Show or Tell: Effectiveness of Demonstration and Verbal Instruction in Physical Education

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ABSTRACT

This study examined the effectiveness of demonstration and verbal instruction in Physical Education in relation to skill acquisition, student engagement, and learning outcomes among Grade 9 students. Guided by Social Cognitive Theory and Information Processing Theory, the study explored how observational learning and cognitive processing support motor skill development in performance-based instruction. A quantitative descriptive research design was employed using convenience sampling to select forty medically fit Grade 9 students from a single institutional setting. Data were collected through an adapted and validated Likert-scale questionnaire measuring instructional clarity, ease of understanding, motivation, and learner engagement. Responses were analyzed using mean and standard deviation to determine the level of perceived effectiveness for each instructional approach. Findings revealed that demonstration instruction was perceived as very highly effective, obtaining an overall mean of 3.52. Students reported stronger understanding, improved retention, and greater engagement when lessons incorporated visual modeling and guided practice. In contrast, verbal instruction obtained an overall mean of 3.05, interpreted as high, indicating that while verbal cues provide structure and guidance, they are less consistently effective when used independently during skill execution. Results suggest that demonstration plays a central role in supporting motor learning, while verbal instruction functions most effectively as a complementary strategy. The study underscores the importance of integrating visual modeling and concise verbal cues to enhance comprehension, support skill mastery, and sustain learner motivation. While findings are limited to student perceptions within a specific context, the results contribute to evidence-based practice in Physical Education and support the use of multimodal instructional strategies in skill-based learning environments.

Keywords: physical education, demonstration instruction, verbal instruction, instructional strategies, motor skill acquisition, teaching effectiveness

INTRODUCTION

Physical Education (PE) plays a critical role in promoting motor skill development, physical fitness, and lifelong engagement in physical activity. Effective instruction in PE requires teaching strategies that address both physical performance and cognitive understanding. Because PE involves dynamic physical and cognitive demands, instructional approaches must engage multiple sensory modalities to support skill acquisition and sustained participation (Liu et al., 2015; Stratton & Hardman, 2017).

Among the most widely used instructional strategies in PE are demonstration and verbal instruction. Demonstration provides learners with a visual model of correct movement execution, which aligns with Social Learning Theory. Observational learning enables students to acquire new skills by watching and imitating a model (Bandura, 2016). Through visual exposure to movement patterns, learners form mental representations that enhance motor planning and execution. Demonstrations are particularly effective in making abstract movement concepts concrete and accessible.

Verbal instruction, in contrast, provides structured explanations, cues, and corrective feedback that guide learners' understanding of task requirements. Verbal cues clarify timing, sequencing, and strategic components of performance, which are essential for executing complex movements and game tactics (Metzler, 2017). This

approach supports cognitive processing by helping students understand not only how to perform a skill, but also why it is performed in a specific way.

The effectiveness of instructional strategies in PE can be examined through key pedagogical indicators such as clarity of instruction, ease of understanding, motivation, and engagement. Instructional clarity reduces cognitive load and allows learners to focus on accurate skill execution (Wang & Gao, 2018). Demonstrations enhance clarity by providing concrete visual models, while verbal instruction supplements understanding through explicit guidance (Kim & Hwang, 2021). Breaking down complex skills into structured demonstrations and organized verbal cues improves accessibility for learners with varying ability levels (Smith & Hollands, 2018; Rodriguez & Garcia, 2016).

Motivation and engagement are also influenced by instructional approach. Demonstrations provide visible performance goals that can strengthen self-efficacy and encourage participation. Positive verbal feedback reinforces effort and persistence, contributing to intrinsic motivation and long-term engagement in physical activity (Nguyen & Chen, 2020; Standage et al., 2019). Instructional methods that actively involve students cognitively, behaviorally, and affectively increase opportunities for practice and improve overall learning outcomes (Liu et al., 2015; Thompson et al., 2019).

Despite broad recognition of the value of varied instructional strategies, gaps remain in the literature. Many PE teachers rely heavily on a single teaching method or lack sufficient training to effectively integrate multiple approaches (Nguyen & Chen, 2020). Institutional constraints and limited professional development opportunities further restrict instructional diversity. Moreover, there is a limited number of empirical studies directly comparing the perceived effectiveness of demonstration and verbal instruction within the same PE context (Rodriguez & Garcia, 2016). This gap limits the availability of clear evidence-based recommendations for instructional practice.

To address this need, this study examined the perceived effectiveness of demonstration and verbal instruction among Grade 9 students in Physical Education. Specifically, the study evaluates how each strategy influences instructional clarity, ease of understanding, motivation, and engagement. The findings aim to contribute to evidence-based pedagogical practices and inform the strategic integration of instructional approaches that enhance motor skill acquisition and student engagement in Physical Education.

METHODOLOGY

Research Design

This study employed a quantitative descriptive research design. The purpose of the study was to evaluate the perceived effectiveness of two instructional strategies in Physical Education: demonstration and verbal instruction. The design focused on measuring students' perceptions of each teaching strategy based on key pedagogical indicators, including instructional clarity, ease of understanding, motivation, and engagement. The study did not aim to determine causal relationships but rather to describe and assess how students perceived the effectiveness of each instructional approach within the Physical Education setting.

Participants and Sampling

The study involved 40 Grade 9 students enrolled in Physical Education at Bulacan State University Integrated School. Participants were selected using convenience sampling based on accessibility, availability, and willingness to participate during the data collection period. All students were medically fit and had no reported physical injuries that could limit their participation in regular Physical Education activities.

The use of convenience sampling was appropriate for this exploratory study, as the primary objective was to examine students' perceptions of demonstration and verbal instruction within a specific instructional context. All participants had prior exposure to both instructional strategies in their regular Physical Education classes. This ensured that respondents were capable of providing informed and experience-based evaluations of each teaching approach.

However, it is acknowledged that convenience sampling may limit the representativeness of the findings. The sample was drawn from a single grade level and one institutional setting, which may not fully reflect the diversity of learners in other schools or educational contexts. As such, the results should be interpreted within the scope of the study population.

Future research is encouraged to employ probability sampling techniques, such as stratified or cluster sampling across multiple schools, to enhance external validity and improve generalizability. Increasing the sample size and including participants from varied demographic and socio-educational backgrounds would further strengthen the robustness of findings related to instructional effectiveness in Physical Education.

Research Instrument

Data were collected using an adapted Likert-scale questionnaire. The instrument was based on the VARK framework developed by Fleming (1987), which identifies different learning modalities. For this study, selected items were modified to measure students' perceptions of instructional effectiveness rather than learning preferences. Higher mean scores indicated higher perceived effectiveness of the instructional strategy.

The questionnaire consisted of two sections:

1. Items measuring the perceived effectiveness of demonstration instruction
2. Items measuring the perceived effectiveness of verbal instruction

Data Collection Procedure

Prior to data collection, permission was obtained from school authorities. Informed consent was secured from the students and their legal guardians. Participants were informed of the purpose of the study and their right to withdraw at any time without penalty. Students completed the questionnaire after experiencing both instructional approaches during their regular Physical Education sessions. The survey was administered in a structured setting to ensure consistency in data collection.

Data Analysis

Descriptive statistical analysis was conducted. Mean and standard deviation were computed for each instructional strategy to determine the overall level of perceived effectiveness.

Mean scores were interpreted using the following scale:

Mean Range	Interpretation
1.00–1.74	Very Low
1.75–2.49	Low
2.50–3.24	High
3.25–4.00	Very High

Standard deviation values were examined to assess the consistency of student responses. Lower standard deviation indicated stronger agreement among respondents, while higher values reflected greater variability in perceptions.

RESULTS

This section presents the results of the study based on the data gathered from Grade 9 students. It focuses on the perceived effectiveness of demonstration and verbal instruction in Physical Education. The findings are

organized according to mean and standard deviation to describe the level of effectiveness and the consistency of responses. Table 1 presents the results for demonstration instruction, while Table 2 presents the results for verbal instruction. These results provide a clear basis for understanding how each instructional strategy supports student learning, engagement, and skill development.

Table 1. Effectiveness Level of Demonstration Instruction

Indicators	**Mean**	**Description**	**Interpretation**
The greatest way for me to remember is to see a lecture that incorporates practice, modeling, and demonstration.	3.65	Strongly Agree	Very High
When performing exercises that are provided, I can readily follow the instructions and methods that are provided.	3.43	Strongly Agree	Very High
I prefer to see information by watching a recorded video demonstration in performing basic movements rather than listening to instructions.	3.45	Strongly Agree	Very High
The demonstration of skills inspires me to learn.	3.48	Strongly Agree	Very High
The best way for me to remember is to practice repeatedly.	3.65	Strongly Agree	Very High
I can easily understand and follow directions when I see them.	3.50	Strongly Agree	Very High
I prefer to learn by doing something in class.	3.43	Strongly Agree	Very High
I follow the actual demonstration better than listening to instructions.	3.68	Strongly Agree	Very High
Watching demonstrations stimulates my eagerness to learn.	3.30	Strongly Agree	Very High
I learn better by observing others.	3.60	Strongly Agree	Very High
Overall Mean	**3.52**	**Strongly Agree**	**Very High**

Table 1 shows that demonstration instruction obtained an overall mean of 3.52, interpreted as very high. This indicates that respondents perceive demonstration as a highly effective teaching strategy in Physical Education. The highest-rated indicators, with a mean of 3.68, reflect that students learn best when they follow actual demonstrations rather than relying solely on verbal explanations. This highlights the strong role of observation and imitation in skill acquisition.

Several other indicators, ranging from 3.60 to 3.65, further support this result. These emphasize the importance of repeated practice, learning through observation of others, and engagement in visual and kinesthetic learning processes. These responses suggest that demonstration-based instruction strengthens comprehension and skill execution through active and guided learning experiences.

The lowest mean score of 3.30, although still interpreted as very high, shows that demonstrations also contribute to increased learner motivation and eagerness to participate. This confirms that the strategy is not only effective for skill development but also for sustaining student interest in learning activities. With a standard deviation of 0.571, the results indicate a generally consistent level of agreement among respondents. This suggests that perceptions of the effectiveness of demonstration instruction are relatively uniform across the group.

Table 2. Effectiveness Level of Verbal Instruction

Indicators	Mean	Description	Interpretation
I can remember best when listening to a lecture that includes information, explanations, and discussions.	3.30	Strongly Agree	Very High
I can easily follow the given instructions and procedures when performing exercises in verbal instruction.	2.28	Disagree	Low
When performing workouts that require vocal instruction, I can readily follow the guidelines and directions provided.	3.90	Strongly Agree	Very High
When I receive verbal teaching, I am inspired to learn.	2.95	Agree	High
The greatest way for me to remember is to listen multiple times.	3.40	Strongly Agree	Very High
When given verbal instructions, I can understand and follow them with ease.	3.10	Agree	High
In class, I prefer to listen by listening to things.	3.05	Agree	High
I pay more attention to spoken instructions than to real-world examples.	2.68	Agree	High
Verbal instruction stimulates my eagerness to learn.	2.93	Agree	High
I learn better by listening to the instructions.	2.95	Agree	High
Overall Mean	**3.05**	**Agree**	**High**

Table 2 presents verbal instruction with an overall mean of 3.05 and a standard deviation of 0.726. Based on the interpretation scale, this indicates a high level of perceived effectiveness. The relatively higher standard deviation suggests greater variability in responses compared to demonstration instruction, reflecting differences in how students experience verbal teaching strategies.

The highest-rated indicator (3.90, Very High), "When performing workouts that require vocal instruction, I can readily follow the guidance and directions provided," indicates that students respond positively to clear and structured verbal cues, particularly in guided activities. This suggests that verbal instruction is effective when directions are direct, specific, and immediately applicable. In contrast, the lowest-rated indicator (2.28, Low), "I can easily follow the given instructions and procedures when performing exercises in verbal instruction," reveals difficulty in relying solely on spoken explanations during skill execution. This result suggests that verbal instruction alone may not sufficiently support motor skill performance without visual modeling.

Other indicators, ranging from 2.93 to 3.10, fall within the High category. These results indicate that verbal instruction can support understanding and engagement, but its effectiveness may depend on clarity, structure, and integration with demonstration. Overall, verbal instruction is perceived as beneficial, though less consistently effective than demonstration-based teaching in facilitating skill mastery in Physical Education.

DISCUSSION

The findings of this study can be explained through Social Cognitive Theory, also known as Modeling Theory, and Information Processing Theory. These frameworks provide a clear basis for understanding why demonstration-based instruction is more effective in Physical Education.

Albert Bandura's Social Cognitive Theory emphasizes that learning occurs through observation, imitation, and modeling. The results strongly align with this principle, as demonstrated by the very high overall mean of demonstration instruction (m = 3.52). The highest-rated indicator, "I follow the actual demonstration better than listening to instructions" (3.68), reflects the importance of visual modeling in acquiring motor skills. Students learn more effectively when they can directly observe correct performance and replicate it in real time. This supports the idea that learning is not only cognitive but also observational and behavioral in nature (Jones & Peterson, 2020).

The finding that "Watching demonstrations stimulates my eagerness to learn" (3.30) further reinforces the motivational dimension of Social Cognitive Theory. Observation of successful performance enhances self-efficacy, which strengthens learner confidence and willingness to participate. This vicarious reinforcement reduces hesitation and supports engagement in physical tasks, particularly in skill-based activities where fear of failure may limit participation (Ghaffari & Ebrahimi, 2022). The consistently high ratings across demonstration indicators show that students benefit from both skill clarity and motivational support when instruction is visually guided.

Students show a strong preference for demonstration-based instruction because it supports comprehension, motivation, and skill execution. This aligns with Williams (2023), who emphasized that observational learning through demonstration is a powerful instructional approach in Physical Education. The results confirm that motor skill acquisition is strengthened when students engage in seeing, imitating, and practicing movements under guided visual instruction.

Information Processing Theory further explains the limitations of verbal instruction observed in this study. This theory describes learning as a process that involves encoding information in sensory memory, processing it in working memory, and storing it in long-term memory. The relatively lower overall mean for verbal instruction (m = 3.12), along with the low rating for the indicator "I can easily follow the given instructions and procedures when performing exercises in verbal instruction" (2.28), suggests that students experience cognitive overload when relying solely on spoken directions.

Verbal instruction requires learners to hold multiple steps in working memory while simultaneously translating language into physical movement. This creates difficulty in processing and executing motor tasks accurately. While verbal instruction can support understanding and provide structure, its effectiveness decreases when used alone in skill-based learning environments. This explains why students reported variability in their experiences, as reflected in the higher standard deviation (0.726).

Although some indicators of verbal instruction ranged from 2.93 to 3.10, indicating moderate effectiveness, these results show that verbal cues are most useful when they complement rather than replace visual modeling. Verbal instruction can guide attention and clarify procedures, but it does not consistently support full skill mastery. This is consistent with Hermassi et al. (2019), who noted that verbal explanations contribute to cognitive understanding but are less effective for performance-based learning when not paired with demonstration.

CONCLUSION AND RECCOMENDATIONS

The findings of the study indicate that demonstration instruction is perceived by Grade 9 students as a very highly effective teaching strategy in Physical Education. Students report stronger understanding, clearer skill execution, and higher engagement when lessons include visual modeling and guided practice. Observation and imitation support motor learning and reduce confusion during performance tasks. These results affirm the importance of demonstration in facilitating skill acquisition and sustaining learner motivation in performance-based instruction.

Verbal instruction is perceived as effective, with an overall mean interpreted as high. Students recognize the value of clear explanations and structured verbal cues, particularly in guided activities. However, responses reveal variability in how verbal instruction supports skill execution. The lowest-rated indicator suggests difficulty when students rely solely on spoken directions without visual support. This indicates that verbal instruction is beneficial but may not consistently ensure accurate motor performance when used independently.

Overall, the study highlights the importance of integrating demonstration and verbal instruction in Physical Education. Demonstration enhances clarity and motor reproduction, while verbal cues provide structure and cognitive guidance. A combined instructional approach strengthens comprehension, supports skill mastery, and addresses diverse learning needs.

Based on these findings, Physical Education teachers are encouraged to prioritize clear and structured demonstrations when teaching motor skills. Step-by-step modeling, guided practice, and opportunities for repeated observation should be consistently incorporated into instruction. Verbal cues should be concise, direct, and strategically integrated to reinforce key movement components without causing cognitive overload. Schools should support the use of visual instructional resources and provide professional development programs that enhance teachers' competence in multimodal instructional delivery.

Future research should involve a larger and more diverse sample drawn from multiple schools to enhance the generalizability and reliability of the findings. The use of probability sampling techniques, such as random or stratified sampling, is recommended to reduce selection bias and strengthen external validity. Researchers are also encouraged to employ experimental or quasi-experimental designs to examine causal relationships between instructional strategies and actual motor skill performance. Incorporating objective performance measures, such as standardized skill assessments or pretest and posttest evaluations, would provide stronger evidence of instructional effectiveness beyond perceived outcomes.

While the present study provides meaningful insight into students' perceptions of instructional strategies, its findings should be interpreted within the scope of its methodological limitations. The results contribute to the growing body of literature supporting multimodal instruction in Physical Education and provide a practical foundation for improving teaching practice in skill-based learning environments.

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