

Instructional Videos in Enhancing Students' Learning Domains and Performance in Pickleball as Specialized Activity in Physical Activity Towards Health and Fitness (PATHFIT)

Myles Clarence A. Bawalan¹, Freddie S. Javiña²

^{1,2}Laguna State Polytechnic University, Philippines

Email address: mcbawalan25@gmail.com /freddie.javina@lspu.edu.ph

Abstract — This study determined the effectiveness of instructional videos in enhancing students' learning domains and performance in pickleball as a specialized activity in Physical Activity Towards Health and Fitness (PATHFIT). Specifically, it sought to identify the level of acceptability of instructional videos in terms of components (availability, accessibility, clarity, and usability) and features (originality, portability, video and audio quality). It also evaluated students' learning domains—*affective, cognitive, and psychomotor*—and their performance in terms of written assessment and performance tasks. Furthermore, the study investigated the relationship between video components and features and students' learning domains, as well as their effect on performance.

This research used a descriptive-quantitative correlational design that used a total enumeration sampling technique. The respondents were 211 students enrolled in PATHFIT 3 in a private university in General Trias City, Cavite of school year 2025-2026.

A self-made survey questionnaire was used in this study.

Findings revealed that the acceptability of instructional videos, both in terms of components and features, was interpreted as very high. Additionally, there was a significant relationship between the instructional video components and features and the students' learning domains. However, no significant effect was found between these variables and students' performance. Based on the results, the study rejected the null hypothesis stating that there is no significant relationship between instructional video components and features and students' learning domains, while accepting the null hypothesis stating that there is no significant effect on students' performance.

It is recommended that schools support teachers through training in multimedia integration, that teachers combine instructional videos with other instructional strategies such as guided practice and demonstrations, and that future research explore the long-term effects of video-based instruction on learning retention and skill development.

Keywords — Instructional videos, learning domain, pickleball

I. INTRODUCTION

In the evolving educational landscape, instructional videos have emerged as essential tools, offering flexible teaching and learning methods beyond traditional textbooks. (Aguanta et al., 2024). This methodology aligns with contemporary pedagogical approaches that endorse multimodal learning tailored to diverse student requirements and preferences. (Kis-Ing, 2025). Recent meta-analytic research has prominently examined the efficacy of video-based instruction for improving academic performance, highlighting its burgeoning

significance in 21st-century education (Dipon & Dio, 2024). Research indicates that instructional videos substantially enhance student satisfaction, attendance, and engagement, particularly when employed to convey foundational material prior to interactive in-class learning activities (Azman & Johari, 2022).

Video resources are extensively employed as ancillary pedagogical aids to augment instruction and learning in a broad spectrum of disciplines, encompassing sports education. (Ljubojević et al., 2015). As audiovisual media, videos aid in distilling complex concepts, exemplifying real-world applications, and sustaining learner engagement. These tools function effectively as supplementary instructional aids, delivering dynamic and captivating content that complements and bolsters conventional teaching practices. Moreover, they accommodate varied learning styles, elucidate challenging ideas, and enable a spectrum of pedagogical approaches.

In the national context, the Commission on Higher Education has revised the Physical Education curriculum, the Physical Activities Toward Health and Fitness also known as the PATHFIT curriculum (CMO 39, s. of 2021). This framework constitutes a physical education model within Philippine higher education, synergistically integrating fitness engagement, sports participation, social interaction, and diverse movements to foster lifelong physical wellness, enhance performance capabilities, and cultivate discipline alongside appreciation for physical activity. It encompasses a range of fitness programs, typically organized into curricular subjects such as movement competency training, exercise-based fitness activities, and a repertoire of specialized physical pursuits including dance, sports, martial arts, and outdoor/adventure endeavours.

Within the context of Physical Education classes, demonstration videos effectively model appropriate form, movements, and techniques. (Romdhane et al., 2025). This visual aid enables learners to more effectively observe and internalize intricate motor skills compared to verbal instructions alone. (Zoleta & Andal, 2023). Furthermore, the incorporation of video materials into pedagogical practices within educational contexts has repeatedly proven effective in enhancing student engagement, promoting more favorable

attitudes toward the subject matter, and thereby facilitating the attainment of intended learning outcomes. (Hrg et al., 2023).

In the domain of sports education, instructional videos offer an effective mechanism for advancing students' skill development and performance, particularly in contexts involving complex motor learning processes (Romdhane et al., 2025). Educational videos serve as a versatile and accessible learning resource, enabling students to repeatedly review intricate concepts and procedures until proficiency is attained, thereby fostering enhanced conceptual comprehension and skill acquisition (Rice, 2022).

The utilization of instructional videos to enhance skill acquisition and overall performance in pickleball, drawing parallels from studies on similar motor skill developments in other sports (Tannoubi et al., 2023). Evidence from the literature suggests that instructional videos represent a robust mechanism for skill enhancement, delivering efficacy on par with conventional pedagogical techniques and augmented by singular attributes including learner-directed pacing and unlimited replay options (Feng et al., 2025).

This research investigated the association between instructional videos and improvements in students' learning domains, as well as their impact on students' pickleball performance.

II. METHODOLOGY

This study uses the descriptive correlational method, utilizing a quantitative approach to determine how instructional video enhances the students' learning domain and performance in Pickleball, academic year 2025-2026.

The goal of descriptive research, according to McFerren (2024), is to precisely and methodically describe a population, circumstance, or phenomena. Numerous research techniques can be applied in a descriptive research design to examine one or more variables. Quantitative methods place a strong emphasis on objective measures, statistical, or numerical analysis of data gathered via surveys, questionnaires, and polls, as well as the use of computer techniques to modify statistical data that has already been acquired. The goal of quantitative research is to collect numerical data, generalize it to other populations, or provide an explanation for a specific phenomenon.

III. RESULT AND DISCUSSION

Table 1 presents the level of acceptability of instructional video as to components in terms of availability. The results indicate that the respondents strongly agree that the materials used in teaching are appropriate for the subject matter and verbally interpreted as highly acceptable among the respondents. Moreover, the respondents also strongly agree that the digital materials like videos are easy to access and also interpreted as highly acceptable among the respondents.

The overall weighted mean of 4.33 with a standard deviation of 0.80 indicates that instructional videos are highly acceptable in terms of availability. This implies students consistently perceive instructional videos as readily accessible, appropriate, and reliable learning resources that support their academic engagement.

Table I. Level of Acceptability of Instructional Video as to Components in Terms of Availability

| Statements | Mean | SD | Remarks |
|---|--------------------------|------|-----------------------|
| <i>Instructional materials are readily available when needed.</i> | 4.36 | 0.77 | <i>Strongly Agree</i> |
| <i>Materials used in teaching are appropriate for the subject matter.</i> | 4.44 | 0.73 | <i>Strongly Agree</i> |
| <i>Digital materials (videos) are easy to access.</i> | 4.23 | 0.79 | <i>Strongly Agree</i> |
| <i>Materials are up-to-date and relevant to current learning standards.</i> | 4.31 | 0.83 | <i>Strongly Agree</i> |
| <i>Students can access instructional materials outside class hours.</i> | 4.33 | 0.86 | <i>Strongly Agree</i> |
| <i>Weighted Mean</i> | 4.33 | | |
| <i>SD</i> | 0.80 | | |
| <i>Verbal Interpretation</i> | <i>Highly Acceptable</i> | | |

The findings imply that the availability of instructional video plays a significant role in enhancing students' learning experiences. The high level of acceptability indicates that accessible instructional video materials help promote continuous learning, improve content understanding, and support flexible learning environments.

Table II. Level of Acceptability of Instructional Video as to Components in Terms of Accessibility

| Statements | Mean | SD | Remarks |
|--|--------------------------|------|-----------------------|
| <i>Instructional materials are easy to access when needed.</i> | 4.30 | 0.78 | <i>Strongly Agree</i> |
| <i>Materials can be accessed outside the classroom (e.g., at home).</i> | 4.25 | 0.80 | <i>Strongly Agree</i> |
| <i>Students with special learning needs can access materials easily.</i> | 4.20 | 0.81 | <i>Agree</i> |
| <i>Copies can be easily share to other devices</i> | 4.29 | 0.80 | <i>Strongly Agree</i> |
| <i>Easy interface of the instructional materials</i> | 4.33 | 0.75 | <i>Strongly Agree</i> |
| <i>Weighted Mean</i> | 4.28 | | |
| <i>SD</i> | 0.79 | | |
| <i>Verbal Interpretation</i> | <i>Highly Acceptable</i> | | |

Table 2 presents the level of acceptability of instructional video as to components in terms of accessibility. The results indicate that respondents strongly agree that the instructional materials have easy interface verbally interpreted as highly acceptable among the respondents. Furthermore, the respondents also agree that the students with special learning needs can access materials easily remarked as highly acceptable among the respondents.

The overall weighted mean of 4.28 with a standard deviation of 0.79 indicates that instructional video is highly acceptable in terms of accessibility.

This implies that most users find the instructional video easy to access, use, and navigate, regardless of factors such as device type, internet availability, or technical skill level.

Table 3 presents the level of acceptability of instructional video as to components in terms of clarity. The results indicate that respondents strongly agree that the learning objectives are clearly stated in the materials verbally interpreted as highly acceptable among the respondents. Furthermore, the

respondents also agree that there are no unnecessary details that distract them from the main content remarked as highly acceptable among the respondents.

Table III. Level of Acceptability of Instructional Video as to Components in Terms of Clarity

| Statements | Mean | SD | Remarks |
|--|-------------------|------|----------------|
| Instructions in the materials are easy to follow and understand. | 4.37 | 0.74 | Strongly Agree |
| The content is free from ambiguous or confusing information. | 4.26 | 0.83 | Strongly Agree |
| Learning objectives are clearly stated in the materials. | 4.38 | 0.76 | Strongly Agree |
| The materials use simple and familiar language appropriate for learners. | 4.33 | 0.78 | Strongly Agree |
| There are no unnecessary details that distract from the main content. | 4.19 | 0.86 | Agree |
| Weighted Mean | 4.31 | | |
| SD | 0.80 | | |
| Verbal Interpretation | Highly Acceptable | | |

The overall weighted mean of 4.31 with a standard deviation of 0.80 indicates that instructional videos are highly acceptable in terms of clarity.

This implies that instructional videos effectively present information in a clear, organized, and comprehensible manner.

Table IV. Level of Acceptability of Instructional Video as to Components in terms of Usability

| Statements | Mean | SD | Remarks |
|--|-------------------|------|----------------|
| The video controls (pause, rewind, replay) were easy to use. | 4.40 | 0.79 | Strongly Agree |
| The tutorial was divided into sections or chapters that made navigation easier | 4.25 | 0.81 | Strongly Agree |
| The length of the video was appropriate for the content covered | 4.27 | 0.82 | Strongly Agree |
| The video was easy to access online without technical problems | 4.28 | 0.86 | Strongly Agree |
| The presentation style made the lesson more engaging | 4.29 | 0.86 | Strongly Agree |
| Weighted Mean | 4.30 | | |
| SD | 0.83 | | |
| Verbal Interpretation | Highly Acceptable | | |

Table 4 presents the level of acceptability of instructional videos as to components in terms of usability. The results indicate that respondents strongly agree that the video controls (pause, rewind, replay) were easy to use and verbally interpreted as highly acceptable among the respondents. Furthermore, the respondents also agree that the instructional videos were divided into sections or chapters that made navigation easier also remarked as highly acceptable among the respondents.

The overall weighted mean of 4.30 with a standard deviation of 0.83 indicates that instructional videos are highly acceptable in terms of usability. This implies that learners can efficiently navigate, control, and utilize the instructional videos without difficulty, contributing to a smoother and more engaging learning experience.

Table 5 presents the level of acceptability of instructional videos as to features in terms of originality. The results

indicate that respondents strongly agree that the instructional videos are designed with original ideas and concepts and verbally interpreted as highly acceptable among the respondents. Furthermore, the respondents also strongly agree that the instructional videos are not direct copies online sources also remarked as highly acceptable among the respondents.

Table V. Level of Acceptability of Instructional Video as to Features in terms of Originality

| Statements | Mean | SD | Remarks |
|---|-------------------|------|----------------|
| Instructional materials are designed with original ideas and concepts. | 4.41 | 0.73 | Strongly Agree |
| Materials are not direct copies online sources. | 4.26 | 0.80 | Strongly Agree |
| The content of instructional materials is customized for the needs of students. | 4.35 | 0.76 | Strongly Agree |
| Instructional materials avoid plagiarism and respect intellectual property. | 4.37 | 0.75 | Strongly Agree |
| Originality of instructional materials enhances students' learning engagement. | 4.38 | 0.73 | Strongly Agree |
| Weighted Mean | 4.35 | | |
| SD | 0.76 | | |
| Verbal Interpretation | Highly Acceptable | | |

The overall weighted mean of 4.35 with a standard deviation of 0.76 indicates that instructional videos are highly acceptable in terms of originality. This implies that learners perceive the instructional videos as creative, unique, and engaging in their presentation of content. The materials likely incorporate innovative approaches such as personalized explanations, original examples, or distinctive visuals that differentiate them from generic instructional resources.

Table 6 presents the level of acceptability of instructional videos as to features in terms of portability. The results indicate that respondents strongly agree that the instructional videos can be used in multiple locations (e.g., home, classroom) and verbally interpreted as highly acceptable among the respondents. Furthermore, the respondents also strongly agree that the materials are compatible with different formats also remarked as highly acceptable among the respondents.

Table VI. Level of Acceptability of Instructional Video as to Features in terms of Portability

| Statements | Mean | SD | Remarks |
|--|-------------------|------|----------------|
| Instructional materials can be used in multiple locations (e.g., home, classroom). | 4.42 | 0.71 | Strongly Agree |
| Digital versions of materials are easy to transfer and access on various devices. | 4.36 | 0.78 | Strongly Agree |
| Materials are compatible with different formats | 4.28 | 0.77 | Strongly Agree |
| Materials can be shared easily with other students or teachers. | 4.37 | 0.77 | Strongly Agree |
| Portable materials help students review lessons at their convenience. | 4.35 | 0.77 | Strongly Agree |
| Weighted Mean | 4.36 | | |
| SD | 0.76 | | |
| Verbal Interpretation | Highly Acceptable | | |

The overall weighted mean of 4.36 with a standard deviation of 0.76 indicates that instructional videos are highly acceptable in terms of portability.

This implies that the instructional videos can be easily used anytime and anywhere, supporting flexible and self-paced learning. Learners likely find them compatible with various devices such as smartphones, tablets, and laptops, making it easier to study beyond the classroom environment.

Table VII. Level of Acceptability of Instructional Video as to Features in terms of Video Quality

| Statements | Mean | SD | Remarks |
|--|-------------------|------|----------------|
| The video is clear and sharp. | 4.40 | 0.76 | Strongly Agree |
| Pictures are good not blurry or pixelated. | 4.29 | 0.84 | Strongly Agree |
| The colors and brightness of the video are appropriate | 4.34 | 0.79 | Strongly Agree |
| The video content is well organized and easy to follow. | 4.34 | 0.80 | Strongly Agree |
| The video length is appropriate for the amount of content presented. | 4.32 | 0.81 | Strongly Agree |
| Weighted Mean | 4.34 | | |
| SD | 0.80 | | |
| Verbal Interpretation | Highly Acceptable | | |

Table 7 presents the level of acceptability of instructional videos as to features in terms of video quality. The results indicate that respondents strongly agree that the video is clear and sharp and verbally interpreted as highly acceptable among the respondents. Furthermore, the respondents also strongly agree that the pictures are good not blurry or pixelated also remarked as highly acceptable among the respondents.

The overall weighted mean of 4.34 with a standard deviation of 0.80 indicates that instructional videos are highly acceptable in terms of video quality.

This implies that the instructional videos provide clear visuals, readable text, and understandable audio, which are essential for effective learning.

Table VIII. Level of Acceptability of Instructional Video as to Features in terms of Audio Quality

| Statements | Mean | SD | Remarks |
|---|-------------------|------|----------------|
| The audio is clear and easy to understand | 4.35 | 0.80 | Strongly Agree |
| The volume level is consistent throughout the video | 4.27 | 0.82 | Strongly Agree |
| The presenter's voice and delivery are engaging. | 4.34 | 0.81 | Strongly Agree |
| The audio is free from noises. | 4.25 | 0.82 | Strongly Agree |
| The audio jives with the video | 4.34 | 0.83 | Strongly Agree |
| Weighted Mean | 4.31 | | |
| SD | 0.81 | | |
| Verbal Interpretation | Highly Acceptable | | |

Table 8 presents the level of acceptability of instructional videos as to features in terms of audio quality. The results indicate that respondents strongly agree that the audio is clear and easy to understand and verbally interpreted as highly acceptable among the respondents. Furthermore, the respondents also strongly agree that the audio is free from noises also remarked as highly acceptable among the respondents.

The overall weighted mean of 4.31 with a standard deviation of 0.81 indicates that instructional videos are highly acceptable in terms of audio quality.

This implies that the audio elements such as voice clarity, volume, and sound consistency effectively support learners in comprehending the content.

Table IX. Level of Students Learning Domain in terms of Affective Learning

| Statements | Mean | SD | Remarks |
|---|-----------|------|----------------|
| Instructional materials attract my attention and interest in learning. | 4.42 | 0.75 | Strongly Agree |
| I become more aware of new ideas because of the materials used. | 4.27 | 0.80 | Strongly Agree |
| I actively participate in learning activities when materials are engaging. | 4.25 | 0.80 | Strongly Agree |
| I develop positive attitudes toward learning because of the materials used. | 4.26 | 0.79 | Strongly Agree |
| Instructional materials help me appreciate the importance of the lessons. | 4.25 | 0.78 | Strongly Agree |
| Weighted Mean | 4.29 | | |
| SD | 0.79 | | |
| Verbal Interpretation | Very High | | |

Table 9 presents the level of students learning domain in terms affective learning. The survey results show that respondents overwhelmingly agree that the instructional films hold their attention and pique their curiosity in learning verbally, which is widely perceived as acceptable by the respondents. Furthermore, the respondents also strongly agree that they actively participate in learning activities because videos are engaging.

The overall weighted mean of 4.29 with a standard deviation of 0.79 indicates that students learning domain is highly acceptable in terms of affective learning.

This implies that the learning experience such as the use of instructional videos effectively fosters positive attitudes, motivation, and emotional engagement among students.

Table X. Level of Students Learning Domain in terms of Cognitive Learning

| Statements | Mean | SD | Remarks |
|---|-----------|------|----------------|
| Instructional materials help me remember key facts and information easily. | 4.26 | 0.75 | Strongly Agree |
| Instructional materials improve my ability to recall lessons after class. | 4.27 | 0.77 | Strongly Agree |
| Instructional materials help me understand difficult concepts more clearly. | 4.19 | 0.84 | Agree |
| The use of video makes learning easier. | 4.27 | 0.78 | Strongly Agree |
| I can apply the knowledge gained from instructional materials | 4.32 | 0.79 | Strongly Agree |
| Weighted Mean | 4.26 | | |
| SD | 0.79 | | |
| Verbal Interpretation | Very High | | |

Table 10 presents the level of students learning domain in terms of cognitive learning.

The results indicate that respondents strongly agree that they can apply the knowledge gained from instructional videos. Furthermore, the respondents also strongly agree that the instructional videos help them understand difficult concepts more clearly.

The overall weighted mean of 4.26 with a standard deviation of 0.79 indicates that students learning domain is highly acceptable in terms of cognitive learning.

This implies that the instructional approach such as the use of instructional videos effectively supports students' intellectual development. Learners can understand concepts, retain information, and apply knowledge to tasks or problem-solving situations.

Table XI. Level of Students Learning Domain in terms of Psychomotor Learning

| Statements | Mean | SD | Remarks |
|---|-----------|------|----------------|
| Instructional materials help me recognize correct movements and techniques. | 4.36 | 0.78 | Strongly Agree |
| Visuals and demonstrations in materials guide me in learning motor skills. | 4.25 | 0.78 | Strongly Agree |
| Instructional materials make me feel prepared and confident to perform physical activities. | 4.27 | 0.80 | Strongly Agree |
| Instructional materials provide step-by-step guidance for practicing new skills. | 4.27 | 0.79 | Strongly Agree |
| I can imitate movements or techniques shown in the materials accurately. | 4.28 | 0.83 | Strongly Agree |
| Weighted Mean | 4.28 | | |
| SD | 0.79 | | |
| Verbal Interpretation | Very High | | |

Table 11 presents the level of students learning domain in terms of psychomotor learning.

The results indicate that respondents strongly agree that instructional videos help them recognize correct movements and techniques. Furthermore, the respondents also strongly agree that visuals and demonstrations in videos guide them in learning motor skills.

The overall weighted mean of 4.28 with a standard deviation of 0.79 indicates that students learning domain is highly acceptable in terms of psychomotor learning.

This implies that the instructional approach such as the use of videos effectively supports the development of students' physical skills, coordination, and motor performance.

Table XII. Level of Students Learning Domain in terms of Cognitive Learning

| Written Exam | Frequency | Percentage | Remarks |
|-----------------------|-----------|------------|---------------------------|
| 90 – 100 | 117 | 55.45% | Outstanding |
| 85 – 89 | 33 | 15.64% | Very Satisfactory |
| 80 – 84 | 24 | 11.37% | Satisfactory |
| 75 – 79 | 19 | 9.00% | Fairly Satisfactory |
| Below 75 | 18 | 8.53% | Did Not Meet Expectations |
| Total | 211 | 100% | |
| Weighted Mean | 88.55 | | |
| SD | 9.68 | | |
| Verbal Interpretation | High | | |

Table 12 reveals the level of students' performance in terms of grades obtained in the written assessment. The results indicate that most students achieved grades within the outstanding category, followed by those who obtained Very Satisfactory and Satisfactory ratings. A smaller proportion of students fell under Fairly Satisfactory, while only a few students did not meet expectations. Considering that the written assessment is equivalent to a 50-item test, the results imply that most students were able to correctly answer a large portion of the test items, indicating strong mastery of the concepts assessed.

The overall weighted mean of 88.55 with a standard deviation of 9.68 corresponds to a high level of performance. This indicates that, on average, students demonstrated commendable achievement in the written assessment, although the standard deviation shows some variation in individual scores. The result implies that while most students performed well, differences in learning outcomes still existed among learners.

In summary, the findings indicate that students generally performed at a high level in the written assessment, reflecting effective comprehension and application of the subject matter. The results further emphasize that instructional strategies and learning resources may have contributed positively to students' academic performance, although continued support may be necessary to assist students who did not meet expectations.

Table XIII. Level of Students Learning Domain in terms of Cognitive Learning

| Performance Task | Frequency | Percentage | Remarks |
|-----------------------|-----------|------------|---------------------------|
| 90 – 100 | 121 | 57.35% | Outstanding |
| 85 – 89 | 45 | 21.33% | Very Satisfactory |
| 80 – 84 | 44 | 21% | Satisfactory |
| 75 – 79 | 1 | 0% | Fairly Satisfactory |
| Below 75 | 0 | 0% | Did Not Meet Expectations |
| Total | 211 | 100% | |
| Weighted Mean | 89.68 | | |
| SD | 4.59 | | |
| Verbal Interpretation | High | | |

Table 13 shows the level of students' performance in terms of grades obtained in the performance task. The results indicate that most students obtained grades under the Outstanding category, followed by those who achieved Very Satisfactory and Satisfactory ratings. Only one student fell under the Fairly Satisfactory category, and no student received a grade below 75 or did not meet expectations. These grades were obtained using rubrics, indicating that students were assessed based on clearly defined performance criteria such as content quality, accuracy, creativity, organization, and presentation. This implies that most students were able to meet and exceed the expected performance standards in accomplishing the task.

The overall weighted mean of 89.68 with a standard deviation of 4.59 corresponds to a high level of performance. The relatively low standard deviation indicates that students' scores were closely grouped around the mean, demonstrating

consistent performance among learners. This implies that most students demonstrated strong competence in applying their knowledge and skills in completing performance-based activities.

In summary, the findings indicate that students exhibited a high level of achievement in performance tasks, reflecting their ability to demonstrate learning through authentic and skill-based assessments. The results further reveal that the use of rubric-based evaluation provided clear guidance and standards, which may have contributed to students' improved performance and consistent learning outcomes.

Table XIV. Level of Students Learning Domain in terms of Cognitive Learning

| Instructional Videos | | Performance | | |
|----------------------|---------------------|-------------|-----------|-------------|
| | | Affective | Cognitive | Psychomotor |
| Components | | | | |
| Availability | Pearson Correlation | .740** | .756** | .734** |
| | Sig. (2-tailed) | <0.001 | <0.001 | <0.001 |
| | N | 211 | 211 | 211 |
| Accessibility | Pearson Correlation | .750** | .798** | .712** |
| | Sig. (2-tailed) | <0.001 | <0.001 | <0.001 |
| | N | 211 | 211 | 211 |
| Clarity | Pearson Correlation | .782** | .812** | .716** |
| | Sig. (2-tailed) | <0.001 | <0.001 | <0.001 |
| | N | 211 | 211 | 211 |
| Usability | Pearson Correlation | .760** | .781** | .745** |
| | Sig. (2-tailed) | <0.001 | <0.001 | <0.001 |
| | N | 211 | 211 | 211 |
| Features | | | | |
| Originality | Pearson Correlation | .802** | .813** | .737** |
| | Sig. (2-tailed) | <0.001 | <0.001 | <0.001 |
| | N | 211 | 211 | 211 |
| Portability | Pearson Correlation | .766** | .763** | .709** |
| | Sig. (2-tailed) | <0.001 | <0.001 | <0.001 |
| | N | 211 | 211 | 211 |
| Video | Pearson Correlation | 0.077 | 0.076 | 0.081 |
| | Sig. (2-tailed) | 0.266 | 0.275 | 0.239 |
| | N | 211 | 211 | 211 |
| Audio | Pearson Correlation | 0.084 | 0.082 | 0.019 |
| | Sig. (2-tailed) | 0.227 | 0.236 | 0.780 |
| | N | 211 | 211 | 211 |

Table 14 presents the significant relationship between the components and features of instructional videos and students' learning domains, namely affective, cognitive, and psychomotor performance.

In terms of the components of instructional videos, availability, accessibility, clarity, and usability showed significant and strong positive relationships with students' affective, cognitive, and psychomotor learning domains $p < 0.001$. This indicates that instructional videos that are readily available and easy to access promote students' emotional engagement, understanding of content, and skill development. The significant relationship of clarity across all domains implies that well-organized and clearly presented videos enhance comprehension, sustain learner interest, and support effective performance of tasks. Likewise, the significant relationship of usability suggests that user-friendly instructional videos encourage active engagement, facilitate learning processes, and enable students to apply acquired knowledge and skills more effectively

With respect to video features, originality and portability demonstrated significant positive relationships with all learning domains $p < 0.001$. This implies that creative and innovative instructional videos stimulate students' motivation, deepen understanding, and improve skill execution. Additionally, the significance of portability emphasizes that instructional videos accessible across different devices support flexible learning, allowing students to engage with content anytime and anywhere, thereby enhancing overall learning outcomes.

In contrast, the video and audio features did not show significant relationships with students' affective, cognitive, and psychomotor domains $p > 0.05$. This implies that the presence or technical quality of visual and audio elements alone may not be sufficient to influence learning outcomes. Rather, these features need to be complemented by meaningful content, clear structure, and instructional design to effectively support student learning.

Table XV. Regression Analysis between the Components and Features of Instructional Video and the Students' Written Task.

a. Dependent Variable: Written Task

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|-----|-------------|------|-------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 194.117 | 8 | 24.265 | .365 | .938 ^b |
| | Residual | 13434.290 | 202 | 66.506 | | |
| | Total | 13628.408 | 210 | | | |

a. Dependent Variable: Written Task

b. Predictors: (Constant), Audio, Portability, Video, Usability, Clarity, Availability, Originality, Accessibility

| Coefficients ^a | | | | | | |
|---------------------------|---------------|-----------------------------|------------|---------------------------|-------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | | | |
| 1 | (Constant) | 43.237 | 10.038 | | 4.307 | .000 |
| | Availability | 1.459 | 1.830 | .115 | .798 | .426 |
| | Accessibility | .612 | 2.104 | .049 | .291 | .771 |
| | Clarity | .404 | 1.644 | .032 | .246 | .806 |
| | Usability | -.115 | 1.469 | -.010 | -.078 | .938 |
| | Originality | .117 | 1.801 | .009 | .065 | .948 |
| | Portability | -1.519 | 1.820 | -.117 | -.835 | .405 |
| | Video | -1.341 | 1.616 | -.059 | -.830 | .408 |
| | Audio | -.241 | 1.391 | -.012 | -.174 | .862 |

The table presents the regression analysis examining the relationship between the components and features of instructional video and students' performance in written tasks. The analysis aims to determine whether these instructional video characteristics significantly predict students' written task outcomes.

The results revealed that the combined components and features of instructional videos did not significantly predict students' written task performance. The ANOVA results showed that the regression model was not statistically significant ($F = 0.365$, $p = .938$), indicating that the predictors, when taken together, did not influence written task performance. The coefficient results further showed that none of the individual predictors were statistically significant, including availability ($\beta = .115$, $p = .426$), accessibility ($\beta =$

.049, $p = .771$), clarity ($\beta = .032$, $p = .806$), usability ($\beta = -.010$, $p = .938$), originality ($\beta = .009$, $p = .948$), portability ($\beta = -.117$, $p = .405$), video ($\beta = -.059$, $p = .408$), and audio ($\beta = -.012$, $p = .862$). Although availability, accessibility, clarity, and originality showed positive coefficient values, their significance values were greater than the .05 level, indicating weak predictive influence. This implies that the features of instructional videos alone do not significantly contribute to improving students' written task performance.

Overall, the findings emphasize that while instructional video components and features support learning accessibility and engagement, they are not strong determinants of students' written task outcomes. Written task performance may be influenced by other factors such as students' writing skills, comprehension ability, prior knowledge, feedback mechanisms, and instructional strategies. Therefore, instructional videos should be supplemented with structured writing guidance and interactive learning approaches to enhance students' written performance.

Table XV. Regression Analysis between the Components and Features of Instructional Video and the Students' Performance Task

a. Dependent Variable: PERFORMANCE OVERALL

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|-----|-------------|-------|-------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 17.549 | 8 | 2.194 | 1.140 | .338 ^b |
| | Residual | 388.640 | 202 | 1.924 | | |
| | Total | 406.190 | 210 | | | |

a. Dependent Variable: PERFORMANCE TASK OVERALL
b. Predictors: (Constant), Audio, Portability, Video, Usability, Clarity, Availability, Originality, Accessibility

| Coefficients ^a | | | | | | |
|---------------------------|---------------|-----------------------------|------------|---------------------------|--------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 16.604 | 1.707 | | 9.725 | .000 |
| | Availability | .271 | .311 | .124 | .872 | .384 |
| | Accessibility | .428 | .358 | .196 | 1.195 | .234 |
| | Clarity | -.204 | .280 | -.094 | -.731 | .466 |
| | Usability | -.131 | .250 | -.065 | -.524 | .601 |
| | Originality | -.240 | .306 | -.109 | -.785 | .434 |
| | Portability | -.136 | .310 | -.060 | -.438 | .662 |
| | Video | -.369 | .275 | -.094 | -1.343 | .181 |
| | Audio | .412 | .237 | .121 | 1.740 | .083 |

Table 16 presents the regression analysis examining the relationship between the components and features of instructional videos and students' performance in performance tasks. The table shows the ANOVA results and regression coefficients to determine whether these instructional video characteristics significantly influence students' performance outcomes.

The results revealed that the combined components and features of instructional videos did not significantly predict students' performance in performance tasks. The ANOVA results indicated that the regression model was not statistically significant ($F = 1.140$, $p = .338$), suggesting that the predictors, when taken collectively, did not significantly affect performance task outcomes. The coefficient analysis further showed that none of the individual predictors were statistically

significant, including availability ($\beta = .124$, $p = .384$), accessibility ($\beta = .196$, $p = .234$), clarity ($\beta = -.094$, $p = .466$), usability ($\beta = -.065$, $p = .601$), originality ($\beta = -.109$, $p = .434$), portability ($\beta = -.060$, $p = .662$), video ($\beta = -.094$, $p = .181$), and audio ($\beta = .121$, $p = .083$). Although accessibility, availability, and audio demonstrated positive relationships with performance tasks, their probability values were higher than the .05 significance level, indicating that their influence was not strong enough to predict performance outcomes. This implies that the presence of these instructional video features alone does not significantly enhance students' performance in task-based assessments.

In summary, the findings emphasize that while instructional video components and features help improve learning accessibility and support instructional delivery, they are not sufficient predictors of students' performance task achievement. Performance-based outcomes are likely influenced by other factors such as students' skill mastery, practice opportunities, teacher guidance, and learner engagement. Therefore, instructional videos should be complemented with hands-on activities, guided instruction, and continuous feedback to effectively improve students' performance in performance tasks.

IV. CONCLUSION

Based on the findings of the study, the following conclusions were drawn: (1) There is a significant relationship between the components and features of instructional video and the students' learning domain. Thus, the null hypothesis is rejected. This implies that well-designed instructional videos those that are accessible, clear, user-friendly, original, portable, and of high audio/video quality can effectively enhance students' learning experiences and performance. (2) There is no significant effect between the components and features of instructional video and the students' performance. Thus, the null hypothesis is accepted. This implies that high-quality and well-structured instructional videos are supportive tools rather than guaranteed determinants of performance. Students' outcomes may also depend on other factors such as prior knowledge, motivation, learning strategies, practice, and teacher guidance.

IV. RECOMMENDATION

Based on the drawn conclusions, it resulted to the following recommendations: (1) Schools may organize and implement training programs for teachers within each academic year on the effective integration of multimedia instructional videos in teaching Physical Education subjects. (2) Teachers may consistently integrate instructional videos with guided practice, demonstrations, and hands-on activities in every instructional unit to enhance student understanding and skill performance. (3) Students may regularly use instructional videos alongside active practice, note-taking, and weekly review sessions throughout the semester to reinforce learning and improve skill mastery in pickleball. (4) School administrators may establish an evaluation committee within the next academic year to assess the usability, quality, and effectiveness of e-learning instructional videos used in

PATHFIT courses. (5) Future researchers may conduct studies to examine the long-term effects of instructional video on students' learning retention and skill development in physical education activities.

REFERENCES

- [1] Aguanta, C. B., Augusto, M. a. T., Bajenting, J. V., Buayaban, K. C., Cruz, E. J. P., Fantonial, N. F., Kwan, J. a. M., Legaspino, J., Acut, D. P., & Picardal, M. T. (2024). Factors affecting students' concept retention in learning science online using instructional videos. *Journal of Education and Learning (EduLearn)*, 18(2), 499–511. <https://doi.org/10.11591/edulearn.v18i2.21117>
- [2] Azman, A. N., & Johari, M. (2022). Investigating the effectiveness of videos designed using cognitive load theory on biology students' academic achievement. *Jurnal Pendidikan IPA Indonesia*, 11(3), 461–468. <https://doi.org/10.15294/jpii.v11i3.37324>
- [3] Dipon, C. H., & Dio, R. V. (2024). A Meta-Analysis of the effectiveness of Video-Based instruction on students' academic performance in science and Mathematics. *International Journal on Studies in Education*, 6(4), 732–746. <https://doi.org/10.46328/ijonse.266>
- [4] Feng, D., Cossich, V. R. A., Abdelrasoul, E., Campelo, A. M., & Katz, L. (2025). The impact of video performance technology and peer-to-peer learning on table tennis skill acquisition in elementary students. *Frontiers in Sports and Active Living*, 7, 1653334. <https://doi.org/10.3389/fspor.2025.1653334>
- [5] Hrg, K., Lončar, P., Zelanto, W. H., Novak, D., & Podnar, H. (2023). Attainment of the health outcomes by implementing educational videos during the final part of the physical education lesson. *Montenegrin Journal of Sports Science and Medicine*, 12(2), 11–16. <https://doi.org/10.26773/mjssm.230902>
- [6] Kis-Ing, S. C. (2025). Instructional videos as an intervention in teaching mathematics in the modern world: An Action research. *International Journal of Research and Innovation in Social Science*, IX(IIIS), 3513–3531. <https://doi.org/10.47772/ijriss.2025.903sedu0259>
- [7] Ljubojevic, M., Vaskovic, V., Stankovic, S., & Vaskovic, J. (2024). Using supplementary video in multimedia instruction as a teaching tool to increase efficiency of learning and quality of experience. *The International Review of Research in Open and Distributed Learning*, 15(3). <https://doi.org/10.19173/irrodl.v15i3.1825>
- [8] McFerren, B. P. (2024). Qualitative descriptive study on the use of instructional videos by undergraduate students. *Research Square*. <https://doi.org/10.21203/rs.3.rs-3832576/v1>
- [9] Rice, M. F. (2022). *OLJ June 2022* 26(2). *Online Learning*, 26(2). <https://doi.org/10.24059/olj.v26i2.3442>
- [10] Romdhane, M. B., Mguidich, H., Chikha, H. B., Chtourou, H., & Khacharem, A. (2025). Optimizing Basketball Tactics Learning in Physical Education: The impact of modality and video control. *Perceptual and Motor Skills*, 132(5), 969–987. <https://doi.org/10.1177/00315125251328727>
- [11] Tannoubi, A., Ouergui, I., Srem-Sai, M., Hagan, J. E., Quansah, F., & Azaiez, F. (2023). Effectiveness of video modeling in improving technical skills in young Novice Basketball players: A Quasi-Experimental Study. *Children*, 10(4), 687. <https://doi.org/10.3390/children10040687>
- [12] Zoleta, J. B., & Andal, E. Z. (2023). Interactive Video-Aided instructional materials and learning competencies in physical education. *International Journal of Social Science Humanity & Management Research*, 2(07). <https://doi.org/10.58806/ijsshmr.2023.v2i7n06>