Instructional Videos and Strategies on Trends, Networks and Critical Thinking in the 21st Century Culture and the Learning Responses of Grade 12 SHS Students in INHS

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ABSTRACT

In today's digital age, integrating multimedia instruction is critical to bridging traditional teaching and the demands of 21st-century skills, especially in areas such as Trends, Networks, and Critical Thinking in the 21st Century Culture. This study employed a quasi-experimental design involving two groups of Grade 12 students one taught using traditional methods and the other through instructional videos to examine the impact of multimedia learning tools on student engagement and academic performance. Data were collected through pretests and posttests, along with comprehensive evaluations of teaching strategies and the effectiveness of the instructional video, and analyzed using t-tests and nonparametric tests. The results revealed that both groups experienced significant improvements in learning outcomes; however, while the experimental group reported a more engaging and well-structured learning experience, no statistically significant difference in learning gains was observed between the groups. These findings suggested that although traditional methods continue to yield effective educational results, the incorporation of instructional videos can enhance content delivery, organization, and student engagement, offering a complementary benefit without necessarily exceeding the effectiveness of conventional approaches. Based on these insights, it is recommended that educators adopt a blended learning approach by integrating instructional videos as supplementary tools to traditional teaching. This integration can optimize learning environments, cater to diverse learner needs, and better prepare students for the evolving challenges of the 21st-century educational landscape.

INTRODUCTION

Background of the Study

Multimedia resource integration has become essential in modern education to enhance critical thinking and engagement, particularly as trends, networks, and 21st-century culture evolve. Traditional teaching methods may not always capture the complexities of subjects like Trends, Networks, and Critical Thinking in the 21st Century Culture, necessitating innovative approaches such as instructional videos.

Additionally, video instructions extend learning beyond traditional classrooms, allowing asynchronous access and broader (Hossain & Islam, 2024). While research supports the effectiveness of multimedia tools, there remains a gap in understanding their specific impact on learner responses comprehension, retention, and engagement within this subject. Existing studies primarily focus on general multimedia learning rather than its role in fostering critical thinking in senior high school learners.

This study addressed that gap by evaluating the effectiveness of instructional videos in enhancing learners' cognitive engagement and analytical skills, contributing valuable insights into innovative pedagogical strategies.

Globally, the digital revolution has transformed traditional learning environments, emphasizing the role of multimedia in education. Research has consistently shown that video-based learning enhances knowledge retention, problem-solving skills, and engagement (Dipon & Dio, 2024). The shift towards digital content delivery has been particularly significant in higher education, where institutions leverage instructional videos

to foster self-paced learning (Haerawan et al., 2024) However, challenges persist in ensuring the effectiveness of these materials, particularly in sustaining learner interaction and critical thinking development (Haleem, Javaid, Qadri, & Suman, 2022).

In the Philippines, the Department of Education (DepEd) has advocated for technology-enhanced learning through the integration of digital platforms and multimedia instructional tools (DepEd, 2020). The implementation of the K–12 curriculum necessitates innovative teaching methodologies, including the use of instructional videos, to meet 21st-century competencies. Research by Agojo & Cabral (2024) highlights how technology-based instruction positively influences learner engagement and comprehension. However, there remains limited research specifically addressing how instructional videos affect senior high school learners' responses to complex subjects such as Trends, Networks, and Critical Thinking in the 21st Century Culture.

At the local level, schools in both urban and rural areas have gradually adopted multimedia-based instruction, particularly in STEM and social sciences. Despite these efforts, disparities in access to digital resources and teacher preparedness in implementing video-based learning strategies pose significant challenges (Aljehani, 2024). In Isulan National High School (INHS), instructional videos have been used in various subjects, yet their impact on learners' responses—particularly in enhancing critical thinking skills within the study of Trends, Networks, and Critical Thinking in the 21st Century Culture remains unexplored. While existing research has established the benefits of instructional videos in general education, limited studies have examined their impact on specific subjects that required high levels of analytical thinking, such as Trends, Networks, and Critical Thinking in the 21st Century Culture. Most studies either focused on general technology-enhanced learning or analyze the effectiveness of multimedia tools in science and mathematics, leaving a gap in the application of these strategies in social sciences and humanities (Al-Amin & Hartono, 2024). Furthermore, research addressing how instructional videos shaped learners' cognitive engagement, retention, and motivation in a Philippine senior high school setting remains scarce.

This study aimed to bridge this gap by leveraging instructional videos as a pedagogical tool. The videos were meticulously crafted to align with the curriculum’s objectives, ensuring that key concepts are presented in a visually compelling and intellectually stimulating manner. The development process was integrated insights from educational psychology, multimedia design principles, and subject matter expertise to create a seamless learning experience.

Theoretical and Conceptual Theory of the Study

In this study, Richard Mayer's Multimedia Learning Theory provides the theoretical foundation for designing and developing instructional videos on "Trends, Networks, and Critical Thinking in the 21st Century Culture" for Grade 12 learners. Multimedia Learning Theory (Mayer, 2024) emphasizes that people learn better when information is presented through both words and visuals rather than words alone. This theory’s principles directly inform the video design process, aligning with the ADDIE model’s design and development phases to create engaging and effective instructional content.

Key principles of Mayer’s (2024) theory, such as the Multimedia, Modality, Contiguity, and Signalling principles, will guide the integration of narration with visuals, providing a structured approach to reduce cognitive load and enhance comprehension. For example, spoken explanations paired with relevant images will make complex topics, like global networks and climate change, more accessible to students. Additionally, design choices such as presenting text near corresponding images and using visual cues will help direct students' attention to critical information, supporting them in distinguishing essential details like the differences between trends and fads.

Mayer’s (2024) Multimedia Learning Theory not only supports the creation of engaging instructional content but also enhances students' comprehension and retention by aligning video structure with cognitive learning processes. Through the application of Mayer’s principles, this study aims to produce instructional videos that are not only educationally sound but also aligned with learners’ needs, making the subject matter both accessible and meaningful for Grade 12 students.

The researcher also considered Cognitive Load Theory (CLT) as one of the theoretical foundation of this study. This theory was developed by John Sweller, served as a robust theoretical framework for the design of effective instructional videos by focusing on the cognitive load that instructional materials impose on learners. Within the context of this study, CLT provided principles that guide the creation of instructional videos that communicate complex content without overwhelming students (Kim et al., 2024).By managing cognitive load, these instructional videos are intended to enhance comprehension and retention of "Trends, Networks, and Critical Thinking in the 21st Century Culture," a subject rich in challenging concepts and critical thinking skills.

Several core strategies of CLT were highly relevant to the study, including reducing extraneous load, segmenting content, pacing, and applying dual coding. Reducing extraneous load is essential to prevent distractions caused by unnecessary visuals, animations, or excessive text, which can divert attention from the core content. Lopez (2024) segmenting the videos into smaller, manageable sections allows students to process each concept more effectively, promoting learning in stages that accommodate the complex ideas presented. Pacing strategies such as intentional pauses or summary sections offer students the necessary time to reflect and absorb information, supporting a deeper understanding of each topic.

The dual coding principle of CLT, which promoted the used of both auditory and visual channels, was particularly effective for enhancing instructional video design (Artman, 2020). Presenting information through narration alongside relevant visuals, such as diagrams or charts, facilitated comprehension and retention of key concepts by engaging multiple cognitive pathways. These CLT-informed design strategies align with the objectives of the study, aiming to develop digital learning resources that better support senior high school students in understanding and applying critical thinking skills within this complex subject area (Lopez, 2024)

The researcher also saw that the Constructivist Theory was also fitted in this study because it offered a valuable framework for designing instructional videos that fostered active learning, particularly in a subject focused on critical thinking and contemporary trends (Hapeshi & Jones, 1992). This theory emphasized that students learned most effectively when they actively constructed their understanding, rather than passively receiving information. Within the context of this study, incorporating a constructivist approach supported the goal of engaging students in meaningful ways that promoted critical thinking and the application of knowledge to real-world issues.

To align with Constructivist Theory, the instructional videos could include interactive elements, such as prompts for self-reflection or questions encouraging students to connect the material to their own experiences (Zin et al., 2024). By encouraging active participation, students are more likely to process and retain information, transforming passive viewing into an opportunity for deeper learning. Additionally, reflective pauses embedded within the videos allow students to digest concepts and consider their implications, fostering a more personalized and meaningful engagement with the subject matter.

This constructivist approach aligned well with the objectives of the study by prioritizing learner-centred experiences that support the development of critical thinking skills (Beege & Ploetzner, 2024). Through active engagement and reflection, students were empowered to build their understanding, enabling them to more effectively apply insights from "Trends, Networks, and Critical Thinking in the 21st Century Culture" to their own learning and real-world situations.

Conceptual Framework

This study utilized the ADDIE framework Analysis, Design, Development, Implementation, and Evaluation to guide the creation and validation of instructional videos for Grade 12 learners studying "Trends, Networks, and Critical Thinking in the 21st Century Culture." This structured approach ensured the videos were both educationally effective and tailored to student needs. Beginning with the Analysis of learning objectives and challenges, the framework moved to the Design and Development phases, where multimedia elements were be strategically integrated to enhance engagement and comprehension.

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The Implementation phase introduced the videos into the learning environment, followed by Evaluation to gather feedback on their usability, relevance, and impact. By following ADDIE, the study aimed to produce instructional videos that was not only met curriculum goals but was also supported students in effectively understanding complex 21st-century topics.

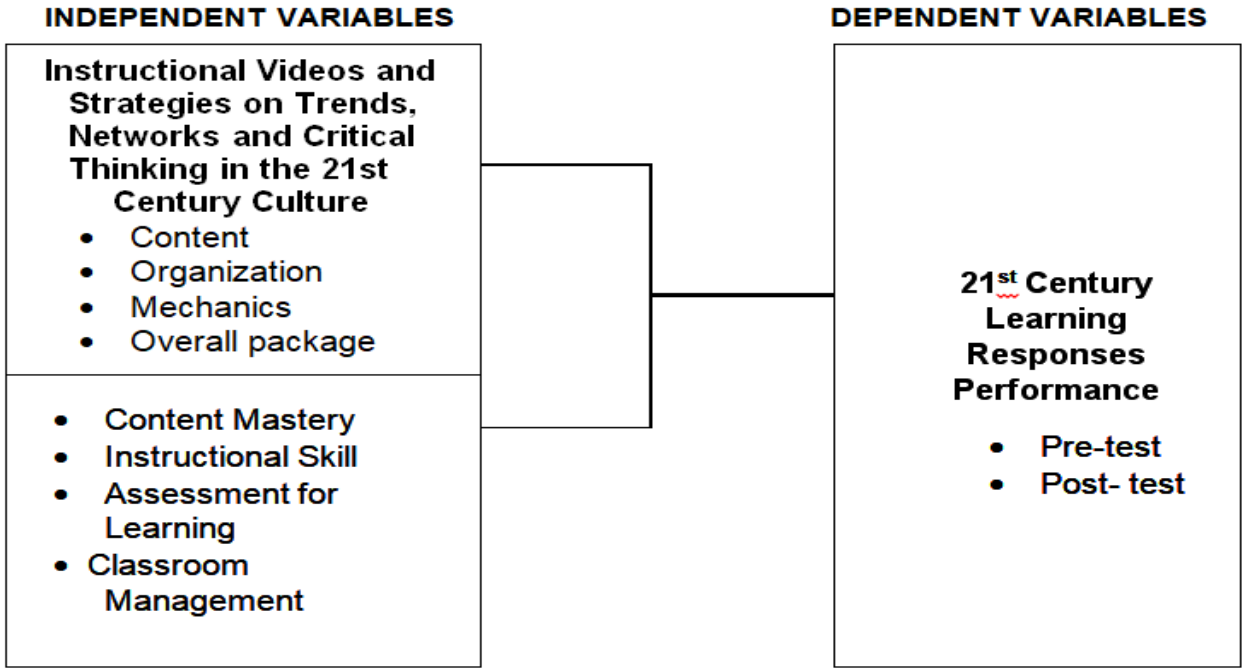

Figure 1. Conceptual Framework of the Study

Statement of the problem

Generally, this study aimed to create and validate five (5) instructional videos to effectively guide Grade 12 learners toward achieving the goals of the subject Trends, Networks, and Critical Thinking in the 21st Century Culture in the Second Semester. Specifically, it sought to answer the following:

1. What is the extent of the evaluation of the students of the instructional video on Trends, Networks and Critical Thinking in the 21st Century Culture in Third Quarter in terms of;

1.1 Content

1.2 Organization

1.3 Mechanics

1.4 Overall Package

2. What is the level of teaching strategies of teacher in

2.1. Traditional Method (Control group) in terms of

2.1.1. Content Mastery

2.1.2. Instructional Skill

2.1.3 Assessment for Learning

2.1.4 Classroom Management

2.2. Instructional Video (Experimental Group)

2.2.1 Content Mastery

2.2.2 Instructional Skill

2.2.3 Assessment for Learning

2.2.4 Classroom Management

3. What is the level of learning responses of students in pre-test and post-test relative to the conduct of instructional videos on Trends, Networks and Critical Thinking in the 21st Century Culture in Third Quarter?

4. Is there a significant difference between the learning responses of the control and experimental group in the pre-test?

5. Is there a significant difference between the learning responses of the control and experimental groups in the post -test?

6. Is there a significant difference between the learning responses of the control group in the pre-test and post-test?

7. Is there a significant difference between the learning responses of the experimental groups in the pre-test and post-test?

8. Is there a significant difference between the learning gains of the control and experimental group?

Hypothesis

Ho1. There is no significant difference in the academic performance of students between the control group (traditional method) and the experimental group (instructional video) in the pre-test.

Ho2. There is no significant difference in the learning responses of students between the control group (traditional method) and the experimental group (instructional video) in the post-test.

Ho3. There is no significant difference in the learning responses of the control group between the pre-test and post-test.

Ho4. There is no significant difference in the learning responses of the experimental group between the pre-test and post-test.

Ho5.There is no significant difference in the learning gains between the control group (traditional method) and the experimental group (instructional video).

Significance of this study

The primary goal of this research was to create and evaluate five (5) educational videos focusing on Trends, Networks, and Critical Thinking in the 21st Century Culture during the Third Quarter. The outcomes of this study held significance for various stakeholders:

School Administrators: The validated educational videos can serve as tools to aid in the design and promotion of educational materials, particularly in teaching the studied subject. This, in turn, contributes to the enhancement of the teaching-learning process. Teachers: This study can serve as a guide for teachers in selecting appropriate educational videos, fostering learner interest, and improving instructional materials. Consequently, this has the potential to enhance overall student performance.

Social Studies Teachers: By offering instructional videos specifically designed to foster students' understanding of concepts such as trends analysis, globalization, and strategic thinking, Social Studies teachers gain a powerful tool to enhance engagement and comprehension. The study also contributes to evidence-based teaching practices, giving teachers access to a resource whose effectiveness has been rigorously evaluated. This can serve as a model for integrating digital learning resources into the curriculum and enable teachers to effectively address complex societal topics that require critical analysis.

Grade 12 Learners: The compilation of these videos will assist learners in understanding the complexities of Trends, Networks, and Critical Thinking in the 21st Century Culture in first quarter. These engaging videos provide diverse activities that captivate learners' interest and enhance their learning capacity.

ICT Expert: ICT experts can use the study's findings to understand the essential criteria for effective instructional video design, such as content relevance, organization, and usability. Furthermore, the study's focus on validation offers ICT professionals insights into the technical and pedagogical standards necessary for producing high-quality digital learning materials. This study can serve as a reference for ICT experts involved in creating digital educational resources, contributing to the overall improvement of digital content standards in education and fostering collaborative opportunities between ICT and educational fields.

The Future Researcher: For the researcher, this study contributes to the improvement of knowledge regarding Trends, Networks, and Critical Thinking in the 21st Century Culture. The study's results can serve as additional literature, inspiring fellow and future researchers to create educational videos that cater to learner interests and enhance learning performance. It can also be a foundational reference for developing and validating instructional videos in other subject areas.

Scope and Delimitation of the Study

This study was designed to develop four instructional videos tailored for Grade 12 learners, addressing the subject of Trends, Networks, and Critical Thinking in the 21st Century Culture during the third quarter. The content of the videos encompassed a comprehensive understanding of trends, including their identification, differentiation from fads, and exploration of elements and characteristics. The instructional videos delved into the intricacies of Local Networks through strategic analysis, examined Global Networks with a focus on Labor and Migration, and explored Planetary Networks concerning Climate Change. The research sought to answer specific questions related to the creation and evaluation of these videos, their acceptability, usability, and relevance. However, the scope of the study was limited to Grade 12 learners within a specific educational setting, restricting its generalizability to other grade levels, subjects, or cultural contexts. The study was confined to the examination of four instructional videos, meaning the findings may not be universally applicable to different quantities of educational materials. The geographical and cultural contexts, as well as the specific educational setting, further delineated the boundaries of the research. These defined parameters ensured a focused investigation while acknowledging the limitations in the study's applicability beyond its specified scope. This study was conducted during the school year 2024-2025.

Definition of Terms

For further understanding of the study, the following important terms are defined operationally:

Acceptability. pertains to the acceptability of the educational videos' content, as it encompasses systematic explanations that align with the curriculum guide. Validators assess the extent to which the indicators are observed during the rating process.

Content: The substance of the instructional videos, encompassing the accuracy, relevance, and depth of information presented. This includes adherence to curriculum goals, clarity of explanations, and suitability of examples for the Grade 12 level.

Development. refers to the making of instructional videos on "Trends, Networks, and Critical Thinking in the 21st Century Culture" to broadly determine the state and needs of the Grade12 learners, and creating some “intervention” to assist in the transition.

Evaluation. The assessment of the educational videos centered around "Trends, Networks, and Critical Thinking in the 21st Century Culture" by designated Social Science or Social Studies Teachers, Master Teachers, and ICT experts, specifically focusing on their judgment regarding the acceptability, usability, and relevance of the videos.

Evaluators. Refers to the one (1) Social Science or Social Studies Master teachers from Isulan National High School, one (1) more from different Secondary School in the Division of Sultan Kudarat. one (1) Teacher-Evaluators (who handles the said subjects) in Isulan National High School. 1 ICT experts from Sultan Kudarat State University and 1 English Major teacher for the grammar usage in the video.

Grade 12 learners. Pertains to the Grade 12 senior high school students enrolled at Isulan National High School, where the educational videos are introduced as innovative instructional materials tailored to align with the 21st-century skills framework for the learners.

Instructional Video: A visual and audio learning tool designed to convey specific educational content effectively. In this study, instructional videos serve as structured multimedia resources aimed at enhancing Grade 12 students' understanding of Trends, Networks, and Critical Thinking in the 21st Century Culture.

Learning Responses. refers to the level of achievement demonstrated by the students in both the pre-test and post-test. It is used to gauge the impact of the instructional videos on the students' understanding and mastery of the subject content.

Mechanics: The technical quality and execution of the instructional video, covering elements like audio clarity, video resolution, and text readability. Mechanics also includes grammar, spelling, and overall linguistic accuracy.

Organization: The logical structure and flow of the instructional video. This includes the sequencing of topics, transitions between sections, and the coherence of information to maintain learner engagement and comprehension.

Overall Package: The holistic quality and presentation of the instructional video as an educational product. This encompasses the combined effectiveness of content, organization, and mechanics, as well as elements like visual appeal, engagement, and ease of use for the intended audience.

Relevance. Conceptually, this involves the creation of video tutorials that are essential for learners to comprehend the information presented in the video. The material being tested should be studied, relevant to the objectives, and not merely superficial knowledge with little or no relevance to the intended achievement of educational objectives.

Trends, Networks, and Critical Thinking in the 21st Century Culture. This is the subject matter of the study, focusing on key concepts like identifying trends, differentiating between trends and fads, understanding local and global networks, and critical thinking about these concepts in the modern cultural context.

Usability. pertains to the educational videos wherein the messages are thorough, and the innovative materials prove beneficial in reinforcing learners' understanding.

Validators. refers to the developed and evaluated videos by the Social Science or Social Studies Teachers, Master Teachers, ICT expert and Science Teachers in terms of its acceptability, usability and relevance.

REVIEW OF RELATED LITERATURE

The contemporary educational landscape is undergoing a profound transformation marked by a growing reliance on innovative pedagogical tools, particularly instructional videos, to enhance the teaching and learning experience. In response to the dynamic nature of education in the 21st century, this research explores the development and validation of instructional videos tailored for the subject "Trends, Networks, and Critical Thinking in the 21st Century Culture" during the first quarter. As technological advancements continue to shape the way information is conveyed and acquired, the significance of instructional videos as a pedagogical instrument cannot be overstated.

This review of related literature (RRL) seeks to delve into existing scholarship and studies that have contributed to the understanding of instructional video development, validation processes, and their impact on fostering critical thinking skills within the context of 21st-century cultural dynamics. By examining the literature, this section aims to establish a foundation for the current research endeavor, shedding light on key concepts, methodologies, and insights that inform the creation and assessment of instructional videos in the specified subject area.

The traditional teaching methods in 21s t century

The effectiveness of traditional teaching methods in improving content mastery among control groups has been widely studied. These methods, which emphasize direct instruction and structured content delivery, have demonstrated positive results in specific educational settings. For example, research found that a control group using traditional instruction improved their language performance by an average of 6.27 points, progressing from low to average proficiency in basic figures of speech ("Digitized Teaching Strategy (DigiTS) in Improving the Language Performance on Basic Figures of Speech", 2024).

A quasi-experimental study showed that control group participants who received lecture-style instruction achieved satisfactory mastery levels, demonstrating that traditional methods remain effective in facilitating learning (Ahmadidarrehsima et al., 2021). This suggests that although modern teaching strategies may offer unique benefits, traditional approaches continue to be relevant in promoting content mastery. The role of instructors is a crucial factor in the success of traditional teaching. Research highlights that educators with strong content knowledge and pedagogical skills significantly enhance student learning (Souza et al., 2018). This underscores the importance of teacher preparation and ongoing professional development to ensure effective content delivery in traditional settings.

Traditional methods also rely on structured assessments, such as standardized tests and quizzes, to measure student understanding systematically (Guthrie & Chen, 2020). While these assessments provide clear indicators of content mastery, traditional approaches may not engage students as actively as student-centered methods like problem-based or collaborative learning (McCubbins et al., 2018).

To sum, traditional teaching methods remain effective in fostering content mastery, as supported by multiple studies. Though they may not always promote the same level of engagement as more interactive pedagogical strategies, they continue to be a valuable tool for achieving educational objectives, particularly when implemented by well-trained instructors.

The effectiveness of traditional teaching methods for control groups, particularly regarding instructional skills, has been extensively studied. These methods primarily rely on direct instruction, where teachers serve as the primary source of knowledge while students passively receive information. However, this approach has been criticized for limiting critical thinking and active engagement. For example, Winarno et al. noted that traditional teaching often leads to passive learning, where students primarily listen and take notes, hindering the development of creativity and problem-solving skills (Winarno et al., 2018).

Similarly, Mallillin et al. (2023) found that traditional instructional practices may not effectively address diverse learning needs, impacting their overall effectiveness. Comparative research suggests that traditional methods may be less effective in promoting deeper learning outcomes. Izzo et al. examined students receiving

traditional instruction alongside those using a modern curriculum designed to enhance information technology skills, highlighting the limitations of conventional approaches in fostering advanced competencies.

Furthermore, the ability of traditional methods to support skill acquisition has been questioned. Maloney et al. found that students learning practical skills through traditional teaching performed worse than those who engaged in interactive and hands-on approaches (Maloney et al., 2012). Similarly, Motsumi et al. reported that students favored digital teaching methods over traditional instruction for cognitive skills development, reflecting a shift in preference toward more engaging strategies (Motsumi et al., 2023). These findings suggest that while traditional methods provide foundational knowledge, they often lack the adaptability and engagement necessary for effective learning in modern educational environments.

While traditional instructional methods remain widely used, their effectiveness in fostering comprehensive instructional skills is increasingly being challenged. Research indicates that these approaches may not sufficiently prepare students for contemporary educational demands and skill acquisition. As a result, educators are encouraged to incorporate innovative and interactive teaching strategies to enhance student learning outcomes.

In medical education, traditional teaching methods, such as lectures, effectively deliver information to large groups but often lack the interactive elements needed for deeper learning and critical thinking. It has also found that while traditional methods were used in a control group, students in an experimental group exposed to diversified teaching methods demonstrated significantly better operational skills and higher satisfaction (Xie & Zhang, 2022). This suggests that conventional approaches may not sufficiently prepare students for practical applications in their fields. Educators' assessment literacy also plays a crucial role in the effectiveness of traditional teaching.

Hubai and Lázár reported that many teachers lack adequate training in assessment practices, leading them to rely on traditional assessments that do not effectively promote learning (Hubai & Lázár, 2018). Without proper training, assessments may fail to provide meaningful feedback, limiting students' opportunities for improvement and mastery of the subject.

Additionally, the passive nature of traditional teaching can hinder essential skill development for professional practice. Liang and Li noted that traditional methods often result in low student engagement, which is critical for effective learning and skill acquisition (Liang & Li, 2018).

In contrast, approaches like problem-based learning (PBL) and case- based learning (CBL) create more active learning environments, encouraging students to take initiative in their education (Xie et al., 2024). This shift from passive to active learning is particularly important in fields requiring hands-on application, such as medicine. In summary, while traditional teaching remains a foundational approach in medical education, its limitations in fostering engagement and practical skill development highlight the need for more interactive teaching strategies.

Educational Videos in the 21st century teaching-learning process

According to Ilesanmi (2023) educational videos have become a cornerstone of 21st-century teaching and learning, reshaping traditional educational paradigms and offering transformative benefits. In response to the evolving landscape of education, characterized by technological advancements and the diversification of student learning preferences, videos have emerged as a versatile and engaging instructional tool as concluded by Kumar (2023). Their fusion of visual and auditory elements caters to diverse learning styles, providing a comprehensive and immersive learning experience. Over the last decade, there has been a significant surge in the integration of technology tools and services in the education sector. A report from IDC Government Insights indicated substantial spending by U.S. higher education institutions, projecting an expenditure of approximately $6.6 billion on IT in 2015, while K-12 schools were expected to spend about $4.7 billion. In comparison, the Education Technology Industry Network reported that the total education-technology market for the 2012-13 academic year amounted to $8.38 billion, highlighting a substantial increase in spending, reaching more than 120 percent of the total market in just three years. This underscores a

notable and rapid expansion of technology's role in shaping the educational landscape (Community Editorial Team at Comcast Business 2023).

The accessibility and flexibility of educational videos contribute significantly to their impact on education. Digital formats enable students to access content at their own pace, fostering a self-directed learning environment (Hutson, Steffes,& Weber, 2023)This adaptability proves invaluable in accommodating varied schedules and preferences, promoting personalized learning experiences. Furthermore, the dynamic nature of videos captivates student interest, enhancing engagement through visually appealing content, animations, and real-world applications.

To add, the Project-Based Learning (PjBL) video tutorials have been shown to significantly improve students' collaboration skills. In a study focused on high school biology education, the use of PjBL videos resulted in a moderate improvement in collaboration, with an N-Gain value of 0.52, indicating a practical enhancement in teamwork among students (Masruri et al., 2024).

Further, Costa (2024) emphasized that educational videos also facilitate global learning opportunities by transcending geographical boundaries. Students can access expertise and perspectives from educators worldwide, broadening their understanding of different subjects and cultures. The real- world applications embedded in videos bridge theoretical knowledge with practical relevance, nurturing critical thinking and problem-solving skills.

Furthermore, incorporating 21st-century skills into educational content is crucial. Teachers need strong problem-solving and critical thinking abilities to effectively instill these competencies in students, as emphasized by Diquito et al. (2022). Likewise, video-based educational materials greatly improve patient education and engagement, promoting critical thinking and self-care among learners, as found by Kim et al. (2020). Integrating these skills into instructional videos is essential for equipping students to navigate the complexities of contemporary society and culture.

According to Ilesanmi (2023), educational videos serve as adaptable resources that cater to diverse learning styles, enhancing their effectiveness across multiple educational levels. By incorporating multimedia components like visuals, audio, and animations, these videos can capture students' attention more effectively than conventional teaching approaches.

Moreover, Diaz-Martin (2024) said beyond student learning, educational videos contribute to professional development for educators. They offer insights into instructional strategies, classroom management techniques, and subject-specific content. Moreover, videos are designed to be inclusive, with features like closed captions and subtitles accommodating diverse learning needs.

On the other hand, while educational videos offer numerous advantages, they also come with challenges, including the necessity for teachers to adjust to new instructional methods and navigate the technical aspects of video creation. To maximize the effectiveness of video-based learning, educators are encouraged to adopt collaborative video production techniques and implement teaching strategies that align with this approach (Ilesanmi, 2023).

Engaging students in video production activities fosters critical thinking by encouraging problem-solving and decision-making at every stage of the process. As students plan, script, film, and edit their videos, they must analyze information, evaluate different approaches, and make creative choices, which enhances their ability to think critically. This hands-on learning experience not only strengthens their cognitive skills but also increases engagement by allowing them to take an active role in their education. According to Galdo (2022), integrating video production into learning environments provides opportunities for students to develop essential skills that extend beyond the classroom, preparing them for real-world challenges.

To sum it up, educational videos have become an indispensable tool, fostering engagement, flexibility, and innovation in 21st-century education (Kumar, 2023). Their integration signifies a shift toward student-centered

and technology-enhanced educational approaches, enriching the teaching and learning process in diverse and dynamic ways.

Development of Educational Videos

The development of educational videos has become an integral component of modern pedagogy, leveraging visual and auditory stimuli to enhance the learning experience. According to Ou, Joyner & Goel (2019) the evolution of technology and the widespread availability of digital tools have significantly contributed to the growth and diversification of educational video content. One key aspect of educational video development involves aligning the content with educational objectives and curriculum guidelines. Educators and instructional designers carefully plan and structure video materials to ensure they complement and reinforce the intended learning outcomes (Varchenko-Trotsenko, L., Vember, V., & Terletska, T., 2019). The content may range from subject-specific explanations to broader skills development, catering to various educational levels and disciplines.

Effective educational videos often incorporate principles from educational psychology, multimedia design, and cognitive science AlShaikh, R., Al-Malki, N., & Almasre, M. (2024). These principles guide the creation of content that is not only visually engaging but also cognitively impactful. Elements such as graphics, animations, and simulations are strategically employed to facilitate better understanding and retention of complex concepts. Moreover, the accessibility of educational videos has expanded with the advent of online platforms, enabling learners to access content at their own pace and convenience (Paine, 2022) thus, this flexibility promotes asynchronous learning, allowing students to revisit materials and engage with the content according to their individual needs and preferences. Assessment and validation of educational videos are critical components of the development process. Educators and researchers employ various methods, including surveys, focus groups, and quantitative analyses, to evaluate the effectiveness of instructional videos in achieving their intended educational goals.

Additionally, continuous feedback and improvement are essential for refining video content and ensuring its relevance and impact on student learning. This idea of personalized video-feedback has been identified as a significant tool in enhancing student learning outcomes, particularly within online education settings. Vold, Ranglund, and Kiønig (2023) argue that continuous feedback is essential for refining video content, ensuring it aligns with student needs and specific learning objectives. This iterative process of improvement not only supports the adaptability of instructional materials but also fosters greater engagement among students. Moreover, the positive reception of video-feedback by online learners underscores its effectiveness and relevance, particularly in bridging the gap between theoretical learning and practical application. The study suggests that further enhancements in video- feedback methods could strengthen the connection between students and their educational experience, particularly in hybrid learning environments, where personalized engagement is pivotal.

All in all, the development of educational videos involves a thoughtful integration of technology, pedagogical principles, and assessment strategies. Brame (2016) emphasized that education continues to embrace digital tools, the ongoing refinement of video content promises to play a vital role in fostering engaging and effective learning experiences.

Video serves as a potent tool for enhancing student learning and engagement within biology courses, as evidenced by several studies (Allen and Smith, 2012 and Stockwell et al., 2015). To optimize the educational benefits of videos, it is imperative to consider three critical factors: cognitive load, elements influencing engagement, and features promoting active learning. Fortunately, focusing on these factors converges on a set of recommendations, including the importance of maintaining brevity and alignment with learning objectives, skilful utilization of audio-visual components, incorporation of signalling techniques for emphasis, adoption of a conversational and enthusiastic presentation style, and integration of videos into an active learning context through the inclusion of guiding questions, interactive elements, or related homework assignments.

Contents of the Instructional Videos

The quality of production and presentation style in educational videos significantly impact how they are received. According to Shires et al. (2019), educators and trainees must critically evaluate video quality, as higher-quality videos are more likely to engage viewers effectively. Similarly, Marçal et al. (2018) found that incorporating innovative pedagogical strategies, such as audiovisual materials, can boost student motivation and improve learning outcomes. The importance of content relevance is further emphasized by Çuğlan and Gaş (2023), who categorized educational videos based on their usefulness, demonstrating that well-structured content can greatly enhance the learning experience.

The dynamic nature of video content presents distinct challenges for learners, particularly in terms of cognitive processing. Pi et al. (2022) highlight that video lectures demand more mental effort than static texts, making clear organization essential for comprehension.

Similarly, Diquito et al. (2022) emphasize that teachers' ability to deliver 21st-century skills is closely linked to how well they structure and present instructional materials. This aligns with Valtonen et al. (2015), who argue that integrating technology with structured content can enhance student engagement with complex concepts. Moreover, the instructional quality of videos is significantly influenced by their organization and credibility.

Emre and Kıyak (2023) note that well-structured content from reliable sources leads to better learning outcomes, a claim supported by Nadelson et al. (2014), who found that students who engaged with well-organized video content performed better in laboratory settings. These findings underscore the importance of content structure in fostering deeper understanding and skill development.

The effectiveness of instructional videos in teaching trends, networks, and critical thinking hinges on their organization. A well-structured video not only simplifies complex ideas but also equips students with essential skills needed in today's educational and professional landscape. Just as a well- planned lesson enhances learning, a thoughtfully designed video can serve as a powerful tool for knowledge acquisition and skill-building.

The evaluation of instructional videos on trends, networks, and critical thinking in the 21st century involves multiple pedagogical considerations, including video design, skill integration, digital literacy, and feedback mechanisms. The effectiveness of instructional videos is linked to established pedagogical frameworks, such as Gagne's nine events of instruction, which enhance engagement and interactivity (Uğraş et al., 2016; Brame, 2016). Diverse instructional styles, including voice-over slides and animations, further improve learning by accommodating different preferences (Suriyawansa et al., 2022). Integrating 21st-century skills like critical thinking, collaboration, and creativity is crucial, as research shows that content promoting these skills leads to deeper knowledge application (Kuloğlu & Karabekmez, 2022; Rizaldi et al., 2020; Soulé & Warrick, 2015). Problem-solving scenarios and collaborative tasks within videos enhance critical thinking and teamwork abilities (Rizaldi et al., 2020; Nurulita et al., 2022). Digital literacy also plays a key role, as students with higher digital competence engage more effectively with video content, improving analytical and problem-solving skills (Aldraiweesh & Alturki, 2023;

Junedi et al., 2020). Instructional videos should not only convey information but also foster critical engagement with digital material. Finally, feedback mechanisms, including formative assessments and reflective practices, are essential for evaluating student understanding and refining video content (Brame, 2016; Sarjana et al., 2024). These strategies ensure continuous improvement in instructional effectiveness. In summary, evaluating instructional videos requires a focus on structured design, skill integration, digital literacy, and feedback strategies to maximize their impact on student learning and preparation for the modern world.

Evaluation of the Instructional Videos

The evaluation of instructional videos in the context of trends, networks, and critical thinking in 21st-century education highlights their significant impact on student learning. Research indicates that these videos enhance

engagement and comprehension, which are crucial for developing critical thinking skills. Wong et al. found that students who used instructional videos reported improved learning experiences and skill retention, particularly in clinical procedures (Wong et al., 2018).

Similarly, Altersberger et al. noted that 42% of students found instructional videos useful for reviewing complex skills, reinforcing their role as an effective learning tool (Altersberger et al., 2019). The design and pedagogical approach of instructional videos also contribute to their effectiveness. Various formats, such as animations and voice-over slides, accommodate different learning styles and improve knowledge retention (Suriyawansa et al., 2022). Jang and Kim emphasized the importance of integrating these videos into curricula to enhance clinical skills training (Jang & Kim, 2014).

Additionally, incorporating interactive elements can increase student engagement, though excessive interactivity may lead to cognitive overload (Mou et al., 2022). The overall quality of instructional videos—including content organization, visual design, and alignment with learning objectives—is essential for maximizing educational impact. Nonthamand stressed the importance of structured workflows and visual aids to support learning, especially for pre-service teachers (Nonthamand, 2024). Olabo et al. further argued that instructional videos are most effective when aligned with specific educational goals and contextual needs (Olabo et al., 2021). Moreover, Othman et al. highlighted that integrating entertainment elements into educational videos can enhance student engagement and learning outcomes (Othman et al., 2022). In summary, instructional videos play a vital role in modern education by improving student engagement, facilitating knowledge retention, and fostering critical thinking. Their effectiveness depends on thoughtful design, appropriate interactivity, and clear alignment with educational objectives, making them a valuable tool for 21st-century learning.

Evaluating instructional videos on trends, networks, and critical thinking within 21st-century education is essential for enhancing students' digital literacy and critical thinking skills. These competencies are increasingly recognized as vital for navigating the complexities of modern society. Research shows that digital literacy is closely linked to critical thinking and the ability to perceive value in educational content, both of which are crucial for success in the 21st century (Aldraiweesh & Alturki, 2023).

Effective communication in educational settings further enhances these skills by fostering deeper engagement and understanding (Aldraiweesh & Alturki, 2023). Additionally, continuous professional development for educators is necessary to cultivate reflective teaching skills that support critical thinking (Kim et al., 2019). Ongoing reflection enables educators to create learning environments that align with 21st-century educational goals (Kim et al., 2019). The implementation of the 6C framework—Critical thinking, Communication, Collaboration, Creativity, Culture, and Connectivity—has been found to make learning more meaningful by encouraging deeper analysis and evaluation of information (Jupri et al., 2024). This aligns with Ratama et al., who emphasize the importance of higher-order thinking skills in an information-rich society (Ratama et al., 2021).

Furthermore, students must be adept at gathering information from various sources and working collaboratively to solve problems, reinforcing critical thinking as a fundamental component of modern education (Nilyani et al., 2023). Beyond theoretical knowledge, critical thinking must be applied in practical contexts, including vocational education (Putra et al., 2020). Teaching strategies that promote problem-solving, collaboration, and adaptability are essential for preparing students for future challenges (KULOĞLU & KARABEKMEZ, 2022).

Additionally, technology integration plays a crucial role in enhancing these skills, enabling more innovative and engaging teaching practices (Yoo, 2020). In summary, the evaluation of instructional videos on trends, networks, and critical thinking underscores the importance of fostering digital literacy and critical thinking skills in students. These findings highlight the interconnectedness of technology, effective teaching strategies, and critical thinking in shaping 21st-century education.

Validation of educational Tools

The validation of educational tools is a vital process to ensure the quality of instructional materials. Funa and Ricafort (2019) emphasized that validation is crucial for delivering better education. This process involves evaluating various tools, such as textbooks and software, to confirm their alignment with educational objectives. Key aspects include content validity, which ensures the accuracy and relevance of the material in representing learning outcomes, and construct validity, which examines whether the tool effectively measures the intended educational constructs based on its theoretical framework.

Reliability is another essential component, ensuring the tool's consistency and stability in performance (Karimi, Niaki, Haleh, & Naderi, 2018). This involves assessing internal consistency and test-retest reliability to guarantee the tool's dependability over time. Pilot testing, involving a small- scale deployment to gather feedback and identify potential issues, is commonly employed before widespread implementation. User feedback and usability testing, involving teachers and students, provide valuable insights into the tool's user-friendliness and engagement potential.

Moreover, the validation process considers the effectiveness of educational tools across diverse settings and student populations. Continuous improvement is inherent in this process, necessitating ongoing assessment and refinement based on user feedback, research findings, and changes in educational standards. Ethical considerations, such as avoiding biases and respecting diverse perspectives, are integral to the validation process. Additionally, grounding the tool in existing educational research and literature ensures a robust theoretical foundation. In essence, Amulla (2020) emphasized that the validation of educational tools is a dynamic and collaborative effort, involving educators, researchers, and stakeholders to enhance the quality and impact of instructional materials in diverse educational environments.

To add, Studies highlight the crucial role of content in the effectiveness of educational videos. For example, Barbosa et al. (2024) reported a high Content Validity Index (CVI) of 90.8% for an educational video designed for nursing professionals, emphasizing the significance of clarity and relevance in instructional materials. Similarly, Rodrigues et al. (2020) found that 75% of nursing students considered the content of their educational video beneficial for their future careers, underscoring the need for videos to align with learners' educational requirements. Supporting this, Eynde et al. (2019) observed that videos produced by reputable institutions tend to receive higher ratings for quality, particularly in terms of scientific accuracy. These findings highlight the necessity of developing instructional videos that are not only informative but also contextually relevant and aligned with audience expectations.

Additionally, effective validation tools and methodologies ensure the quality and impact of educational videos by assessing their narrative structure and content accuracy. One such tool is the Narrative Analysis Tool developed by Cobos (2024), an Excel-based system designed to evaluate storytelling elements within educational videos. This tool received over 90% positive feedback from educators, highlighting its usability and functionality in analyzing narrative coherence, engagement, and instructional effectiveness. By providing a structured approach to assessing narrative elements, this tool helps educators refine video content to enhance student comprehension and engagement.

In addition to narrative assessment, the Content Validation Index (CVI) is widely used to evaluate the accuracy and relevance of educational video content. Araújo (2024) reported high validation scores in multiple studies using the CVI, such as a score of 0.97 for a video on polypharmacy and oral health. This metric ensures that video content aligns with educational objectives and meets quality standards. By incorporating both narrative analysis and content validation methodologies, educators and researchers can systematically enhance the effectiveness of instructional videos, ensuring they are both engaging and pedagogically sound.

Consequently, the study on the use of audio-video instructional materials in social studies provides valuable insights that can enhance teaching practices and curriculum development. One key implication is the integration of multimedia into instructional strategies, as these materials help capture students' attention and improve their comprehension of complex topics (Chinel, 2023). Schools and educators can leverage these findings to create more interactive and engaging lessons, catering to diverse learning styles.

Additionally, curriculum developers can incorporate audio-video resources into lesson plans to ensure a dynamic and inclusive learning environment that supports both visual and auditory learners (Cobos, 2024). Beyond curriculum enhancement, the study underscores the importance of teacher training and resource allocation. Professional development programs should equip educators with the necessary skills to effectively implement audio- video instructional materials, maximizing their impact on student learning.

Moreover, school administrators should consider investing in the acquisition of multimedia resources and related technology to improve instructional quality (Mehboob et al., 2024). The study also highlights the significance of assessment methods, such as pre-tests and post-tests, to evaluate the effectiveness of these instructional tools.

Furthermore, Labinska et al., (2020) audio-video materials can nurture collaborative learning by encouraging group discussions and teamwork, enhancing students' communication and critical thinking skills. By addressing these practical implications, educators and institutions can create a more engaging and effective learning experience for students.

Moreover, the quality of production and presentation style in educational videos significantly impact how they are received. According to Shires et al. (2019), educators and trainees must critically evaluate video quality, as higher- quality videos are more likely to engage viewers effectively. Similarly, Marçal et al. (2018) found that incorporating innovative pedagogical strategies, such as audiovisual materials, can boost student motivation and improve learning outcomes. The importance of content relevance is further emphasized by Çuğlan and Gaş (2023), who categorized educational videos based on their usefulness, demonstrating that well-structured content can greatly enhance the learning experience.

The Role of Instructional Videos, Adaptive Teaching Strategies, and Pretest Comparisons on Student Learning and Classroom Management The use of instructional videos in classroom settings, particularly in experimental groups focused on improving classroom management, represents a significant advancement in teaching strategies. This approach aligns with modern pedagogical methods, such as the flipped classroom model, and has been shown to enhance student engagement and learning outcomes (Ryan & Reid, 2015; Brame, 2016; Nouri, 2016). By providing a structured framework, instructional videos help teachers manage classroom dynamics more effectively, ultimately leading to better academic performance.

Classroom management plays a crucial role in fostering an effective learning environment. Teachers who employ proficient management strategies create a supportive atmosphere that enhances academic growth (Cristo & Ching, 2023). Effective classroom management requires careful planning, including the supervision and organization of student activities (Adhikari, 2021). Additionally, strong communication and facilitation skills encourage student engagement and motivation (Amin & Tahir, 2017). Instructional videos contribute to classroom management by minimizing distractions and maintaining student focus. Research indicates that well-managed classrooms reduce disruptions and improve concentration, leading to a more engaging learning experience (Hong & Anh, 2023; Vu, 2022).

Video-based learning supports diverse student needs and promotes better behavior and motivation, which are essential for effective classroom management (McCoy, 2012; Novita & Rusdi, 2021; Dao-Sabah, 2023). Furthermore, video technology can enhance classroom management by improving teachers' professional vision. Studies highlight the benefits of video assignments in refining classroom management skills, as they allow teachers to analyze and improve their instructional methods (Oellers et al., 2024; Junker et al., 2021).

Video resources also provide students with relatable learning experiences, reinforcing their understanding of the material (Brame, 2016; Lloyd & Robertson, 2011). In conclusion, instructional videos serve as an effective classroom management tool that enhances both teaching and learning. By incorporating video-based strategies, educators can create dynamic and well-structured learning environments that boost student motivation and academic success.

Research on student learning responses in pretests and posttests highlights the impact of diverse instructional strategies on cognitive and process skills. Various approaches, including multimedia integration, problem-

based learning, and technology-enhanced methods, have been shown to significantly improve student learning outcomes.

One particularly effective strategy is the use of animated videos. Rambe et al. (2023) found that students in an Islamic elementary school improved their pretest scores from an average of 69.67 to 82.33 after instruction using Powtoon-based animated videos, demonstrating a moderate N-gain and a successful enhancement in learning. Similarly, Dewi et al. (2024) reported that using water cycle animation videos significantly enhanced students' scientific literacy and cognitive skills, with pretest scores increasing from 60.43 to 83.27.

These findings underscore the role of multimedia tools in engaging students and fostering deeper comprehension.

Problem-based learning has also been linked to improved academic performance. Rusnayati et al. (2023) explored a flipped classroom model in physics education and observed statistically significant gains in conceptual understanding compared to traditional teaching methods. Additionally, Hidayat & Subekti (2022) applied a cybergogy approach with PhET simulations, which effectively enhanced students' science process skills, reinforcing the benefits of interactive and student-centered learning methodologies.

Moreover, controlled experimental studies further validate the advantages of structured instructional techniques. Yilmaz and Karakuş (2018) examined place-based education and found that students in these enriched learning environments outperformed their control group counterparts in posttest assessments. Similarly, Hermanto et al. (2020) confirmed that a project-based learning model led to substantial cognitive skill improvements, as evidenced by comparative pretest and posttest analyses.

The collective findings from these studies indicate that adaptive instructional strategies ranging from multimedia tools to interactive and problem-solving approaches contribute significantly to students' cognitive development. By employing diverse and structured teaching methods, educators can enhance student engagement, comprehension, and overall academic success.

The comparison of pretest scores between control and experimental groups is a critical measure in assessing the effectiveness of educational and psychological interventions. Pretest mean scores help establish baseline equivalence, which is essential for accurately interpreting the impact of treatments or instructional strategies.

Research highlights the significance of pretest comparisons in understanding group dynamics. Teke and Avşaroğlu (2024) found no significant pretest differences between control and experimental groups, emphasizing the necessity of establishing a baseline before implementing therapeutic interventions.

Similarly, Tien et al. (2023) reported comparable pretest scores among groups in their anxiety intervention study, reinforcing the importance of initial equivalence in experimental designs. These findings underline the need for careful statistical analysis to ensure valid post-intervention comparisons.

Additionally, pretest scores can serve as predictors of posttest performance. Kurniawan (2020) demonstrated that interactive multimedia- based learning led to significant posttest improvements, with pretest scores playing a role in determining the magnitude of learning gains. Similarly, Çelik and Aydın (2018) explored pretest and posttest score disparities in nursing students' attitudes toward domestic violence, showing how interventions reshape perceptions and address knowledge gaps.

Pretest assessments also inform instructional design and intervention strategies. Alsaadoun (2021) examined the use of electronic static infographics and found that pretest scores guided the development of more effective learning strategies, leading to significant posttest improvements in comprehension. In therapeutic contexts, Raj and

Pillai (2021) highlighted how pretest score variations were crucial in assessing post-operative pain relief interventions. Likewise, Kükürtçü and Erkan (2022) found no significant pretest differences in children's

rights education but noted substantial posttest improvements, confirming the effectiveness of their intervention.

Moreover, ensuring homogeneity in pretest scores is fundamental for valid comparative assessments. Üzüm and Pesen (2019) observed significant posttest differences following a learner-centered instructional approach, underscoring the need to account for pre-existing disparities. Triyono et al. (2024) also emphasized the importance of rigorous pretest evaluations in validating the efficacy of educational interventions.

In conclusion, pretest score comparisons are essential for ensuring the validity of intervention studies. They establish baseline equivalence, serve as predictors for posttest outcomes, guide instructional design, and validate the effectiveness of treatments, reinforcing their role as a foundational component of empirical research.

In summary, the integration of instructional videos, adaptive teaching strategies, and rigorous pretest comparisons plays a crucial role in enhancing student learning outcomes and classroom management. By leveraging multimedia tools, problem-based learning, and structured interventions, educators can create engaging and effective learning environments. Additionally, pretest assessments provide essential insights into baseline knowledge, ensuring the validity of educational interventions. Together, these approaches contribute to a more dynamic, student-centered education system that fosters academic success and deeper comprehension.

Synthesis

The researcher emphasizes the transformation impact of educational videos in modern teaching and learning. As versatile pedagogical tools, these videos cater to diverse learning styles through their visual and auditory elements, fostering engagement and flexibility to meet the demands of 21st- century education. They break geographical barriers, facilitate global learning, and enhance both student performance and teacher development. By integrating multimedia design and cognitive science principles, educational videos not only captivate visually but also promote critical thinking and knowledge retention, enriching technology-enhanced, student-centered learning.

Also, the researcher highlights the importance of developing and validating instructional materials to ensure their quality and relevance. Validation processes align educational videos with learning objectives, emphasizing content accuracy and theoretical soundness. Reliability testing, pilot use, and user feedback are critical in ensuring these tools are dependable and effective in various contexts. Ethical practices and continuous improvement further reinforce the collaborative efforts of educators and stakeholders in refining instructional videos to address the dynamic needs of learners and optimize their educational impact.

METHODOLOGY

The methodology for this study involves a systematic approach to the creation and evaluation of instructional videos tailored for Grade 12 learners, aimed at achieving the objectives of the Trends, Networks, and Critical Thinking in the 21st Century Culture subject during the third quarter. The study is designed to address specific components, with a primary focus on the creation and evaluation of educational videos covering key aspects such as the definition of trends, the process of trend identification, differentiation between trends and fads, and an exploration of the elements and characteristics inherent in trends.

Research Design

The research employed a quasi-experimental research design to create and evaluate educational videos centered on Trends, Networks, and Critical Thinking in the 21st Century Culture for Grade 12 learners during the third quarter. The researcher utilized PowerPoint, the CapCut app, and Alight Motion to ensure an interactive and dynamic video format (Cléret, Dehling, Leroy, & Herbert, 2018). The educational video series comprised five instructional videos dedicated to the specified subject. The evaluation process involved assessments by one (1) Social Science or Social Studies Master Teachers from Isulan National High School,

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one (1) additional Master Teachers from different secondary schools in the Division of Sultan Kudarat, one (1) subject-teaching evaluators from Isulan National High School teaching the subject. Additionally, one (1) ICT expert from Sultan Kudarat State University evaluated the technical aspects, while one (1) English major teacher assessed grammar usage in the videos. The data gathering process incorporated a researcher-made questionnaire derived from related literature to ensure the validity and reliability of the study's findings.

Locale of the Study

This study was conducted at Isulan National High School, a DepEd public school located at Capitol East, Kalawag II, Municipality of Isulan, Province of Sultan Kudarat, with School ID: 304590. Isulan National High School is committed to facilitating and implementing academic and co- curricular programs, particularly fostering talents in culture, arts, and sports. The researcher selected this school as the study site because Isulan National High School has the largest student population in Sultan Kudarat and is recognized as one of the high-performing schools in the province.

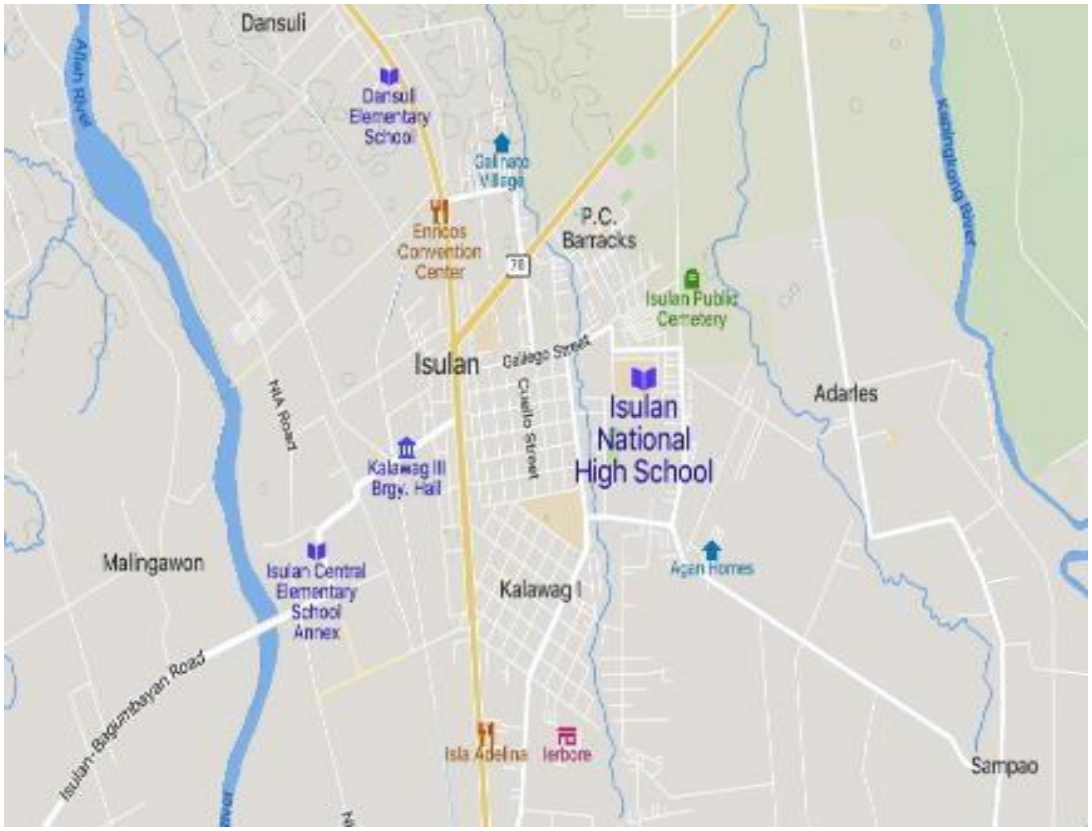

Figure 2. Locale Map of the Study

Source:

Research Respondents

The respondents of this study were the Grade 12 Senior High School learners of Isulan National High School, specifically two sections, each consisting of 40 learners, for a total of 80 learners. These learners were enrolled in the subject Trends, Networks, and Critical Thinking in the 21st Century Culture, and they were selected through full enumeration to ensure comprehensive representation.

There were five (5) teachers participated in the evaluation of the instructional videos: one (1) Social Science or Social Studies Master Teacher from Isulan National High School, one (1) Social Science or Social Studies Master Teacher from another secondary school within the Division of Sultan Kudarat, one (1) teacher-evaluator specializing in the same subjects at Isulan National High School, one (1) ICT expert from Sultan Kudarat State University, and one (1) English major teacher who assessed grammar usage in the videos. This selection of respondents and evaluators ensured a well-rounded assessment of the instructional videos,

considering both the learners' engagement and comprehension, as well as the pedagogical and technical quality of the materials.

Data Gathering Instruments

This study employed a validated and structured researcher's made survey questionnaire utilizing 5-point Likert scale to assess the development teaching instructional video and level of teacher's teaching strategies.

To ensure the validity and reliability of the research instruments, the study underwent a rigorous validation process before data collection. The researcher utilized a researcher-made survey questionnaire to assess the content, organization, mechanics, and overall package of the instructional videos on Trends, Networks, and Critical Thinking in the 21st Century Culture. The validity of the questionnaire was established through expert evaluation, yielding a Content Validity Index (CVI) of 1, indicating that all items were deemed highly relevant and appropriate for the study. Furthermore, a reliability test was conducted using Cronbach's Alpha, which resulted in a score of 0.76, categorizing the questionnaire as good and reliable for assessing the instructional videos. Additionally, the test questions included in the study were analyzed using Kuder-Richardson Formula 20 (KR-20), which yielded a value of 0.81, signifying that the test was good and acceptable for measuring learners' comprehension and critical thinking skills.

Following validation and reliability testing, data collection was conducted among the Grade 12 Senior High School learners of Isulan National High School, along with five (5) expert evaluators, ensuring a comprehensive evaluation of the instructional videos. The data obtained were then analyzed to determine the effectiveness of the developed instructional materials in enhancing learner engagement and comprehension.

Data Gathering Procedures

The researcher conducted a thorough examination of the competencies in Trends, Networks, and Critical Thinking in the 21st Century Culture for Grade 12 learners during the third quarter to ensure alignment with the curriculum.

Based on this analysis, the researcher developed instructional videos, focusing on key topics identified for the third quarter.

Once the initial drafts of the videos were completed, a formal letter of request for permission to conduct the study was submitted to the Office of the Superintendent of the Division of Sultan Kudarat. Following approval, another letter was sent to the School Head of Isulan National High School, where the instructional videos underwent evaluation by a panel of expert reviewers. The panel consisted of:

The evaluation of the instructional videos involved a panel of experts to ensure their quality and effectiveness. The panel consisted of one Master Teacher specializing in Social Science or Social Studies from other school within the Division of Sultan Kudarat. One Social Studies Teacher from Isulan National High School. One Social Science Teacher-Evaluators teaching Trends ,Networks and Critical thinking in the 21st Century Culture were included. To assess the technical aspects of the videos, one ICT expert from Sultan Kudarat State University was consulted, while one English Major Teacher evaluated grammar usage to ensure linguistic accuracy. During the evaluation process, feedback on content, organization, mechanics, and overall effectiveness was gathered, and the necessary revisions were made to enhance the instructional videos.

To assess the impact of the instructional videos on learners' knowledge acquisition, a pretest-posttest design was employed. This allowed the researcher to determine the extent to which the instructional videos contributed to learners' understanding of the subject matter. The findings of Stratton, S. J. (2019) were considered in structuring the pretest-posttest methodology.

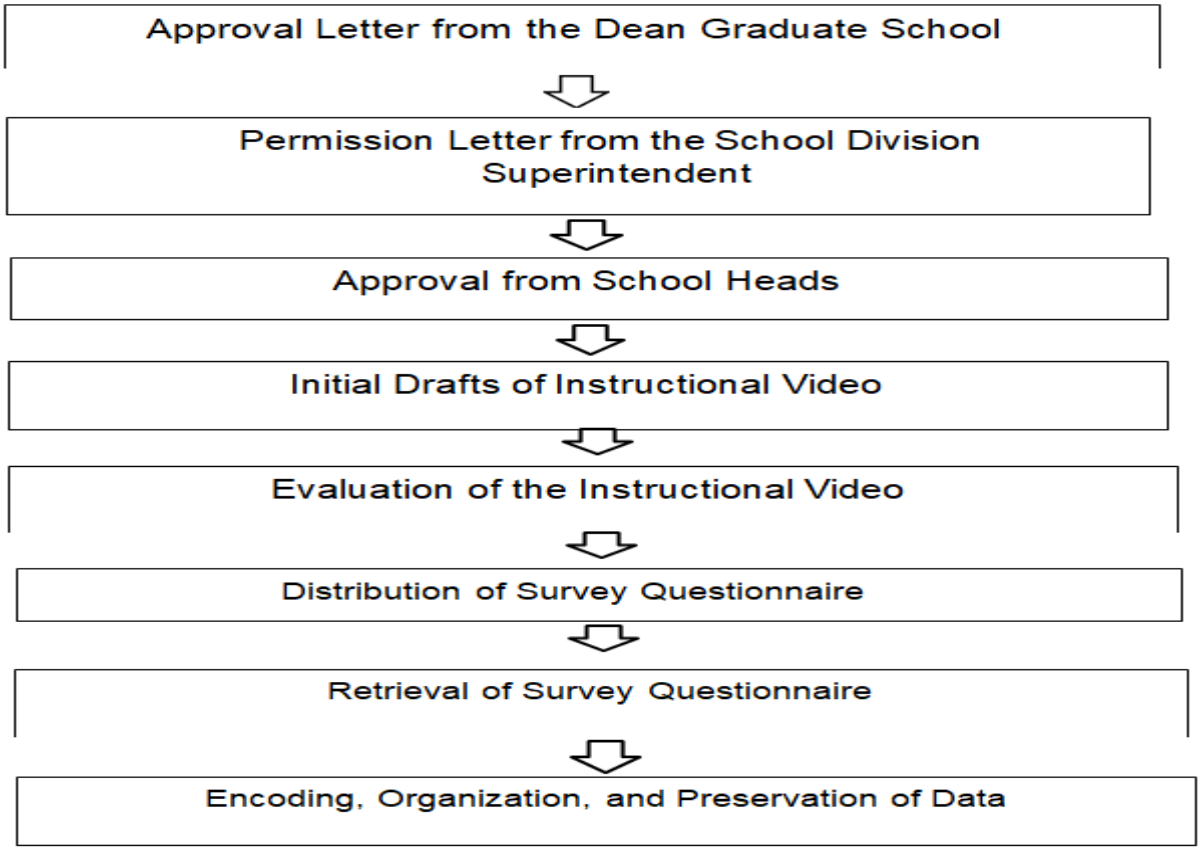

Figure 3. Waterfall Flow of the Data Gathering Procedure Statistical Treatment

The data collected in this study were be analyzed using both descriptive and inferential statistical tools to ensure precise and meaningful interpretation of results. Descriptive statistics, including mean, standard deviation, and frequency distribution (Fulk, 2023), were be used to summarize the extent of the instructional videos' development in terms of content, organization, mechanics, and overall package. Descriptive statistics were used to assess the teaching strategies employed in both the control group (traditional method) and the experimental group (instructional video).

Rating Scale Criteria on the Evaluation of the Instructional Video on Trends, Networks and Critical Thinking in the 21st Century Culture and Level of Teaching Strategies

Numerical Rating	Mean Interval	Description	Interpretation
5	4.50 - 5.00	Strongly Agree	**Outstanding:** The video and teaching strategies excels in all areas: content is accurate and comprehensive, well-organized, free of mechanical issues, and the overall presentation is polished and highly engaging.
4	3.50 - 4.49	Agree	**Very Good:** The video and teaching strategies is well-structured and effectively covers key topics with minimal mechanical errors. The overall package meets expectations with only minor adjustments needed for perfection.
3	2.50 - 3.49	Neutral	**Adequate:** The video and teaching strategies is functional but could be improved. Content is generally clear, organization is acceptable, but there may be some mechanical errors or areas where the overall presentation lacks engagement or depth.

2	1.50 - 2.49	Disagree	**Below Average:** The video and teaching strategies struggles in one or more areas. Content may be inaccurate or incomplete, the structure disorganized, and mechanical issues or a lack of engagement significantly affect the overall quality.
1	1.00 - 1.49	Strongly Disagree	**Poor:** The video and teaching strategies fails to meet expectations across all indicators. Content is inadequate, the organization is confusing, mechanics are flawed, and the overall presentation is ineffective. Major improvements are necessary.

To determine significant differences, a paired sample t-test was used to compare the pre-test and post-test scores within each group, while an independent sample t-test was used to compare the learning responses between the control and experimental groups in both pre-test and post-test phases. If the data did not meet the assumption of normality, the Mann-Whitney U test was applied as a non-parametric alternative to compare the two independent groups. These statistical tools ensured a comprehensive evaluation of the instructional videos' effectiveness in enhancing learners' understanding of Trends, Networks, and Critical Thinking in the 21st Century Culture.

Presentation, Analysis, and Interpretation of Data

This chapter presents the results, analysis and interpretation of the research according to the order by which the problem statements were presented in this study.

Extent of the Evaluation of the Students on the Instructional Video on Trends, Networks and Critical Thinking in the 21st Century Culture in Third Quarter

In today's digital learning environment, instructional videos have become a powerful medium for enhancing learner engagement, comprehension, and retention of complex concepts. As education continues to evolve with the integration of technology, it is crucial to assess the effectiveness of these tools in delivering meaningful content and fostering critical thinking skills.

Highlighting the essence of the results underscores how well the instructional video aligned with students' academic needs and expectations. These findings not only validate the video's role as a supplementary teaching tool but also emphasize the importance of quality in educational media production. A well-evaluated video ensures clarity, coherence, and relevance— key elements that contribute to the development of critical thinking and essential 21st-century skills.

Table 1. Extent of Evaluation of the Students on the Instructional Video on Trends, Networks and Critical Thinking in the 21st Century Culture in terms of Content

Indicators	Mean Rating	SD	Verbal Description
1. The instructional video covers all the essential topics related to Trends, Networks, and Critical Thinking in the 21st Century Culture.	4.90	0.32	Outstanding
2. The content of the video is accurate and reflects current knowledge and understanding of the subject matter.	4.80	0.63	Outstanding
3. The depth of information provided in the video is appropriate for Grade 12 learners.	4.90	0.32	Outstanding
4. The examples and real-life applications used in the video enhance the understanding of key concepts.	4.80	0.42	Outstanding

5. The instructional video presents information in a clear and comprehensible manner.	4.90	0.32	Outstanding
6. The video content is engaging and captures the interest of learners throughout.	4.70	0.48	Outstanding
7. The video content aligns well with the learning objectives and curriculum standards for the subject.	4.90	0.32	Outstanding
Mean	**4.84**	**0.40**	**Outstanding**

Table 1 presents the extent of students' evaluation of the instructional video on Trends, Networks, and Critical Thinking in the 21st Century Culture in terms of content.

The highest mean rating of 4.90 with SD of 0.32 was recorded for four indicators: the video covering all essential topics, the depth of information being appropriate for Grade 12 learners, the clarity and comprehensibility of information, and the alignment of content with learning objectives and curriculum standards, suggesting that the instructional video effectively meets learners' needs in these areas.

The lowest mean rating of 4.70 with SD of 0.48 was observed for the engagement and interest of learners throughout the video. While still classified as outstanding, this score implies that although the video successfully captures students' attention, there may be room for further improvement in maintaining engagement throughout the lesson.

The overall mean rating of 4.84 with SD of 0.40 falls under the outstanding qualitative description, indicating that the instructional video is highly effective in delivering accurate, comprehensive, and engaging content aligned with the subject's learning objectives.

The study aligns with the findings of Barbosa et al. (2024), which demonstrated a high Content Validity Index (CVI) for an educational video, emphasizing clarity and relevance. Rodrigues et al. (2020) found that 75% of students deemed educational video content useful for their future roles, highlighting the necessity for videos to resonate with learners' educational needs. Eynde et al. (2019) noted that videos produced by reputable institutions tend to score higher on quality scales, particularly regarding scientific content. Shires et al. (2019) emphasized the need for educators to critically assess video quality, suggesting that higher-quality videos are more likely to engage viewers effectively. Marçal et al. (2018) highlighted those innovative pedagogical approaches, such as the use of audiovisual materials, can enhance student motivation and learning outcomes.

Table 2. Extent of Evaluation of the Students of the Instructional Video on Trends, Networks and Critical Thinking in the 21st Century Culture in terms of Organization

Indicators	**Mean Rating**	**SD**	**Verbal Description**
1. The instructional video follows a clear and logical sequence ofideas.	4.80	0.63	Outstanding
2. The sections of the video are well-structured, with distinct transitions between topics.	4.60	0.70	Outstanding
3. The pacing of the video is appropriate, allowing enough time to understand each concept.	4.90	0.32	Outstanding
4. The instructional video includes a clear introduction, body, and conclusion.	4.90	0.32	Outstanding

5. The flow of information is smooth, without unnecessary jumps or breaks.	4.90	0.32	Outstanding
6. The sequence of topics in the video matches the order presented in the curriculum.	4.90	0.32	Outstanding
7. The transitions between different sections of the video help maintain focus and understanding.	5.00	0.00	Outstanding
Mean	**4.86**	**0.37**	**Outstanding**

Table 2 presents the extent of students' evaluation of the instructional video on Trends, Networks, and Critical Thinking in the 21st Century Culture in terms of organization. The overall mean rating of 4.86 with the SD of 0.37 falls under the outstanding qualitative description, indicating that the instructional video is highly organized and effectively structured to facilitate learning.

The highest mean rating of 5.00 with the SD of 0.00 was recorded for the indicator on smooth transitions between different sections, highlighting that learner found the transitions seamless and beneficial for maintaining focus and understanding.

The lowest mean rating of 4.60 with the SD of 0.70 was observed for the structuring of video sections with distinct topic transitions, which, while still rated as outstanding, suggests a slight area for improvement in ensuring that topic shifts are more distinctly marked or emphasized. These findings confirm that the instructional video is well-organized, logically sequenced, and aligned with the curriculum, contributing to an effective learning experience.

The study aligns with the findings of Natuna et al. (2021), who emphasized that 21st-century education requires critical thinking and communication skills, which are fostered through well-organized instructional content. Ismail et al. (2024) highlighted the necessity for graduates to develop organizational skills alongside critical thinking and problem-solving abilities, reinforcing the importance of structured video content. Valtonen et al. (2017) argued that effective pedagogical approaches, including well-structured videos, are essential for developing students' 21st-century skills. Pi et al. (2022) noted that video lectures demand more cognitive processing than static texts, underscoring the need for clear organization to aid comprehension. Kıyak (2023) found that instructional quality improves when video content is well- organized and presented by credible sources, leading to better educational outcomes. Nadelson et al. (2014) demonstrated that students engaging with well-structured video content performed better in laboratory settings, highlighting the significance of organized instructional materials in enhancing learning experiences.

Table 3. Extent of Evaluation of the Students of the Instructional Video on Trends, Networks and Critical Thinking in the 21st Century Culture in terms of Mechanics

Indicators	**Mean Rating**	**SD**	**Verbal Description**
1. The video's audio quality is clear and free from distractions.	5.00	0.00	Outstanding
2. The visual quality (images, graphics, and text) is sharp and easy to read/view.	4.80	0.42	Outstanding
3. The multimedia elements (e.g., animations, transitions) are used effectively to support the content.	4.90	0.32	Outstanding
4. The video's length is appropriate for the complexity of the topic.	5.00	0.00	Outstanding
5. The synchronization between audio and visuals is smooth and well-timed.	4.80	0.42	Outstanding

6. The font size and style used in the video are clear and readable.	5.00	0.00	Outstanding
7. The video uses appropriate background music or effects, enhancing the learning experience without causing distraction.	4.90	0.32	Outstanding
Mean	**4.91**	**0.21**	**Outstanding**

Table 3 presents the extent of students' evaluation of the instructional video on Trends, Networks, and Critical Thinking in the 21st Century Culture in terms of mechanics. The highest mean rating of 5.00 with the SD of 0.00 was given to the indicators on audio quality, video length, and font clarity, signifying that these elements were perfectly executed with no reported issues.

The lowest mean rating of 4.80 with the SD of 0.42 was recorded for visual quality and synchronization between audio and visuals, which, while still rated as outstanding, suggests a minor opportunity for improvement in ensuring sharper visuals and perfectly timed multimedia synchronization. The results confirm that the instructional video was well-produced, with clear and engaging mechanics that effectively supported content delivery.

The overall mean rating of 4.91 with the SD of 0.21 falls under the outstanding qualitative description, indicating that the technical aspects of the video, such as audio, visuals, and multimedia elements, were highly effective in enhancing the learning experience.

The study aligns with the findings of Uğraş et al. (2016), who emphasized that adherence to structured pedagogical frameworks, such as Gagne's nine events of instruction, enhances the effectiveness of instructional videos by ensuring clarity, engagement, and interactivity. Brame (2016) further supports this, highlighting the importance of capturing learners' attention and providing clear objectives for fostering critical thinking. Suriyawansa et al. (2022) noted that the use of diverse instructional styles, such as voice-over slides and animations, improves the overall learning experience, reinforcing the importance of multimedia elements in instructional videos.

Aldraiweesh et al., (2023) stressed the role of digital literacy in enabling students to engage more effectively with video content, leading to improved comprehension and problem-solving skills. The study also resonates with Brame (2016) and Sarjana et al. (2024), who emphasized the significance of feedback mechanisms and technical execution in enhancing the overall learning experience. The outstanding ratings on audio, visuals, and synchronization further validate the need for high production quality, as supported by these studies.

Table 4. Extent of Evaluation of the Students of the Instructional Video on Trends, Networks and Critical Thinking in the 21st Century Culture in terms of Overall Package

Indicators	**Mean Rating**	**SD**	**Verbal Description**
1. The instructional video is visually engaging and captures attention.	4.80	0.42	Outstanding
2. The video's content, organization, and mechanics work together to provide a cohesive learning experience.	4.80	0.42	Outstanding
3. The video successfully maintains student interest throughout its duration.	4.80	0.42	Outstanding
4. The instructional video provides an enjoyable and informative learning experience.	4.80	0.42	Outstanding
5. The video aligns well with the intended learning objectives and educational goals.	4.80	0.63	Outstanding

Table 4 presents the extent of students' evaluation of the instructional video on Trends, Networks, and Critical Thinking in the 21st Century Culture in terms of its overall package.

The highest mean rating of 5.00 with the SD of 0.00 was given to the indicator on the video's effectiveness in improving student understanding and performance, highlighting its strong impact on learning outcomes. The other indicators, including visual engagement, coherence of content, organization, mechanics, and ability to maintain interest, all received a mean rating of 4.80 with the SD of 0.42–0.63, still falling under the outstanding category. These results suggest that the instructional video successfully integrates key educational elements, providing a visually appealing, well-organized, and pedagogically sound learning tool for Grade 12 learners.

The instructional video received an overall mean rating of 4.83 with the SD of 0.42, which is qualitatively described as outstanding, indicating that learners found the video highly effective in delivering a well-structured and engaging learning experience.

The study aligns with existing research highlighting the effectiveness of instructional videos in enhancing student engagement and comprehension. Wong et al. (2018) demonstrated that multimedia formats significantly improve skill acquisition and retention, which is further supported by Altersberger et al. (2019), who found that instructional videos aid in reviewing complex skills. Suriyawansa et al. (2022) emphasized the importance of diverse video styles, such as animations and voice-over slides, in catering to different learning preferences, reinforcing the significance of well-structured visual content.

The integration of instructional videos into the curriculum, as recommended by Jang et al., (2014), maximizes their impact on student learning outcomes. Mou et al. (2022) also highlighted the role of interactive elements in enhancing engagement, provided they are balanced to prevent cognitive overload. The findings align with Nonthamand (2024), who underscored the necessity of clear organization and visual aids in improving instructional quality. Furthermore, Olabo et al. (2021) emphasized that the effectiveness of instructional videos depends on their alignment with educational objectives, while Othman et al. (2022) demonstrated the benefits of an edutainment approach in sustaining learner interest.

Extent of Students' Evaluation on Teaching Strategies using Instructional Videos for Experimental Group and Traditional Approaches for Control Group

As teaching methods diversify in the 21st century, comparing traditional strategies with technology-enhanced approaches such as instructional videos becomes essential in evaluating classroom effectiveness. Educators must not only deliver content but also master skills in instruction, assessment, and classroom management. With the rise of digital tools, there is a growing need to assess how these methods perform in real learning environments and how they influence both teaching practices and student outcomes.

Understanding the level of teaching proficiency and its variation between traditional methods and video-assisted instruction provides valuable insight into instructional effectiveness. This analysis emphasizes the importance of aligning teaching strategies with students' learning preferences while maintaining instructional quality. The results offer a clear perspective on how modern educational tools can enhance teacher performance and create a more engaging, responsive learning environment.

Table 5. Summary of the Extent of Evaluation of the Students of the Instructional Video on Trends, Networks and Critical Thinking in the 21st Century Culture

Indicators	Mean Rating	SD	Verbal Description
Content	4.84	0.40	Outstanding
Organization	4.84	0.40	Outstanding

Mechanics	4.91	0.21	Outstanding
Overall Package	4.83	0.42	Outstanding
Grand Mean	**4.86**	**0.36**	**Outstanding**

Table 6 presents the overall extent of students' evaluation of the instructional video on Trends, Networks, and Critical Thinking in the 21st Century Culture across four key aspects: content, organization, mechanics, and overall package. The instructional video received a grand mean rating of

4.86 with the SD of 0.36, which is qualitatively described as outstanding, indicating that learners found the video highly effective in delivering an engaging and well-structured learning experience. Among the four aspects, mechanics received the highest mean rating of 4.91 with the SD of 0.21, suggesting that the video excelled in technical quality, including clear audio, sharp visuals, and smooth synchronization of multimedia elements. The overall package received the lowest mean rating of 4.83 with the SD of 0.42, though it still falls within the outstanding category, reflecting the effectiveness of the video in providing a cohesive and informative learning experience. The content and organization aspects both received a mean rating of 4.84 with the SD of 0.40, demonstrating that the instructional video effectively covered essential topics in a well-structured and logically sequenced manner. These results affirm that the instructional video is a well-developed educational resource that enhances student learning in the subject.

The study supports existing research on digital literacy and critical thinking. Aldraiweesh et al., (2023) highlight that digital tools enhance learning, aligning with the study's findings on instructional videos. Kim et al. (2019) and Jupri et al. (2024) emphasize structured teaching strategies, reinforcing the video's effectiveness. Similarly, Ratama et al. (2021) and Nilyani et al. (2023) stress higher-order thinking, supported by the study's results. The findings also align with Putra et al. (2020) and Yoo (2020) on technology's role in education.

Table 6. Level of Teaching Strategies of Teacher in Traditional Method for Control Group in terms of Content Mastery

Indicators	**Mean Rating**	**SD**	**Verbal Description**
1. The teacher demonstrates a strong understanding of the subject matter.	4.84	0.37	Outstanding
2. The teacher explains complex topics in a way that is easy to understand.	4.89	0.31	Outstanding
3. The teacher's lessons are aligned with the learning standards and objectives.	4.95	0.23	Outstanding
4. The content taught is relevant to the required competencies.	4.79	0.41	Outstanding
5. The teacher adjusts the complexity of the lessons	4.84	0.37	Outstanding

Table 6 presents the level of teaching using the traditional method for the control group in terms of content mastery. The results indicate a mean rating of 4.85 with the SD of 0.07, which falls under the outstanding category, signifying those learners highly regarded the teacher's mastery of the subject. Among the indicators, the highest mean rating of 4.95 with the SD of 0.23 was given to the alignment of lessons with learning standards and objectives, highlighting the teacher's strong adherence to curriculum requirements.

The lowest mean rating of 4.76 with the SD of 0.43 was observed in the teacher's flexibility in addressing diverse learning needs, though still classified as outstanding, suggesting that while the teacher effectively adapted lessons, some variations in student needs may require further attention. These findings affirm that the

traditional teaching method in the control group demonstrated strong content mastery, ensuring that essential concepts were effectively delivered.

The findings support prior research on the effectiveness of traditional teaching methods in content mastery. The study by DigiTS (2024) and Ahmadidarrehsima et al. (2021) confirms that traditional instruction yields significant learning gains, aligning with the high mean rating for subject mastery. Souza et al. (2018) emphasizes the role of instructor expertise, which corresponds to the strong adherence to curriculum standards observed. Additionally, Guthrie & Chen (2020) highlight structured assessments, reinforcing the study's findings on content delivery effectiveness. However, McCubbins et al. (2018) suggest traditional methods may lack adaptability, aligning with the lower rating for flexibility in addressing diverse needs.

Table 8. Level of Teaching Strategies of Teacher in Traditional Method for Control Group in terms of Instructional Skill

Indicators	**Mean Rating**	**SD**	**Verbal Description**
1. Lessons are well- organized with clear learning objectives.	4.84	0.37	Outstanding
2. The teacher provides lessons that logically progress from one topic to the next.	4.78	0.42	Outstanding
3. The teacher uses varied teaching methods that cater to different learning styles.	4.86	0.35	Outstanding
4. The teacher encourages collaboration and active learning in the classroom.	4.86	0.35	Outstanding
5. The teacher incorporates activities that encourage critical thinking.	4.92	0.28	Outstanding
6. The lesson plan is flexible enough to accommodate unexpected questions or ideas.	4.92	0.49	Outstanding
Mean	**4.86**	**0.07**	**Outstanding**

Table 8 presents the level of teaching using the traditional method for the control group in terms of instructional skill. The results indicate a mean rating of 4.86 with the SD of 0.07, classified as outstanding, demonstrating that learners highly valued the teacher's instructional strategies.

Among the indicators, the highest mean ratings of 4.92 were given to the incorporation of activities that encourage critical thinking with the SD of 0.28 and the flexibility of lesson plans to accommodate unexpected questions or ideas with the SD of 0.49. These findings suggest that the teacher effectively fostered critical thinking and adaptability in the classroom.

The lowest mean rating of 4.78 with the SD of 0.42 was observed in ensuring that lessons logically progressed from one topic to the next, though still categorized as outstanding, indicating minor opportunities for further refinement in instructional flow. The results highlight that the traditional teaching method effectively employed strong instructional skills, supporting meaningful learning experiences for students.

The findings challenge critiques of traditional teaching methods, as the study indicates that learners highly valued instructional strategies fostering critical thinking and adaptability. This contradicts Winarno et al. (2018) and Mallillin et al. (2023), who argue that traditional methods hinder critical thinking and fail to address diverse learning needs. Similarly, the study's strong ratings for encouraging critical thinking contrast with Saputro et al. (2020), who found that traditional methods resulted in lower self-efficacy and critical thinking skills.

However, the lower rating for instructional flow aligns with concerns raised by Izzo et al. (2010) and Maloney et al. (2012) about the structured nature of traditional methods potentially limiting deeper learning.

Table 8. Level of Teaching Strategies of Teacher in Traditional Method for Control Group in terms of Assessment for Learning

Indicators	Mean Rating	SD	Verbal Description
1. The teacher regularly assesses my understanding through quizzes, tests, and projects.	4.82	0.39	Outstanding
2. The assessments reflect what we have learned in class.	4.95	0.23	Outstanding
3. The teacher provides timely and helpful feedback on assessments.	4.89	0.31	Outstanding
4. The teacher offers support to help students improve when needed.	4.87	0.34	Outstanding
5. The teacher's assessments focus on real-world applications of what we've learned.	4.89	0.31	Outstanding
6. The teacher encourages students to apply their knowledge through performance-based tasks.	4.95	0.23	Outstanding
Mean	**4.89**	**0.07**	Outstanding

Table 8 presents the level of teaching using the traditional method for the control group in terms of assessment for learning. The highest mean ratings of 4.95 were given to the indicators stating that assessments reflect classroom learning with the SD of 0.23 and that the teacher encourages students to apply their knowledge through performance-based tasks with the SD of 0.23, demonstrating that assessments were well-aligned with instructional content and practical application.

The lowest mean rating of 4.82 with the SD of 0.39) was observed in the regularity of assessments through quizzes, tests, and projects, though still classified as outstanding, indicating only minimal room for improvement. The findings suggest that the traditional teaching method effectively employed strong assessment practices, ensuring alignment with learning objectives, timely feedback, and opportunities for real-world application.

The overall mean rating of 4.89 with the SD of 0.07 indicates an outstanding level, reflecting the effectiveness of the teacher's assessment strategies in supporting student learning.

The findings support the importance of well-structured assessments in traditional teaching, as learners rated assessment alignment with classroom learning and real-world application highly. This contradicts Hubai et al., (2018), who argue that traditional methods often rely on ineffective assessments due to inadequate teacher training. Additionally, the strong assessment practices observed challenge Xie et al., (2022) and Liang et al., (2018), who suggest that traditional methods lack engagement and fail to prepare students for practical applications. However, the slightly lower rating for assessment regularity aligns with the argument that traditional approaches may benefit from more diversified assessment strategies, as proposed by Shi et al. (2011) and Vallée et al. (2020).

Table 9. Level of Teaching Strategies of Teacher in Traditional Method for Control Group in terms of Classroom Management

Indicators	Mean Rating	SD	Verbal Description
1. The teacher clearly communicates expectations for behavior and class routines.	4.92	0.27	Outstanding

2. The teacher effectively enforces classroom rules to maintain order.	4.89	0.31	Outstanding
3. The teacher uses strategies that keep me engaged and actively participating in class.	4.87	0.34	Outstanding
4. Group discussions and activities are used to promote participation and engagement.	4.89	0.31	Outstanding
5. The teacher fosters an inclusive classroom environment where all students feel valued.	4.97	0.16	Outstanding
6. The teacher ensures that diverse perspectives and needs are respected and supported.	4.97	0.16	Outstanding
Mean	**4.92**	**0.27**	**Outstanding**

Table 9 presents the level of teaching using the traditional method for the control group in terms of classroom management, with an overall mean rating of 4.92 with the SD of 0.27, classified as outstanding.

The highest mean ratings of 4.97 were given to the indicators stating that the teacher fosters an inclusive classroom environment where all students feel valued with the SD of 0.16 and ensures that diverse perspectives and needs are respected and supported with the SD of 0.16, highlighting the teacher's commitment to inclusivity and respect.

The lowest mean rating of 4.87 with the SD = 0.34 was observed in the use of strategies to keep students engaged and actively participating, though still rated outstanding, suggesting only slight room for enhancement in engagement techniques. These results indicate that classroom management in the traditional teaching method was highly effective, ensuring clear expectations, structured class routines, and a positive, inclusive learning environment.

The findings strongly align with research emphasizing the role of structured classroom management in fostering a positive learning environment. The high ratings for inclusivity and respect support Chen (2024) and Kwok (2017), who highlight the link between a supportive classroom atmosphere and student engagement. The effectiveness of structured routines aligns with Oliver et al. (2011) and Korpershoek et al. (2016), reinforcing the importance of preventive strategies in maintaining order. The slightly lower rating for engagement strategies suggests a minor area for improvement, supporting Coștu (2023) and Adedigba et al., (2020), who argue that traditional methods may sometimes prioritize discipline over relational approaches. These results affirm that effective classroom management in traditional teaching can create an inclusive, structured, and conducive learning environment.

Table 10. Summary of Level of Teaching Strategies of Teacher in Traditional Method for Control Group

Indicators	**Mean Rating**	**SD**	**Verbal Description**
Content Mastery	4.85	0.07	Outstanding
Instructional Skill	4.86	0.07	Outstanding
Assessment for Learning	4.89	0.07	Outstanding
Classroom Management	4.92	0.08	Outstanding
Grand Mean	**4.88**	**0.07**	**Outstanding**

Table 10 presents the overall level of teaching using the traditional method for the control group, with a grand mean rating of 4.88 with the SD of 0.07, classified as outstanding.

Among the specific areas evaluated, the highest mean rating of 4.92 with the SD of 0.08 was given to the overall package, indicating that the traditional teaching method was perceived as highly effective in delivering a well-structured and comprehensive learning experience.

The lowest mean rating of 4.85 with the SD of 0.07) was observed in content, though still rated outstanding, suggesting that while the subject matter was well-delivered, there is minor room for refinement. These findings highlight that the traditional teaching method was effectively implemented, particularly in ensuring an organized, well-structured, and engaging learning environment.

The findings align with research emphasizing the effectiveness of structured instructional approaches in traditional teaching. The high rating for the overall package supports Oliver et al. (2011) and Korpershoek et al. (2016), who emphasize that well-organized instructional strategies contribute to a positive learning environment by promoting clarity and consistency. Similarly, the structured nature of traditional teaching aligns with Chen (2024), who found that a well-managed and engaging classroom enhances students' academic value and emotional responses.

The slightly lower rating for content suggests minor opportunities for refinement, echoing Mallillin et al. (2023), who argue that traditional methods may not always address the diverse learning needs of students. These findings reinforce that while traditional teaching is effective in delivering structured instruction, continuous improvements in content delivery can further enhance its impact.

Table 11. Level of Teaching Strategies of Teacher using Instructional Video for Experimental Group in terms of Content Mastery

Indicators	Mean Rating	SD	Verbal Description
1. The teacher demonstrates a strong understanding of the subject matter.	4.84	0.37	Outstanding
2. The teacher explains complex topics in a way that is easy to understand.	4.76	0.43	Outstanding
3. The teacher's lessons are aligned with the learning standards and objectives.	4.92	0.27	Outstanding
4. The content taught is relevant to the required competencies.	4.89	0.39	Outstanding

Table 11 presents the level of teaching using instructional video for the experimental group in terms of content mastery, with an overall mean rating of 4.86, an SD of 0.05, and a qualitative description of outstanding.

The highest mean rating of 4.92, with an SD of 0.27 and a qualitative description of outstanding, was observed in the indicator the teacher's lessons are aligned with the learning standards and objectives.

The lowest mean rating of 4.76, with an SD of 0.43 and a qualitative description of outstanding, was recorded in the indicator the teacher explains complex topics in a way that is easy to understand.

The findings of this study align with existing literature on content mastery and the effectiveness of instructional videos in enhancing learning outcomes. The outstanding rating for lesson alignment with learning standards and objectives supports Lee et al. (2012) and Hazima et al., (2023), who emphasize that structured and goal-oriented instruction fosters mastery learning by ensuring students achieve competency before progressing. The use of instructional videos as a multimedia teaching tool also aligns with Singh (2022), who found that multimedia instruction improves content comprehension, engagement, and motivation. However, the slightly lower rating in explaining complex topics suggests a minor gap in simplifying difficult concepts,

which echoes the idea of Duterte (2024), who stress the need for well-designed multimedia strategies and evaluation systems to maximize instructional effectiveness.

Table 12. Level of Teaching Strategies of Teacher using Instructional Video for Experimental Group in terms of Instructional Skill

Indicators	**Mean Rating**	**SD**	**Verbal Description**
1. Lessons are well- organized with clear learning objectives.	4.87	0.34	Outstanding
2. The teacher provides lessons that logically progress from one topic to the next.	4.92	0.27	Outstanding
3. The teacher uses varied teaching methods that cater to different learning styles.	4.79	0.41	Outstanding
4. The teacher encourages collaboration and active learning in the classroom.	4.97	0.16	Outstanding
5. The teacher incorporates activities that encourage critical thinking.	4.89	0.31	Outstanding
6. The lesson plan is flexible enough to accommodate unexpected questions or ideas.	4.89	0.31	Outstanding
Mean	**4.89**	**0.08**	**Outstanding**

Table 12 presents the level of teaching using instructional video for the experimental group in terms of instructional skill, with an overall mean rating of 4.89, an SD of 0.08, and a qualitative description of outstanding.

The highest mean rating of 4.97, with an SD of 0.16 and a qualitative description of Outstanding, was observed in the indicator the teacher encourages collaboration and active learning in the classroom.

The lowest mean rating of 4.79, with an SD of 0.41 and a qualitative description of outstanding, was recorded in the indicator the teacher uses varied teaching methods that cater to different learning styles.

The results of this study align with existing literature on instructional skills and active learning strategies in teaching using traditional method. The outstanding rating for encouraging collaboration and active learning supports Hibbert et al. (2013) and Farahani et al. (2020), who highlight the effectiveness of blended learning approaches in enhancing engagement and skill development. The findings also reflect Hockicko et al. (2014), who emphasize that interactive teaching methods improve student motivation and comprehension.

The slightly lower rating in using varied teaching methods to cater to different learning styles suggests an area for improvement. This is consistent with Chen (2012) and Mao et al. (2022), who advocate for incorporating diverse instructional strategies, including multimedia and interactive elements, to optimize learning outcomes. Additionally, George et al. (2019) stress the importance of supplementing traditional methods with flexible instructional tools to ensure accessibility and engagement. These findings reinforce the effectiveness of traditional methods in fostering collaboration while highlighting the need to integrate more diverse instructional approaches to accommodate different learning preferences.

Table 14. Level of Teaching Strategies of Teacher using Instructional Video for Experimental Group in terms of Assessment for Learning

Indicators	Mean Rating	SD	Verbal Description
1. The teacher regularly assesses my understanding through quizzes, tests, and projects.	4.87	0.34	Outstanding
2. The assessments reflect what we have learned in class.	4.89	0.31	Outstanding
3. The teacher provides timely and helpful feedback on assessments.	4.82	0.39	Outstanding
4. The teacher offers support to help students improve when needed.	4.82	0.39	Outstanding
5. The teacher's assessments focus on real-world applications of what we've learned.	4.97	0.16	Outstanding
6. The teacher encourages students to apply their knowledge through performance-based tasks.	4.95	0.23	Outstanding
Mean	**4.89**	**0.09**	**Outstanding**

Table 14 presents the level of teaching using instructional video for the experimental group in terms of assessment for learning, with an overall mean rating of 4.89, an SD of 0.09, and a qualitative description of outstanding.

The highest mean rating of 4.97, with an SD of 0.16 and a qualitative description of outstanding, was observed in the indicator the teacher's assessments focus on real-world applications of what we've learned.

The lowest mean rating of 4.82, with an SD of 0.39 and a qualitative description of outstanding, was recorded in the indicators the teacher provides timely and helpful feedback on assessments and the teacher offers support to help students improve when needed.

The findings of this study align with existing literature on the effectiveness of assessment for learning strategies in teaching using instructional video. The outstanding rating for assessments that focus on real-world applications supports Ashour et al. (2023) and George et al. (2019), who highlight the importance of integrating real-life contexts in assessments to enhance student understanding and engagement. Additionally, Mohammadian et al. (2018) emphasize that active learning strategies, such as assessments tied to real-world scenarios, can significantly improve comprehension and application of knowledge.

The slightly lower rating in providing timely and helpful feedback, as well as offering additional support for learners, suggests an area for improvement. This aligns with Aguanta et al. (2024) and Omar et al. (2013), who advocate for interactive assessment strategies, such as student-generated content and formative feedback, to enhance engagement and skill acquisition. Furthermore, Nagro et al. (2016) stress the importance of reflective assessment practices, ensuring that learners receive meaningful and constructive feedback to improve their performance.

Table 14. Level of Teaching Strategies of Teacher using Instructional Video for Experimental Group in terms of Classroom Management

Indicators	Mean Rating	SD	Verbal Description
1. The teacher clearly communicates expectations for behavior and class routines.	4.82	0.39	Outstanding

2. The teacher effectively enforces classroom rules to maintain order.	4.97	0.16	Outstanding
3. The teacher uses strategies that keep me engaged and actively participating in class.	4.82	0.39	Outstanding
4. Group discussions and activities are used to promote participation and engagement.	4.87	0.34	Outstanding
5. The teacher fosters an inclusive classroom environment where all students feel valued.	4.97	0.16	Outstanding
6. The teacher ensures that diverse perspectives and needs are respected andsupported.	5.00	0.00	Outstanding
Mean	**4.91**	**0.16**	**Outstanding**

Table 14 presents the level of teaching using instructional video for the experimental group in terms of classroom management, with an overall mean rating of 4.91, an SD of 0.16, and a qualitative description of outstanding.

The highest mean rating of 5.00, with an SD of 0.00 and a qualitative description of outstanding, was observed in the indicator the teacher ensures that diverse perspectives and needs are respected and supported.

The lowest mean rating of 4.82, with an SD of 0.39 and a qualitative description of outstanding, was recorded in the indicators the teacher clearly communicates expectations for behavior and class routines and the teacher uses strategies that keep me engaged and actively participating in class.

The study's findings on classroom management using traditional methods align with existing literature emphasizing the importance of structured and inclusive learning environments. The outstanding rating in ensuring that diverse perspectives and needs are respected supports Cristo et al., (2023) and Adhikari (2021), who highlight that effective classroom management fosters a supportive and engaging learning atmosphere. The perfect mean score of 5.00 further reinforces the role of traditional teaching in promoting inclusivity and a well-managed classroom.

The slightly lower ratings in clearly communicating expectations and using strategies to sustain student engagement suggest potential areas for improvement. This observation corresponds with Amin et al., (2017) and Hong et al., (2023), who stress the need for well-planned communication strategies and dynamic engagement techniques to enhance student focus and participation. The use of innovative approaches, such as instructional videos, as suggested by Ryan & Reid (2015) and Nouri (2016), could complement traditional methods by reinforcing behavioral expectations and sustaining active participation.

The role of video-based learning in minimizing distractions and maintaining student focus, as discussed by Novita at al., (2021) and Dao- Sabah (2023), suggests that incorporating structured video lessons into traditional classroom settings may further enhance classroom management effectiveness. This aligns with Oellers et al. (2024) and Junker et al. (2021), who advocate for video-assisted strategies to refine classroom control techniques and optimize student engagement.

Table 16. Summary of the Level of Teaching Strategies of Teacher using Instructional Video for Experimental Group

Indicators	**Mean Rating**	**SD**	**Verbal Description**
Content Mastery	4.86	0.05	Outstanding
Instructional Skill	4.89	0.08	Outstanding

Assessment for Learning	4.89	0.09	Outstanding
Classroom Management	4.91	0.16	Outstanding
Grand Mean	**4.88**	**0.10**	**Outstanding**

Table 16 presents the level of teaching using instructional video for the experimental group, with an overall grand mean of 4.88, an SD of 0.10, and a qualitative description of outstanding.

The highest mean rating of 4.91, with an SD of 0.16 and a qualitative description of outstanding, was observed in the indicator overall package. The lowest mean rating of 4.86, with an SD of 0.05 and a qualitative description of outstanding, was recorded in the indicator content.

The results of the study align with several research that emphasize the effectiveness of structured, teacher-led instruction in ensuring high-quality classroom management, assessment, and overall teaching effectiveness. The findings from Cristo et al., (2023) and Adhikari (2021), which highlight the significance of structured classroom environments in fostering student engagement and academic success, support the outstanding rating observed in the study. Amin et al., (2017) and Hong et al., (2023) reinforce the idea that clear teacher facilitation and management contribute to an effective learning atmosphere, aligning with the high rating for traditional teaching methods.

The advantages of instructional videos (Mohammadian et al., 2018; Aguanta et al., 2024; Ryan et al., 2015; Brame, 2016) suggests that integrating video-based strategies could enhance content retention and student engagement. This slightly contradicts the lower rating for "content" in the study, indicating that while traditional methods are effective, incorporating multimedia resources could address gaps in content delivery and engagement.

Level of Learning Responses of Students in Pre-Test and Post-Test Relative to the Conduct of Instructional Videos on Trends, Networks and Critical Thinking in the 21st Century Culture in Third Quarter

In today's learner-centered classrooms, gauging student performance before and after the integration of innovative tools like instructional videos is crucial in determining their impact on academic growth. Instructional videos, when thoughtfully designed, serve not only to convey information but also to actively engage learners, foster curiosity, and improve comprehension of complex concepts. Evaluating students' learning responses through pre- and post-assessments offers a concrete measure of how such tools influence understanding and retention.

Highlighting these results underscores the transformative potential of multimedia instruction in enhancing critical thinking and meaningful learning. The observed shifts in student performance provide evidence of how digital tools, when aligned with curricular goals, can significantly contribute to better academic outcomes and a deeper grasp of 21st-century competencies.

Table 16. Level of Learning Responses of Students in 2 Groups during the Pretest and Posttest

Group	Scores	N	Mean	SD	Verbal Description
Control (Traditional Method)	Posttest	40	37.10	2.53	Outstanding
Experimental (Use Instructional Video)		40	36.00	8.46	Outstanding
Control (Traditional Method)	Pretest	40	33.70	2.23	Outstanding
Experimental (Use Instructional Video)		40	32.30	7.83	Outstanding

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Table 16 presents the level of learning responses of students in the control and experimental groups during the pretest and posttest, showing that both groups achieved an overall qualitative description of outstanding.

The highest mean score of 37.10, with an SD of 2.53, was recorded in the posttest for the control group using the traditional method. Meanwhile, the lowest mean score of 32.30, with an SD of 7.83, was observed in the pretest for the experimental group using instructional videos.

The results of the study both align with and slightly contradict the findings. The overall Outstanding learning responses for both the control and experimental groups suggest that both traditional methods and instructional videos are effective teaching strategies. This aligns with research by Yilmaz et al., (2018) and Hermanto et al. (2020), which highlight those structured instructional methods, including traditional teaching approaches, can lead to significant cognitive improvements. The posttest mean score for the control group (37.10) being higher than the experimental group's pretest score (32.30) suggests that instructional videos initially resulted in lower performance, but may still lead to improvements over time, as seen in Rambe et al. (2023) and Dewi et al. (2024), where video-based instruction resulted in increased posttest scores.

The lower pretest scores in the experimental group suggest that the immediate effectiveness of instructional videos may vary based on factors like prior knowledge or learning adaptability. This slightly contradicts findings from Rusnayati et al. (2023) and Hidayat et al., (2022), which indicate that multimedia and problem-based learning approaches consistently improve conceptual understanding and process skills. It suggests that while instructional videos can be beneficial, their impact may depend on how they are implemented and the learners' familiarity with the format.

Testing the Significant Difference between the Learning Responses of the Control and Experimental Group in the Pre-Test

To assess the effectiveness of different teaching methods, it is essential to compare student performance before any intervention. The pre-test results serve as a baseline measurement, providing insights into the initial level of knowledge and understanding of both the control and experimental groups. This initial evaluation helps in understanding the starting point for each group and sets the stage for measuring the impact of the instructional methods employed.

By examining the learning responses in the pre-test, we can gauge whether there are inherent differences in the groups before the introduction of instructional videos or traditional methods. These findings are crucial in understanding how the groups performed under their respective learning conditions, and they lay the foundation for determining the effectiveness of the instructional strategies in improving learning outcomes.

Table 17. Difference between the Pretest Scores of the Control and Experimental Groups through Mann-Whitney Test

Groups	**N**	**Mean**	**SD**	**Mann-Whitney U**	**p**
Control	40	33.7	2.23	780	0.846
Experimental	40	32.3	7.83		
Note: p,.05, level of significant					

Table 18 presents the difference between the pretest scores of the control and experimental groups using the Mann-Whitney Test. The control group had a mean score of 33.7 with an SD of 2.23, while the experimental group had a mean score of 32.3 with an SD of 7.83. The Mann-Whitney U value was 780, and the p-value was 0.846, which is greater than the 0.05 level of significance, indicating no statistically significant difference between the pretest scores of the two groups.

The study's findings align with several studies, particularly those emphasizing the importance of establishing baseline similarities between groups before implementing interventions. The absence of a statistically significant difference in pretest scores between the control and experimental groups supports the findings of Teke & Avşaroğlu (2024) and Tien et al. (2023), who also reported no significant differences in pretest scores, reinforcing the necessity of comparable starting conditions for valid post-intervention analysis. The results align with Kükürtçü & Erkan (2022), whose study demonstrated that while pretest differences were insignificant, posttest improvements indicated the effectiveness of the intervention. This suggests that although the groups started at similar levels, instructional videos could still produce meaningful learning gains in posttest scores.

The study slightly contrasts with Kurniawan (2020) and Alsaadoun (2021), who emphasized that pretest scores can serve as predictive indicators of posttest performance. Despite this, the overall lack of significant difference in pretest scores upholds the principle that interventions should be assessed based on posttest outcomes rather than initial disparities.

Testing the Significant Difference between the Learning Responses of the Control and Experimental Group in the Posttest

The posttest serves as a critical measure of how effectively the instructional strategies, whether traditional methods or instructional videos, have impacted students' learning over the course of the study. By comparing the posttest results of the control and experimental groups, we gain valuable insights into how each group's learning responses evolved after being exposed to different teaching methods. This comparison helps in understanding the relative effectiveness of instructional videos versus traditional teaching strategies in enhancing students' grasp of Trends, Networks, and Critical Thinking in the 21st Century Culture.

The analysis of the posttest results is essential to determine whether the experimental group, which utilized instructional videos, outperformed the control group that relied on traditional teaching methods. It highlights the extent to which each teaching approach influenced the students' knowledge retention, critical thinking, and overall academic performance. The findings from this evaluation are crucial in assessing the effectiveness of technology-integrated learning tools in modern education.

Table 18. Difference between the Posttest Scores of the Control and Experimental Groups through Mann-Whitney Test

Groups	**N**	**Mean**	**SD**	**Mann- Whitney U**	**p**
Control	40	37.10	2.53	714	0.398
Experimental	40	36.00	8.46		
Note: p,.05, level of significant					

Table 18 presents the difference between the posttest scores of the control and experimental groups using the Mann-Whitney Test. The control group had a mean score of 37.10 with an SD of 2.53, while the experimental group had a mean score of 36.00 with an SD of 8.46. The Mann-Whitney U value was 714, and the p-value was 0.398, which is greater than the 0.05 level of significance, indicating no statistically significant difference between the posttest scores of the two groups.

The study's findings align with Sulaiman et al. (2022), who reported that although the experimental group improved, the posttest differences between the control and experimental groups were not statistically significant. This supports the conclusion that not all instructional interventions guarantee a measurable advantage over traditional methods, especially when external factors like variability in learning styles and engagement levels come into play. The results contrast with Sriliasta et al., (2023) and Gan et al. (2019), who found statistically significant improvements in posttest scores for the experimental groups, indicating that their innovative instructional methods had a more pronounced effect. The lack of a significant difference in the

current study suggests that while instructional videos may support learning, their impact may not be strong enough to yield significantly better outcomes compared to traditional methods within the given sample.

Testing the Significant Difference between the Learning Responses of the Control Group in the Pre-Test and Post-Test

The comparison of the control group's pre-test and post-test results provides important insights into the effectiveness of traditional teaching methods in enhancing students' learning outcomes. By evaluating the learning responses before and after the instructional period, we can determine the extent to which the traditional approach facilitated the development of critical thinking and knowledge retention among the students.

This analysis is pivotal in understanding the impact of conventional teaching strategies on students' ability to grasp key concepts related to Trends, Networks, and Critical Thinking in the 21st Century Culture. The comparison also allows for a clearer picture of whether the traditional method was able to foster significant learning gains, and how students' academic responses evolved throughout the study period. It serves as a baseline against which the performance of the experimental group can be measured, providing a context for evaluating the potential benefits of integrating more innovative educational tools, such as instructional videos.

Table 19. Difference between the Pretest and Posttest Scores of the Control Group

Scores	**N**	**Mean**	**SD**	**df**	**t-stat**	**p**
Posttest	40	37.10	2.53	39	6.60	<0.0001
Pretest	40	33.70	2.23			
Note. H_a μ *Measure 1 - Measure 2* $\neq 0$						

Table 19 presents the difference between the pretest and posttest scores of the control group. The posttest had a mean score of 37.10 with an SD of 2.53, while the pretest had a mean score of 33.70 with an SD of 2.23. With 39 degrees of freedom, the t-statistic was 6.60, and the p-value was less than 0.0001, which is below the 0.05 level of significance. This indicates a statistically significant improvement in the scores of the control group from pretest to posttest.

The significant improvement in the control group's posttest scores aligns with findings from Kurniawan (2020) and Çelik at al., (2018), who emphasized that pretest assessments serve as a baseline for measuring instructional effectiveness. Yilmaz at al., (2018) demonstrated that structured traditional methods, such as place-based education, can lead to significant cognitive gains over time. While innovative instructional strategies often yield greater improvements, studies like Rusnayati et al. (2023) highlight that even conventional approaches, when systematically applied, can result in meaningful learning gains. This suggests that structured learning environments, regardless of methodology, contribute to significant academic performance improvements.

Testing the Significant Difference between the Learning Responses of the Experimental Group in the Pretest and Posttest

The examination of the experimental group's pre-test and post-test learning responses sheds light on the impact of instructional videos in enhancing students' understanding of Trends, Networks, and Critical Thinking in the 21st Century Culture. By comparing the results before and after the instructional intervention, it becomes possible to assess how effectively the video-based approach facilitated learning and promoted critical thinking among the students.

This analysis is crucial for determining whether the integration of instructional videos led to measurable improvements in students' comprehension, engagement, and retention of complex concepts. The shift in

learning responses also highlights the role of multimedia tools in fostering a more dynamic and interactive learning environment, which could offer a more engaging alternative to traditional teaching methods. By evaluating the learning progress of the experimental group, this comparison provides valuable insights into the effectiveness of instructional videos in supporting 21st-century learning skills.

Table 20. Difference between the Pretest and Posttest Scores of the Experimental Group

Scores	N	Mean	SD	df	t-stat	p
Posttest	38	37.90	1.28	37	9.04	< .001
Pretest	38	34.00	2.29			
Note. H_a μ *Measure 1 - Measure 2* $\neq 0$						

Table 20 presents the difference between the pretest and posttest scores of the experimental group. The posttest had a mean score of 37.90 with an SD of 1.28, while the pretest had a mean score of 34.00 with an SD of 2.29. With 37 degrees of freedom, the t-statistic was 9.04, and the p-value was less than 0.001, which is below the 0.05 level of significance. This indicates a statistically significant improvement in the scores of the experimental group from pretest to posttest.

The significant improvement in the experimental group's posttest scores aligns with findings from Sriliasta et al. (2023) and Gan et al. (2019), who reported that innovative instructional strategies, such as hybrid learning approaches and interactive applications, can lead to substantial academic gains. Kırıkkaya et al. (2021) emphasized that technology-enhanced methodologies positively impact academic performance, reinforcing the idea that well-structured interventions can enhance learners' cognitive development. The observed improvement further supports the argument that tailored instructional strategies contribute to meaningful learning outcomes.

Testing the Significant Difference between the Learning Gains of the Control and Experimental Group

The analysis of the learning gains between the control and experimental groups provides a direct comparison of the effectiveness of traditional teaching methods versus instructional video-based learning. Learning gains are a critical measure of how much knowledge and understanding students acquire over a specific period, and this comparison helps highlight the impact of instructional videos on students' learning outcomes.

By examining the difference in learning gains between the two groups, we can assess whether the integration of instructional videos leads to significant improvements in students' grasp of the content related to Trends, Networks, and Critical Thinking in the 21st Century Culture. The results offer valuable insights into the potential of instructional videos to enhance learning experiences, foster deeper understanding, and support the development of critical thinking skills, compared to more conventional methods. This analysis is pivotal in determining the effectiveness of modern, technology-driven teaching approaches in promoting educational success.

Table 21. Difference between the Learning Gains of the Control and Experimental Groups

Scores	N	Mean	SD	df	t-stat	p
Control (Traditional Method)	40	3.40	3.26	76	-0.77	0.444
Experimental (Use Instructional Video)	38	3.92	2.68			
Note. H_a μ *Control* $\neq \mu$ *Experimental*						

Table 21 presents the difference between the learning gains of the control and experimental groups. The control group, using the traditional method, had a mean learning gain of 3.40 with an SD of 3.26, while the

experimental group, using instructional videos, had a mean learning gain of 3.92 with an SD of 2.68. With 76 degrees of freedom, the t-statistic was -0.77, and the p-value was 0.444, which is above the 0.05 level of significance. This indicates that there was no statistically significant difference in learning gains between the two groups.

Unlike studies that demonstrated significant differences in learning gains between experimental and control groups due to innovative instructional strategies (Sriliasta et al., 2023; Rapi et al., 2021; He, 2023), the present findings indicate no statistically significant difference in learning gains between the two groups. This aligns with research suggesting that not all alternative instructional approaches yield superior outcomes compared to traditional methods, highlighting the need for further investigation into the factors influencing instructional effectiveness.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter provides the summary of the study, drawn conclusions and recommendations using the theory of change based on the results and findings of the investigation.

Summary

This study explored the impact of instructional videos and strategies on the learning responses of Grade 12 SHS students in Trends, Networks, and Critical Thinking in the 21st Century Culture at Isulan National High School. It aimed to determine the effectiveness of instructional videos by analyzing the pretest and posttest scores of both the control and experimental groups, assessing the differences in learning gains, and evaluating whether instructional videos significantly influenced students' learning responses.

A quasi-experimental research design was employed, with the control group receiving instruction through traditional methods and the experimental group utilizing instructional videos. Pretests and posttests were administered, and statistical analyses, including t-tests and the Mann-Whitney test, were conducted to measure significant differences. The results indicated that while both groups showed statistically significant improvements in their posttest scores, there was no significant difference in learning gains between the two groups.

The results revealed that both the control and experimental groups exhibited significant improvements in their posttest scores compared to their pretest scores, indicating that learning occurred in both instructional settings. However, when comparing posttest scores between the two groups, the Mann- Whitney test showed no statistically significant difference, suggesting that instructional videos did not lead to a significantly higher posttest performance than traditional teaching methods. The comparison of learning gains between the groups indicated no significant difference, further supporting the conclusion that while instructional videos were beneficial, they did not provide a substantial advantage over conventional instruction in terms of measurable learning outcomes.

These findings aligned with prior studies that suggest multimedia tools can enhance engagement but may not always translate into significantly better academic performance. Factors such as the method of video integration, student engagement levels, and prior knowledge could influence the effectiveness of instructional videos. The results highlighted the need for a balanced approach that combined traditional teaching methods with multimedia resources to optimize student learning experiences.

Conclusions

Based on the findings of this study the following are concluded:

The instructional video on Trends, Networks, and Critical Thinking in the 21st Century Culture was evaluated based on content, organization, mechanics, and overall package was generally well-received, demonstrating effectiveness in delivering information in a structured and engaging manner.

Teachers using the traditional method demonstrated strong content mastery, instructional skills, and classroom management.

The pretest and posttest results indicated that both groups improved after instruction, with higher posttest scores reflecting knowledge acquisition.4 There was no statistically significant difference between the pretest scores of the control and experimental groups, indicating that both groups had a comparable level of prior knowledge before the intervention.

No significant difference was found between the posttest scores of the control and experimental groups, suggesting that instructional videos did not yield a superior learning outcome compared to traditional teaching methods.

A statistically significant improvement was observed in the control group's posttest scores compared to their pretest scores. This suggests that traditional instruction effectively enhanced students' understanding of the subject matter.

The experimental group also showed a statistically significant improvement in posttest scores, indicating that instructional videos contributed to student learning.

No significant difference was found in learning gains between the control and experimental groups, suggesting that while instructional videos facilitated learning, they did not provide a distinct advantage over traditional teaching methods in terms of measurable academic performance.

Overall, both instructional videos and traditional teaching methods were effective in enhancing student learning. However, the absence of a significant difference in posttest scores and learning gains indicates that instructional videos should be integrated as a supplementary tool rather than a replacement for conventional teaching.

Recommendations

Based on the findings and conclusion of this study the following are recommended:

1. Since the instructional video was generally well-received, it is recommended to refine its content, organization, and mechanics further. Moreover, it is also important to note and edit some sections of the instructional videos to be more structured, and have distinct topic transitions.

2. For traditional teaching methods, teachers should incorporate more interactive elements, such as active learning strategies and formative assessments, to enhance student engagement and flexible in addressing the diverse learning needs of the students. For instructional videos, additional strategies like guided discussions, interactive quizzes, and real-time feedback should be integrated to address classroom management and assessment challenges.

3. While instructional videos were found to be effective, they should not be used as a standalone teaching method.

4. Both traditional and video-based instructional methods should integrate a variety of assessment techniques, such as formative and summative evaluations, peer assessments, and self-reflections, to provide a more comprehensive measurement of student learning.

5. Teachers should receive training on designing and utilizing instructional videos effectively.

6. Given that both traditional and video-based methods yielded comparable results, it is recommended to explore blended learning models that combine the strengths of both approaches.

7. Schools should invest in resources such as high-quality video production tools, learning management systems, and digital training programs to support the effective integration of instructional videos into the curriculum.

8. Future research may explore blended learning approaches to optimize instructional effectiveness.

This Master's Thesis entitled "INSTRUCTIONAL VIDEOS AND STRATEGIES ON TRENDS, NETWORKS AND CRITICAL THINKING IN THE 21ST CENTURY CULTURE AND THE LEARNING RESPONSES OF GRADE 12 SHS STUDENTS IN INHS" prepared and submitted by MA. SHIELA MAY B. LAURIAGA, in partial fulfillment of the requirements for the degree MASTER OF ARTS IN TEACHING SOCIAL STUDIES, is hereby accepted and endorsed.

NANCY B. ESPACIO, EdD

Adviser

Date signed

Respectfully endorsed as partial fulfillment of the requirements for the degree MASTER OF ARTS IN TEACHING SOCIAL STUDIES.

PAUL RYAN L. OÑAS, PhD **ELIZABETH BAUZON, DBM**

MAT- Social Studies Program Chairman GS Research Coordinator

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Approval Sheet

This Master's Thesis entitled "INSTRUCTIONAL VIDEOS AND STRATEGIESON TRENDS, NETWORKS AND CRITICAL THINKING IN THE 21ST CENTURY CULTURE AND THE LEARNING RESPONSES OF

GRADE12 SHS STUDENTS IN INHS" has passed the standards set by the Sultan Kudarat State University, Graduate School, has been successfully defended and approved on April 30,2025 before the panel of examiners.

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The Researcher

Dedication

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REFERENCES

1. Adedigba, O. and Sulaiman, F. (2020). Influence of teachers' classroom management style on pupils' motivation for learning and academic achievement in kwara state. International Journal of Educational Methodology, 6(2), 471-480. https://doi.org/10.12973/ijem.6.2.471
2. Adhikari, N. (2021). Pedagogical approaches for an effective classroom management. Interdisciplinary Research in Education, 6(1), 45-56. https://doi.org/10.3126/ire.v6i1.43421
3. Aguanta, C., Augusto, M., Bajenting, J., Buayaban, K., Cruz, E., Fantonial, N., … & Picardal, M. (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
4. Ahmadidarrehsima, S., Rafati, S., Jabalbarezi, M., & Rafati, F. (2021). Comparing the effects of mastery learning and lectures on nurses' oxygen therapy knowledge and practice: a quasi-experimental study in southern iran.. https://doi.org/10.21203/rs.3.rs-850577/v1
5. Ahmed, S., Ibrahim, I., Mobarak, A., & Hassan, A. (2019). Effect of aromatherapy massage on postoperative sleep pattern among school age children. Assiut Scientific Nursing Journal, 7(19), 92-103. https://doi.org/10.21608/asnj.2019.74224
6. Aldraiweesh, A. and Alturki, U. (2023). Exploring factors influencing the acceptance of e-learning and students' cooperation skills in higher education. Sustainability, 15(12), 9363. https://doi.org/10.3390/su15129363
7. Allen, W. A., & Smith, A. R. (2012). Effects of video podcasting on psychomotor and cognitive performance, attitudes, and study behavior of student physical therapists. Innovations in Education and Teaching International, 49(4), 401–414.
8. Almulla, M. A. (2020). The effectiveness of the project-based learning (PBL) approach as a way to engage students in learning. SAGE Open, 10(3). https://doi.org/10.1177/2158244020938702
9. Alsaadoun, A. (2021). The effect of employing electronic static infographic technology on developing university students' comprehension of instructional design concepts and ict literacy. International Journal of Education and Literacy Studies, 9(1), 54. https://doi.org/10.7575/aiac.ijels.v.9n.1p.54
10. AlShaikh, R., Al-Malki, N., & Almasre, M. (2024). The implementation of the cognitive theory of multimedia learning in the design and evaluation of an AI educational video assistant utilizing large language models. Heliyon, 10(2), e25361. https://doi.org/10.1016/j.heliyon.2024.e25361
11. Altersberger, M., Pavelka, P., Sachs, A., Weber, M., Wagner-Menghin, M., & Prosch, H. (2019). Student perceptions of instructional ultrasound videos as preparation for a practical assessment. Ultrasound International Open, 05(03), E81-E88. https://doi.org/10.1055/a-1024- 4573
12. Amin, F. and Tahir, M. (2017). Teachers talk: facilitating and motivating students to study.. https://doi.org/10.2991/icest-17.2017.66
13. Artman, N. (2020). Applying the cognitive theory of multimedia learning: Using the ADDIE model to enhance instructional video. Explorations in Media Ecology, 19(3), 371–380. https://doi.org/10.1386/EME_00054_1
14. Agojo, H. P. C., & Cabral, D. M. (2024). A Study on Literacy Enhancement: Assessing the Impact of Technology-Assisted Reading Instruction on English Language Learners. Journal of Contemporary Educational Research, 8(12), 106–120. https://doi.org/10.26689/jcer.v8i12.7662
15. Aljehani, S. B. (2024). Enhancing Student Learning Outcomes: The Interplay of Technology Integration, Pedagogical Approaches, Learner Engagement, and Leadership Support. 418–437. https://doi.org/10.53555/kuey.v30i4.1485
16. Al-Amin, Y., & Hartono, M. (2024). How Multimedia Learning Enhances Students' Mathematical Creativity in Science Education: A Meta-Analysis Study. Jurnal Penelitian Pendidikan IPA (JPPIPA), 10(5), 234–241. https://doi.org/10.29303/jppipa.v10i5.5273
17. Ashour, O., Alkhatib, A., Zureikat, Q., Al-Shaikhli, M., Ata, B., Massad, T., … & Al-Ani, A. (2023). Investigating medical students' satisfaction towards video-based learning versus face-to-face lectures: a jordanian tertiary teaching hospital experience. Korean Journal of Medical Education, 35(1), 21-32. https://doi.org/10.3946/kjme.2023.246

18. Barbosa, R., Gonzaga, A., Jardim, F., Mendes, K., & Sawada, N. (2024). Safe practices for prevention and management of antineoplastic agent extravasation: development of an educational video. Revista Brasileira De Enfermagem, 77(5). https://doi.org/10.1590/0034-7167-2024-0172
19. Beege, M., & Ploetzner, R. (2024). Learning from interactive video: the influence of self-explanations, navigation, and cognitive load. Instructional Science. https://doi.org/10.1007/s11251-024-09693-5
20. Brame, C. (2016). Effective educational videos: principles and guidelines for maximizing student learning from video content. Cbe—life Sciences Education, 15(4), es6. https://doi.org/10.1187/cbe.16-03-0125
21. Brame, C. (2016). Effective educational videos: principles and guidelines for maximizing student learning from video content. Cbe—life Sciences Education, 15(4), es6. https://doi.org/10.1187/cbe.16-03-0125
22. Brame, C. J. (2016). Effective educational videos: Principles and guidelines for maximizing student learning from video content. CBE Life Sciences Education, 15(4), es6. https://doi.org/10.1187/cbe.16-03-0125
23. Cardino Jr., J. M., & Ortega-Dela Cruz, R. A. (2020). Understanding of learning styles and teaching strategies towards improving the teaching and learning of mathematics. LUMAT General Issue, 8(1), 19–43. https://files.eric.ed.gov/fulltext/EJ1272228.pdf
24. Çelik, A. and Aydın, A. (2018). The effect of a course on violence against women on the attitudes of student midwives and nurses towards domestic violence against women, their occupational roles in addressing violence, and their abilities to recognize the signs of violence. Perspectives in Psychiatric Care, 55(2), 210-217. https://doi.org/10.1111/ppc.12333
25. Chen, X. (2024). How is teaching quality related to achievement emotions in secondary low- and high-achieving students: a cross-sectional study in chinese mathematics classrooms. British Journal of Educational Psychology, 94(3), 862-880. https://doi.org/10.1111/bjep.12691
26. Chen, Y. (2012). The effect of thematic video-based instruction on learning and motivation in e-learning. International Journal of the Physical Sciences, 7(6). https://doi.org/10.5897/ijps11.1788
27. Chen, Y. (2012). The effect of thematic video-based instruction on learning and motivation in e-learning. International Journal of the Physical Sciences, 7(6). https://doi.org/10.5897/ijps11.1788
28. Cléret, B., Dehling, A., Leroy, J., & Herbert, M. (2018). The videographic approach in marketing research: Which methodological protocol? Recherche et Applications en Marketing (English Edition), 33(3), 85–105. https://doi.org/10.1177/2051570718789870
29. Chinel, J. (2023). The Use of Audio-Video Instructional Materials to Improve the Performance of Learners in Social Studies. International Journal For Science Technology And Engineering, 11(7), 1918–1924. https://doi.org/10.22214/ijraset.2023.54938
30. Cobos, M. (2024). Validating Narrative in Educational Videos: A Practical Analysis Tool. 1–5. https://doi.org/10.1109/icalter65499.2024.10819230 Community Editorial Team at Comcast Business. (2023). Technology in education: Elevating the learning experience. Comcast Business. https://business.comcast.com/community/browse- all/details/technology-in-education-elevating-the-learning-experience
31. Costa, S. F. (2024). Exploring the impact of educational videos on higher education: Insights from the b-Mat@plicada course. The Internet of Medical Things (IoMT): Revolutionizing Health Care and Transforming Lives Through Technology and Engineering, 20(S7). https://doi.org/10.62441/nano-ntp.v20iS7.52
32. Coştu, F. (2023). The effects of positive/negative teachers' behaviors related to classroom management on pre-service science teachers. International E-Journal of Educational Studies, 7(13), 122-133. https://doi.org/10.31458/iejes.1228610
33. Cristo, A. and Ching, D. (2023). Moderation effect of stakeholders' participation in classroom management strategies and behavior to supportive learning environment. International Journal of Research Publications, 133(1). https://doi.org/10.47119/ijrp1001331920235506
34. Dao-Sabah, M. (2023). Students and teachers perspectives on classroom management in moroccan public high schools: interviews and observation. American Journal of Multidisciplinary Research and Innovation, 2(2), 99-107. https://doi.org/10.54536/ajmri.v2i2.1394

35. Dewi, N., Prasetya, A., & Widiyatmoko, A. (2024). The effect of using water cycle animation videos on the scientific literacy and cognitive learning outcomes of elementary school students. International Journal of Research and Review, 11(2), 294-303. https://doi.org/10.52403/ijrr.20240231
36. 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
37. Díaz-Martín, C. (2023). Professional development of pre-service language teachers in content and language integrated learning: A training programme integrating video technology. Languages, 8(4), 232. https://doi.org/10.3390/languages8040232
38. Duterte, J. P. (2024). Effective pedagogical strategies for digital learners. EPRA International Journal of Research & Development, 50–55. https://doi.org/10.36713/epra18211
39. Eynde, J., Crauwels, A., Demaerel, P., Eycken, L., Bullens, D., Schrijvers, R., … & Toelen, J. (2019). Youtube videos as a source of information about immunology for medical students: cross-sectional study. Jmir Medical Education, 5(1), e12605. https://doi.org/10.2196/12605
40. Farahani, S., Farahani, I., Burckhardt, B., Schwender, H., & Laeer, S. (2020). Self-instruction video versus face-to-face instruction of pharmacy students' skills in blood pressure measurement. Pharmacy, 8(4), 217. https://doi.org/10.3390/pharmacy8040217
41. Fulk, G. (2023). Descriptive statistics: An important first step. Journal of Neurologic Physical Therapy, 47(2), 63. https://doi.org/10.1097/NPT.0000000000000434
42. Funa, A., & Ricafort, J. (2019). Validation of gamified instructional materials in genetics for Grade 12 STEM students. Retrieved from https://www.researchgate.net/publication/334684697_Validation_of_Gamified_Instructional_Materials_in_Genetics_for_Grade_12_STEM_S tudents
43. Galdo, M. B. (2022). Likhang – Modelo na 21st century skills development ladder gamit ang video production bilang tranpormatibong estratehiya. International Journal of Research Studies in Education, 11(1). https://doi.org/10.5861/ijrse.2022.201
44. Gan, F., Cunanan, E., & Castro, R. (2019). Effectiveness of healthy foodie nutrition game application as reinforcement intervention to previous standard nutrition education of school-aged children: a randomized controlled trial. Journal of the Asean Federation of Endocrine Societies, 34(2), 144-152. https://doi.org/10.15605/jafes.034.02.04
45. George, A., Blaauw, D., Green-Thompson, L., Hajinicolaou, C., Lala, N., Parbhoo, K., … & Lala, S. (2019). Comparison of video demonstrations and bedside tutorials for teaching paediatric clinical skills to large groups of medical students in resource-constrained settings. International Journal of Educational Technology in Higher Education, 16(1). https://doi.org/10.1186/s41239-019-0164-z
46. George, A., Blaauw, D., Green-Thompson, L., Hajinicolaou, C., Lala, N., Parbhoo, K., … & Lala, S. (2019). Comparison of video demonstrations and bedside tutorials for teaching paediatric clinical skills to large groups of medical students in resource-constrained settings. International Journal of Educational Technology in Higher Education, 16(1). https://doi.org/10.1186/s41239-019-0164-z
47. Labinska, B., Matiichuk, K., & Morarash, H. (2020). Enhancing Learners' Communicative Skills through Audio-Visual Means. Revista Romaneasca Pentru Educatie Multidimensionala, 12(2), 220–236. https://doi.org/10.18662/RREM/12.2/275
48. Griantari, N. and Wati, N. (2023). The influence of the implementation of elicit, confront, identify, resolve, reinforce (ecirr) learning model on learning outcomes of craft and entrepreneurship (pkwu) by controlling learning motivation. International Journal of Multidisciplinary Sciences, 1(1), 87-98. https://doi.org/10.37329/ijms.v1i1.2370
49. Guthrie, M. and Chen, Z. (2020). Comparing student behavior in mastery and conventional style online physics homework.. https://doi.org/10.1119/perc.2019.pr.guthrie
50. Haerawan, H., Cale, W., & Barroso, U. (2024). The Effectiveness of Interactive Videos in Increasing Student Engagement in Online Learning. Journal of Computer Science Advancements, 2(5), 244–258. https://doi.org/10.70177/jsca.v2i5.1322
51. Hapeshi, K., & Jones, D. M. (1992). Interactive multimedia for instruction: A cognitive analysis of the role of audition and vision. International Journal of Human-Computer Interaction, 4(1), 79–99. https://doi.org/10.1080/10447319209526029

52. Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. Sustainable Operations and Computers, 3, 275–285. https://doi.org/10.1016/j.susoc.2022.05.004
53. Hazima, H. and Khairuddin, K. (2023). Implementation of content mastery services in overcoming problems of student learning difficulties. Journal for Lesson and Learning Studies, 6(1), 81-91. https://doi.org/10.23887/jlls.v6i1.58618
54. He, M. (2023). The influence of cultural identity education on students' positive psychology. HTS Teologiese Studies / Theological Studies, 79(4). https://doi.org/10.4102/hts.v79i4.8886
55. Hermanto, I., Sarwi, S., & Yusuf, A. (2020). Effectiveness of project-based learning model to improve students' cognitive skills.. https://doi.org/10.4108/eai.29-6-2019.2290522
56. Hibbert, E., Lambert, T., Carter, J., Learoyd, D., Twigg, S., & Clarke, S. (2013). A randomized controlled pilot trial comparing the impact of access to clinical endocrinology video demonstrations with access to usual revision resources on medical student performance of clinical endocrinology skills. BMC Medical Education, 13(1). https://doi.org/10.1186/1472-6920-13-135
57. Hidayat, M. and Subekti, H. (2022). Promoting science process skills and learning outcomes through cybergogy approaches with phet media for junior high school students. Jurnal Pijar Mipa, 17(4), 499-506. https://doi.org/10.29303/jpm.v17i4.3623
58. Hockicko, P., Krišťák, Ľ., & Němec, M. (2014). Development of students' conceptual thinking by means of video analysis and interactive simulations at technical universities. European Journal of Engineering Education, 40(2), 145-166. https://doi.org/10.1080/03043797.2014.941337
59. Hong, N. and Anh, N. (2023). Classroom management, motivation and academic performance: the perspective of students in business english classes at ba ria-vung tau university. International Journal of Current Science Research and Review, 06(08). https://doi.org/10.47191/ijcsrr/v6-i8-77
60. Hossain, Md. S. A., & Islam, R. (2024). Effect of Recorded Video Instructions on Students Performance and Learning Experience in Engineering Technology Education. https://doi.org/10.18260/1-2--39175
61. Hubai, K. and Lázár, I. (2018). Assessment of learning in the hungarian education system with a special focus on language teachers' views and practices. WoPaLP, 12, 83-93. https://doi.org/10.61425/wplp.2018.12.82.93
62. Hutson, J., Steffes, R., & Weber, J. (2023). Virtual learning environments and digital twins: Enhancing accessibility, diversity, and flexibility in training secondary educational administrators. Metaverse, 4(1), 16. https://doi.org/10.54517/m.v4i1.2165
63. Ibáñez, M., Serio, Á., Villarán, D., & Kloos, C. (2014). Experimenting with electromagnetism using augmented reality: impact on flow student experience and educational effectiveness. Computers & Education, 71, 1-13. https://doi.org/10.1016/j.compedu.2013.09.004
64. Ilesanmi, A. (2023). Teaching and learning with instructional videos: Issues and concerns for educational practice. International Journal of Instructional Technology and Educational Studies, 4(1), 1–6. https://doi.org/10.21608/ihites.2022.121271.1110
65. Ishak, M., Hanif, A., Lubis, J., & Rohman, M. (2022). Mobile learning-based basketball theory and practice at university. International Journal of Human Movement and Sports Sciences, 10(4), 849-854. https://doi.org/10.13189/saj.2022.100426
66. Ismail, Z., Aziz, R., & Chea, C. (2024). Preparing future-ready learners: 21st century skills in an open and distance learning education in malaysia. Jurnal Pendidikan Terbuka Dan Jarak Jauh, 25(1), 27-40. https://doi.org/10.33830/ptjj.v25i1.7546.2024
67. Izzo, M., Yurick, A., Nagaraja, H., & Novak, J. (2010). Effects of a 21st-century curriculum on students' information technology and transition skills. Career Development for Exceptional Individuals, 33(2), 95-105. https://doi.org/10.1177/0885728810369348
68. Jang, H. and Kim, K. (2014). Use of online clinical videos for clinical skills training for medical students: benefits and challenges. BMC Medical Education, 14(1). https://doi.org/10.1186/1472-6920-14-56
69. Joseph, A., Frank, R., & Ramyashree, S. (2024). Postoperative pain reduction in "cesarean mothers" with hand and foot massage. Journal of Health and Allied Sciences Nu, 14(S 01), S18-S20. https://doi.org/10.1055/s- 0044-1782637

70. Junker, R., Gold, B., & Holodynski, M. (2021). Classroom management of pre- service and beginning teachers: from dispositions to performance. International Journal of Modern Education Studies, 5(2). https://doi.org/10.51383/ijonmes.2021.137
71. Jupri, A., Solihati, N., & Sari, Z. (2024). Implementation of 21st century 6c skills in learning to write literature through novel adaptation approach. Indonesian Journal of Efl and Linguistics, 229-245. https://doi.org/10.21462/ijefl.v9i1.790
72. Karakaya, I., & Öç, U. (2024). Assessment 21st century skills: Tools and methods used. In Transforming school systems through assessment, technology, and non-traditional learning methods (Chapter 7). https://doi.org/10.4018/979-8-3693-8130-4.ch007
73. Karimi, B., Niaki, S. T. A., Haleh, H., & Naderi, B. (2018). Reliability optimization of tools with increasing failure rates in a flexible manufacturing system. Arabian Journal for Science and Engineering, 44(3). https://doi.org/10.1007/s13369-018-3309-9
74. 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
75. Kim, M., Duncan, C., Yip, S., & Sankey, D. (2024). Beyond the theoretical and pedagogical constraints of cognitive load theory, and towards a new cognitive philosophy in education. Educational Philosophy and Theory, 1–12. https://doi.org/10.1080/00131857.2024.2441389
76. Kırıkkaya, E. and Yıldırım, İ. (2021). Investigating the effect of the use of web 2.0 tools in 7th grade on students' academic achievements and their self-directed learning with technology levels. Journal of Turkish Science Education, 18(3), 439-460. https://doi.org/10.36681/tused.2021.83
77. Kıyak, Y. (2023). Comprehensiveness and instructional quality of youtube videos on clinical record-keeping training in medical education.. https://doi.org/10.21203/rs.3.rs-3801562/v1
78. Korpershoek, H., Harms, T., Boer, H., Kuijk, M., & Doolaard, S. (2016). A meta- analysis of the effects of classroom management strategies and classroom management programs on students' academic, behavioral, emotional, and motivational outcomes. Review of Educational Research, 86(3), 643-680. https://doi.org/10.3102/0034654315626799
79. Kükürtçü, S. and Erkan, N. (2022). The effects of children's rights and democracy education on children's democratic behaviors. International Journal of Progressive Education, 18(1), 174-193. https://doi.org/10.29329/ijpe.2022.426.10
80. KULOĞLU, A. and KARABEKMEZ, V. (2022). The relationship between 21st- century teacher skills and critical thinking skills of classroom teacher. International Journal of Psychology and Educational Studies, 9(1), 91-101. https://doi.org/10.52380/ijpes.2022.9.1.551
81. Kumar, P. (2023). Transformative role of ICT in 21st-century learning: Enhancing educational effectiveness and equitability. International Journal for Research in Applied Science and Engineering Technology, 11(12), 91–95. https://doi.org/10.22214/ijraset.2023.57028
82. Kurniawan, A. (2020). Effectiveness of interactive multimedia-based learning with basic skills ability towards conventional gymnastic.. https://doi.org/10.2991/ahsr.k.201107.003
83. Kwok, A. (2017). Relationships between instructional quality and classroom management for beginning urban teachers. Educational Researcher, 46(7), 355-365. https://doi.org/10.3102/0013189x17726727
84. Lee, L., Nagel, R., & Gould, D. (2012). The educational value of online mastery quizzes in a human anatomy course for first-year dental students. Journal of Dental Education, 76(9), 1195-1199.
85. https://doi.org/10.1002/j.0022-0337.2012.76.9.tb05374.x
86. Liang, H. and Li, X. (2018). Research on innovation method of college english translation teaching under the concept of constructivism. Educational Sciences Theory & Practice. https://doi.org/10.12738/estp.2018.5.145
87. Lloyd, S. and Robertson, C. (2011). Screencast tutorials enhance student learning of statistics. Teaching of Psychology, 39(1), 67-71. https://doi.org/10.1177/0098628311430640
88. Lopez, S. (2024). Impact of Cognitive Load Theory on the Effectiveness of Microlearning Modules. European Journal of Education and Pedagogy. https://doi.org/10.24018/ejedu.2024.5.2.799
89. Mallillin, L., Alob, C., Castillo, R., Celso, E., Minglana, M., & Sombilon, B. (2023). Instructional skills and competency skills theory in modern teaching. European Journal of Education Studies, 10(9). https://doi.org/10.46827/ejes.v10i10.4981

90. Maloney, S., Storr, M., Paynter, S., Morgan, P., & Ilić, D. (2012). Investigating the efficacy of practical skill teaching: a pilot-study comparing three educational methods. Advances in Health Sciences Education, 18(1), 71-80. https://doi.org/10.1007/s10459-012-9355-2
91. Mayer, R. (2024). The Past, Present, and Future of the Cognitive Theory of Multimedia Learning. Educational Psychology Review. https://doi.org/10.1007/s10648-023-09842-1
92. Mao, B., Teichroeb, M., Lee, T., Wong, G., Pang, T., & Pleass, H. (2022). Is online video-based education an effective method to teach basic surgical skills to students and surgical trainees? a systematic review and meta- analysis. Journal of Surgical Education, 79(6), 1536-1545. https://doi.org/10.1016/j.jsurg.2022.07.016
93. Masruri, M., Efendi, A., & Sumaryati, S. (2024). Innovative Project-Based Learning Video Tutorial Media: Development and Its Effect on Students Collaborative Skills. Jurnal Teknologi Pendidikan, 26(3), 926–943. https://doi.org/10.21009/jtp.v26i3.49648
94. Mehboob, K., Kamran, F., & Ain, Q. U. (2024). From chalkboards to digital platforms: the impact of media on modern education. Gomal University Journal of Research, 40(4), 411–424. https://doi.org/10.51380/gujr-40-04-02
95. Marçal, J., Borges, M., Viana, P., & Carvalho, P. (2018). Audiovisual annotation in the study of physics.. https://doi.org/10.1145/3284179.3284306 Matthew, Edward, Brick, Fyfield., Michael, G., Henderson., Michael, David, Phillips.
96. McCoy, B. (2012). Classroom management to support active middle level classrooms. Journal of Education and Learning (Edulearn), 6(4), 201. https://doi.org/10.11591/edulearn.v6i4.163
97. McCubbins, O., Paulsen, T., & Anderson, R. (2018). Examining student perceptions of their experience in a tbl formatted capstone course. Journal of Agricultural Education, 59(1), 135-152. https://doi.org/10.5032/jae.2018.01135
98. Michael, Wukowitsch., Barbara, Geyer-Hayden. (2019). Design Criteria for Instructional Videos. 2(1) doi: 10.14706/JEH2019214
99. Mohammadian, A., Saed, A., & Shahi, Y. (2018). The effect of using video technology on improving reading comprehension of iranian intermediate efl learners. Advances in Language and Literary Studies, 9(2), 17. https://doi.org/10.7575/aiac.alls.v.9n.2p.17
100. Motsumi, M., Brand, M., Lubbe, i., & Mokgatlhe, L. (2023). A comparison of surgical procedure cognitive skills acquisition between the traditional apprenticeship and a digital approach.. https://doi.org/10.21203/rs.3.rs-2851859/v1
101. Mou, Y., Jing, B., Li, Y., Fang, N., & Wu, C. (2022). Interactivity in learning instructional videos: sending danmaku improved parasocial interaction but reduced learning performance. Frontiers in Psychology, 13. https://doi.org/10.3389/fpsyg.2022.1066164
102. Nadelson, L., Scaggs, J., Sheffield, C., & McDougal, O. (2014). Integration of video-based demonstrations to prepare students for the organic chemistry laboratory. Journal of Science Education and Technology, 24(4), 476-483. https://doi.org/10.1007/s10956-014-9535-3
103. Nagro, S., deBettencourt, L., Rosenberg, M., Carran, D., & Weiss, M. (2016). The effects of guided video analysis on teacher candidates' reflective ability and instructional skills. Teacher Education and Special Education the Journal of the Teacher Education Division of the Council for Exceptional Children, 40(1), 7-25. https://doi.org/10.1177/0888406416680469
104. Natuna, D., Putra, M., & Azhar, A. (2021). Teachers' performance in online learning during covid-19 outbreak: an analysis based on 21st century proficiency. International Journal of Educational Best Practices, 5(2), 197. https://doi.org/10.31258/ijebp.v5n2.p197-210
105. Nilyani, K., Asrizal, A., & Usmeldi, U. (2023). Effect of stem integrated science learning on scientific literacy and critical thinking skills of students: a meta-analysis. Jurnal Penelitian Pendidikan Ipa, 9(6), 65-72. https://doi.org/10.29303/jppipa.v9i6.2614
106. Noetel, M., Griffith, S., Delaney, O., & Lonsdale, C., et al. (2021). Video improves learning in higher education: A systematic review. Review of Educational Research, 91(2), Article 0034654321990713. https://doi.org/10.3102/0034654321990713
107. Nonthamand, N. (2024). Designing the video-based learning environments using workflow and scaffolding to enhance self-instructional video production ability of pre-service teacher. Contemporary Educational Technology, 16(1), ep492. https://doi.org/10.30935/cedtech/14102

108. Nouri, J. (2016). The flipped classroom: for active, effective and increased learning – especially for low achievers. International Journal of Educational Technology in Higher Education, 13(1). https://doi.org/10.1186/s41239-016-0032-z
109. Novita, M. and Rusdi, R. (2021). Effect of classroom management on students' mathematics learning motivation. Tarbawi Jurnal Ilmu Pendidikan, 17(2), 163-172. https://doi.org/10.32939/tarbawi.v17i2.1023
110. Oellers, M., Junker, R., & Holodynski, M. (2024). Individual learning paths mastering teachers' professional vision. Frontiers in Education, 9. https://doi.org/10.3389/feduc.2024.1305073
111. Olabo, O., Ochayi, O., Muhammed, J., Adebayo, A., & Aderogba, O. (2021). Professionals' verdict on video instructional package for junior secondary school students in basic technology. Indonesian Journal of Teaching in Science, 1(1), 47-52. https://doi.org/10.17509/ijotis.v1i1.37082
112. Oliver, R., Wehby, J., & Reschly, D. (2011). Teacher classroom management practices: effects on disruptive or aggressive student behavior. Campbell Systematic Reviews, 7(1), 1-55. https://doi.org/10.4073/csr.2011.4
113. Omar, H., Khan, S., & Toh, C. (2013). Structured student-generated videos for first-year students at a dental school in malaysia. Journal of Dental Education, 77(5), 640-647. https://doi.org/10.1002/j.0022-0337.2013.77.5.tb05514.x
114. Othman, H., Zaibon, S., & Abidin, A. (2022). The significance of edutainment concept in video-based learning in proposing the elements of educational music video for children's learning. International Journal of Interactive Mobile Technologies (Ijim), 16(05), 91-106. https://doi.org/10.3991/ijim.v16i05.23711
115. Ou, C., Joyner, D. A., & Goel, A. K. (2019). Designing and developing video lessons for online learning: A seven-principle model. Online Learning, 23(2), 82–104. https://doi.org/10.24059/olj.v23i2.1449
116. Ou, K., Chu, S., & Tarng, W. (2021). Development of a virtual wetland ecological system using vr 360° panoramic technology for environmental education. Land, 10(8), 829. https://doi.org/10.3390/land10080829
117. Paine, R. (2022, September 9). The use of technology in online education. eLearning Industry. Retrieved from https://elearningindustry.com/the- use-of-technology-in-online-education
118. Pi, Z., Zhang, Y., Shi, D., Guo, X., & Yang, J. (2022). Is self-explanation better than explaining to a fictitious student when learning from video lectures?. British Journal of Educational Technology, 53(6), 2012-2028. https://doi.org/10.1111/bjet.13230
119. Putra, B., Samani, M., Suparji, S., Muslim, S., & Sunwinarti, S. (2020). The 21st century capacity development strategy in the subject of motorcycle chasis maintenance at state vocational high school (vhs)-1 of gombong kebumen.. https://doi.org/10.4108/eai.3-8-2019.2290724
120. Qomariyah, S. (2019). Effect of problem based learning learning model to improve student learning outcomes. International Journalof Educational Research Review, 4(2), 217-222. https://doi.org/10.24331/ijere.518056
121. Raj, K. and Pillai, R. (2021). Effectiveness of benson's relaxation therapy on reduction of postcesarean pain and stress among mothers in a selected hospital at kochi. Journal of South Asian Federation of Obstetrics and Gynaecology, 13(2), 121-124. https://doi.org/10.5005/jp-journals-10006-1875
122. Rambe, T., Faridah, E., Bukit, N., & Surya, E. (2023). Powtoon based animated videos in science lessons to improve student learning outcomes in islamic elementery school. Pedagogik Journal of Islamic Elementary School, 189-200. https://doi.org/10.24256/pijies.v6i2.4223
123. Ranggana, A., Wahyudin, W., Gunarso, G., & Permatasari, E. (2024). 21st- century learning trends: What educators need to know. Edukatif: Jurnal Ilmu Pendidikan, 6(1). https://edukatif.org/index.php/edukatif/article/view/6142
124. Rapi, N., Widiarini, P., & Suastra, I. (2021). The effect of self-assessment with inquiry learning model to self-efficacy and physics learning outcomes.. https://doi.org/10.2991/assehr.k.211222.013
125. Ratama, I., Padmadewi, N., & Artini, L. (2021). Teaching the 21st century skills (4cs) in english literacy activities. Journal of Education Research and Evaluation, 5(2), 223. https://doi.org/10.23887/jere.v5i2.30849

126. Richard, E., Mayer. (2021). Evidence-Based Principles for How to Design Effective Instructional Videos. Journal of applied research in memory and cognition, 10(2):229-240. doi: 10.1016/J.JARMAC.2021.03.007
127. Ring, M., & Brahm, T. (2022). A rating framework for the quality of video explanations. Technology, Knowledge and Learning. https://doi.org/10.1007/s10758-022-09635-5
128. Robertson, S., Steele, J., & Mandernach, B. J. (2023). Eight priorities for instructional videos in the online classroom. eLearn, 2023(11). https://doi.org/10.1145/3633282.3595383
129. Rodrigues, J., Miranda, T., Fulquini, F., Guilherme, C., Caldeira, S., & Carvalho, E. (2020). Construction and evaluation of an educational video: nursing assessment and intervention of patients' spiritual needs. Religions, 11(9), 460. https://doi.org/10.3390/rel11090460
130. Rommel, G. S., & Tampos. (2024). Evolving minds: An exploration of digital pedagogy in cultivating critical thinking skills among 21st-century learners. EPRA International Journal of Environmental, Economics, Commerce, and Educational Management, 18–25. https://doi.org/10.36713/epra17628
131. Rusnayati, H., Ruswandi, W., & Khotimah, T. (2023). The effectiveness of the problem-based flipped classroom learning model to improve conceptual understanding of physics teacher candidates on crystal structure material. Journal of Science Learning, 6(2), 194-203. https://doi.org/10.17509/jsl.v6i2.56316
132. Ryan, M. and Reid, S. (2015). Impact of the flipped classroom on student performance and retention: a parallel controlled study in general chemistry. Journal of Chemical Education, 93(1), 13-23. https://doi.org/10.1021/acs.jchemed.5b00717
133. Santos-Meneses, L. F., & Drugova, E. A. (2023). Trends in critical thinking instruction in 21st-century research and practice: Upgrading instruction in digital environments. Thinking Skills and Creativity, 50, 101383. https://doi.org/10.1016/j.tsc.2023.101383
134. Saputro, A., Atun, S., Wilujeng, İ., Ariyanto, A., & Arifin, S. (2020). Enhancing pre-service elementary teachers' self-efficacy and critical thinking using problem-based learning. European Journal of Educational Research, volume-9-2020(volume-9-issue-2-april-2020), 765-773. https://doi.org/10.12973/eu-jer.9.2.765
135. Sarjana, K., Kurniawan, E., Lu'luilmaknun, U., & Kertiyani, N. (2024). Construction of teaching materials to facilitate 21st century learning on critical and creative thinking. Jurnal Kependidikan Jurnal Hasil Penelitian Dan Kajian Kepustakaan Di Bidang Pendidikan Pengajaran Dan Pembelajaran, 10(1), 242. https://doi.org/10.33394/jk.v10i1.9442
136. Singh, K. (2022). Designing Multimedia for Improved Student Engagement and Learning (pp. 1–36). IGI Global eBooks. https://doi.org/10.4018/978-1-7998-9706-4.ch001
137. Shi, T., Wang, F., Cai, X., Du, X., Cui, X., & Gu, S. (2011). The applied study of the combining multimedia teaching with traditional teaching in the operative procedure teaching., 5141-5143. https://doi.org/10.1109/icmt.2011.6002244
138. Shires, C., Wilson, C., & Sebelik, M. (2019). Thyroid surgery youtube videos: estimating quality by surgeon characteristics and view rate. Gland Surgery, 8(3), 207-211. https://doi.org/10.21037/gs.2018.10.01
139. Souza, D., Backes, V., Lazzari, D., & Martini, J. (2018). Pedagogical preparation of nursing professors for professional secondary technical education. Revista Brasileira De Enfermagem, 71(5), 2432-2439. https://doi.org/10.1590/0034-7167-2017-0289
140. Sriliasta, C. and Wuisan, D. (2023). Stepping forward: enhancing cognitive learning outcomes through hybrid rccr-based learning on circulatory system material. International Transactions on Artificial Intelligence (Italic), 2(1), 49-59. https://doi.org/10.33050/italic.v2i1.404
141. Sriliasta, C. and Wuisan, D. (2023). Stepping forward: enhancing cognitive learning outcomes through hybrid rccr-based learning on circulatory system material. International Transactions on Artificial Intelligence (Italic), 2(1), 49-59. https://doi.org/10.33050/italic.v2i1.404
142. Stockwell, B. R., Stockwell, M. S., Cennamo, M., & Jiang, E. (2015). Blended learning improves science education. Cell, 162(6), 933–936.
143. Stratton, S. J. (2019). Quasi-experimental design (pre-test and post-test studies) in prehospital and disaster research. Prehospital and Disaster Medicine, 34(6), 573–574. https://doi.org/10.1017/S1049023X19005053

144. Sulaiman, S., Sadq, K., & Othman, M. (2022). 11effects of an online adventure game on vocabulary acquisition. Polytechnic Journal of Humanities and Social Sciences, 3(2),93-99. https://doi.org/10.25156/ptjhss.v3n2y2022.pp93-98
145. Suresh, P. L., & Raju, K. N. (2022). Study of test for significance of Pearson's correlation coefficient. International Journal of Science and Research (IJSR), 11(10). https://doi.org/10.21275/SR22915140002
146. Suriyawansa, K., Kodagoda, N., Ranathunga, L., & Abdullah, N. (2022). An approach to measure the pedagogy in slides with voice-over type instructional videos. The Electronic Journal of E-Learning, 20(4), 483- 497. https://doi.org/10.34190/ejel.20.4.2314
147. Suriyawansa, K., Kodagoda, N., Ranathunga, L., & Abdullah, N. (2022). An approach to measure the pedagogy in slides with voice-over type instructional videos. The Electronic Journal of E-Learning, 20(4), 483- 497. https://doi.org/10.34190/ejel.20.4.2314
148. Teke, E. and Avşaroğlu, S. (2024). The efficacy of emdr-focused group counseling program applied to primary school students with ptsd symptoms in grief process. Türk Psikolojik Danışma Ve Rehberlik Dergisi, 14(73), 259-276. https://doi.org/10.17066/tpdrd.1348185_9
149. Tien, H., Su, Y., Zhang, A., Kaichi, I., Koshiba, T., Okawa, S., … & Shimizu, E. (2023). The effects of a journey of the brave counseling program on anxiety, well-being, and life adjustment in taiwanese children. BMC Psychiatry, 23(1). https://doi.org/10.1186/s12888-023-05134-8
150. Toli, G. and Kallery, M. (2021). Enhancing student interest to promote learning in science: the case of the concept of energy. Education Sciences, 11(5), 220. https://doi.org/10.3390/educsci11050220
151. Triyono, A., Nuary, R., Permatasari, N., Yuni, Y., & Wibowo, T. (2024). The level of effectiveness of tps and conventional methods judging from students' geometry learning results using the n-gain test. Alphamath Journal of Mathematics Education, 10(1), 125. https://doi.org/10.30595/alphamath.v10i1.21530
152. Tularam, G. A., & Machisella, P. (2018). Traditional vs non-traditional teaching and learning strategies: The case of e-learning. International Journal for Mathematics Teaching and Learning, 19(1), 129–158. https://eric.ed.gov/?id=EJ1189617
153. Uddin, M. (2024). Effect of blended learning strategy on learning outcome in educational psychology of pre-service teachers of b.ed. programme. Asian Journal of Education and Social Studies, 50(9), 57-65. https://doi.org/10.9734/ajess/2024/v50i91569
154. Uğraş, G., Uzun, A., Battal, A., & Kayaduman, H. (2016). An examination of instructional high school chemistry videos on eba portal in terms of nine events of instruction. Participatory Educational Research, 3(1), 66-78. https://doi.org/10.17275/per.16.04.3.1
155. Üzum, B. and Pesen, A. (2019). Do the learner-centered approaches increase academic performance? effect of the layered curriculum on students' academic achievement in english lesson. International Journal of Instruction, 12(1), 1585-1608. https://doi.org/10.29333/iji.2019.121101a
156. Vallée, A., Blacher, J., Cariou, A., & Sorbets, E. (2020). Blended learning compared to traditional learning in medical education: systematic review and meta-analysis. Journal of Medical Internet Research, 22(8), e16504. https://doi.org/10.2196/16504
157. Valtonen, T., Sointu, E., Kukkonen, J., Kontkanen, S., Lambert, M., & Mäkitalo- Siegl, K. (2017). Tpack updated to measure pre-service teachers' twenty-first century skills. Australasian Journal of Educational Technology, 33(3). https://doi.org/10.14742/ajet.3518
158. Varchenko-Trotsenko, L., Vember, V., & Terletska, T. (2019). Main aspects of educational video materials design for use in the educational process of higher educational institutions. Open Educational E-Environment of Modern University, 7, Article 12. https://doi.org/10.28925/2414- 0325.2019.7.12
159. Vold, T., Ranglund, O. J., & Kionig, L. (2023). Using video-feedback to support learning outcome and work-life relevance. European Conference on e- Learning, 22(1), 364–368. https://doi.org/10.34190/ecel.22.1.1802
160. Vu, H. (2022). Current situation of classroom management at primary schools to meet the requirements of the 2018 general education curriculum in vietnam. Vietnam Journal of Education, 6(3), 238-248. https://doi.org/10.52296/vje.2022.170
161. Winarno, S., Muthu, K., & Ling, L. (2018). Impacts of m-dpbl approach towards computer networks teaching and learning process. International Journal of Emerging Technologies in Learning (Ijet), 13(03), 207. https://doi.org/10.3991/ijet.v13i03.7944

162. Wong, G., Apthorpe, H., Ruiz, K., & Nanayakkara, S. (2018). An innovative educational approach in using instructional videos to teach dental local anaesthetic skills. European Journal of Dental Education, 23(1), 28-34. https://doi.org/10.1111/eje.12382
163. Wong, G., Apthorpe, H., Ruiz, K., & Nanayakkara, S. (2018). An innovative educational approach in using instructional videos to teach dental local anaesthetic skills. European Journal of Dental Education, 23(1), 28-34. https://doi.org/10.1111/eje.12382
164. Xie, C. and Zhang, S. (2022). Application and feasibility analysis of various teaching methods in ecg teaching of arrhythmia. International Journal of Frontiers in Medicine, 4(9). https://doi.org/10.25236/ijfm.2022.040905
165. Xie, W., Ya, L., & Liu, X. (2024). Application of problem based learning (pbl) and case based learning (cbl) in the teaching of ectopic pregnancy.. https://doi.org/10.21203/rs.3.rs-5031510/v1
166. Yildiz, F. and Kaşıkçı, M. (2020). Impact of training based on orem's theory on self-care agency and quality of life in patients with coronary artery disease. Journal of Nursing Research, 28(6), e125. https://doi.org/10.1097/jnr.0000000000000406
167. Yoo, H. (2020). Research-to-resource: use of technology to support 21st century skills in a performing ensemble program. Update Applications of Research in Music Education, 39(2), 10-14. https://doi.org/10.1177/8755123320953435
168. Zin, Z. M., Abdullah, A. S., Ahmad, H., & Sahib, F. H. (2024). The constructivist learning theory: exploring key technological advancements in learning management systems. International Journal Of Modern Education (IJMOE), 6(23), 585–597. https://doi.org/10.35631/ijmoe.623040

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APPENDICES

Appendix A

Evaluation Sheet Survey of Instructional Video for Evaluators

The following researcher-made survey questionnaire will be utilized by the researcher to measure the content, organization, mechanics, and overall package of the developed video instructional materials.

Instructions:

Please evaluate the instructional video based on the criteria below. Rate and tick each item using the scale provided, and feel free to provide additional comments for improvement.

1 - Strongly Disagree

2 - Disagree

3 - Neutral

4 - Agree

5 - Strongly Agree

CONTENT	**1**	**2**	**3**	**4**	**5**
1. The instructional video covers all the essential topics related to **Trends, Networks, and Critical Thinking in the 21st Century Culture**.					
2. The content of the video is accurate and reflects current knowledge and understanding of the subject matter.					
3. The depth of information provided in the video is appropriate for Grade 12 learners.					
4. The examples and real-life applications used in the video enhance the understanding of key concepts.					
5. The instructional video presents information in a clear and comprehensible manner.					
6. The video content is engaging and captures the interest of learners throughout.					
7. The video content aligns well with the learning objectives and curriculum standards for the subject.					
ORGANIZATION	**1**	**2**	**3**	**4**	**5**
1. The instructional video follows a clear and logical sequence of ideas.					
2. The sections of the video are well-structured, with distinct transitions between topics.					
3. The pacing of the video is appropriate, allowing enough time to understand each concept.					
4. The instructional video includes a clear introduction, body, and conclusion.					

5. The flow of information is smooth, without unnecessary jumps or breaks.					
6. The sequence of topics in the video matches the order presented in the curriculum.					
7. The transitions between different sections of the video help maintain focus and understanding.					
MECHANICS	**1**	**2**	**3**	**4**	**5**
1. The video's audio quality is clear and free from distractions.					
2. The visual quality (images, graphics, and text) is sharp and easy to read/view.					
3. The multimedia elements (e.g., animations, transitions) are used effectively to support the content.					
4. The video's length is appropriate for the complexity of the topic.					
5. The synchronization between audio and visuals is smooth and well-timed.					
6. The font size and style used in the video are clear and readable.					
7. The video uses appropriate background music or effects, enhancing the learning experience without causing distraction.					
OVERALL PACKAGE	**1**	**2**	**3**	**4**	**5**
1. The instructional video is visually engaging and captures attention.					
2. The video's content, organization, and mechanics work together to provide a cohesive learning experience.					
3. The video successfully maintains student interest throughout its duration.					
4. The instructional video provides an enjoyable and informative learning experience.					
5. The video aligns well with the intended learning objectives and educational goals.					
6. The video uses appropriate language and tone for Grade 12 learners.					
7. The instructional video effectively contributes to improving student understanding and performance in Trends, Networks, and Critical Thinking in the 21st Century Culture.					

Appendix A

Survey Questionnaire on Teaching Strategies FOR CONTROL GROUP

Scale	**Description**
1	Strongly Disagree
2	Disagree
3	Neutral

4	Agree
5	Strongly Agree

Part 1: Demographic Information

Item	Response
Name (optional):	_____
Grade level:	_____
Age:	_____
Gender:	_____

Part 2: Evaluation of Teaching Strategies

A. Content Mastery	**1**	**2**	**3**	**4**	**5**
1. The teacher demonstrates a strong understanding of the subject matter.					
2. The teacher explains complex topics in a way that is easy to understand.					
3. The teacher's lessons are aligned with the learning standards and objectives.					
4. The content taught is relevant to the required competencies.					
5. The teacher adjusts the complexity of the lessons based on the students' knowledge.					
6. The teacher is flexible in addressing the diverse learning needs of the class.					
B. Instructional Skill	**1**	**2**	**3**	**4**	**5**
1. Lessons are well-organized with clear learning objectives.					
2. The teacher provides lessons that logically progress from one topic to the next.					
1. The teacher uses varied teaching methods that cater to different learning styles.					
2. The teacher encourages collaboration and active learning in the classroom.					
The teacher incorporates activities that encourage critical thinking.					
The lesson plan is flexible enough to accommodate unexpected questions or ideas.					
C. Assessment for Learning	**1**	**2**	**3**	**4**	**5**
1. The teacher regularly assesses my understanding through quizzes, tests, and projects.					
2. The assessments reflect what we have learned in class.					

1. The teacher provides timely and helpful feedback on assessments.					
2. The teacher offers support to help students improve when needed.					
1. The teacher's assessments focus on real-world applications of what we've learned.					
2. The teacher encourages students to apply their knowledge through performance-based tasks.					
D. Classroom Management	**1**	**2**	**3**	**4**	**5**
1. The teacher clearly communicates expectations for behavior and class routines.					
2. The teacher effectively enforces classroom rules to maintain order.					
1. The teacher uses strategies that keep me engaged and actively participating in class.					
2. Group discussions and activities are used to promote participation and engagement.					
1. The teacher fosters an inclusive classroom environment where all students feel valued.					
2. The teacher ensures that diverse perspectives and needs are respected and supported.					

Appendix A

Survey Questionnaire on Teacg Strategies FOR EXPERIMENTAL GROUP

Scale	**Description**
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

Part 1: Demographic Information

Item	**Response**
Name (optional):	_____
Grade level:	_____
Age:	_____

Gender:	

Part 2: Evaluation of Teaching Strategies

A. Content Mastery	**1**	**2**	**3**	**4**	**5**
1. The teacher demonstrates a strong understanding of the subject matter.					
2. The teacher explains complex topics in a way that is easy to understand.					
3. The teacher's lessons are aligned with the learning standards and objectives.					
4. The content taught is relevant to the required competencies.					
5. The teacher adjusts the complexity of the lessons based on the students' knowledge.					
6. The teacher is flexible in addressing the diverse learning needs of the class.					
B. Instructional Skill	**1**	**2**	**3**	**4**	**5**
1. Lessons are well-organized with clear learning objectives.					
2. The teacher provides lessons that logically progress from one topic to the next.					
1. The teacher uses varied teaching methods that cater to different learning styles.					
2. The teacher encourages collaboration and active learning in the classroom.					
The teacher incorporates activities that encourage critical thinking.					
The lesson plan is flexible enough to accommodate unexpected questions or ideas.					
C. Assessment for Learning	**1**	**2**	**3**	**4**	**5**
1. The teacher regularly assesses my understanding through quizzes, tests, and projects.					
2. The assessments reflect what we have learned in class.					
1. The teacher provides timely and helpful feedback on assessments.					
2. The teacher offers support to help students improve when needed.					
1. The teacher's assessments focus on real-world applications of what we've learned.					
2. The teacher encourages students to apply their knowledge through performance-based tasks.					
D. Classroom Management	**1**	**2**	**3**	**4**	**5**
1. The teacher clearly communicates expectations for behavior and class routines.					

2. The teacher effectively enforces classroom rules to maintain order.					
1. The teacher uses strategies that keep me engaged and actively participating in class.					
2. Group discussions and activities are used to promote participation and engagement.					
1. The teacher fosters an inclusive classroom environment where all students feel valued.					
2. The teacher ensures that diverse perspectives and needs are respected and supported.					

Appendix A

Achievement Test In Trends, Networks And Critical Thinking In The 21st Century Culture For Third Quarter

Direction. Read each question carefully. Choose your answer by ticking the right option.

No.	Test Items and Choices	RELEVANCE			
1.	An emerging phenomenon that last for a long period of time and transmit existing ventures to the future generations. Trend spotter Trend Fad Trend	1	2	3	4
2.	What characteristic of a trend that introduces something new like ideas, devices or methods? Innovation Consistency Versatility None of the above	1	2	3	4
3.	This is a characteristic of a trend that people can still recognize that this trend is a trademark. Versatility Consistency Duration of time Acceptability	1	2	3	4

4.	**This is any given phenomenon and prediction which likely to happen and examined by.** **Trends** **Trend Analysis** **Trends Spotter** **Trend Spotting**	**1**	**2**	**3**	**4**
5.	**This trends are popularly accepted by many industries and people are called?** **Acceptability** **Cultural Basis** **Duration of time** **Transitory**	**1**	**2**	**3**	**4**
6.	**This is a trend that is always appreciated by people despite the difference in culture, place, and race.** **Acceptability** **Consistency** **Innovation** **Versatility**	**1**	**2**	**3**	**4**
7.	**The trend that introduces changes and something absolutely new to community like something new ideas, devices, or methods.** **Acceptability** **Consistency** **Innovation** **Versatility**	**1**	**2**	**3**	**4**
8.	**It is creating and improving a new product like smartphones.** **Acceptability** **Consistency** **Innovation** **Versatility**	**1**	**2**	**3**	**4**
9.	**This is an adaptation of the latest cell phone brand.** **Consistency Innovation** **Duration of time**	**1**	**2**	**3**	**4**

	Innovation Versatility				
10.	What do you call the continuity on the use of Facebook? Acceptability Consistency Innovation Versatility	1	2	3	4
11.	According to Locke, it is comprised of awareness and reflection. Experience Emerging Patterns Patterns Trends	1	2	3	4
12.	This is used to predict future values based on previously observed values. Experience Emerging Pattern Time Series Forecasting Trends	1	2	3	4
13.	This is a curved line that shows data values rise or fall initially and then suddenly stops rising or falling. Cyclical Damped Trend Downward Trend Random or Irregular or Error	1	2	3	4
14.	This is when fluctuations do not repeat over fixed periods of time and are hence unpredictable and extend beyond a year. Cyclical Downward Trend Random or Irregular or Error Seasonal	1	2	3	4
15.	What field of discipline is being mentioned if children get addicted with social media	1	2	3	4

	applications such as Tiktok and Face App. • Education • Fashion • Social Media • Technology				
16.	It is the discipline that shows the desire for being appreciated? • Education • Fashion • Social Media • Technology	1	2	3	4
17.	It is a quick and ready insight. • Critical thinking • Intuitive thinking • Rational thinking • Strategic thinking	1	2	3	4
18.	What tool analyses like PEST is used in strategic analysis? • It is used to examine and understand a situation to identify problems in different aspects of a certain community. • It used to prove that strategic analysis is the best in all problem solving • It used to understand a situation with the use of senses and insights in creating solutions • It helps to understand a situation by knowing the strength and weaknesses or an organization/community	1	2	3	4
19.	It examine and understand the environment without logical reasoning. • Critical thinking • Intuitive thinking • Rational thinking • Strategic thinking	1	2	3	4
20.	It is a tool analysis analyzes the strength, weaknesses, opportunities and threats of an organization. • Critical analysis	1	2	3	4

	PEST analysis **Strategic analysis** **SWOT analysis**				
21.	**It is a process of conducting research to examine and identify problems in a certain community.** **Critical thinking** **Intuitive thinking** **Rational thinking** **Strategic thinking**	**1**	**2**	**3**	**4**
22.	**It is one of the components of intuitive thinking?** **Gut Feeling** **Rational** **Strategic Planning** **Tool Analysis**	**1**	**2**	**3**	**4**
23.	**In SWOT analysis, it is the organization's assets or your competitors don't have.** **Opportunities** **Strenght** **Threats** **Weaknesses**	**1**	**2**	**3**	**4**
24.	**In PEST analysis, it deals about the rules and regulations imposed by the government.** **Economic** **Socio-cultural** **Political** **Technological**	**1**	**2**	**3**	**4**
25.	**It shows the effect of globalization to economical aspect?** **The interpretations of culture which, as consequence, means, nation adopts principles,beliefs, and costumes of other nation.** **The rise of global financial system with international financial exchanges and monetary exchanges.** **The development and growing influence of international organization such as UN or WHO.**	**1**	**2**	**3**	**4**

	The new organization and hierarchy of different regions that constantly changing.				
26.	It is the example of globalization which millions of people are interconnected because of digital word via platforms such as Facebook, Instagram, Skype, or Youtube. Cultural Globalization Ecological Globalization Geographical Technological Globalization	1	2	3	4
27.	What word can be summed up in the word Globalization? Cargo mobility International Integration Labor mobility National barriers	1	2	3	4
28.	It is a two people carrying their own “similar” baskets to a common destination for mutually beneficial individual gain, increasing impact, volume and leverage. Collaboration Collaborative Cooperation Cooperative	1	2	3	4
29.	This is a two people carrying their two baskets (or maybe even more and often very different) by sharing the load between them, to a shared destination for the mutual benefit of the individuals, collective and entity. Collaboration Collaborative Cooperation Cooperative	1	2	3	4
30.	The act or instance of working or acting together for a common purpose or benefit joint operation or action. Collaboration Collaborative Collaboration Cooperative	1	2	3	4

31.	This is a problem faced by migrant workers which they are not eligible for company benefits such as pensions and insurance plans. They also miss out on unemployment, disability and Social Security benefits from the government. Coercion Cultural Differences Dangerous Conditions Lack of Benefits	1	2	3	4
32.	Danica and her family is considered migrants in the country and having no choice but to move. Which best describe the situation? External migration Force Migration Permanent Migration Temporary migration	1	2	3	4
33.	Which of the following best complete the term ICT? Information and Committee Technology	1	2	3	4
	Information and Community Technology Information and Communication Technology Information and Committee Technology				
34.	What trend within information technology in which designed to run in smart phone, tablets, and other mobile devices. Cloud Computing Mobile Application User Interface Wifi	1	2	3	4
35.	How do greenhouse gases contribute to climate change? Trapping the air Trapping the rain drops Trapping the suns heat and stopping it from leaking None of the above	1	2	3	4
36.	Which of the following pollutant is greenhouse gas? Carbon Dioxide	1	2	3	4

	Carbon Monoxide Both a and b None of the above				
37.	Which of the statements below do NOT consider as climate change solution? Diminishing deforestation Manufacturing of plastics for household's use Optimizing vehicles proficiency Reduces the amount of greenhouse gas emissions	1	2	3	4
38.	Which of the following best applies to a situation where the government provides aid to alleviate people's suffering after a disaster? Adaption Communication Mitigation Production	1	2	3	4
39.	What are the solution to climate change? Protect forest like Amazon Protect the ocean Reduce Plastic use All of the above	1	2	3	4
40.	How do you create an adaption plan? Assessing climate change risk and vulnerabilities. Identifying adaption options Implementing adaption,monitoring and evaluating adaption All of the above	1	2	3	4

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Appendix B

Letter of Request to the Schools Division Superintendent

Republic of the Philippines
SULTAN KUDARAT STATE UNIVERSITY
Institute of Graduate Studies
ACCESS Campus, E.J.C. Montilla, Tacurong City

December 11, 2024

CRISPIN A.SOLIVEN, JR. CESE
Schools Division Superintendent
Division of Sultan Kudarat

DEPARTMENT OF EDUCATION
DIVISION OF SULTAN KUDARAT
RECORDS SECTION
RECEIVED
JAN 14 2025

Sir:

Greetings of Peace and Prosperity!

I am **Ma. Shiela May B. Lauriaga**, a graduating student of the Sultan Kudarat State University-College of Graduate Studies. I am presently working for the completion of my thesis entitled " **INSTRUCTIONAL VIDEOS AND STRATEGIES ON TRENDS, NETWORKS AND CRITICAL THINKING IN THE 21ST CENTURY CULTURE AND THE LEARNING RESPONSES OF GRADE 12 SHS STUDENTS IN INHS**" in partial fulfillment of the requirement for the degree Master of Arts in Teaching Major in Social Studies.

In this connection, may I request permission from your good office to allow me to conduct my study in Isulan National High School, with the Grade 12 Humanities and Social Sciences (HUMSS) students of S.Y. 2024-2025 as subject of the study. Rest assured that the information and data gathered would be treated with confidentiality.

Your kind assistance and approval of this endeavor will contribute to the realization of my study and will be remembered always.

Respectfully yours,
MA. SHIELA MAY B. LAURIAGA
Researcher

Noted:
NANCY B. ESPACIO, EdD

Approved:
CRISPIN A.SOLIVEN, JR. CESE
School Division Superintendent

Appendix C

Letter of Request to the Principal for the Conduct of the Study

Republic of the Philippines
SULTAN KUDARAT STATE UNIVERSITY
Institute of Graduate Studies
ACCESS Campus, E.J.C. Montilla, Tacurong City

December 11, 2024

LORELY ANNE F. VALENCIA, Ed. D.
Principal II
Isulan National High School
Kalawag II, Isulan, Sultan Kudarat

Ma'am:

Greetings of Peace and Prosperity!

I am **Ma. Shiela May B. Lauriaga**, a graduating student of the Sultan Kudarat State University-College of Graduate Studies taking up Master of Arts in Teaching Major in Social Studies. I am presently working for the completion of my thesis entitled **"INSTRUCTIONAL VIDEOS AND STRATEGIES ON TRENDS, NETWORKS AND CRITICAL THINKING IN THE 21ST CENTURY CULTURE AND THE LEARNING RESPONSES OF GRADE 12 SHS STUDENTS IN INHS"** in partial fulfillment of the requirement for the degree Master of Arts in Teaching Major in Social Studies.

In this connection, may I request from your good office to allow me to conduct my study in your school , with the Grade 12 Humanities and Social Sciences (HUMSS) students of School Year 2024-2025 as subject of the study. Rest assured that the information and data gathered would be treated with confidentiality.

Your kind assistance and approval of this endeavor will contribute to the realization of my study and will be remembered always.

Respectfully yours,
MA. SHIELA MAY B. LAURIAGA
Researcher

NANCY B. ESPACIO,EdD
Adviser

Approved:
LORELY ANNE F. VALENCIA, Ed. D.
Principal II

Appendix D

Republic of the Philippines
SULTAN KUDARAT STATE UNIVERSITY
Institute of Graduate Studies
ACCESS Campus, E.J.C. Montilla, Tacurong City

February 17, 2025

SALVADOR D. BACAOCO JR.
Principal I
Laguilayan National High School
Laguilayan, Isulan, Sultan Kudarat

Sir:

Greetings of Peace and Prosperity!

I am **Ma. Shiela May B. Lauriaga**, a graduating student of the Sultan Kudarat State University-College of Graduate Studies taking up Master of Arts in Teaching Major in Social Studies. I am presently working for the completion of my thesis entitled **"INSTRUCTIONAL VIDEOS AND STRATEGIES ON TRENDS, NETWORKS AND CRITICAL THINKING IN THE 21ST CENTURY CULTURE AND THE LEARNING RESPONSES OF GRADE 12 SHS STUDENTS IN INHS"** in partial fulfillment of the requirement for the degree Master of Arts in Teaching Major in Social Studies.

In this connection, may I request from your good office to allow me to conduct the pilot testing in your school , with the Grade 12 Humanities and Social Sciences (HUMSS) students of School Year 2024-2025 as subject of the testing. Rest assured that the information and data gathered would be treated with confidentiality.

Your kind assistance and approval of this endeavor will contribute to the realization of my study and will be remembered always.

Respectfully yours,

MA. SHIELA MAY B. LAURIAGA
Researcher

NANCY B. ESPACIO,EdD
Adviser

Approved:

SALVADOR D. BACAOCO JR.
Principal I

Appendix E

Letter of Request to the Validators of Instructional Videos and Strategies on Trends and Test Questionnaire

Republic of the Philippines
SULTAN KUDARAT STATE UNIVERSITY
Institute of Graduate Studies
ACCESS Campus, E.J.C. Montilla, Tacurong City

December 11, 2024

MARICEL L. AMIT DIT
ICT Coordinator
SKSU ACCESS CAMPUS
E.J.C Montilla, Tacurong City

Ma'am:

Greetings of Peace and Prosperity!

I am Ma. Shiela May B. Lauriaga, a graduating student of the Sultan Kudarat State University-College of Graduate Studies taking up Master of Arts in Teaching Social Studies. I am presently undergoing a thesis study titled **"INSTRUCTIONAL VIDEOS AND STRATEGIES ON TRENDS, NETWORKS AND CRITICAL THINKING IN THE 21ST CENTURY CULTURE AND THE LEARNING RESPONSES OF GRADE 12 SHS STUDENTS IN INHS"** of Grade 12 Humanities and Social Sciences (HUMSS) students of Isulan National High School for School Year 2024-2025. The study focuses on the development and evaluation of instructional videos and strategies on Trends, Networks and Critical Thinking in the 21st Century Culture and the learning responses of Grade 12 SHS students in INHS

In this connection, I would like to inform you that you have been selected as one of the **VALIDATORS** in the evaluation of my Instructional videos on the said subject. This instructional videos needs to be evaluated and validated as instructional material to provides a broader perspective on the potential applications of instructional videos in higher education.

I am hoping for your kind consideration. Thank you and God Bless!

Respectfully yours,

MA. SHIELA MAY B. LAURIAGA
Researcher

Appendix E

Letter of Request to the Validators of Instructional Videos and Strategies on Trends and Test Questionnaire

Republic of the Philippines
SULTAN KUDARAT STATE UNIVERSITY
Institute of Graduate Studies
ACCESS Campus, E.J.C. Montilla, Tacurong City

December 11, 2024

VINCENT B. BIALEN MAT
Teacher III
Isulan National High School
Isulan, Sultan Kudarat

Sir:

Greetings of Peace and Prosperity!

I am Ma. Shiela May B. Lauriaga, a graduating student of the Sultan Kudarat State University-College of Graduate Studies taking up Master of Arts in Teaching Social Studies. I am presently undergoing a thesis study titled **"INSTRUCTIONAL VIDEOS AND STRATEGIES ON TRENDS, NETWORKS AND CRITICAL THINKING IN THE 21ST CENTURY CULTURE AND THE LEARNING RESPONSES OF GRADE 12 SHS STUDENTS IN INHS"** of Grade 12 Humanities and Social Sciences (HUMSS) students of Isulan National High School for School Year 2024-2025. The study focuses on the development and evaluation of instructional videos and strategies on Trends, Networks and Critical Thinking in the 21st Century Culture and the learning responses of Grade 12 SHS students in INHS

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Researcher

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Republic of the Philippines
SULTAN KUDARAT STATE UNIVERSITY
Institute of Graduate Studies
ACCESS Campus, E.J.C. Montilla, Tacurong City

December 11, 2024

NORAVEL L. CALUSAY MAED
Teacher III
Isulan National High School
Isulan, Sultan Kudarat

Ma'am:

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Researcher

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Republic of the Philippines
SULTAN KUDARAT STATE UNIVERSITY
Institute of Graduate Studies
ACCESS Campus, E.J.C. Montilla, Tacurong City

December 11, 2024

JUDY O. HARE MAED
Master Teacher I
Bambad National High School
Isulan, Sultan Kudarat

Ma'am:

Greetings of Peace and Prosperity!

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I am hoping for your kind consideration. Thank you and God Bless!

Respectfully yours,

MA. SHIELA MAY B. LAURIAGA
Researcher

Appendix E

Letter of Request to the Validators of Instructional Videos and Strategies on Trends and Test Questionnaire

Republic of the Philippines
SULTAN KUDARAT STATE UNIVERSITY
Institute of Graduate Studies
ACCESS Campus, E.J.C. Montilla, Tacurong City

December 11, 2024

DIANA GRACE S. TABUJARA MAT
Teacher II
Isulan National High School
Isulan, Sultan Kudarat

Ma'am:

Greetings of Peace and Prosperity!

I am Ma. Shiela May B. Lauriaga, a graduating student of the Sultan Kudarat State University-College of Graduate Studies taking up Master of Arts in Teaching Social Studies. I am presently undergoing a thesis study titled **"INSTRUCTIONAL VIDEOS AND STRATEGIES ON TRENDS, NETWORKS AND CRITICAL THINKING IN THE 21ST CENTURY CULTURE AND THE LEARNING RESPONSES OF GRADE 12 SHS STUDENTS IN INHS"** of Grade 12 Humanities and Social Sciences (HUMSS) students of Isulan National High School for School Year 2024-2025. The study focuses on the development and evaluation of instructional videos and strategies on Trends, Networks and Critical Thinking in the 21st Century Culture and the learning responses of Grade 12 SHS students in INHS

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I am hoping for your kind consideration. Thank you and God Bless!

Respectfully yours,

MA. SHIELA MAY B. LAURIAGA
Researcher

Appendix F

Validation Tool For Evaluation Sheet Survey Of Instructional Video For The Validators

Dear Validators,

This survey questionnaire contains 5 domains and twenty five (25) items related to the instructional video on Trends, Networks and Critical Thinking in the 21st Century Culture subject for the Third Quarter. We need your expert judgment on the degree of relevance of each item relative to the measured domains. Your review should be based on the definition and relevant terminologies that are provided to you. Please be as objective and constructive as possible in your review. Use the following rating scale.

Degree of Relevance

1 – The item is not relevant to the measured competency.

2 – The item is somewhat relevant to the measured competency.

3 – The item is quite relevant to the measured competency.

4 – The item is highly relevant to the measured competency.

Truly yours,

Ma. Shiela May B. Lauriaga

Researcher

Evaluation Sheet Survey of Instructional Video for Evaluators

Instructions:

Please evaluate the instructional video based on the criteria below. Rate and tick each item using the scale provided, and feel free to provide additional comments for improvement.

DOMAIN I: CONTENT **DEFINITION:** This refers to the relevance, depth, and clarity of the material presented in the instructional video. It evaluates how well the video covers the necessary information, aligns with learning objectives, and provides practical insights for students.	**RELEVANCE**			
1. The video aligns with the specified learning objectives.	1	2	3	4
2. The information presented is comprehensive and detailed.	1	2	3	4
3. Real-life examples and applications are effectively incorporated.	1	2	3	4
4. The content is appropriate for the intended audience's grade level.	1	2	3	4
5. The video provides clear and actionable learning takeaways.	1	2	3	4
DOMAIN II: ORGANIZATION **DEFINITION: This** refers to how well the instructional video is structured in terms of content delivery, ensuring a logical flow that enhances students' comprehension and retention. It emphasizes clarity in	**RELEVANCE**			

the presentation and smooth transitions between sections to maintain student engagement and understanding.				
1.The video introduction effectively outlines the purpose and objectives	1	2	3	4
2.The sequence of topics flows logically and is easy to follow	1	2	3	4
3.The transitions between topics are smooth and well- executed.	1	2	3	4
4.Key points are highlighted and summarized effectively	1	2	3	4
5.The conclusion provides a strong recap of the main ideas.	1	2	3	4
DOMAIN III: VISUAL AND AUDIO QUALITY **DEFINITION: This** refers to the clarity, effectiveness, and appropriateness of the audio-visual elements in the instructional video. It focuses on ensuring that the visuals and audio complement the content and contribute to a more effective learning experience.	**RELEVANCE**			
1.Visuals (images, diagrams, animations) are clear and enhance understanding.	1	2	3	4
2.The font style and size are appropriate and easy to read	1	2	3	4
3.Audio is clear, with proper volume and pronunciation.	1	2	3	4
4.Background music and sound effects are appropriate and not distracting.	1	2	3	4
5.Subtitles or captions are accurate and helpful	1	2	3	4
DOMAIN IV: MECAHNICS AND OVERALL PACKAGE **DEFINITION:** This refer to the technical aspects and overall presentation of the instructional video, ensuring that it functions smoothly and is visually cohesive while maintaining a professional and engaging tone throughout.	**RELEVANCE**			
1.The video length is suitable for the topic covered.	1	2	3	4
2.The video is free from grammatical or typographical errors.	1	2	3	4
3.The overall tone and presentation are engaging and professional.	1	2	3	4
4.The video integrates innovative elements to sustain interest.	1	2	3	4
5.The video is visually and conceptually cohesive.	1	2	3	4
DOMAIN V: TEACHING STRATEGIES **DEFINITION:** This refers to the methods and approaches used in the instructional video to facilitate learning, encourage student engagement, and promote critical thinking. These strategies aim to actively involve students in the learning process and support their ability to apply knowledge effectively.	**RELEVANCE**			
1.The teaching strategies used in the video encourage active learning.	1	2	3	4
2.The video promotes student engagement and critical thinking	1	2	3	4

3.Activities or questions in the video support learning objectives.	1	2	3	4
4.The video offers opportunities for learner reflection and application.	1	2	3	4
5.The teaching style is inclusive and caters to diverse learning needs.	1	2	3	4

Comments and Suggestions:

Validator's Name and Signature

Appendix F

Validation Tool For Survey Questionnaires On Trends, Networks And Critical Thinking In The 21st Century Culture For Third Quarter

Dear Validators,

This survey questionnaire contains two parts.The Part I contains 4 domains and twenty eight (28) items and the Part II contains 4 domains and twenty four (24) items related to the Trends, Networks and Critical Thinking in the 21st Century Culture subject for the Third Quarter.We need your expert judgement on the degree of relevance of each item relative to the measured domains.Your review should be based on the definition and relevant terminologies that are provided to you. Please be as objective and constructive as possible in your review.Use the following rating scale.

Degree of Relevance

1 – The item is not relevant to the measured competency.

2 – The item is somewhat relevant to the measured competency.

3 – The item is quite relevant to the measured competency.

4 – The item is highly relevant to the measured competency.

Truly yours,

Ma. Shiela May B. Lauriaga

Researcher

Part I. Researcher-made Survey Questionnaire

The following researcher-made survey questionnaire will be utilized by the researcher to measure the content, organization, mechanics, and overall package of the developed video instructional materials.

DOMAIN 1: CONTENT **DEFINITION:** This refers to the relevance, accuracy, depth, and clarity of the instructional video in presenting essential topics related to *Trends, Networks, and Critical Thinking in the 21st Century Culture*. It evaluates the video's ability to align with curriculum standards and learning objectives while effectively engaging learners and enhancing their understanding through real-life applications and clear presentation.	**RELEVANCE**

1. The instructional video covers all the essential topics related to **Trends, Networks, and Critical Thinking in the 21st Century Culture**.	1	2	3	4
2. The content of the video is accurate and reflects current knowledge and understanding of the subject matter.	1	2	3	4
3. The depth of information provided in the video is appropriate for Grade 12 learners.	1	2	3	4
4. The examples and real-life applications used in the video enhance the understanding of key concepts.	1	2	3	4
5. The instructional video presents information in a clear and comprehensible manner.	1	2	3	4
6. The video content is engaging and captures the interest of learners throughout.	1	2	3	4
7. The video content aligns well with the learning objectives and curriculum standards for the subject.	1	2	3	4
DOMAIN 2: ORGANIZATION: **DEFINITION:** This refers to the clarity and coherence in structuring the instructional video. It evaluates the logical flow, pacing, and transition between topics to ensure the content is presented in an organized manner that enhances understanding and engagement. A well-organized video helps learners follow along easily and retain information effectively.		**RELEVANCE**		
1. The instructional video follows a clear and logical sequence of ideas.	1	2	3	4
2. The sections of the video are well-structured, with distinct transitions between topics.	1	2	3	4
3. The pacing of the video is appropriate, allowing enough time to understand each concept.	1	2	3	4
4. The instructional video includes a clear introduction, body, and conclusion.	1	2	3	4
5. The flow of information is smooth, without unnecessary jumps or breaks.	1	2	3	4
6. The sequence of topics in the video matches the order presented in the curriculum.	1	2	3	4
7. The transitions between different sections of the video help maintain focus and understanding.	1	2	3	4
DOMAIN 3: MECHANICS **DEFINTION:** This refers to the technical aspects of the instructional video, including the quality of audio, visuals, multimedia elements, and the overall production. It evaluates how well these elements are executed to create a seamless and engaging learning experience. High-quality mechanics ensure that the video is easy to follow and enhances the understanding of the content without technical distractions.	**RELEVANCE**			
1. The video's audio quality is clear and free from distractions.	1	2	3	4

2. The visual quality (images, graphics, and text) is sharp and easy to read/view.	1	2	3	4
3. The multimedia elements (e.g., animations, transitions) are used effectively to support the content.	1	2	3	4
4. The video's length is appropriate for the complexity of the topic.	1	2	3	4
5. The synchronization between audio and visuals is smooth and well-timed.	1	2	3	4
6. The font size and style used in the video are clear and readable.	1	2	3	4
7. The video uses appropriate background music or effects, enhancing the learning experience without causing distraction.	1	2	3	4
DOMAIN 4: OVERALL PACKAGE: **DEFINITION: This** refers to the technical aspects of the instructional video, including the quality of audio, visuals, multimedia elements, and the overall production. It evaluates how well these elements are executed to create a seamless and engaging learning experience. High-quality mechanics ensure that the video is easy to follow and enhances the understanding of the content without technical distractions.	**RELEVANCE**			
1. The instructional video is visually engaging and captures attention.	1	2	3	4
2. The video's content, organization, and mechanics work together to provide a cohesive learning experience.	1	2	3	4
3. The video successfully maintains student interest throughout its duration.	1	2	3	4
4. The instructional video provides an enjoyable and informative learning experience.	1	2	3	4
5. The video aligns well with the intended learning objectives and educational goals.	1	2	3	4
6. The video uses appropriate language and tone for Grade 12 learners.	1	2	3	4
7. The instructional video effectively contributes to improving student understanding and performance in Trends, Networks, and Critical Thinking in the 21st Century Culture.	1	2	3	4

Part II: Evaluation of Teaching Strategies

DOMAIN 1: CONTENT MASTERY **DEFINITION:** This refers to the teacher's deep understanding of the subject matter and their ability to convey it effectively to students. It evaluates how well the teacher prepares, presents, and adapts the content to meet the needs of learners while ensuring alignment with academic standards and objectives.	**RELEVANCE**			
1. The teacher demonstrates a strong understanding of the subject matter.	1	2	3	4
2. The teacher explains complex topics in a way that is easy to understand.	1	2	3	4

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3. The teacher's lessons are aligned with the learning standards and objectives.	1	2	3	4
4. The content taught is relevant to the required competencies.	1	2	3	4
5. The teacher adjusts the complexity of the lessons based on the students' knowledge.	1	2	3	4
6. The teacher is flexible in addressing the diverse learning needs of the class.	1	2	3	4
DOMAIN 2: INSTRUCTIONAL SKILL **DEFINITION:** This refers to the teacher's ability to design and deliver effective lessons that engage students, foster active learning, and meet diverse educational needs. It emphasizes how well the teacher organizes lessons, applies teaching methods, and encourages student participation and critical thinking.	**RELEVANCE**			
1. Lessons are well-organized with clear learning objectives.	1	2	3	4
2. The teacher provides lessons that logically progress from one topic to the next.	1	2	3	4
3. The teacher uses varied teaching methods that cater to different learning styles.	1	2	3	4
4. The teacher encourages collaboration and active learning in the classroom.	1	2	3	4
5. The teacher incorporates activities that encourage critical thinking.	1	2	3	4
6. The lesson plan is flexible enough to accommodate unexpected questions or ideas.	1	2	3	4
DOMAIN 3: ASSESSMENT FOR LEARNING **DEFINITION:** This refers to the teacher's approach to evaluating and monitoring student progress throughout the learning process. It focuses on using assessments not only to measure knowledge but also as tools to support and enhance student learning, providing feedback that guides improvement and deeper understanding.	**RELEVANCE**			
1. The teacher regularly assesses my understanding through quizzes, tests, and projects.	1	2	3	4
2. The assessments reflect what we have learned in class.	1	2	3	4
3. The teacher provides timely and helpful feedback on assessments.	1	2	3	4
4. The teacher offers support to help students improve when needed.	1	2	3	4
5. The teacher's assessments focus on real-world applications of what we've learned.	1	2	3	4
6. The teacher encourages students to apply their knowledge through performance-based tasks.	1	2	3	4

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D. DOMAIN 4: CLASSROOM MANAGEMENT **DEFINITION:** This refers to the teacher's approach to evaluating and monitoring student progress throughout the learning process. It focuses on using assessments not only to measure knowledge but also as tools to support and enhance student learning, providing feedback that guides improvement and deeper understanding.	**RELEVANCE**			
1. The teacher clearly communicates expectations for behavior and class routines.	1	2	3	4
2. The teacher effectively enforces classroom rules to maintain order.	1	2	3	4
3. The teacher uses strategies that keep me engaged and actively participating in class.	1	2	3	4
4. Group discussions and activities are used to promote participation and engagement.	1	2	3	4
5. The teacher fosters an inclusive classroom environment where all students feel valued.	1	2	3	4
6. The teacher ensures that diverse perspectives and needs are respected and supported.	1	2	3	4

Validation Tool for Survey Questionnaires on Trends, Networks and Critical Thinking in the 21st Century Culture for Third Quarter

Dear Validators,

This survey questionnaire contains two parts.The Part I contains 4 domains and twenty eight (28) items and the Part II contains 4 domains and twenty four (24) items related to the Trends, Networks and Critical Thinking in the 21st Century Culture subject for the Third Quarter.We need your expert judgement on the degree of relevance of each item relative to the measured domains.Your review should be based on the definition and relevant terminologies that are provided to you. Please be as objective and constructive as possible in your review.Use the following rating scale.

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Researcher

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1. The instructional video covers all the essential topics related to **Trends, Networks, and Critical Thinking in the 21st Century Culture**.	1	2	3	4
2. The content of the video is accurate and reflects current knowledge and understanding of the subject matter.	1	2	3	4
3. The depth of information provided in the video is appropriate for Grade 12 learners.	1	2	3	4
4. The examples and real-life applications used in the video enhance the understanding of key concepts.	1	2	3	4
5. The instructional video presents information in a clear and comprehensible manner.	1	2	3	4
6. The video content is engaging and captures the interest of learners throughout.	1	2	3	4
7. The video content aligns well with the learning objectives and curriculum standards for the subject.	1	2	3	4
DOMAIN 2: ORGANIZATION: **DEFINITION:** This refers to the clarity and coherence in structuring the instructional video. It evaluates the logical flow, pacing, and transition between topics to ensure the content is presented in an organized manner that enhances understanding and engagement. A well-organized video helps learners follow along easily and retain information effectively.	**RELEVANCE**			
1. The instructional video follows a clear and logical sequence of ideas.	1	2	3	4
2. The sections of the video are well-structured, with distinct transitions between topics.	1	2	3	4
3. The pacing of the video is appropriate, allowing enough time to understand each concept.	1	2	3	4
4. The instructional video includes a clear introduction, body, and conclusion.	1	2	3	4
5. The flow of information is smooth, without unnecessary jumps or breaks.	1	2	3	4

6. The sequence of topics in the video matches the order presented in the curriculum.	1	2	3	4
7. The transitions between different sections of the video help maintain focus and understanding.	1	2	3	4
DOMAIN 3: MECHANICS **DEFINTION:** This refers to the technical aspects of the instructional video, including the quality of audio, visuals, multimedia elements, and the overall production. It evaluates how well these elements are executed to create a seamless and engaging learning experience. High-quality mechanics ensure that the video is easy to follow and enhances the understanding of the content without technical distractions.	**RELEVANCE**			
1. The video's audio quality is clear and free from distractions.	1	2	3	4
2. The visual quality (images, graphics, and text) is sharp and easy to read/view.	1	2	3	4
3. The multimedia elements (e.g., animations, transitions) are used effectively to support the content.	1	2	3	4
4. The video's length is appropriate for the complexity of the topic.	1	2	3	4
5. The synchronization between audio and visuals is smooth and well-timed.	1	2	3	4
6. The font size and style used in the video are clear and readable.	1	2	3	4
7. The video uses appropriate background music or effects, enhancing the learning experience without causing distraction.	1	2	3	4
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1. The instructional video is visually engaging and captures attention.	1	2	3	4
2. The video's content, organization, and mechanics work together to provide a cohesive learning experience.	1	2	3	4
3. The video successfully maintains student interest throughout its duration.	1	2	3	4
4. The instructional video provides an enjoyable and informative learning experience.	1	2	3	4
5. The video aligns well with the intended learning objectives and educational goals.	1	2	3	4
6. The video uses appropriate language and tone for Grade 12 learners.	1	2	3	4

7. The instructional video effectively contributes to improving student understanding and performance in Trends, Networks, and Critical Thinking in the 21st Century Culture.	1	2	3	4

Part II: Evaluation of Teaching Strategies

DOMAIN 1: CONTENT MASTERY **DEFINITION:** This refers to the teacher's deep understanding of the subject matter and their ability to convey it effectively to students. It evaluates how well the teacher prepares, presents, and adapts the content to meet the needs of learners while ensuring alignment with academic standards and objectives.	**RELEVANCE**			
1. The teacher demonstrates a strong understanding of the subject matter.	1	2	3	4
2. The teacher explains complex topics in a way that is easy to understand.	1	2	3	4
3. The teacher's lessons are aligned with the learning standards and objectives.	1	2	3	4
4. The content taught is relevant to the required competencies.	1	2	3	4
5. The teacher adjusts the complexity of the lessons based on the students' knowledge.	1	2	3	4
6. The teacher is flexible in addressing the diverse learning needs of the class.	1	2	3	4
DOMAIN 2: INSTRUCTIONAL SKILL **DEFINITION:** This refers to the teacher's ability to design and deliver effective lessons that engage students, foster active learning, and meet diverse educational needs. It emphasizes how well the teacher organizes lessons, applies teaching methods, and encourages student participation and critical thinking.	**RELEVANCE**			
1. Lessons are well-organized with clear learning objectives.	1	2	3	4
2. The teacher provides lessons that logically progress from one topic to the next.	1	2	3	4
3. The teacher uses varied teaching methods that cater to different learning styles.	1	2	3	4
4. The teacher encourages collaboration and active learning in the classroom.	1	2	3	4
5. The teacher incorporates activities that encourage critical thinking.	1	2	3	4
6. The lesson plan is flexible enough to accommodate unexpected questions or ideas.	1	2	3	4
DOMAIN 3: ASSESSMENT FOR LEARNING **DEFINITION:** This refers to the teacher's approach to evaluating and monitoring student progress throughout the learning process. It focuses on	**RELEVANCE**			

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using assessments not only to measure knowledge but also as tools to support and enhance student learning, providing feedback that guides improvement and deeper understanding.				
1. The teacher regularly assesses my understanding through quizzes, tests, and projects.	1	2	3	4
2. The assessments reflect what we have learned in class.	1	2	3	4
3. The teacher provides timely and helpful feedback on assessments.	1	2	3	4
4. The teacher offers support to help students improve when needed.	1	2	3	4
5. The teacher's assessments focus on real-world applications of what we've learned.	1	2	3	4
6. The teacher encourages students to apply their knowledge through performance-based tasks.	1	2	3	4
D. DOMAIN 4: CLASSROOM MANAGEMENT **DEFINITION:** This refers to the teacher's approach to evaluating and monitoring student progress throughout the learning process. It focuses on using assessments not only to measure knowledge but also as tools to support and enhance student learning, providing feedback that guides improvement and deeper understanding.	**RELEVANCE**			
1. The teacher clearly communicates expectations for behavior and class routines.	1	2	3	4
2. The teacher effectively enforces classroom rules to maintain order.	1	2	3	4
3. The teacher uses strategies that keep me engaged and actively participating in class.	1	2	3	4
4. Group discussions and activities are used to promote participation and engagement.	1	2	3	4
5. The teacher fosters an inclusive classroom environment where all students feel valued.	1	2	3	4
6. The teacher ensures that diverse perspectives and needs are respected and supported.	1	2	3	4

Appendix F

Achievement Test In Trends, Networks And Critical Thinking In The 21st Century Culture For Third Quarter Questionnaire Validation Tool

Dear Validators,

Greetings of respect and gratitude!

The undersigned is a graduating student taking Master of Arts in Teaching Major in Social Studies at Sultan Kudarat State University to conduct a study entitled "Instructional Videos and Strategies on Trends, Networks

and Critical Thinking in the 21st Century Culture and the Learning Responses of Grade 12 SHS Students in INHS." Its main objective is the development and evaluation of instructional videos tailored specifically for the subject " Trends, Networks, and Critical Thinking in the 21st Century Culture."

The undersigned humbly seeks your expertise in reviewing a 40-item multiple-choice question (MCQ) test designed to assess the competencies as indicated in the attached Table of Specification (TOS).

This test has been developed as part of a study to determine as to what extent the instructional videos will be of help in the student's acquisition of knowledge during the Third quarter in Senior High School Students.

As esteemed experts in the field, your professional insights and constructive feedback are invaluable to ensure the quality and validity of this assessment tool. I kindly request you to review the test based on its relevance and clarity in alignment with the Table of Specifications (TOS) provided at the end of the document.

To guide your evaluation, please utilize the following rating scale: Degree of Relevance

1 – The item is not relevant to the measured competency.

2 – The item is somewhat relevant to the measured competency.

3 – The item is quite relevant to the measured competency.

4 – The item is highly relevant to the measured competency.

Your objective and scholarly review will greatly contribute to the refinement of this assessment tool.

Thank you very much for your time, effort, and invaluable contribution to this endeavor.

Truly yours,

Ma. Shiela May B. Lauriaga

Researcher

Achievement Test In Trends, Networks And Critical Thinking In The 21st Century Culture For Third Quarter

Direction. Read each question carefully. Choose your answer by ticking the right option.

No.	Test Items and Choices	RELEVANCE			
1.	An emerging phenomenon that last for a long period of time and transmit existing ventures to the future generations. □ Fad □ Trend □ Trend spotter □ Trend spotting	1	2	3	4
2.	What characteristic of a trend that introduces something new like ideas, devices or methods?	1	2	3	4

	Consistency **Innovation** **Versatility** **None of the above**				
3.	**This is a characteristic of a trend that people can still recognize that this trend is a trademark.** **Acceptability** **Consistency** **Duration of time** **Versatility**	**1**	**2**	**3**	**4**
4.	**This is any given phenomenon and prediction which likely to happen and examined by.** **Trends** **Trend Analysis** **Trends Spotter** **Trend Spotting**	**1**	**2**	**3**	**4**
5.	**This trends are popularly accepted by many industries and people are called?** **Acceptability** **Cultural Basis** **Duration of time** **Transitory**	**1**	**2**	**3**	**4**
6.	**This is a trend that is always appreciated by people despite the difference in culture, place, and race.** **Acceptability** **Consistency** **Innovation** **Versatility**	**1**	**2**	**3**	**4**
7.	**The trend that introduces changes and something absolutely new to community like something new ideas, devices, or methods.**	**1**	**2**	**3**	**4**

	Acceptability **Consistency** **Innovation** **Versatility**				
8.	**It is creating and improving a new product like smartphones.** **Acceptability** **Consistency** **Innovation** **Versatility**	**1**	**2**	**3**	**4**
9.	**This is an adaptation of the latest cell phone brand.** **Consistency Innovation** **Duration of time** **Innovation** **Versatility**	**1**	**2**	**3**	**4**
10.	**What do you call the continuity on the use of Facebook?** **Acceptability** **Consistency** **Innovation** **Versatility**	**1**	**2**	**3**	**4**
11.	**According to Locke, it is comprised of awareness and reflection.** **Experience** **Emerging Patterns** **Patterns** **Trends**	**1**	**2**	**3**	**4**
12.	**This is used to predict future values based on previously observed values.** **Experience** **Emerging Pattern** **Time Series Forecasting**	**1**	**2**	**3**	**4**

	Trends				
13.	This is a curved line that shows data values rise or fall initially and then suddenly stops rising or falling. Cyclical Damped Trend Downward Trend Random or Irregular or Error	1	2	3	4
14.	This is when fluctuations do not repeat over fixed periods of time and are hence unpredictable and extend beyond a year. Cyclical Downward Trend Random or Irregular or Error Seasonal	1	2	3	4
15.	What field of discipline is being mentioned if children get addicted with social media applications such as Tiktok and Face App. Education Fashion Social Media Technology	1	2	3	4
16.	It is the discipline that shows the desire for being appreciated? Education Fashion Social Media Technology	1	2	3	4
17.	It is a quick and ready insight. Critical thinking Intuitive thinking Rational thinking Strategic thinking	1	2	3	4

18.	**What tool analyses like PEST is used in strategic analysis?** **It is used to examine and understand a situation to identify problems in different aspects of a certain community.** **It used to prove that strategic analysis is the best in all problem solving** **It used to understand a situation with the use of senses and insights in creating solutions** **It helps to understand a situation by knowing the strength and weaknesses or an organization/community**	**1**	**2**	**3**	**4**
19.	**It examine and understand the environment without logical reasoning.** **Critical thinking** **Intuitive thinking** **Rational thinking** **Strategic thinking**	**1**	**2**	**3**	**4**
20.	**It is a tool analysis analyzes the strength, weaknesses, opportunities and threats of an organization.** **Critical analysis** **PEST analysis** **Strategic analysis** **SWOT analysis**	**1**	**2**	**3**	**4**
21.	**It is a process of conducting research to examine and identify problems in a certain community.** **Critical thinking** **Intuitive thinking** **Rational thinking** **Strategic thinking**	**1**	**2**	**3**	**4**
22.	**It is one of the components of intuitive thinking?** **Gut Feeling** **Rational** **Strategic Planning** **Tool Analysis**	**1**	**2**	**3**	**4**

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23.	**In SWOT analysis, it is the organization's assets or your competitors don't have.** **Opportunities** **Strenght** **Threats** **Weaknesses**	**1**	**2**	**3**	**4**
24.	**In PEST analysis, it deals about the rules and regulations imposed by the government.** **Economic** **Socio-cultural** **Political** **Technological**	**1**	**2**	**3**	**4**
25.	**It shows the effect of globalization to economical aspect?** **The interpretations of culture which, as consequence, means, nation adopts principles,beliefs, and costumes of other nation.** **The rise of global financial system with international financial exchanges and monetary exchanges.** **The development and growing influence of international organization such as UN or WHO.** **The new organization and hierarchy of different regions that constantly changing.**	**1**	**2**	**3**	**4**
26.	**It is the example of globalization which millions of people are interconnected because of digital word via platforms such as Facebook, Instagram, Skype, or Youtube.** **Cultural Globalization** **Ecological Globalization** **Geographical** **Technological Globalization**	**1**	**2**	**3**	**4**
27.	**What word can be summed up in the word Globalization?** **Cargo mobility** **International Integration** **Labor mobility** **National barriers**	**1**	**2**	**3**	**4**
28.	**It is a two people carrying their own "similar" baskets to a common destination for**	**1**	**2**	**3**	**4**

	mutually beneficial individual gain, increasing impact, volume and leverage. **Collaboration** **Collaborative** **Cooperation** **Cooperative**				
29.	**This is a two people carrying their two baskets (or maybe even more and often very different) by sharing the load between them, to a shared destination for the mutual benefit of the individuals, collective and entity.** **Collaboration** **Collaborative** **Cooperation** **Cooperative**	**1**	**2**	**3**	**4**
30.	**The act or instance of working or acting together for a common purpose or benefit joint operation or action.** **Collaboration** **Collaborative** **Collaboration** **Cooperative**	**1**	**2**	**3**	**4**
31.	**This is a problem faced by migrant workers which they are not eligible for company benefits such as pensions and insurance plans. They also miss out on unemployment, disability and Social Security benefits from the government.** **Coercion** **Cultural Differences** **Dangerous Conditions** **Lack of Benefits**	**1**	**2**	**3**	**4**
32.	**Danica and her family is considered migrants in the country and having no choice but to move. Which best describe the situation?** **External migration** **Force Migration** **Permanent Migration** **Temporary migration**	**1**	**2**	**3**	**4**

33.	Which of the following best complete the term ICT? • Information and Committee Technology • Information and Community Technology • Information and Communication Technology • Information and Committee Technology	1	2	3	4
34.	What trend within information technology in which designed to run in smart phone, tablets, and other mobile devices. • Cloud Computing • Mobile Application • User Interface • Wifi	1	2	3	4
35.	How do greenhouse gases contribute to climate change? • Trapping the air • Trapping the rain drops • Trapping the suns heat and stopping it from leaking • None of the above	1	2	3	4
36.	Which of the following pollutant is greenhouse gas? • Carbon Dioxide • Carbon Monoxide • Both a and b • None of the above	1	2	3	4
37.	Which of the statements below do NOT consider as climate change solution? • Diminishing deforestation • Manufacturing of plastics for household's use • Optimizing vehicles proficiency • Reduces the amount of greenhouse gas emissions	1	2	3	4
38.	Which of the following best applies to a situation where the government provides aid to alleviate people's suffering after a disaster? • Adaption	1	2	3	4

	▯ Communication ▯ Mitigation ▯ Production				
39.	What are the solution to climate change? ▯ Protect forest like Amazon ▯ Protect the ocean ▯ Reduce Plastic use ▯ All of the above	1	2	3	4
40.	How do you create an adaption plan? ▯ Assessing climate change risk and vulnerabilities. ▯ Identifying adaption options ▯ Implementing adaption,monitoring and evaluating adaption ▯ All of the above	1	2	3	4

Comments and Suggestions:

Signature over Printed Name of Validator Date Validated

Appendix G

RESULT FOR ACHIEVEMENT TEST EVALUATION FOR VALIDATORS

Indicators	AMIT RATER 1	HARE RATER 2	BIALEN RATER 3	CALUSAY RATER 4	TABUJARA RATER 5	No. of Agreement	I-CVI
ITEM 1	4	4	4	4	4	5	1
ITEM 2	4	4	4	4	4	5	1
ITEM 3	4	4	4	4	4	5	1
ITEM 4	4	4	4	4	4	5	1
ITEM 5	4	4	4	4	4	5	1
ITEM 6	4	4	4	4	4	5	1
ITEM 7	4	4	4	4	4	5	1
ITEM 8	4	4	4	4	4	5	1
ITEM 9	4	4	4	4	4	5	1
ITEM 10	4	4	4	4	4	5	1
ITEM 11	4	4	4	4	4	5	1
ITEM 12	4	4	4	4	4	5	1
ITEM 13	4	4	4	4	4	5	1
ITEM 14	4	4	3	3	4	5	1
ITEM 15	4	4	3	3	4	5	1
ITEM 16	4	4	3	3	4	5	1
ITEM 17	4	4	4	4	4	5	1
ITEM 18	4	4	4	4	4	5	1
ITEM 19	4	4	4	4	4	5	1
ITEM 20	4	4	4	4	4	5	1
ITEM 21	4	4	4	4	4	5	1
ITEM 22	4	4	4	4	4	5	1
ITEM 23	4	4	4	4	4	5	1
ITEM 24	4	4	4	4	4	5	1
ITEM 25	4	4	4	4	4	5	1
ITEM 26	4	4	4	4	4	5	1
ITEM 27	3	4	3	3	4	5	1
ITEM 28	4	4	4	4	4	5	1
ITEM 29	4	4	3	3	4	5	1
ITEM 30	4	4	4	4	4	5	1
ITEM 31	4	4	4	4	4	5	1
ITEM 32	4	4	4	4	4	5	1
ITEM 33	4	4	4	4	4	5	1
ITEM 34	4	4	4	4	4	5	1
ITEM 35	4	4	3	3	4	5	1
ITEM 36	4	4	4	4	4	5	1
ITEM 37	4	4	3	3	4	5	1
ITEM 38	4	4	4	4	4	5	1
ITEM 39	4	4	3	3	4	5	1
ITEM 40	4	4	4	4	4	5	1
						S-CVI/Ave	1
						Total Agreement	40
						S-CVI/UA	1

Legend:
CVI Content Validity Index
I-CVI Item-Content Validity Index
S-CVI Scale-Validity Index
UA Universal Agreement

UA = Tool Agreement /No. of item
ICVI = No. of Agreement / No. of item

ICVI = No. of Agreement (per item) / No. of Rater(s)

S-CVI = I-CVI/No. of item

Appendix H

Republic of the Philippines
SULTAN KUDARAT STATE UNIVERSITY
Laboratory High School
ACCESS, EJC Montilla, 9800 City of Tacurong
Province of Sultan Kudarat

VALIDITY TEST CERTIFICATION

This is to certify that the research instrument/s of **MA SHIELA MAY B. LAURIAGA** for the study titled ***"Instructional Videos and Strategies on Trends, Networks and Critical Thinking in the 21ST Century Culture and the Learning Responses of Grade 12 SHS Students in INHS"*** was carefully reviewed and checked by the undersigned for its validity. In fact, all items have content validity indices of 1.00. Likewise, the entire instrument has a scaled Content Validity Index (S-CVI) of **1.00.**

Hence, the undersigned recommends that the survey questionnaire be employed as a tool in the conduct of the study after it is subjected to a pilot test.

Issued this **17th** day of **February 2025**, at SKSU ACCESS Campus, EJC Montilla, Tacurong City.

ERNIE C. CERADO, PhD
Statistician

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SOP 1

Table xxx. Extent of Students' Evaluation of the Instructional Video on Trends, Networks and Critical Thinking in the 21st Century Culture in terms of Content

Indicators	Mean Rating	SD	Qualitative Description
Q1	4.90	0.32	
Q2	4.80	0.63	
Q3	4.90	0.32	
Q4	4.80	0.42	
Q5	4.90	0.32	
Q6	4.70	0.48	
Q7	4.90	0.32	
Mean	4.84	0.40	

Table xxx. Extent of Students' Evaluation of the Instructional Video on Trends, Networks and Critical Thinking in the 21st Century Culture in terms of Organization

Indicators	Mean Rating	SD	Qualitative Description
Q1	4.80	0.63	
Q2	4.60	0.70	
Q3	4.90	0.32	
Q4	4.90	0.32	
Q5	4.90	0.32	
Q6	4.90	0.32	
Q7	5.00	0.00	
Mean	4.86	0.37	

Table xxx. Extent of Students' Evaluation of the Instructional Video on Trends, Networks and Critical Thinking in the 21st Century Culture in terms of Mechanics

Indicators	Mean Rating	SD	Qualitative Description
Q1	5.00	0.00	
Q2	4.80	0.42	
Q3	4.90	0.32	
Q4	5.00	0.00	
Q5	4.80	0.42	
Q5	5.00	0.00	
Q7	4.90	0.32	
Mean	4.91	0.21	

Table xxx. Extent of Students' Evaluation of the Instructional Video on Trends, Networks and Critical Thinking in the 21st Century Culture in terms of Overall Package

Indicators	Mean Rating	SD	Qualitative Description
Q1	4.80	0.42	
Q2	4.80	0.42	
Q3	4.80	0.42	
Q4	4.80	0.42	
Q5	4.80	0.63	
Q6	4.80	0.63	
Q7	5.00	0.00	
Mean	4.83	0.42	

Table xxx. Extent of Students' Evaluation of the Instructional Video on Trends, Networks and Critical Thinking in the 21st Century Culture

Elements	Means	SD	Qualitative Description
Content	4.84	0.40	
Organization	4.84	0.40	
Mechanics	4.91	0.21	
Overall Package	4.83	0.42	
Grand Mean	4.86	0.36	

SOP 2a

Table xxx. Level of Teaching Traditional Method in terms of Content Mastery

Indicators	Mean Rating	SD	Qualitative Description
Q1	4.84	0.37	
Q2	4.89	0.31	
Q3	4.95	0.23	
Q4	4.79	0.41	
Q5	4.84	0.37	
Q6	4.76	0.43	
Mean	4.85	0.07	

Table xxx. Level of Teaching Traditional Method in terms of Instructional Skill

Indicators	Mean Rating	SD	Qualitative Description
Q1	4.84	0.37	
Q2	4.78	0.42	
Q3	4.86	0.35	
Q4	4.86	0.35	
Q5	4.92	0.28	
Q6	4.92	0.49	
Mean	4.86	0.07	

Table xxx. Level of Teaching Traditional Method in terms of Assessment for Learning

Indicators	Mean Rating	SD	Qualitative Description
Q1	4.82	0.39	
Q2	4.95	0.23	
Q3	4.89	0.31	
Q4	4.87	0.34	
Q5	4.89	0.31	
Q6	4.95	0.23	
Mean	4.89	0.07	

Table xxx. Level of Teaching Traditional Method in terms of Classroom Management

Indicators	Mean Rating	SD	Qualitative Description
Q1	4.92	0.27	
Q2	4.89	0.31	
Q3	4.87	0.34	
Q4	4.89	0.31	
Q5	4.97	0.16	
Q6	4.97	0.16	
Mean	4.92	0.08	

Table xxx. Level of Teaching using Traditional Method (HUMMS 4 Group)

Elements	Means	SD	Qualitative Description
Content Mastery	4.85	0.07	
Instructional Skill	4.86	0.07	
Assessment for Learning	4.89	0.07	
Classroom Management	4.92	0.08	
Overall Mean	4.88	0.07	

SOP 2b

Table xxx. Level of Teaching Using Instructional Video in terms of Content Mastery

Indicators	Mean Rating	SD	Qualitative Description
Q1	4.84	0.37	
Q2	4.76	0.43	
Q3	4.92	0.27	
Q4	4.89	0.39	
Q5	4.84	0.37	
Q6	4.87	0.34	
Mean	4.86	0.05	

Table xxx. Level of Teaching Traditional Method in terms of Instructional Skill

Indicators	Mean Rating	SD	Qualitative Description
Q1	4.87	0.34	
Q2	4.92	0.27	
Q3	4.79	0.41	
Q4	4.97	0.16	
Q5	4.89	0.31	
Q6	4.89	0.31	
Mean	4.89	0.08	

Table xxx. Level of Teaching Traditional Method in terms of Assessment for Learning

Indicators	Mean Rating	SD	Qualitative Description
Q1	4.87	0.34	
Q2	4.89	0.31	
Q3	4.82	0.39	
Q4	4.82	0.39	
Q5	4.97	0.16	
Q6	4.95	0.23	
Mean	4.89	0.09	

Table xxx. Level of Teaching Traditional Method in terms of Classroom Management

Indicators	Mean Rating	SD	Qualitative Description
Q1	4.82	0.39	
Q2	4.97	0.16	
Q3	4.82	0.39	
Q4	4.87	0.34	
Q5	4.97	0.16	
Q6	5.00	0.00	
Mean	4.91	0.16	

Table xxx. Level of Teaching using Instructional Video (HUMMS 3 Group)

Elements	Means	SD	Qualitative Description
Content Mastery	4.86	0.05	
Instructional Skill	4.89	0.08	
Assessment for Learning	4.89	0.09	
Classroom Management	4.91	0.16	
Overall Mean	4.88	0.10	

SOP 3

Table xxx. Level of Learning Responses of Students in 2 Groups during the Pretest and Posttest

Group	Scores	N	Mean	SD	Qualitative Descritpion
Control (Traditional Method)	Posttest	40	37.10	2.53	
Experimental (Use Instructional Video)		40	36.00	8.46	
Control (Traditional Method)	Pretest	40	33.70	2.23	
Experimental (Use Instructional Video)		40	32.30	7.83	

SOP 4

Table xxx. Difference between the Pretest Scores of the Cntrol and Experimental Groups through Mann-Whitney Test

Groups	N	Mean	SD	Mann-Whitney U	p
Control	40	33.7	2.23	780	0.846
Experimental	40	32.3	7.83		

Note: p,.05, significant

SOP 5

Table xxx. Difference between the Posttest Scores of the Cntrol and Experimental Groups through Mann-Whitney Test

s	N	Mean	SD	Mann-Whitney U	p
Control	40	37.10	2.53	714	0.398
Experimental	40	36.00	8.46		

Note: p,.05, significant

SOP 6

Table xxx. Difference between the Pretest and Posttest Scores of the Control Group

Scores	N	Mean	SD	df	t-stat	p
Posttest	40	37.10	2.53	39	6.600	< .001
Pretest	40	33.70	2.23			

Note. H_a $\mu_{\text{Measure 1 - Measure 2}} \neq 0$

SOP 7

Table xxx.Difference between the Pretest and Postest score of Experimental Group

Scores	N	Mean	SD	df	t-stat	p
Posttest	38	37.90	1.28	37	9.04	< .001
Pretest	38	34.00	2.29			

Note. H_a $\mu_{\text{Measure 1 - Measure 2}} \neq 0$

SOP 8

Table xxx. Difference between the Learning Gains of the Control and Experimental Groups

Groups	N	Mean	SD	df	t-stat	p
Control (Traditional Method)	40	3.40	3.26	76	-0.77	0.444
Experimental (Use Instructional Video)	38	3.92	2.68			

Note. H_a $\mu_{\text{Control}} \neq \mu_{\text{Experimental}}$

Appendix I

Republic of the Philippines
SULTAN KUDARAT STATE UNIVERSITY
GRADUATE SCHOOL
ACCESS Campus, EJC Montilla, Tacurong City

LANGUAGE EDITOR'S CERTIFICATION

This is to certify that the undersigned has reviewed the thesis of **MA. SHIELA MAY B. LAURIAGA**, titled **"Instructional Videos and Strategies On Trends, Networks And Critical Thinking In The 21st Century Culture And The Learning Responses Of Grade 12 SHS Students In INHS"** in partial fulfillment of the requirements for the degree **Master of Arts in Teaching Major in Social Studies.** The review covered the content, grammar, organization, and mechanics, which led to the improvement of the manuscript.

This certification is granted to **MA. SHIELA MAY B. LAURIAGA** as a requirement for the **Final Defense**.

This is issued on February 23, 2025, at SKSU Graduate School, ACCESS Campus, EJC Montilla, Tacurong City.

CRISTOBAL M. AMBAYON, Ed.D
Language Editor

Appendix J

Republic of the Philippines
SULTAN KUDARAT STATE UNIVERSITY
GRADUATE SCHOOL
ACCESS Campus, EJC Montilla, Tacurong City

GS 2022-10

STATISTICIAN'S CERTIFICATION

This is to certify that the thesis manuscript of ***MA. SHIELA MAY B. LAURIAGA***, titled ***Instructional Videos and Strategies on Trends, Networks and Critical Thinking in the 21ST Century Culture and the Learning Responses of Grade 12 SHS Students in INHS*** has been carefully reviewed and checked by the undersigned for the statistical tools used and its applications in the study.

This certification is granted to the above-cited graduate student as a requirement for the Final Defense.

Issued this 6th day of March 2025, at SKSU Graduate School, ACCESS Campus, EJC Montilla, Tacurong City.

ERNIE C. CERADO, PhD
Statistician

Curriculum Vitae

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A.Y. 2024-2025

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BACCALAUREATE: Completed 2 courses in the Massive Open

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Notre Dame of Marbel University Koronadal City

A.Y. 2004-2005

HIGH SCHOOL: Laguilayan National High School

Laguilayan, Isulan, Sultan Kudarat June 1997-March 2000

ELEMENTARY: Laguilayan Elementary School

Laguilayan, Isulan, Sultan Kudarat June 1991-March 1996

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Teacher II

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