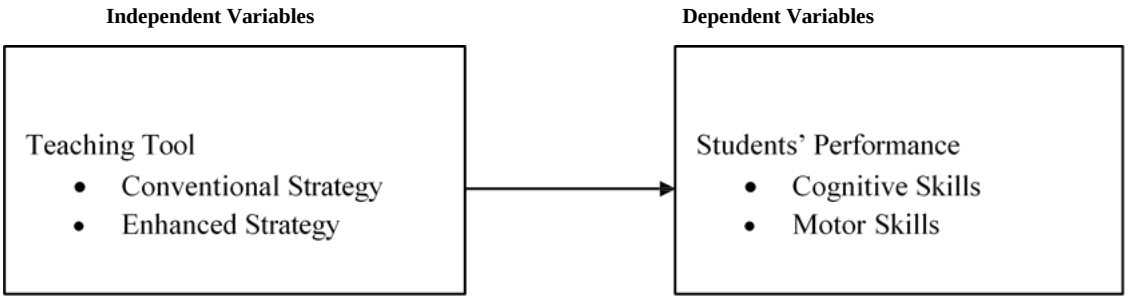

Figure 1: Research Framework

2. Research Problem

This study sought to answer the following questions:

1. What is the performance score of the respondents in terms of cognitive skills after being taught using the:

   1.1. conventional strategy;

   1.2. enhanced strateg

2. What is the performance score of the respondents in terms of motor skills after being taught using the:

   2.1. conventional strategy;

   2.2. enhanced strategy

3. Is there a significant difference in the post-test performance scores of the respondents between the Conventional Strategy and the Enhanced Strategy in terms of:

   3.1. cognitive skills;

   3.2. motor skills

3. Materials and Methods

This research employed a two-group post-test-only design to evaluate the impact of two teaching strategies—Conventional Strategy and Enhanced Strategy—on student performance in modern dance. The post-test approach focused on assessing the cognitive and motor skills of Grade 10 students after they had been exposed to either of the two strategies. Cognitive skills were measured through a multiple-choice format, while motor skills were evaluated through a performance task. This design avoided the influence of pre-test exposure, ensuring that observed differences were solely attributable to the teaching methods applied during the intervention. By exclusively analyzing post-test results, the study provided an objective comparison of the two strategies.

The research was conducted with Grade 10 students from Dayap National High School – Main, who were specifically selected for their engagement in the modern dance curriculum under the K-12 framework. This setting enabled the study to capture authentic insights into how the teaching strategies influenced student outcomes in a practical educational environment. The primary aim was to determine whether significant differences existed in the

post-test scores of students taught using the Conventional Strategy compared to those taught with the Enhanced Strategy. By focusing on both cognitive and motor skills, the study evaluated the comprehensive impact of each instructional method. This two-group post-test-only design provided a straightforward and effective means of assessing the efficacy of teaching strategies. It ensured that the results reflected the direct effects of the interventions without the confounding impact of pre-test factors. The findings offered valuable evidence to guide educators in selecting and implementing effective teaching methods for modern dance, enhancing students' learning experiences and performance outcomes.

This study was conducted within the DepEd Calauan Sub-Office, Calauan, Laguna. The study population consisted of eighty (80) Grade 10 students from Dayap National High School in the District of Calauan, Laguna, during the Third Quarter of the 2024-2025 school year. The study involved two existing sections, each with forty (40) students, with one section being taught using the Conventional Strategy and the other using the Enhanced Strategy. The respondents of this study were selected using purposive sampling, focusing on Grade 10 students enrolled in regular, heterogeneous Physical Education classes at Dayap National High School. These students were chosen because of their direct involvement in the modern dance component of the physical education curriculum, making them suitable participants for evaluating the effectiveness of the two different teaching strategies. The two sections were compared based on their performance after the intervention, which allowed for an analysis of the impact of each teaching strategy on students' motor and cognitive skills in modern dance.

The research instrument used in this study consisted of a post-test, a motor skills activity, and a performance rubric designed to evaluate the effectiveness of teaching strategies in modern dance, particularly hip-hop. The post-test assessed students' cognitive understanding of hip-hop dance through a series of 20 multiple-choice questions, focusing on foundational knowledge, dance styles, and cultural relevance. This established a baseline for students' knowledge and helped determine areas for improvement.

The motor skills activity, "Hip-Hop Groove: Pop it! Lock it! Move It!", evaluated students' practical application of hip-hop dance techniques. Students were tasked with creating and performing a 40- to 1-minute group routine that incorporated at least three hip-hop styles, such as popping, locking, or breaking. Their performances were evaluated using a rubric that assessed creativity, synchronization, adherence to style, and overall quality of performance. This activity provided insight into students' psychomotor skills, creativity, and teamwork. Together, the post-test and motor activity aligned with the study's goal of comparing traditional and enhanced teaching strategies. The cognitive and performance-based data gathered helped identify the strengths and weaknesses of the teaching approaches, offering valuable insights into improving dance pedagogy in the K-12 curriculum. This instrument ensured a holistic assessment of students' knowledge and skills in modern dance.

The researcher focused on Grade 10 students from Dayap National High School – Main as the primary respondents for this study. The topics covered in the study were based on the learning competencies outlined in the K-12 curriculum, specifically the competencies related to modern dance. These competencies guided the content of the study to ensure that it aligned with the academic expectations for students in modern dance as prescribed by the Department of Education. The researcher ensured that the teaching strategies implemented – Conventional Strategy and Enhanced Strategy were tailored to the competencies of the third quarter to provide a focused and relevant analysis.

Before conducting the study, the researcher sought consent from the offices of the GSAR Dean and the School Principal for approval to conduct the research. This included submitting a research proposal outlining the purpose, methodology, and expected outcomes of the study. Once permission was granted, the researcher administered the pre-test and post-test to the selected Grade 10 students to assess their cognitive skills using a multiple-choice format and motor skills through a performance task. The students and teachers were informed about the purpose of the study, confidentiality, and their voluntary participation in the study.

After the students had completed the post-test and performance task, the researcher evaluated students' post-test performance and analyzed any changes in their cognitive and motor skills. Data were carefully analyzed to assess the effectiveness of the teaching strategies on student performance in modern dance. Throughout the process, ethical standards were consistently upheld, ensuring respect for the rights and confidentiality of all participants.

The data collected in this study were based on the post-test performance scores of students, measured through a 20-item multiple-choice test to assess cognitive skills and a performance task evaluated through a standardized rubric to assess motor skills. These assessments were administered after the intervention using either the Conventional Strategy or the Enhanced Strategy. Descriptive statistics, including frequency counts, percentages, mean, and standard deviation, were used to summarize the post-test results. These statistics provided a general overview of student performance in both cognitive and motor skills for each group. To determine whether there were significant differences between the two teaching strategies, an independent samples t-test was employed. This statistical test compared the post-test scores of the two independent groups (Conventional Strategy vs. Enhanced Strategy) in terms of their cognitive and motor skills. The results were used to assess the effectiveness of the instructional methods. All inferential analyses were conducted at a 0.05 level of significance. A p-value of 0.05 or less was interpreted as statistically significant, indicating that the observed differences in performance could be attributed to the teaching strategy rather than to random chance.

4. Result and Discussions

Table 1

Post-test Performance Score of the Student using Conventional Strategy and Enhanced Strategy in terms of Cognitive Skills

Conventional		**Enhanced**			
Scores	**Cognitive Scores**		**Cognitive Scores**		**Verbal Interpretation**
	f	*%*	*f*	*%*	
18-20	0	0	7	17.5	Advanced
15-17	10	25	5	12.5	Proficient
11-14	15	37.5	19	47.5	Approaching Proficiency
6-10	15	37.5	7	17.5	Developing
0-5	0	0	2	5.0	Beginning
TOTAL	40	100	40	100	

The ability of students using the Conventional Strategy differed in squares, with a peak of learners in the middle bands, particularly in the Approaching Proficiency and Developing bands. This category demonstrates that while students could master the basics of what it means to dance, many of them struggled to achieve this at any level of proficiency, indicating that they either did not understand the concept on a deeper level or were unable to utilize those concepts in various situations. The relatively small numbers in the Advanced group also indicate that the traditional lecture-demonstration teaching method may not be as effective for teaching critical thinking, creative interpretation, and the essential skills of a modern dance teacher.

Table 1 demonstrates that the majority of students in the Conventional Strategy achieved proficient scores in the intermediate grade. 37.5 percent of students earned a score between 11 and 14 on the Approaching Proficiency level and between 6 and 10 on the Developing level. The Proficient (15–17 points) and Advanced levels were not achieved by any students, with only 25% of students reaching this level. The absence of high-flyers suggests that the traditional lecture-demonstration method is ineffective in nurturing mental development. This pattern of distribution indicated that many students (75%) were in the medium to lower levels of cognitive status. The lack of students in the Advanced category reveals constraints in promoting profound understanding, critical thinking, and creative ideas. This observation is consistent with the findings from Tayong and Galleto (2021), which revealed that typical teacher-centered approaches impede higher-order cognitive activities but encourage cramming for exams. However, while students are able to maintain the key ideas, they struggle with transferring and integrating these into the performance-based dance.

This pattern bolsters the notion that the traditional route toward learning about dance can offer their pupils foundational knowledge. However, it may fail to equip them with the analytical and creative capabilities necessary to teach it. The organized and teacher-driven methods employed might lean towards passive learning, with students relying more on lectures than engaging with the content. The Enhanced Strategy group, however, exhibited a more promising and diverse pattern of cognitive performance. A higher percentage of students reached the top two levels, Proficient and Advanced, indicating that they could better understand and work with the ideas. That not only indicates that the students retained more but also that they grasped more abstract concepts, like musical phrasing, spatial awareness and choreographic intention.

A remarkable 47.5% travelled the distance to Approaching Proficiency, with 17.5% on the Advanced side and 12.5% ending up requiring Proficient. Less than 17.5% of the children stayed at the Developing level, and 5% were placed at the Beginning level. These results indicate that using printed modules and a tablet-based video aid is a suitable model, as it allows students to work at their own pace, visualize topics, and review material. The Enhanced Strategy resulted in more students in the higher categories than the Conventional Strategy, with 30% of students being skilled or advanced. There was a slight decrease in the number of pupils placed in the Developing or Beginning range. The results suggest that multimedia-enhanced instruction supports various cognitive processes and improves content retention, particularly when students can visually access the information, as confirmed by Fadel et al. (2019) in their study.

This trend is consistent with the notion that the Enhanced Strategy went beyond simply providing information to students and allowed them to review materials, re-watch dance demonstrations, and actively make sense of what they were learning, which relies on working (Lindsay et al., 2018; Pashler et al., 2007). These are the Key Components of Creating Learning that Matters. Students in this strategy focused mainly on self-assessment and reflection on the course of activities from the video materials, which thus reinforced the internalization of dance skills and theory.

The Enhanced Strategy outperformed the Conventional Strategy in helping students enhance their cognitive capacities, as evidenced by a greater number of students achieving higher performance levels. Both groups had many learners who fell under the “Approaching Proficiency” level, but the Enhanced Strategy was more effective at raising learners to the “Advanced” and “Proficient” levels. The Enhanced Strategy helped spread high-achieving students with disparate cognitive abilities across the grades, while the Conventional Strategy clumped most of the students in the middle. This shows that the Enhanced Strategy was more successful in promoting the higher order thinking skills necessary for understanding dance.

In general, the findings on cognitive performance indicate that dance teachers should adopt technology-based and student-centered approaches. The Enhanced Strategy provided students with more opportunities to engage, go at their own pace, and see things from various vantage points. It helped them understand and think critically about the material, and that translates into better academic and performance experiences.

Table 2

Post-test Performance Score of the Student using Conventional Strategy and Enhanced Strategy in terms of Motor Skills

Conventional		**Enhanced**			
Scores	**Motor Scores**	**Motor Scores**	**Verbal Interpretation**		
	f	*%*	*f*	*%*	
27-30	24	60	35	87.5	Advanced
24-26	16	40	5	12.5	Proficient
20-23	0	0	0	0	Approaching Proficiency
15-19	0	0	0	0	Developing
0-14	0	0	0	0	Beginning
TOTAL	40	100	40	100	

Post-test performance in motor skills is a crucial indicator of how students apply the concepts taught in dance. In this sense, motor skills refer to the level at which pupils can demonstrate control, coordination, rhythm, stage presence, and expressive movement in hip-hop dance. A comparison of the students' performance levels in both groups indicates that the teaching method used was a significant factor contributing to the depth and quality of the students' performance.

The Traditional Strategy resulted in all students achieving the basic proficiency standard, and the entire group fell into the categories of Proficient or Advanced. This indicates that the teacher-centered approach was practical in teaching students to execute correct movements with technical control. The essence of past repetition and physical action, which is typical of systemic learning, may have contributed to it. They were able to practice a repetitively taught routine and develop muscle memory, synchronization, and execution.

Table 2 shows that 60% of students who used the Conventional Strategy achieved Advanced motor performance (27-30 points), while 40% scored Proficient (24-26 points). This indicates that, although the teacher-dominated approach resulted in some improvement in outcomes, it lacked sufficient flexibility and engagement to achieve the best possible integration of creativity in movement. This result indicates that backward chaining experimental manipulations were effective in instigating changes in students' execution, control, and total motor performance. There were no students who failed to achieve competence. Flores and Ancho (2020) highlight that traditional methods often value repetition and accuracy. The repetition item is important for physical activity, but it may not be enough to generate expressive motion and skills for self-learning, as these are essential features for dance.

From an interpretive perspective, this absence of pupils falling into lower levels is commendable; however, it also suggests a ceiling effect, wherein only a proportion of the cohort reached peak expressivity. This teacher-driven approach may have led to a technically proficient performance, but it may have restricted the pupils' opportunity to interpret dance more freely or design their material. Movement has been achieved, but the expressive or performance dimensions of dancing may have been somewhat undervalued.

On the contrary, those employing the Enhanced Strategy showed even greater proficiency. Most students fell within the highest performance range, and none were in the lower ranges. This highlights the role the Enhanced Strategy played in creating a social context that ensured the students not only copied the exercises in a regulated manner but also performed with energy, rhythm, and dynamic presence. In general, students appeared more confident and invested in their choreography, likely due to the regular access to high-quality video displays and the flexibility inherent in modular learning.

Students in the Enhanced Strategy condition demonstrated a substantially higher level of motor performance. 87.5% received an Advanced level rating, and 12.5% received a Proficient rating. None fell in the lowest-performing bands. ES advanced a higher percentage of students to the highest possible criteria level, suggesting that it allowed for more advanced performance, with greater attention to timing, rhythm, energy, and stage presence. This marked increase suggests that the technology-infused method enhanced students' kinesthetic understanding and ability to perform complex choreography. Based on the study by Mendoza and Isip (2021), Visually Learning with Video Aids Leads to Good Modeling, Practice, and Application of Technique, Rhythm, and Synchronicity.

The performance level of the Enhanced group indicates that the tools were used (i.e., instructional videos, organized printed modules), allowing students to independently practice, review , and critique their performance outside of the classroom. These tools enabled students to self-regulate and work at an individual pace, leading to more deliberative and coordinated movement. It was beneficial for the students as well, as it taught them the concepts and then demonstrated the performance of those concepts with proper meaning.

Both therapies were effective in improving motor functioning. The Enhanced Strategy, however, was significantly better, increasing the proportion of students at the Advanced level by more than 27.5 percentage points. While both methods produced good motor skill performance, the Enhanced Strategy

was more proficient in yielding Advanced-level performers. It also allowed the group to perform choreography and execution at a higher standard of confidence and stage presence. This indicates that the introduction of video demonstrations and guided modules enhanced not only the technical quality but also the accuracy of performance and the overall experience.

More comprehensively, the Enhanced Strategy not only promoted learners' technical competence but also stimulated learners' self-strategies to learning as well. It created an ecosystem where students could watch, play, grow, and move. Not steps, really, but steps and their reason for being. The audience was therefore treated to technically proficient and integrated performances, which also conveyed an added emotional impact. Consistent with constructivist theories, these learning conditions fostered active engagement in experience and reflection, yielding a more expansive motor skill experience.

Table 3

Test of Difference between the Post-test Performance of the Conventional Strategy and the Enhanced Strategy in terms of Cognitive skills

Group	**Mean**	**SD**	**t**	**df**	**Sig. (2-tailed)**	
Conventional	11.93	3.48				
Enhanced	13.08	3.83	-1.406	78	0.164	Not Significant

Legend: Sig (2-tailed) ≤ .05 (Significant); Sig (2-tailed) ≥ .05 (Not significant)

Although both groups demonstrated adequate performance, the distribution of students across cognitive performance levels reveals notable distinctions. In the Conventional Strategy group, students predominantly clustered in the "Developing" and "Approaching Proficiency" categories. This pattern suggests that while foundational knowledge was delivered, students struggled to elevate their understanding toward more analytical or critical thinking levels. Their responses may have been shaped more by recall than by interpretation or application—likely a consequence of the predominantly lecture-demonstration style of instruction, where learning is often passive and teacher-directed.

On the other hand, the Enhanced Strategy group revealed a broader and more promising distribution. A greater number of students attained the Proficient and Advanced levels, demonstrating not only their grasp of the content but also their ability to think more deeply and independently. These students likely benefited from being able to view the video demonstrations repeatedly, reflect on module content, and proceed at their own learning pace. The presence of visual and self-paced learning materials enabled learners to form more personal and meaningful connections with the lesson content, which supports deeper cognitive processing.

As presented in Table 3, the independent samples t-test revealed that the mean cognitive score of the Enhanced Strategy group (M = 13.08, SD = 3.83) was slightly higher than that of the Conventional Strategy group (M = 11.93, SD = 3.48). However, the p-value = 0.164, which is greater than 0.05, indicates that this difference was not statistically significant. While there was improvement, it is not strong enough to confirm the strategy as a sole factor for better cognitive performance.

Despite the lack of statistical significance, this shift in performance level distribution should not be disregarded. It implies a directional trend in favor of the Enhanced Strategy, where more students are transitioning from merely understanding to analyzing and applying knowledge. Exposure to multimedia tools and autonomy to revisit learning materials may have led to richer concept formation, especially in students who required more time or multiple sensory inputs to process information effectively. This individualized learning pace contrasts with the rigidity of conventional methods, which often assume that all learners can absorb content uniformly during a single session.

This result implies that while students under the Enhanced Strategy showed better average performance, improvement may have occurred by chance. Short- term interventions using multimedia may not always produce statistically significant cognitive gains unless they are sustained and consistently reinforced (Jimenez & Reyes, 2021; De Guzman et al., 2020). Therefore, although the Enhanced Strategy showed a positive trend, it did not significantly outperform the Conventional Strategy in enhancing cognitive skills within the timeframe of this study.

It is also important to consider that cognitive growth, particularly in the context of modern dance, is a gradual and cumulative process. It relies not only on exposure to content but also on opportunities for discussion, critical reflection, and application. The lack of significant difference may reflect the relatively short exposure time to the Enhanced Strategy rather than the ineffectiveness of the method itself. Had the intervention spanned a more extended period or included formative assessments and feedback cycles, the cognitive gap between the two groups may have widened more clearly.

Furthermore, the learning environment in which the strategies were applied may also have influenced cognitive outcomes. The Enhanced Strategy promotes more learner-centered experiences, enabling students to take the initiative and assume responsibility for their learning. This sense of autonomy can enhance intrinsic motivation, an important factor in deep learning. In contrast, conventional instruction often maintains a controlled classroom structure, which may result in more compliant but less cognitively engaged learners.

In conclusion, while the statistical analysis did not yield a significant difference in cognitive scores, the shift in performance levels observed under the Enhanced Strategy suggests a meaningful pedagogical advantage. More students reached higher-order cognitive categories, and fewer remained in the lower bands, pointing to the potential of multimedia-integrated instruction to support complex cognitive development. This highlights the need for future implementations to span more extended periods and incorporate continuous feedback mechanisms. With such adjustments, the Enhanced Strategy may not only lead to observed trends in improved cognition but also to significant and lasting academic impact.

Table 4 presents the results of the independent samples t-test conducted to determine whether there is a significant difference in the motor skill performance of students taught using the Conventional Strategy and the Enhanced Strategy. The comparison encompasses specific components of motor performance, including choreography and execution, technique and body control, rhythm and musicality, performance and expression, effort and energy, overall impact and presentation, and the overall motor skills score.

Table 4

Test of Difference between the Post-test Performance of the Conventional Strategy and the Enhanced Strategy in terms of Motor Skills

Motor Skills	Group	Mean	SD	t	df	Sig. (2-tailed)	Interpretation
Choreography & Execution	Conventional	4.08	0.27	-2.156	78	0.034	Significant
	Enhanced	4.25	0.44				
Technique & Body Control	Conventional	4.78	0.42	-1.172	78	0.245	Not significant
	Enhanced	4.88	0.33				
Rhythm & Musicality	Conventional	4.60	0.50	-2.575	78	0.012	Significant
	Enhanced	4.85	0.36				
Performance & Expression	Conventional	4.28	0.45	-0.483	78	0.631	Not significant
	Enhanced	4.33	0.47				
Effort & Energy	Conventional	4.75	0.44	-2.156	78	0.034	Significant
	Enhanced	4.93	0.27				
Overall Impact & Presentation	Conventional	4.30	0.46	-0.238	78	0.812	Not significant
	Enhanced	4.33	0.47				
Overall Motor Skills	Conventional	26.78	1.49	-2.636	78	0.010	Significant
	Enhanced	27.55	1.11				

Legend: Sig (2-tailed) ≤ .05 (Significant); Sig (2-tailed) ≥ .05 (Not significant)

In terms of choreography and execution, the Enhanced Strategy group obtained a higher mean score (M = 4.25, SD = 0.44) compared to the Conventional Strategy group (M = 4.08, SD = 0.27). The p-value of 0.034 indicates that this difference is statistically significant. This suggests that students who had access to video demonstrations and modular instructions were able to perform routines more precisely, with better timing and structure. Meanwhile, for technique and body control, although the Enhanced Strategy group (M = 4.88, SD = 0.33) still had a higher mean than the Conventional group (M = 4.78, SD = 0.42), the difference was not statistically significant (p = 0.245). This implies that both strategies were comparably effective in helping students develop technical control and balance during dance performance.

A more noticeable difference was observed in rhythm and musicality, where the Enhanced group (M = 4.85, SD = 0.36) significantly outperformed the Conventional group (M = 4.60, SD = 0.50), with a p-value of 0.012. This indicates that exposure to synchronized video routines likely improved students' timing, beat recognition, and ability to move in harmony with music. On the other hand, performance and expression did not differ significantly between the two groups, with a p-value of 0.631. This suggests that students from both groups expressed similar levels of emotional delivery and stage expression, which may be attributed to individual personality or confidence levels rather than the teaching method.

Another significant finding emerged in terms of effort and energy, where the Enhanced Strategy group (M = 4.93, SD = 0.27) again outperformed the Conventional group (M = 4.75, SD = 0.44), and the difference was statistically significant (p = 0.034). This implies that students who were taught using the Enhanced Strategy likely felt more engaged and motivated, leading to more dynamic and energetic performances. In contrast, the category for overall impact and presentation showed very minimal difference between groups (p = 0.812), with both groups obtaining nearly the identical mean scores (Enhanced: M = 4.33, SD = 0.47; Conventional: M = 4.30, SD = 0.46), indicating that their overall stage presence, projection, and group sync hrony were relatively equal. Lastly, the test for overall motor skills yielded a statistically significant result, with the Enhanced Strategy group (M = 27.55, SD = 1.11) outperforming the Conventional group (M = 26.78, SD = 1.49), as indicated by a p-value of 0.010. This suggests that the Enhanced Strategy was more effective in developing comprehensive motor performance, integrating accuracy, rhythm, energy, and execution.

In conclusion, the results indicate that the Enhanced Strategy had a significant positive effect on several key aspects of motor skills, including choreography and execution, rhythm and musicality, effort and energy, and overall motor performance. The Enhanced Strategy group outperformed the Conventional group in these domains, confirming the effectiveness of video-based learning in refining technical accuracy, rhythm retention, and expressive energy. As noted by Panis and Sulabo (2022) and De las Peñas et al. (2022), interactive tools such as video modelling significantly improve learners' motor performance and engagement in physical tasks. These findings demonstrate the instructional advantage of integrating printed modules with tablet-based video aids, particularly in performance-based subjects like dance. However, there were no significant differences in technique and body control, performance and expression, and overall impact and presentation, which suggests that some elements of dance performance may develop similarly

under both strategies and could be more influenced by personal traits, prior experience, or time spent practicing, regardless of the specific strategy employed.

5. Conclusions

The study's findings show that the use of the Enhanced Strategy, which combines printed modules with tablet-based video aids, was more effective in improving the motor skills of Grade 10 students in modern dance. Although students also showed better cognitive scores under the Enhanced Strategy, the improvement was not statistically significant. Therefore, the research hypothesis stating there is no significant difference in performance between the two strategies is partially sustained—it holds for cognitive skills but not for motor skills.

6. Recommendations

It is suggested that the Enhanced Strategy be adopted and expanded by all stakeholders to improve modern dance teaching and learning and further the all- round development of students' motor ability and cognitions. Teachers are encouraged to teach using performance-based methods by instruction using printed modules and support on tablets with videos, thus enhancing students' execution, rhythm and energy. Master Teachers should enhance the cognitive aspect of instruction by integrating reflective choices and analysis in lesson plans. The School Heads are encouraged to institutionalize this approach over time throughout the curriculum to ensure maximum perennial effect. Parents and guardians have the opportunity to encourage students to dance and know the benefits of dance education in the body. Finally, researchers are invited to deepen these effects with different variables, contexts and educational levels, in order to broaden its transfer in Physical Education.

Acknowledgements

This study would not be feasible without the help and participation of a significant number of people. The researcher would like to extend her appreciation and gratitude to those who contributed to the success of this study. To the following people who provided inspiration and encouragement to pursue this study, for their help and professional support in overcoming the obstacles and difficulties encountered while completing this research.

The ultimate savior, ALMIGHTY GOD, whose wisdom knows no bounds and whose mercy is everlasting, had granted this researcher guidance and understanding throughout the journey. The guidance and enlightenment that He has bestowed upon him are excellent.

Her Alma Mater, LAGUNA STATE POLYTECHNIC UNIVERSITY, deserves high praise for cultivating excellence within its halls and nurturing inquisitive minds. This institution encourages everyone to sharpen their talents and unlock their full potential, serving as a beacon of opportunity.

DR. MARIO R. BRIONES, President of Laguna State Polytechnic University and Chairman of the panel, for his unwavering dedication towards the development of Graduate Studies at Laguna State Polytechnic University.

ATTY. RUSHID JAY S. SANCON, Vice-President for Academic Affairs, for giving valuable support and encouragement in keeping the university's mission and vision prospering.

PROF. JOEL M. BAWICA, Campus Director of Laguna State Polytechnic University, for the chance to experience and enjoy a master's degree education in this institution.

DR. EDILBERTO Z. ANDAL, Dean, College of Teachers' Education, Graduate Studies and Applied Research, for his continuous support and for pursuing the educators' growth as professionals.

DR. ROGER A. GIMPAYA, her adviser, for steadfast support and professional guidance, for his patience in extending his precious time, motivation, and enormous knowledge. His guidance helped the researcher with her research writing.

Ms. Aliza Mari F. Landig, her subject specialist, has supported the study and actively provided academic time to share her expertise and knowledge by offering ideas, motivation, and recommendations to improve this study.

A/PROF. ANGELA L. REGINALDO, her statistician, for meticulously analyzing the data, making it comprehensible, and for providing encouragement, which taught the researcher more than she could ever give her credit for.

MR. JOHN VINCENT C. ALIAZAS, her technical editor, for sharing his expertise and knowledge, valuable recommendations, and criticisms throughout this study, and for answering numerous questions patiently.

DR. EVELYN P. NAVIA, Principal of Dayap National High School, for her permission to conduct the study on Junior High School Students of DNHS and for her moral support and motivation to the researcher.

The researcher also extends her appreciation to DR. ERNESTO V. DE LOS REYES, MR. CRISALDY MACASINAG and MR. RICHARD QUESEA for sharing their precious time and expertise in validating the research instruments and providing significant comments as well as suggestions in the efficient administration and implementation of the study.

Her JUNIOR HIGH SCHOOL LEARNERS, for being part of the study as respondents, and for their cooperation, which encouraged the researcher to finish the study. Her COLLEAGUES and FRIENDS who stood by her throughout her journey, SIR BENMARK JOY A. CUVINAR, MA'AM IRISH MAE T. MOLINA, and MA'AM JODIE ANNE R. AVILA, thank you very much.

Her parents, Papa ELMER, Itay DIONY, Mami AMY, and her siblings, for all the prayers and for being incredibly supportive and encouraging during the time that the researcher needed it the most. This would not have been possible without their support, for nurturing her, for loving and guiding her in whatever she pursues.

Her husband, JOHN PAUL O. HERNANDEZ, serves as an inspiration and strength to the researcher, for supporting spiritually, physically, mentally, and financially to finish this master's degree.

To all the wonderful people whose names were not mentioned but who, in one way or another, have contributed to her success in this study.

References

Adams, A., Belcher, D., Jenkins, A. A., & Goad, T. (2025). Utilizing video feedback for effective motor skill learning in online physical education.

International Journal of Kinesiology in Higher Education, 9(1), 14–30. https://doi.org/10.1080/24711616.2024.2421764

Anderson, R. C., Christenson, S. L., & Reschly, A. L. (2021). Engaging students: The role of motivation and participation in learning. *Contemporary Educational Psychology, 66*, 101973.

Arrieta, C. (2019). Understanding K–12 curriculum in the Philippines. *The Learning Network.* https://www.learningnetworkph.com

Britannica, T. Editors of Encyclopedia. (2024, January 25). Modern dance. *Encyclopedia Britannica*. https://www.britannica.com/art/modern-dance Brown, J. (2019). *Foundations of traditional education.* Academic Press.

Brown, T. (2017). Demographic factors and their influence on teacher effectiveness: A comprehensive review. *International Journal of Education and Development, 45*(2), 101–115.

Chand, D. (2024). Constructivist learning theory and educational practice. *Journal of Educational Perspectives, 29*(1), 12–21.

Chand, S. (2024). Constructivism in education: Exploring the contributions of Piaget, Vygotsky, and Bruner. *International Journal of Science and Research, 12*, 274–278. https://doi.org/10.21275/SR23630021800

Chien, T., & Lee, C. (2017). Survey of the effects of teaching strategies on student learning and performance in physical education. *Journal of Physical Education and Sports Management, 8*(1), 45–59.Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.

Cox, E. (2019, July 29). Experiential learning and learning styles. *Oxford Research Encyclopedia of International Studies*. https://oxfordre.com/internationalstudies/view/10.1093/acrefore/9780190846626.001.0001/acrefore-9780190846626-e-175

Culajara, C. J. (2021). Competency level of MAPEH teachers in teaching performing arts based on K to 12 curriculum in secondary public schools.

Instabright International Journal of Multidisciplinary Research, 3, 23–36. https://doi.org/10.52877/instabright.003.02.0036 Dance Vision. (2024, February 23). What is hip-hop dance. *Dance Vision*. https://blog.dancevision.com/what-is-hip-hop-dance

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science, 24*(2), 97–140.

Dela Cruz, R., & Reyes, M. (2021). The impact of teaching experience on the adoption of new teaching methods in dance education in physical education.

Journal of Philippine Educational Studies, 18(3), 105–118.

Department of Education. (2016). *K–12 curriculum guide: Arts and physical education*. https://www.deped.gov.ph

Department of Education. (2019). *K to 12 curriculum guide: Physical education*. https://www.deped.gov.ph/wp-content/uploads/2019/01/PE-CG.pdf Dwidarti, F., Zamzani, Z., & Prabowo, M. (2025). Multimedia-based dance learning in elementary school. *Journal of Education and Learning (EduLearn),*

19(1), 515–521. https://doi.org/10.11591/edulearn.v19i1.21795

Espino, R. E. (2017). Competency of MAPEH teachers. *Panay News*. https://www.pressreader.com/ philippines/panaynews/20170310/281951722616115 Gabbard, C. P., & Rodrigues, L. P. (2021). *Motor learning and development* (3rd ed.). Human Kinetics.

Gao, J. (2019). Research on strategies of improving students' dance performance in college dance teaching. *2019 9th International Conference on Social Science and Education Research*. https://webofproceedings.org/proceedings_series/ESSP/SSER2019/SSER30296.pdf

Garcia, L. (2021). *Teacher development in modern education*. Philippine Educational Research Institute. Giguere, A. (2023). *Beginning modern dance*. Google Books. https://books.google.com.ph

Hains, B. J., Salazar, J., Hains, K. D., & Hill, J. C. (2021). If you don't know, now you know: Utilizing hip-hop pedagogy as a tool for promoting change in students and community. *Journal of Education, 201*(2), 116–125. https://doi.org/10.1177/0022057420904368

Harding, S. (2016). Teaching with technology in the arts: Case studies in best practice. *Arts Education Policy Review, 117*(3), 161–171.

Hewitt, P., & Bryan, C. (2014). Developing instructional strategies for physical education: Theoretical perspectives. *Journal of Teaching in Physical Education, 33*(3), 273–288.

Hoose, M. (2020). Understanding Gardner's theory of multiple intelligences in the 21st-century classroom. *Education Today, 14*(3), 45–56.

Hoose, N. A. (2020, June 1). Social constructivism: Vygotsky's theory. *Pressbooks*. https://edpsych.pressbooks.sunycreate.cloud/chapter/social-constructivism-vygotskys-theory/

Johnson, P. (2021). The influence of teaching experience on classroom management and student achievement. *International Journal of Teacher Education, 39*(2), 112–129.

Kassing, G., & Jay, D. M. (2020). *Dance teaching methods and curriculum design: Comprehensive K–12 dance education*. https://eric.ed.gov/?id=ED474948 Kennedy, K. M., Thomas, D., & Zhang, Y. (2022). Technology and cognitive development: Outcomes of blended learning in secondary education. *Journal of Educational Technology & Society, 25*(1), 110–123.

Kim, S., Raza, M., & 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. https://doi.org/10.1177/1745499919829214

Kuok Ho, D. T. (2023). Student-centered approach in teaching and learning: What does it really mean? *Acta Pedagogia Asiana, 2*, 72–83. https://doi.org/10.53623/apga.v2i2.218

Kuswarsantyo. (2021). Hyperreality in dance education and challenges in teaching dance education at schools. https://doi.org/10.2991/assehr.k.210602.002 Lee, S., & Park, J. (2022). Addressing challenges in dance education: Resource gaps and student engagement. *International Journal of Educational Studies, 48*(1), 12–28.

Lee, Y., & Huang, H. (2018). The effectiveness of multimedia instruction on students' learning outcomes. *Educational Media International, 55*(2), 113–125. Leonard, A. E. (2022). Taking on the challenges of our present: Dance education for children and youth. *Journal of Dance Education, 22*(3), 141–143.

https://doi.org/10.1080/15290824.2022.2095792

Li, Z., & Wong, K. K. (2023). Challenges and opportunities: Dance education in the digital era. In *Lecture notes in educational technology* (pp. 29–48). https://doi.org/10.1007/978-981-19-9315-2_2

Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology, 22*(140), 1–55.

Lin, Y.-S. (2014). A third space for dialogues on creative pedagogy: Where hybridity becomes possible. *Thinking Skills and Creativity, 13*, 43–56. https://doi.org/10.1016/j.tsc.2014.03.001

Lobo, J. (2023). Protecting Philippine dance traditions via education of tomorrow's pedagogues: The role of individual interest and school engagement.

Journal of Ethnic and Cultural Studies, 10(1), 98–124. https://www.jstor.org/stable/48718237

Lu, Z. (2020). Research on strategies for improving students' dance performance in college dance teaching. *2020 Annual Conference of Education, Teaching and Learning*. https://doi.org/10.25236/acetl.2020.233

Luna, M., & Rivera, T. (2021). The impact of teaching experience on student performance in arts education. *Philippine Journal of Arts and Dance Education, 7*(3), 54–68.

Magat, S. M. C., Ignacio, T. D., & Duriano, B. K. B. (2024). Dance pedagogy used by physical education teachers in enhancing skill acquisition, mastery, and self-image. *International Journal of Physical Education, Fitness and Sports, 13*(1), 1–44. https://doi.org/10.54392/ijpefs2413

Martín-Rodríguez, A., & Madrigal-Cerezo, R. (2025). Technology-enhanced pedagogy in physical education: Bridging engagement, learning, and lifelong activity. *Education Sciences, 15*(4), 409. https://doi.org/10.3390/educsci15040409

Mayer, R. E. (2021). *Multimedia learning* (3rd ed.). Cambridge University Press. Metzler, M. W. (2015). *Instructional models for physical education* (3rd ed.). Routledge.

Mödinger, M., Woll, A., & Wagner, I. (2022). Video-based visual feedback to enhance motor learning in physical education—A systematic review. *German Journal of Exercise and Sport Research, 52*, 447–460. https://doi.org/10.1007/s12662-021-00782-y

Mosley, D. V., Abreu, R. L., Ruderman, A., & Crowell, C. (2016). Hashtags and hip-hop: Exploring the online performances of hip-hop identified youth using Instagram. *Feminist Media Studies, 17*(2), 135–152.

O'Donnell, M. (2021). The history of modern dance. *Dance Magazine*. https://www.dancemagazine.com/history-modern-dance

Østerlie, O., Sargent, J., Killian, C., Garcia-Jaen, M., García-Martínez, S., & Ferriz-Valero, A. (2023). Flipped learning in physical education: A scoping review. *European Physical Education Review*, *29*(1), 125–144. https://doi.org/10.1177/1356336X221120939

Pashler, H., Bain, P. M., Bottge, B. A., Graesser, A., Koedinger, K., McDaniel, M., & Metcalfe, J. (2007). *Organizing instruction and study to improve student learning* (Practice Guide No. 18). Institute of Education Sciences, U.S. Department of Education. https://eric.ed.gov/?id=ED498555

Poralan, P., II, R., & Habla, R. (2014). Strengthening and preserving practices of Philippine folk dances in relation to cultural awareness of secondary students of Davao City. *UIC Research Journal, 18*. https://doi.org/10.17158/328

Puteh-Behak, F., Darmi, R., & Mohamed, Y. (2015). Implementation of a Western-based multiliteracies pedagogy in Malaysia: A socio-cultural perspective.

GEMA Online Journal of Language Studies, 15(1), 1–24. https://doi.org/10.17576/GEMA-2015-1501-01

Reyes, V., Laguatan, R. N., & Ordillas, J. (2020). Students' personal experiences and interest in Philippine folk dance: Basis for dance program intervention.

Journal of Education & Human Resources, 1(2). https://ejournal.upi.edu/index.php/JEHR/article/view/23377

Rothmund, I. V. (2023). Student-centred learning and dance technique: BA students' experiences of learning in contemporary dance. *Research in Dance Education*, 1–20. https://doi.org/10.1080/14647893.2023.2230135

Rudd, J., Crotti, M., & Barnett, L. M. (2017). Teaching for motor learning: Interventions and strategies for children. *Sports Health*, *9*(2), 111–118.

Santos, A., & Mendoza, F. (2023). The impact of teacher specialization and professional development on the K–12 curriculum implementation in the Philippines. *Philippine Journal of Education and Curriculum Studies, 18*(1), 43–57.

Smith, L., & Jones, R. (2018). Modern dance: Evolution, creativity, and individual expression. *Dance Research Journal, 40*(2), 120–134. Smith, R., & Johnson, T. (2020). *Innovative practices in teaching and learning*. EduTech Publishers.

Smith, T., & Brown, L. (2019). Professional development and its impact on teaching effectiveness: A meta-analysis. *Educational Research Quarterly, 42*(1), 15–30.

Tagimaucia, V., D'Souza, G. S., & Chand, D. S. P. (2024). Exploring online physical education teaching: What have we done and what have we learnt? *The International Review of Research in Open and Distributed Learning*, *25*(1), 127–151. https://doi.org/10.19173/irrodl.v25i1.7431

Taylor, J. (2020). Assessing performance outcomes in arts education: Strategies for modern dance instruction. *Journal of Performing Arts Education, 12*(3), 45–58.

Tomlinson, C. A. (2014). *The differentiated classroom: Responding to the needs of all learners*. ASCD.

Varas, A., de la Vega, R., & San Román, R. (2023). Developing 21st-century skills through active learning in physical education. *Journal of Movement & Health, 12*(1), 33–47.

Varas, D., Santana, M., Nussbaum, M., Claro, S., & Imbarack, P. (2023). Teachers' strategies and challenges in teaching 21st-century skills: Little common understanding. *Thinking Skills and Creativity*, *48*, 101289.

White Space Global. (2024, February 20). Dance as expression: Understanding the language of movement in entertainment. *White Space Global*. https://www.thewhitespaceglobal.com/post/dance-as-expression-understanding-the-language-of-movement-in-entertainment

Xia, Q., Ke, L., & Zheng, Z. (2022). Is video creation more effective than self-exercise in motor skill learning? *Frontiers in Psychology*, *13*, 1032680. https://doi.org/10.3389/fpsyg.2022.1032680

Yie, W. K. (2023). An analysis of the problems and challenges in teaching and learning creative dance as a pedagogical tool in Malaysian preschools. *Malaya*. https://www.academia.edu/94194959/

Zhang, C. (2022). A study of movement quality enhancement strategies in modern dance. *OA Journal of Education Research, 1*, 251–254. https://doi.org/10.26855/oajer.2022.09.025