

Teaching Strategies in the Virtual Classroom: Maximizing Impact in the New Normal

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ABSTRACT

The COVID-19 pandemic has caused unprecedented changes in the field of education, leading to a rapid transition to virtual classrooms. With this, the researchers were prompted to determine the correlation between the extent of implementation of teaching strategies and the perception of their effectiveness in the virtual classroom. A quantitative correlational research design was employed, involving 62 randomly selected Grade 11 students, all taught by Grade 11 teachers. Moreover, the data collected was analyzed using the mean, standard deviation, and Pearson's correlation coefficient. The findings revealed that there is a significant strong positive relationship between the extent of implementation of the teaching strategies (i.e. small group discussions, individual or group projects, interactive online simulations, & problem-solving activities) in the virtual classroom and its perceived impact on the performance of the students. This indicates that more comprehensive and well-implemented teaching strategies in virtual settings can enhance students' learning experiences and outcomes, emphasizing the importance of effective instructional design in online education.

Keywords: COVID-19 Pandemic, Online Education, Perceived Effectiveness, Teaching Strategies, Virtual Classroom

INTRODUCTION

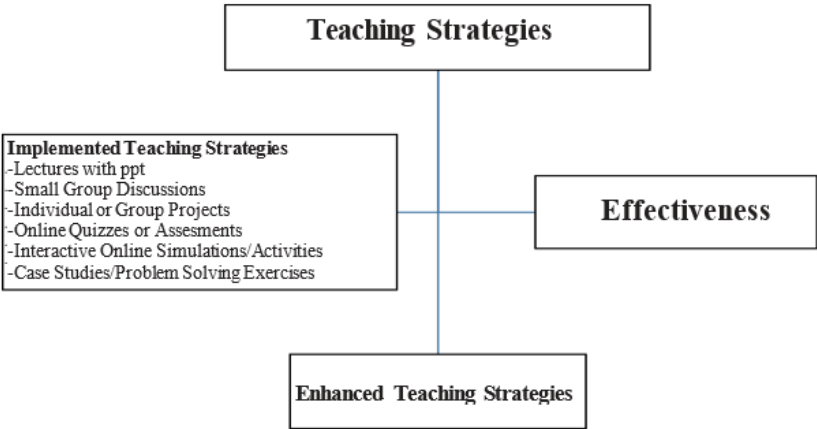
The COVID-19 pandemic has caused unprecedented changes in the field of education, leading to a rapid transition to virtual classrooms. In response to this shift, teachers have had to adapt their instructional delivery and rely on technology to implement a standards-based curriculum (Lamb, 2021). As educators continue to navigate this new mode of instruction, understanding the impact of teaching strategies in the virtual classroom becomes crucial. This concept paper aimed to emphasize the importance of studying teaching strategies in the virtual classroom by drawing upon the perspectives of other authors, identifying research gaps, and proposing a quantitative approach to address these gaps. Furthermore, the study explores the influence of external factors such as technological barriers and home environment on student performance in the virtual classroom. This comprehensive analysis provides a deeper understanding of the factors that influence student satisfaction in this context.

The findings of this quantitative analysis were presented through statistical tables using Pearson correlation. These results will be carefully analyzed and interpreted to identify key trends, patterns, and significant relationships between teaching strategies and student performance in the virtual classroom.

Overall, this study aimed to bridge the research gaps by providing valuable insights into effective teaching strategies in the virtual classroom. These insights will contribute to evidence- based recommendations and guidelines for educators, institutions, and policymakers, ultimately enhancing the quality of education in the new normal.

CONCEPTUAL FRAMEWORK

In this conceptual framework, the study explores the relationship between the implemented online teaching strategies and their perceived effectiveness, aiming to enhance teaching methods. The independent variable is the set of teaching strategies employed by Grade 11 teachers in the virtual classroom, such as interactive methods, multimedia use, and differentiated instruction. The dependent variable, perceived effectiveness, is measured through student feedback on engagement, learning outcomes, and satisfaction.



By analyzing the correlation between these variables, the study seeks to identify which strategies lead to positive student perceptions and better learning outcomes. Moderating variables, such as student learning styles and teacher proficiency with digital tools, are also considered as they can influence the effectiveness of these strategies.

The findings from this correlation will serve as a feedback loop, guiding the refinement of teaching practices to improve student engagement and knowledge retention. Ultimately, the goal is to use data-driven insights to enhance online teaching strategies and boost the overall quality of virtual education.

RELATED LITERATURE AND STUDIES

The integration of effective teaching strategies in the virtual classroom is essential for promoting optimal learning outcomes. However, there is a need for comprehensive exploration in this area to ensure successful educational experiences for students. As highlighted by Pokhrel and Chhetri (2021), several studies have examined the impact of the COVID-19 pandemic on teaching and learning across different educational levels. Despite these efforts, there is still a lack of in-depth exploration regarding suitable pedagogies and platforms specifically tailored for higher secondary, middle, and primary education in the virtual classroom.

Zekaj's study (2023) further supports the significance of investigating teaching strategies in the virtual classroom. Their research demonstrates that online learning strategies can have both positive and negative effects on student performance. While some students experience improvements in grades, others face challenges such as burnout and stress. Factors such as resource availability and environmental disruptions can also impact student outcomes. These findings highlight the need to understand the complex dynamics associated with teaching strategies in the virtual classroom.

The study conducted by Pokhrel and Chhetri (2021) highlights the need for further

exploration of suitable pedagogies and platforms for different levels of education, including higher secondary, middle, and primary education, in the context of the COVID-19 pandemic. While various studies have been conducted, including those in developing countries, the investigation of effective teaching strategies in the virtual classroom remains limited.

Esteban Jr. and Cruz M. J. (2021) highlight the need for further exploration and research on effective pedagogy for online teaching and learning. They also identify the creation of tools for authentic assessments and timely feedback as an area for study. Additionally, the challenge of affordability and accessibility for learners from different economic backgrounds is addressed, emphasizing the importance of customization by educational tool developers.

Previous studies have emphasized the need for a comprehensive exploration of effective teaching strategies specific to the virtual classroom environment. While various studies have been conducted on this topic, a quantitative approach can provide valuable insights into the measurable impact of these strategies on student outcomes.

Moreover, Lisciandrello (2020) emphasizes the importance of educators perceiving themselves as leaders rather than mere managers to facilitate effective teaching and learning. This perspective underlines the need to explore the role of teachers as leaders in the virtual classroom setting. By examining the leadership aspects of teaching, this study seeks to enhance understanding of how teachers can create engaging and supportive virtual learning environments.

METHODOLOGY

Design

This study utilized a quantitative correlational research design. Bhandari (2021) as cited by Diano and Calbi (2024) emphasized that correlational research design primarily explores the relationship between variables without the researcher exerting control or manipulation over any of them. In the study, the correlation between the extent of

implementation of the teaching strategies and the perception of its effectiveness in the virtual classroom.

Setting

The survey was distributed to a representative sample of students, specifically to the University of the Visayas-Dalaguete Campus. It is a version of the Public Private Partnership and was established in the year 2007. During the start of the implementation of the new educational curriculum through the K-12 program, UV Dalaguete opened the basic education department on the campus. The Senior High School program in UV Dalaguete commenced in June of 2016, opening two major tracks- academics and technical vocational and livelihood.

Participants

The participants in this study were 62 Grade 11 students taught by Grade 11 teachers. Random sampling techniques were employed to ensure diverse representation of students in terms of age, grade level, and gender.

Instrument

The study used standardized Likert scale survey questionnaires. There was one survey questionnaire composed of two (2) parts administered for this study. The first part was the observed teaching strategies used by the teachers in the Virtual classroom. The respondents will rate using the numerical scale with the descriptive equivalent as follows: 1 – Never; 2 – Seldom; 3 – Occasionally; 4 – Frequently; and 5 – Always. Additionally, the second part was the effectiveness of the teaching strategies in the virtual classroom. The respondents will rate using the numerical scale with the descriptive equivalent as follows: 1 – Not effective; 2 – Somewhat effective; 3 – Moderately effective; 4 – Quite effective; 5 - Extremely effective.

Data Analysis

The collected data was analyzed using the mean, standard deviation, and Pearson's correlation analysis. The mean and standard deviation were utilized to determine the extent of implementation of the teaching strategies and the perception of its effectiveness in the virtual classroom. Furthermore, the Pearson correlation analysis was used to identify the relationships between the extent of implementation of the different teaching strategies and its perceived effectiveness.

RESULT AND DISCUSSION

This section presents the results and discussion of the data gathered on the teaching strategies in the virtual classroom and the impact of their effectiveness on the student's performance in the virtual classroom.

Table 1: Implementation of Teaching Strategies in the Virtual Classroom

Strategies	Mean	SD	Verbal Description
Lectures with slides or ppt	3.58	1.11	Frequent
Small group discussions	3.55	0.92	Frequent
Individual or group projects	3.74	0.92	Frequent
Online quizzes or assessments	4.02	0.82	Frequent
Interactive online simulations or activities	3.35	0.93	Occasional
Case studies or problem-solving exercises	3.42	0.86	Frequent

Note. N = 62. 1.00-1.80 – Never; 1.81-2.60 – Seldom; 2.61-3.40 – Occasional; 3.41-4.20 – Frequent; 4.21-5.00 – Always.

Table 1 presents the implementation of various teaching strategies in the virtual classroom as reported by the teacher-participants. The data shows that several strategies, such as lectures with slides or PowerPoint presentations, small group discussions, individual or group projects, online quizzes or assessments, and case studies or problem-solving exercises were frequently used. These teaching approaches fall within the “Frequent” category based on the scale used indicating their regular application in virtual learning environments.

However, the use of interactive online simulations or activities was reported as “Occasional,” suggesting that this more immersive and engaging form of instruction is used less often compared to traditional methods like quizzes and lectures. This could be due to various factors such as technological limitations, time constraints, or a lack of familiarity with digital tools on the part of the instructors.

The findings imply that while teachers are employing a diverse range of strategies to support student learning in online settings, there is room to further incorporate more interactive methods, such as simulations, which can enhance engagement and deepen understanding. The frequent use of quizzes and problem-solving exercises suggests a strong focus on assessment and critical thinking, but the occasional use of interactive activities indicates a need for more dynamic and participatory learning experiences.

By understanding the correlation between these implemented strategies and their perceived effectiveness, educators can refine their approaches to maximize student outcomes. Enhancing the use of underutilized methods, like interactive simulations, may further improve the virtual learning experience, helping to engage students more fully and adapt to their diverse learning needs.

Table 2: Perception on Its Effectiveness

Strategies	Mean	SD	Verbal Description
Lectures with slides or presentations	3.61	0.98	Quite Effective
Small group discussions	3.69	0.92	Quite Effective
Individual or group projects	3.65	0.91	Quite Effective
Online quizzes or assessments	3.61	0.93	Quite Effective
Interactive online simulations or activities	3.60	0.98	Quite Effective
Case studies or problem-solving exercises	3.71	0.84	Quite Effective

Note. N = 62. 1.00-1.80 – Not Effective; 1.81-2.60 – Somewhat Effective; 2.61-3.40 – Moderately Effective; 3.41-4.20 – Quite Effective; 4.21-5.00 – Extremely Effective.

Specifically, case studies or problem-solving exercises received the highest effectiveness rating, suggesting that this strategy, which fosters critical thinking and real-world application of knowledge, is particularly valued by teachers for enhancing student learning. Similarly, small group discussions and individual or group projects were also rated highly, emphasizing the importance of collaborative and project-based learning in virtual settings. These approaches likely encourage active participation, teamwork, and the application of concepts in a more practical and engaging manner.

Other strategies, such as lectures with slides or presentations and online quizzes or assessments were also considered quite effective, though slightly lower than the more interactive methods. This suggests that while traditional forms of instruction and assessment are still valuable, they may not be as impactful as strategies that promote deeper student involvement.

Interestingly, interactive online simulations or activities despite being implemented only occasionally were perceived to be just as effective as more frequently used methods. This highlights the potential of interactive digital tools to significantly enhance learning when utilized, even if their application remains less common. Given their effectiveness, increasing the use of such engaging and immersive methods could further improve student outcomes.

Overall, the results imply that teachers believe a range of teaching strategies have a positive impact on student satisfaction in virtual classrooms. However, the study suggests that fostering more interactive and collaborative methods, like simulations and group discussions, could further enhance the learning experience. The consistent perception of effectiveness across strategies points to the need for a balanced approach that combines traditional and innovative techniques to meet diverse student needs and optimize learning in online environments.

Table 3: Correlation of the Extent of Implementation of the Teaching Strategies and Its Effectiveness on Students’ Performance

Variables		r-value	p-value	Interpretation
Independent	Dependent			
Lectures with slides or presentations		.765**	0.000	Significant
Small group discussions		.603**	0.000	Significant
Individual or group projects	Perception on Its Effectiveness	.620**	0.000	Significant
Online quizzes or assessments		.577**	0.000	Significant
Interactive online simulations or activities		.616**	0.000	Significant
Case studies or problem-solving exercises		.691**	0.000	Significant

Note. Significant if $p < \alpha$, 0.05

Table 3 presents the correlation between the extent of implementation of the teaching strategies and its perceived effectiveness in improving students’ performance. The results revealed that there is a significant strong positive relationship between the extent of implementation of the teaching strategies (i.e. small group discussions, individual or group projects, interactive online simulations, & problem-solving activities) in the virtual classroom and its perceived impact on the performance of the students ($0.60 < r < 0.79$, $p = .000$, $n = 62$). In addition, a moderate positive relationship is observed between the implementation of online assessments and its perceived effectiveness in improving students’ performance ($0.40 < r < 0.59$, $p = .000$, $n = 62$). This implies that the implementation of the teaching strategies is related to their perceived impact on the performance of the students.

CONCLUSION

In conclusion, the researchers believe that although there were challenges following the pandemic, the teaching strategies used by the Grade 11 teachers effectively addressed the needs of the students. These strategies contributed to the perceived effectiveness of the teaching methods in the virtual classroom.

While the situation was challenging, it is important to highlight that lecture with slides and presentations significantly improved student academic performance in the virtual classroom. This suggests that the effectiveness of these strategies should be further applied and enhanced to continue improving student outcomes. Meanwhile, other strategies observed in the study also contributed to a moderate increase in student performance. This implies that teachers should focus on delivering lessons in ways that ensure meaningful learning experiences, helping students develop into lifelong learners.

Lastly, ever since the pandemic, the struggle of educators to ensure the quality and efficient delivery of lectures has increased. However, despite the said struggle, the education community has been innovating and sticking to its core, which is to ensure quality and relevant education to its students

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