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Research Article

Teaching Speaking In High School: Designing Effective Technology-Enhanced Lessons Using Powerpoint And Padlet

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Abstract

This research explores the application of technology-enhanced learning (TEL) in high school speaking lessons, focusing on the integration of PowerPoint and Padlet to foster interactive and effective teaching. It investigates the role of technology in improving student engagement, supporting feedback mechanisms, and aligning with defined lesson objectives. By leveraging these tools, the study aims to enhance oral communication skills and critical thinking among students. PowerPoint is used for creating visually stimulating presentations, while Padlet serves as a collaborative platform for peer interaction and sharing ideas. The research highlights the strengths of this technology integration, such as interactivity and clear lesson objectives, but also acknowledges areas needing improvement, particularly in the implementation of assessment and feedback mechanisms. Suggestions for enhancing interactivity and expanding the variety of speaking activities are provided. This study reinforces the importance of adopting innovative teaching methods that incorporate technology, viewing it not just as an auxiliary tool, but as a central component of modern education. The findings promote ongoing innovation in lesson design and delivery, with an emphasis on the continuous improvement of teaching strategies to meet the evolving needs of students in a technologically driven educational landscape. Through these findings, the research advocates for TEL as a fundamental enabler of effective high school speaking lessons.

Keywords

Teaching Speaking, Lesson designing, Technology Integration, PowerPoint

1. Introduction

In the context of modern education, technology has emerged as a powerful tool for revolutionizing the teaching and learning process (Bates, 2015; Zhao & Frank, 2003). It underscores the fundamental shift toward Tech-Enhanced Learning (TEL) and how it has become an integral part of

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educational practices, transforming the traditional classroom into a dynamic and interactive environment (Schunk, 2012; Laurillard, 2012). By introducing the concept of TEL, the research paper acknowledges the ever-evolving role of technology in education and its potential to revolutionize teaching approaches (Garrison & Anderson, 2003; McLoughlin & Lee, 2010).

Central to the research paper are the lesson objectives, which are explicitly articulated to define the purpose and expected outcomes of the lesson development process (Dale, 1969; Gagné et al., 2005). These objectives serve as a guiding framework for educators, offering a clear understanding of the intended learning goals for teaching speaking skills in a high school setting (Mager, 1997). In this context, the research paper outlines specific objectives such as improving students' oral communication skills, fostering critical thinking through speaking activities, and enhancing their ability to present information effectively. These goals are integral to the research's focus on technology-enhanced lessons (Jonassen, 2000; Mayer, 2001). By explicitly stating these objectives, the research paper provides a roadmap for educators to gauge the effectiveness of their teaching and the impact of technology integration in achieving these objectives (Wiggins & McTighe, 2005; Bloom, 1956).

The research also underscores the importance of software and applications in technology-enhanced lessons. This emphasis on software integration recognizes that the choice and utilization of specific digital tools are pivotal in shaping the teaching and learning experience (Levy & Murnane, 2018; Warschauer & Matuchniak, 2010). In the context of teaching speaking skills in high school, software and apps like PowerPoint and Padlet hold significant potential (Clark & Mayer, 2011; Ertmer & Ottenbreit-Leftwich, 2010). PowerPoint, for example, can create visually engaging presentations, providing an interactive platform for students to practice and enhance their speaking skills (Reiser & Dempsey, 2012). On the other hand, Padlet fosters collaboration and peer-to-peer learning by providing a space for students to share their ideas and receive feedback (Collis & Moonen, 2001). The research paper acknowledges the value of these software tools and their strategic use in creating technology-enhanced lessons that align with the defined objectives (Kay, 2012). This integration is vital in ensuring that technology is not just an adjunct but a fundamental enabler of effective teaching and learning (Salomon & Perkins, 1996).

2. Conceptual Frameworks

2.1. Learning Objectives

Central to the research is the establishment of precise and well-defined learning objectives. These objectives serve as the guiding pillars for lesson development and are critical in ensuring that the technology-enhanced lessons are effective (Biggs & Tang, 2011; Merrill, 2002). The research paper explicitly outlines the desired outcomes for teaching speaking skills in a high school context, emphasizing the improvement of oral communication skills, the cultivation of critical thinking through speaking activities, and the development of students' ability to present information effectively (Duffy & Cunningham, 1996). These objectives are carefully constructed to align with the overarching goal of enhancing students' speaking proficiency through the integration of technology (Mishra & Koehler, 2006; Swan, 2005).

2.2. Alignment with Curriculum

For technology-enhanced lessons to be effective in high school settings, it is imperative that they align with the established curriculum standards and learning goals (Wiggins & McTighe, 2005; Marzano, 2003). The research paper underscores the importance of this alignment, ensuring that the lessons using PowerPoint and Padlet are congruent with the curriculum requirements for high school speaking skills development (Kozma, 1994). By adhering to these standards, educators can be confident that the lessons not only enhance speaking skills but also contribute to broader academic objectives (Vygotsky, 1978; Reigeluth, 1999). This alignment also ensures that students' time and efforts are invested in activities that directly support their academic progress (Clark, 1983).

2.3. Pedagogical Approaches

The research paper explores pedagogical approaches that encompass teaching methods incorporating technology to create an engaging and effective learning experience for high school students (Bruner, 1966; Siemens, 2005). It delves into the application of the SAMR (Substitution, Augmentation, Modification, Redefinition) model (Puentedura, 2006), which guides educators in moving beyond mere substitution of traditional teaching methods with technology toward the transformation of instructional practices (Cuban, 1986). This model assists in reimagining how PowerPoint and Padlet can enhance speaking lessons by modifying and redefining the learning experience (Jonassen et al., 1999; Bates, 2015). Additionally, the paper considers the concept of the flipped classroom (Bergmann & Sams, 2012), allowing students to engage with content outside of class and use in-class time for interactive and application-based learning activities (Mazur, 1997). These pedagogical approaches are instrumental in realizing the research paper's objective of designing technology-enhanced lessons that not only complement but also elevate traditional teaching methods for speaking skills in high school students (Lave & Wenger, 1991).

3. Tool Selection

3.1. Identifying Tools

The research meticulously engages in the process of tool selection to facilitate technology-enhanced lessons. The initial step in this process is the identification and assessment of software and apps that are most appropriate for the task at hand. This selection is guided by an informed understanding of the capabilities and limitations of various tools, aligning with the instructional context (Bauer & Kenton, 2005). For this research, the paper narrows down its focus to two key tools: PowerPoint and Padlet. Both of these applications are recognized for their potential in fostering collaborative and interactive learning environments, making them suitable choices for enhancing speaking skills in high school students.

3.2. Tool Rationale

The research paper elucidates the rationale behind the selection of PowerPoint and Padlet as the primary tools for the technology-enhanced lessons. Each tool is chosen based on its distinct functions and the advantages it brings to the learning objectives. PowerPoint, a widely used presentation software, is selected for its ability to create visually engaging presentations, making it a valuable tool for student-led presentations and enhancing speaking skills. Padlet, on the other hand, is a collaborative platform that allows students to share ideas, facilitating peer-to-peer learning and offering opportunities for feedback and interaction. The research paper underscores that PowerPoint and Padlet were chosen based on their complementary functions, ensuring a comprehensive approach to improving speaking skills in high school students. This rationale serves as a guidepost for understanding how the tools will be utilized to enhance the teaching and learning experience.

3.3. Tool Support

The research paper further delves into how each selected tool contributes to the achievement of lesson objectives. It outlines how PowerPoint and Padlet support the overarching goals of enhancing students' speaking skills. PowerPoint, with its capacity for visual aids and structured presentations, supports lesson objectives by providing a platform for students to create and deliver compelling speeches and presentations. Padlet, with its collaborative features, supports peer learning and the development of speaking skills by fostering discussions, idea sharing, and constructive feedback. The research paper demonstrates how these tools play a pivotal role in engaging students, facilitating active participation, and ultimately aiding in the accomplishment of the intended learning outcomes.

4. Lesson Blueprint

The lesson blueprint presented in the research: Designing Effective Technology-Enhanced Lessons Using PowerPoint and Padlet" begins with a clear and organized lesson structure, designed to guide educators and students through the learning process. This blueprint aligns with the context of a high school speaking lesson, encompassing various activities aimed at enhancing students' speaking skills. The lesson structure comprises four distinct segments: a warm-up activity to engage students and introduce the topic, a pre-speaking section to build essential vocabulary and comprehension, the core while-speaking activities to foster speaking skills, and a post-writing phase to consolidate and apply what students have learned. This structured approach helps ensure that the lesson is well-organized and that the chosen technology tools, PowerPoint and Padlet, are effectively incorporated.

Within the lesson blueprint, the activities are sequenced strategically to facilitate a seamless learning experience for students. The activities are thoughtfully designed to progressively build on the students' knowledge and skills. For instance, the warm-up activity uses visual aids to introduce the topic and engage students in a guessing game related to electronics vocabulary. The pre-speaking section then provides explanations of essential vocabulary, laying the foundation for students to comprehend and discuss the uses of electronic devices. In the while-speaking activities, students work in groups to discuss and practice talking about the uses of modern inventions, applying their newfound knowledge bu using Padlet. Finally, the post-writing activity encourages students to reflect on the importance of information technology in daily life. The sequence ensures that students are well-prepared for each subsequent activity, allowing for effective technology integration.

The research paper outlines a specific timeline for the lesson, from the preparation stage to the teaching date. The lesson is designed to take place over a single class period. The clarity in timing and scheduling ensures that the lesson flows smoothly, and all activities are appropriately allocated within the given timeframe. This consideration of time is essential in the context of high school education, where class periods are typically limited. By adhering to this timeline, educators can maximize the utility of the technology tools, PowerPoint and Padlet, within the available time while still achieving the desired learning objectives.

5. Implementation Strategy

The research outlines a comprehensive implementation strategy to guide educators through the lesson plan. This strategy encompasses a step-by-step guide for executing the lesson, addressing classroom setup requirements, and clarifying the

teacher's role during the lesson.

The research paper provides a meticulously structured step-by-step guide for executing the lesson plan. This guide serves as a roadmap for educators, enabling them to deliver the lesson effectively. The step-by-step approach begins with a captivating warm-up activity that engages students' interest and introduces them to the topic of the lesson. It then transitions into the pre-speaking phase, where the teacher introduces relevant vocabulary, ensuring that students are well-prepared for the subsequent speaking activities. The while-speaking phase involves practical tasks where students practice discussing the uses of electronic devices in groups. The teacher's active involvement in guiding discussions and providing feedback is an essential aspect of this phase. The lesson concludes with a post-writing activity, where students explore the uses of information technology in daily life, fostering critical thinking and communication skills. This structured guide ensures that educators and students can seamlessly navigate through the lesson, achieving the intended learning objectives.

It recognizes the significance of addressing classroom setup and technology requirements. To effectively implement technology-enhanced lessons, the research emphasizes the need for essential resources, including textbooks, handouts, a PowerPoint file, and a laptop. These resources are essential for the smooth execution of the lesson. This proactive approach to classroom setup ensures that all necessary materials and technology are readily available, minimizing disruptions and maximizing the learning experience. Attention to classroom setup is crucial as it allows educators to create an environment conducive to technology integration, fostering a seamless teaching and learning process (Anderson & Dron, 2011).

The research also provides clear insights into the teacher's role during the lesson, emphasizing the teacher's role as a facilitator of learning. In technology-enhanced lessons, the teacher's role extends beyond traditional instruction. The teacher is expected to guide and support students throughout various activities. In the warm-up activity, the teacher actively engages students through visual aids and the guessing game. During the pre-speaking section, the teacher introduces and explains vocabulary, ensuring that students have a strong foundation for the speaking activities. In the while-speaking phase, the teacher organizes students into groups, encourages discussions, and selects students to ask and answer questions about the uses of electronic devices. The teacher collects students' responses and provides feedback from Padlet, guiding the learning process. In the post-writing activity, the teacher facilitates group work, checking and assisting students as they practice asking and answering questions about the uses of information technology.

In summary, the implementation strategy provided in the research paper offers a step-by-step guide for executing the lesson plan, emphasizes the importance of classroom setup, and defines the teacher's role as a facilitator of learning. This strategy is essential for the successful integration of technology into the teaching of speaking skills in high school.

6. Assessment and Feedback

In the lesson plan, the use of PowerPoint and Padlet for assessment and feedback is evident.

PowerPoint can be a valuable tool for assessing student learning. The teacher can use PowerPoint to display visual aids, such as the suggested pictures in the warm-up activity. This not only engages students but also assesses their ability to identify and understand electronic devices by observing visual cues. The teacher can also use PowerPoint to present information, and students' understanding of this information can be assessed through questions and discussions during the lesson.

In the absence of explicit mention of rubrics or criteria in the lesson plan, PowerPoint can still be used to create visual aids that outline evaluation criteria for the students. For example, the teacher can display a slide with criteria for effective communication during the speaking activities. This visual reference can help students understand what is expected of them and serve as a guide for self-assessment.

While Padlet is mentioned as a tool for students to fill in information about the uses of information technology, it can also be used for data analysis. The teacher can collect the data entered by students into Padlet and analyze it to understand the collective understanding of the topic. This data can reveal common misconceptions or areas where students excel. It can inform future lessons by addressing specific areas where students may need additional support or clarification.

PowerPoint and Padlet can play a crucial role in providing feedback. During the speaking activities, the teacher can use PowerPoint to display students' responses and provide immediate feedback, pointing out areas of improvement or praise for effective communication. Padlet, on the other hand, allows for collaborative feedback. Students can provide comments and suggestions on each other's entries, fostering peer feedback and collaboration.

In this technology-enhanced lesson, the integration of PowerPoint and Padlet not only supports student assessment but also facilitates feedback and data analysis. These tools enhance the teaching and learning process by making it more interactive and collaborative, ultimately leading to a deeper understanding of the topic and continuous improvement in students' speaking skills.

7. Execution

The lesson was implemented on October 18th, 2023, based on the plan prepared on October 7th, 2023. During the implementation, the teacher followed the prescribed procedures,

including the warm-up activity, pre-speaking introduction of vocabulary, and various speaking tasks. The use of PowerPoint and Padlet was integrated into the teaching process to enhance student engagement and feedback.

Student engagement is a key aspect of any lesson. In this lesson, engagement was fostered through a variety of activities. The warm-up activity, where students guessed vocabulary through pictures, was interactive and captured their attention. Group discussions and speaking tasks encouraged active participation and collaboration among students. The use of technology, such as PowerPoint and Padlet, added an element of novelty and interactivity to the lesson, further enhancing student engagement.

7.1. Strengths and Improvements

7.1.1. Strengths

Interactive Activities: The warm-up activity and group discussions were highly interactive and encouraged students to participate actively.

Use of Technology: The integration of PowerPoint and Padlet added a modern and engaging dimension to the lesson, aligning with the theme of technology.

Collaborative Learning: The group activities in tasks 1 and 4 promoted collaborative learning, allowing students to learn from their peers.

Clear Objectives: The lesson objectives were well-defined and focused on knowledge and skills related to the use of technology, aligning with the theme of the unit.

7.1.2. Areas for Improvement

Assessment and Feedback: While the lesson plan mentioned assessment and feedback, it would be beneficial to provide more specific details on how these elements were implemented, especially in the context of technology-enhanced lessons. Feedback could be made more explicit and timely.

Diverse Learning Styles: Consideration could be given to catering to diverse learning styles. Not all students may learn optimally through group discussions, so providing a variety of activities to address different learning preferences might enhance the lesson.

Evaluation Criteria: The lesson plan did not explicitly mention the use of rubrics or evaluation criteria. Incorporating these would provide a structured framework for assessing student performance.

7.2. Data Analysis

The plan indicated data collection but lacked details on how the data was collected, analyzed, and used for lesson improvement. Elaborating on these aspects would further strengthen the lesson.

In conclusion, the execution of the lesson plan demonstrated various strengths, particularly in terms of interactivity, technology integration, and clear objectives. However, there is room for improvement in the areas of assessment, feedback, evaluation criteria, and data analysis. Addressing these aspects can further enhance the effectiveness of technology-enhanced lessons in teaching speaking skills.

8. Conclusion

The lesson plan was well-structured, beginning with a warm-up exercise to engage students. This was an effective way to introduce the topic of modern technology and electronic devices. The use of images to prompt vocabulary guessing was engaging and relevant to the lesson's objectives. However, in hindsight, the warm-up activity could have been more interactive by involving more students in guessing and sharing their ideas.

One of the notable successes of this lesson was the use of group activities to encourage peer interaction and communication. These group discussions allowed students to apply what they had learned about modern inventions and their uses. Moreover, the teacher provided clear explanations and examples to facilitate understanding.

However, there is room for improvement. During the pre-speaking stage, the teacher could have introduced more interactive activities to ensure active student participation. The post-writing task using Padlet was a creative approach, but there was a missed opportunity to use technology more effectively. For instance, instead of filling out a Padlet form, students could have created presentations or interactive multimedia content related to the uses of information technology.

In light of the reflection and the feedback from the lesson, there are several ways to refine the teaching approach:

Interactive Warm-Up: Enhance the warm-up activity by making it more interactive. Encourage all students to participate and share their ideas about electronics based on the pictures.

Technology Integration: Given that the lesson revolves around technology and modern inventions, consider integrating more technology into the lesson. Instead of using traditional handouts, explore digital tools that can make the learning experience more engaging, such as interactive quizzes or multimedia presentations.

Incorporate a wider variety of speaking activities, such as role-plays, debates, or discussions related to the uses and impact of technology. This will further develop students' speaking and communication skills.

Implement a more structured feedback mechanism to assess student understanding and participation during group activities. This will help in making real-time adjustments to the lesson plan.

Homework Enhancement: Provide more detailed guidance for the homework assignment, such as specific topics or aspects related to the uses of information technology that students should focus on in their paragraphs.

9. Conclusion

The research highlights the significance of Tech-Enhanced Learning (TEL) and how technology can transform the traditional classroom into a dynamic and interactive environment. This shift towards TEL is a reflection of the evolving role of technology in education, emphasizing its potential to revolutionize teaching methods. Educators should take away the importance of adapting to this technological shift and embracing it to enhance the learning experience for students.

The research also underscores the immense value of technology in education, particularly in the context of high school speaking lessons. The integration of technology, such as PowerPoint and Padlet, is not merely an add-on but a fundamental enabler of effective teaching and learning. It enhances engagement, interactivity, and collaboration in the classroom. Educators should recognize the importance of selecting and integrating technology tools that align with lesson objectives and contribute to student skill development.

Besides, it encourages ongoing innovation in lesson creation and delivery. It emphasizes the need for pedagogical approaches that incorporate technology to create engaging and effective learning experiences. The SAMR model, which focuses on technology-driven transformation rather than substitution, is highlighted as a framework for innovation. Additionally, the concept of the flipped classroom is introduced, encouraging educators to rethink traditional teaching approaches. This encourages educators to continuously seek innovative ways to leverage technology to enhance teaching and learning.

APPENDICES

Lesson plans

Teacher's activities	*Students' activities*
1. ***Warm up***:5' - Show the suggested pictures - Ask Ss to guess vocabulary about electronics through pictures.	**Individual answers.** -Look at the pictures and try to guess vocabulary about electronics through pictures. - Guess the missing word. ***Suggested answers:*** +Radio, Electronic cooker +Television, Fax machine +Air conditioner -Missing word: Inventions
  -After students guess the word: Radio, Electronic cooker, give word suggestions: ---e-t-o--   -After students guess the word: Television, Fax machine, give word suggestions: -nve-t-o-s  -Ask Ss to guess the missing word. ***2. Pre- speaking :10'*** - Introduce the meaning of some vocabulary to students: +Make use of sth: to use something that is available + Store(V): to put or keep things in a special place for use in the	-Listen to the T -Read the vocabulary - Distinguish 2 different question structures **Group work** ***Task 1**

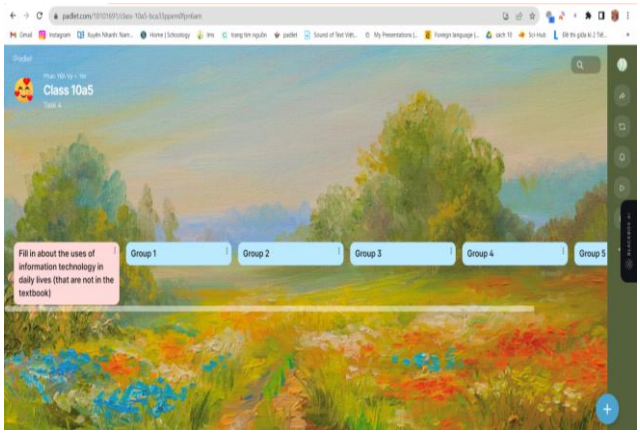
future + Process(V): to deal with documents in an official way + Transmit(V): to send or give something - Read each word twice and ask a student to read it again -Talk about the difference between the 2 structures +Can/Could you tell me what a … is used for? →to be is given after the noun +What is the use of …? → to be is given after what **3.While –speaking:** *20'* ***Task1: practice how to talk about the uses of given electronic devices** -Give an example about the uses of modern inventions. ***Example*:** A: Can you tell me what a cell phone is used for? B: Well, it is used to talk to people when you are away from home. -Ask students to read task 2 in the textbook - Divide students into 5 groups. -Group 1: Radio -Group 2: TV -Group 3: Fax machine -Group 4: Electronic cooker -Group 5: Air conditioner - Ask students to discuss how to talk about the uses of given electronic devices in groups - Randomly select 2 students from the group to ask and answer about the use of modern inventions -Collect Ss' answers -Comment and make necessary corrections.	-Read example - Read task 2 in the textbook - Discuss how to talk about the uses of given electronic devices in groups - Talk about the uses of given electronic devices in groups ***Suggested answers:*** ➢ **A: Could you tell me what a fax machine is used for?** **B: It is used to send and receive letter quickly.** ➢ **A: Can you tell me what an air conditioner is used for?** **B: It is used to keep the air cool when it's hot and warm when it's cold.**
Task 2: Fill in the blanks to complete the sentences and talk about the important use of information technology** -Ask Ss to read and do task 2 in the textbook -Invite some students to give answers -Listen and correct the answer - Ask some students to choose 4 or 5 ideas in task 2 and arrange them in order of importance (from most to least) to talk about the use of information technology ***4.Post writing :10' ***Task 4: The uses of information technology in daily life** -Divide the class into 5 groups _Ask 5 groups to fill in padlet link about the uses of information technology in daily lives that are not in the textbook + The uses of information technology in our daily lives are: …… (Groups fill in padlet link) - Ask 2 students from each group to practice asking and answering the uses of information technology in our daily lives based on the	**Individual answers** ***Task 2** - Read and do task 2 in the textbook - Give answers ***Suggested answers:*** 1.store 2.transmit 3.process 4.send 5.hold 6.make 7.send 8.recieve 9.design In my opinion, the most important use of information technology is…. The second use of information technology is…. … **Group work** ***Task 4** - Look at Task 4 - Fill in a padlet link about the uses of information technology in daily lives that are not in the textbook -Talk in class ***Suggested answers:*** A: Do you think information technology is very

information filled in the gg form - Check and help students -Give some suggestions if necessary A: Do you think information technology is very important to our lives? B: Yes, I think so because - it helps us store ... - it allows us to transmit .../ process .... C: Yes, I think so because - it helps us send ... - it allows us to make .../hold .... **5. *Home-work :*** - Write a short paragraph (about 5 – 8 sentences) about the uses of information technology in daily lives.	important to our lives? why? B: Yes. Because it can help us store very large amounts of information transmit information quickly -Take notes -Do the homework -Prepare for next lesson

Link Powerpoint

https://docs.google.com/presentation/d/1aVnXQ0Mbb3BeCg7wA06ecWuG-dkMpQ7c2/edit?usp=drive_link&ouid=118167852665319038126&rtpof=true&sd=true

Padlet



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