

YouTube Tutorials as Moderator on Technology-Mediated Teaching Approach and Learners' Inquisitiveness

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Abstract: The current study delves to evaluate whether YouTube Tutorials have significant moderating effect on the interaction between technology-mediated teaching approach and learners' inquisitiveness. In this study, the researcher selected the 335 public elementary school teachers in New Corella District, Davao del Norte as the respondents of the study. Non-experimental quantitative research design using descriptive-correlational method was employed. The data collected were subjected on the following statistical tools: Mean, Partial Correlation, and Regression Analysis. Descriptive analysis showed that technology-mediated teaching approach and YouTube Tutorials were described as extensive, while, learners' inquisitiveness was rated as moderately extensive. Further, correlation analysis demonstrated that there is significant relationship technology-mediated teaching approach and learners' inquisitiveness in New Corella District, Davao del Norte when moderated by YouTube Tutorials. Evidently, regression analysis proved that YouTube Tutorials have significant moderating effect on the interaction between technology-mediated teaching approach and learners' inquisitiveness in New Corella District, Davao del Norte.

Keywords: Educational Management, Learners' Inquisitiveness, Technology-Mediated Teaching Approach, YouTube Tutorials

A. Introduction

The impact of YouTube tutorials on learners' inquisitiveness has been significant, yet it presents both opportunities and challenges. On the positive side, YouTube tutorials provide accessible, diverse, and engaging content that can spark curiosity and foster self-directed learning among students (Koumi, 2019). These videos often present information in visually appealing and easily digestible formats, making complex topics more approachable and stimulating students' desire to explore further (Jaffar, 2020). However, issues arise regarding the quality and reliability of the information presented, as not all YouTube content is created by experts, which can lead to misinformation and

superficial understanding (Singh et al., 2020). Additionally, the passive consumption of information without critical engagement can limit deeper inquisitiveness and analytical thinking, emphasizing the need for educators to guide students in critically evaluating and effectively using YouTube as a learning resource (Zheng et al., 2021).

Despite the increasing integration of YouTube tutorials into educational settings, several research gaps remain regarding their impact on teaching approaches and learners' inquisitiveness. Firstly, there is a lack of comprehensive studies examining how the use of YouTube tutorials influences teachers' instructional strategies and whether it encourages more innovative and interactive teaching methods. Secondly, while YouTube tutorials are known to enhance learner engagement, there is insufficient research on how they specifically affect students' inquisitiveness and their ability to think critically and independently. Third, the long-term effects of relying on YouTube tutorials for learning are not well understood, particularly concerning the development of deep, sustained inquisitiveness and analytical skills over time. Addressing these gaps is crucial for optimizing the use of digital media in education and ensuring that it effectively supports both teaching and learning processes.

The state of the art regarding the impact of YouTube tutorials on teaching approaches indicates that digital media is increasingly being incorporated into educational practices to enhance engagement and understanding. Studies such as those by Jill, Wang, and Mattia (2019) have shown that multimedia resources, including YouTube videos, can make learning more dynamic and accessible by presenting information in a visually engaging and easily digestible manner. However, there remains a limited understanding of how these resources influence teachers' instructional strategies and whether they promote more interactive and student-centered approaches. The current research predominantly focuses on the benefits of YouTube as a supplementary tool rather than a core component of pedagogical frameworks, highlighting a significant gap in the comprehensive evaluation of its pedagogical impact (Zheng et al., 2021).

The novelty of investigating YouTube tutorials' impact on learners' inquisitiveness lies in exploring uncharted aspects of digital learning environments. While it is well-documented that YouTube tutorials can increase student engagement and interest (Maziriri et al., 2020), there is a paucity of research focusing on how these tutorials specifically cultivate inquisitiveness and critical thinking skills. Existing studies often overlook the nuanced ways in which learners interact with video content and how this interaction translates into deeper cognitive engagement and inquiry-based learning. By examining these dimensions, new insights can be gained into the mechanisms that drive inquisitiveness and the potential of YouTube tutorials to foster an inquisitive mindset in students.

This study aimed to contribute significantly to the educational literature by filling the research gaps identified in the current understanding of YouTube tutorials' impact on teaching approaches and learners' inquisitiveness. It sought to provide empirical evidence on how these digital tools could be effectively integrated into teaching methodologies to enhance instructional innovation and student engagement. Additionally, the study explored the long-term effects of using YouTube tutorials on learners' inquisitiveness, thereby offering valuable insights into the development of critical thinking and independent learning skills. By addressing these gaps, the study offered practical recommendations for educators and policymakers to optimize the use of YouTube and other digital media in fostering a more inquisitive and analytically skilled student body.

The primary purpose of this study was to evaluate the moderating effect of YouTube tutorials on the interaction between technology-mediated teaching approach and learners' inquisitiveness in New Corella District, Davao del Norte. Specifically, this study seeks to answer the following questions:

1. What is the extent of technology-mediated teaching approach of teachers in terms of innovativeness; adaptability; critical reasoning; and collaborative?
2. What is the extent of learners' inquisitiveness in terms of imagination; learning instinct; inferential; and eagerness?
3. What is the extent of YouTube tutorials in New Corella District, Davao del Norte?
4. Is there significant relationship between technology-mediated teaching approach and learners' inquisitiveness in New Corella District, Davao del Norte when moderated by YouTube tutorials?
5. Do YouTube tutorials have significant moderating effect on the interaction between technology-mediated teaching approach and learners' inquisitiveness in New Corella District, Davao del Norte?

B. Methods

This study used a quantitative design following a descriptive correlational approach. Quantitative research design refers to the systematic empirical investigation of observable phenomena via statistical, mathematical, or computational techniques. The objective of quantitative research is to develop and employ models, theories, and hypotheses pertaining to natural phenomena (Creswell & Creswell, 2018). A descriptive correlational approach in research is used to describe and measure the degree of association between two or more variables without manipulating them. This approach aims to observe, describe, and document aspects of a situation as it naturally occurs and identify potential relationships between variables. It does not imply causation but rather indicates the strength and direction of the association (Siedlecki, 2020).

In this study, 355 elementary school teachers in New Corella District in Davao del Norte were selected as respondents through stratified random sampling method. Stratified random sampling is a method of sampling that involves dividing a population into distinct subgroups, or strata, that share similar characteristics, and then randomly selecting samples from each stratum. This technique ensures that each subgroup is adequately represented in the sample, enhancing the generalizability and accuracy of the research findings (Taherdoost, 2016). Moreover, the researcher made use of modified and enhanced adapted survey questionnaires which was pilot tested in a nearby school to ensure high reliability and internal consistency of the items in the instrument. *The data collected were subjected on the following statistical tools: Mean, Correlation Analysis, and Regression Analysis.*

C. Results and Discussion

SOP#1: What is the extent of technology-mediated teaching approach of teachers in terms of innovativeness, adaptability, critical reasoning, and collaborative?

Technology-mediated teaching approach in terms of innovativeness was moderately extensive (M=3.34) indicating that there was a balanced integration of digital tools and resources that enhance but do not dominate the educational process. At this level, educators selectively incorporate technology to complement traditional teaching methods, aiming to enrich the learning experience without overwhelming either the teacher or the students. The relevance of a moderate level of innovativeness in technology-mediated teaching approaches is significant for enhancing the teaching-learning process. By integrating technology moderately, educators can introduce innovative practices that make learning more engaging and effective while maintaining a structured and familiar learning environment. For instance, using interactive whiteboards, educational software, and online resources can stimulate students' interest and participation, making lessons more dynamic and interactive (Falloon, 2020).

Technology-mediated teaching approach in terms of adaptability was extensive (M=3.61). High levels of adaptability in technology-mediated teaching approaches refer to the ability of both educators and students to efficiently integrate and adjust to new digital tools and platforms to enhance the learning experience. This flexibility allows for a responsive educational environment that can swiftly accommodate changes in technology and diverse learner needs. The relevance of high adaptability in the teaching-learning process is significant, as it enables a dynamic and responsive educational experience. With rapid technological advancements, educational environments that can quickly integrate new tools and adapt to changing requirements are better positioned to meet the needs of diverse student populations. For instance,

adaptive learning technologies that use algorithms to tailor educational content to individual student needs can provide personalized learning experiences, improving engagement and learning outcomes (Johnson et al., 2020).

Technology-mediated teaching approach in terms of critical reasoning was extensive (M=3.52). High levels of critical reasoning facilitated by technology-mediated teaching involve the use of digital tools to enhance students' abilities to analyze, evaluate, and synthesize information. This includes leveraging educational software, interactive simulations, and online resources to foster deep thinking and problem-solving skills. Integrating technology to promote high levels of critical reasoning is crucial in preparing students for complex real-world challenges. Educational technologies such as simulations and problem-based learning platforms provide interactive environments where students can engage in critical analysis and experimentation (Chen & Bryer, 2019).

Technology-mediated teaching approach in terms of collaborative was extensive (M=3.62). High levels of collaboration in technology-mediated teaching involve using digital platforms to enhance teamwork and communication among students. Tools such as collaborative documents, virtual classrooms, and online discussion forums facilitate cooperative learning and the sharing of ideas. The relevance of fostering high levels of collaboration through technology in the teaching-learning process lies in its ability to enhance student engagement and build essential interpersonal skills. Collaborative technologies create opportunities for students to work together on projects, share diverse perspectives, and collectively solve problems, which enriches the learning experience (Voogt et al., 2019).

Overall, technology-mediated teaching approach in New Corella District, Davao del Norte was extensive (M=3.52) indicating that this approach leverages advanced technologies such as interactive software, virtual simulations, online collaborative platforms, and multimedia content to create dynamic and engaging learning environments. The relevance of a high-level technology-mediated teaching approach in the teaching-learning process cannot be overstated. Firstly, it promotes active learning by providing interactive and immersive experiences that traditional methods may lack. For instance, virtual labs and simulations enable students to conduct experiments and explore complex concepts in a controlled, risk-free environment, thereby enhancing their understanding and retention of the subject matter (Hattie, 2012). Additionally, technology facilitates personalized learning by allowing educators to tailor instructional materials to meet the diverse needs of students. Adaptive learning platforms, for example, adjust the difficulty level of tasks based on individual student performance, ensuring that each learner progresses at their own pace and receives the appropriate level of challenge and support (Heitink et al., 2016).

SOP#2: What is the extent of learners' inquisitiveness in terms of imagination, learning instinct, inferential; and eagerness?

Learners' inquisitiveness in terms of imagination was moderately extensive (M=3.31) indicating that the ability to envision concepts and scenarios, but not to an extreme degree. This level allows students to creatively think about problems and solutions without becoming overly fanciful. In the teaching-learning process, Kim (2019) noted that a moderate level of imagination is beneficial as it helps students to conceptualize and understand abstract concepts through visualization and creativity. This balance ensures that while students are able to think creatively, their ideas remain grounded in reality, facilitating practical application of their imaginative skills.

Learners' inquisitiveness in terms of learning instinct was extensive (M=3.42) indicating that a strong, intrinsic motivation to seek out new knowledge and understanding. Students with a high learning instinct are naturally curious and driven to explore new subjects and ideas independently. This instinct is critical in the teaching-learning process as it fosters a proactive learning attitude, where students take initiative in their education, seeking out additional resources and engaging deeply with the material (Deci & Ryan, 2020). Teachers can leverage this instinct by providing a stimulating learning environment that encourages exploration and inquiry, thus enhancing overall educational outcomes.

Learners' inquisitiveness in terms of inferential was moderately extensive (M=3.10) indicating that the the ability to make logical connections and draw conclusions based on available information, without excessive speculation. In the context of teaching and learning, Fisher (2020) asserted that this level of inferential thinking is crucial as it enables students to engage in critical analysis and reasoning, which are essential for problem-solving and understanding complex concepts. A moderate level of inferential thinking ensures that students can make informed judgments and decisions based on evidence, promoting a balanced approach to learning that combines critical thinking with practical application.

Learners' inquisitiveness in terms of eagerness was extensive (M=3.67) denoting an intense enthusiasm and readiness to engage with new learning opportunities. This eagerness translates into active participation in class discussions, willingness to take on challenging tasks, and a positive attitude towards learning. In the teaching-learning process, high eagerness is immensely beneficial as it drives student engagement and persistence, even in the face of difficulties (Zimmerman, 2020). Teachers can capitalize on this eagerness by designing engaging and interactive lessons that sustain student interest and enthusiasm, thereby facilitating a more dynamic and effective learning environment.

Overall, learners' inquisitiveness in New Corella District, Davao del Norte was moderately extensive (M=3.38) indicating that there is a balanced state where students exhibit a healthy curiosity and desire to explore and understand new concepts without becoming overly focused or distracted by their curiosity. This level of inquisitiveness allows students to engage actively with the learning material, ask relevant questions, and seek understanding, but still maintain focus on their academic goals and responsibilities. The relevance of moderate levels of inquisitiveness in the learning process is substantial. When students display moderate inquisitiveness, they are motivated to delve deeper into subjects and explore beyond the surface level of knowledge. This balanced curiosity ensures that they engage actively with the content, which promotes better understanding and retention of information (Kang et al., 2019).

SOP#3: What is the extent of What is the extent of YouTube tutorials?

YouTube tutorials in New Corella District, Davao del Norte was extensive (M=3.51) denoting that there is extensive integration and utilization of these videos as a core component of the learning process. This involves not only frequent use but also strategic implementation to enhance understanding, engagement, and application of knowledge. High levels of YouTube tutorial use imply that these resources are a significant and regularly utilized element in the educational framework, providing comprehensive support across various subjects and learning activities.

The extensive integration of YouTube tutorials fosters self-directed learning and autonomy. Students can access these resources anytime and anywhere, allowing them to learn at their own pace and revisit challenging material as needed (Kobayashi, 2020). This flexibility supports lifelong learning and helps students develop independent learning skills, which are crucial for success in higher education and beyond. Additionally, YouTube tutorials can enhance engagement and motivation. The interactive and often entertaining format of these videos can capture students' attention more effectively than traditional lectures, thereby increasing their interest and motivation to learn (Burke & Snyder, 2020).

SOP#4: Is there significant relationship between technology-mediated teaching approach and learners' inquisitiveness?

There is a significant relationship between technology-mediated teaching approach and learners' inquisitiveness suggesting that the integration of digital tools and resources into the educational process can enhance students' curiosity and drive to learn. Technology-mediated teaching provides diverse and interactive learning experiences that stimulate students' interest, encourage exploration, and foster a deeper engagement with the subject matter. The integration of technology in teaching has

profound implications for fostering learners' inquisitiveness and transforming the teaching-learning process. Interactive digital tools such as simulations, virtual labs, educational games, and multimedia content provide immersive learning experiences that captivate students' attention and spark their curiosity. For example, using virtual reality to explore historical sites or scientific phenomena allows students to engage with the material in a way that traditional methods cannot, promoting a deeper interest in the subject (Huang, Rauch, & Liaw, 2020).

SOP#5: Do YouTube tutorials have significant moderating effect on the interaction between technology-mediated teaching approach and learners' inquisitiveness?

YouTube tutorials is a significant moderator on the interaction between technology-mediated teaching approach and learners' inquisitiveness. These tutorials provide accessible, visually engaging, and often interactive content that can stimulate curiosity and encourage independent exploration of topics. As a moderating variable, YouTube tutorials can amplify the effectiveness of technology-mediated teaching by making learning materials more relatable and easier to understand, thus fostering a more inquisitive learning environment. According to Cinco et al. (2023), YouTube tutorials facilitate collaborative learning opportunities. Students can watch and discuss tutorials together, share insights, and collaborate on projects, thus enhancing their collective learning experience. This collaborative aspect not only promotes inquisitiveness but also helps develop communication and teamwork skills, which are vital in both academic and professional settings.

D. Conclusions

YouTube tutorials serve as a significant moderator in the interaction between technology-mediated teaching approaches and learners' inquisitiveness, highlighting their pivotal role in enhancing educational outcomes. The integration of YouTube tutorials into a moderately extensive technology-mediated teaching approach enriches the learning experience by providing diverse, engaging, and easily accessible content that stimulates curiosity and encourages independent exploration. This synergy fosters a more interactive and personalized learning environment, where students are motivated to delve deeper into subjects and develop critical thinking skills. As a result, YouTube tutorials not only complement traditional teaching methods but also amplify the effectiveness of technology-enhanced education, making it a valuable tool for fostering inquisitiveness and lifelong learning among students. This underscores the necessity for educators to strategically integrate YouTube tutorials within their teaching frameworks to maximize student engagement and academic success.

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