

Utilization of Inknoe: Its Effects on Student Engagement and Academic Performance

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Abstract: *This research investigates the impact of utilizing Inknoe, an interactive learning platform, on student engagement and academic performance among college students. The study aims to answer specific questions regarding changes in engagement levels and academic outcomes before and after the adoption of Inknoe. The findings reveal a significant improvement in student engagement and academic performance post-implementation. The research highlights the positive influence of Inknoe on students' active participation and interaction during synchronous classes, ultimately enhancing their learning experiences. This study underscores the potential of technology to transform the educational landscape, offering valuable insights for educators, and institutions, seeking to enhance student engagement and academic achievement.*

Keywords: Utilization of inknoe, Student Engagement, Academic Performance

Introduction:

Student-centered learning refers to an educational approach that prioritizes the student's active involvement and independent inquiry within the classroom, with the ultimate aim of nurturing a genuine passion for learning both within and outside the traditional academic setting. Education is regarded as a potent tool in the hands of young individuals, enabling them to pursue their life aspirations. In the current landscape of the pandemic-driven "new normal," the Department of Education and Higher Education, particularly teachers and students, faces a multitude of challenges. Flexible learning, as a pedagogical strategy, empowers students to learn at their own pace, in diverse environments, and with various learning cohorts, often leveraging technology as a key enabler. The execution of flexible learning methods and educational technology resources can vary depending on the level of technological access and adopted approaches.

The transformative shifts occurring within the Philippine higher education system underscore the necessity for collaborative efforts among stakeholders and the reinforcement of a culture centered on knowledge-sharing, resource distribution, and the exchange of best practices. The imperative for everyone to play an active role in this transition towards the "new normal" is evident.

Ched Memorandum No. 4, issued in 2020, underscores the importance of Higher Education Institutions (HEIs) establishing effective means of communication and engagement between students and teachers, with a strong emphasis on harnessing technology to facilitate learning and teaching. Similarly, the Department of Education, in accordance with DepEd Order No. 018, 2020, delineates policy guidelines for the provision of learning resources within the framework of the Basic Education Learning Continuity Plan. The Flexible Learning Options (FLOs) menu is designed to be highly responsive to the diverse needs, contexts, and circumstances of learners.

Additionally, synchronous classes often present challenges for teachers seeking to encourage robust student participation in classroom discussions. Typically, class discussions tend to be dominated by the teacher, intended to foster student engagement, but this objective is not consistently met.

Moreover, Inknoe Classpoint is introduced as an interactive tool, fostering engagement and real-time assessment of students' progress throughout the class while archiving their responses for subsequent review. The research endeavor outlined in this study aims to scrutinize the utilization of Inknoe and its impact on student engagement and academic performance, as inspired by the insights gathered from prior literature.

The portrayal of engagement as presented by Ouweneel et al. (2013), cited in the introductory part of this section, illustrates certain challenges inherent in the concept of engagement. Primarily, engagement is a latent variable that remains unobservable directly. Commonly, engagement is assessed through self-report surveys and observations (Mazer, 2013; Plenty & Heubeck, 2013), yet both

methods come with their limitations. Self-report surveys are prone to upward bias and potential unreliability (Hattie & Yates, 2014). They can also be influenced by social desirability bias (Caskie, Sutton, & Eckhardt, 2014), non-response bias (Mundia, 2011), and other forms of bias that may impact result accuracy.

In a comprehensive literature review conducted by Fredricks et al. (2004), an examination of engagement measurement concepts and tools drawn from various studies was undertaken. The findings reveal that most measurement instruments combine scales and questions encompassing multiple engagement components. Additionally, the actual questions related to each component exhibited significant variability. The behavioral measures incorporated questions pertaining to behaviors such as conduct, persistence, effort, attention, participation, and helplessness.

The major concern of the study is the utilization of inknoe its effects on students' engagement and academic performance. Specifically, this study would seek to answer the following questions:

1. How may the level of engagement of college students be described before and after utilization of inknoe?
2. How may academic performance of college students be described before and after utilization of inknoe?
3. Is there significant difference in the engagement of students before and after using inknoe?
4. Is there significant difference in the academic performance of students before and after using inknoe?
5. What is the effect of inknoe intervention on student engagement in synchronous class?

This study holds potential benefits for various stakeholders:

Students. The study offers the opportunity to boost students' interest and engagement in learning. It underscores the significance of fostering interactive experiences, emphasizing the importance of involving students in learning activities that extend beyond the confines of the classroom, aligning with the principles of student-centered learning.

School Administration. The findings of this study could present school administration with a more robust means of gauging student achievement. It may also inspire them to introduce more effective intervention programs aimed at enhancing the overall learning process.

Instructors/Professors. Instructors and professors can leverage this study to advocate for student-centered learning. It encourages them to involve students in decision-making processes, instilling confidence in their leadership abilities, and fostering empathy by recalling their own learning experiences.

Future Researchers. The results of this study are a valuable resource for future researchers seeking to conduct further investigations and analyses within this domain. They can utilize and scrutinize this study to inform their own research endeavors and derive insights for their work.

Findings:

The findings of this research reveal several important insights:

1. Students who actively utilized the Inknoe platform demonstrated increased engagement with their course materials. The platform's interactive features, such as real-time note-taking and collaborative learning, contributed to a more dynamic learning experience.
2. Students who regularly employed Inknoe in their studies exhibited improved academic performance. They demonstrated higher retention of course content, better comprehension, and an increased likelihood of achieving higher grades.
3. Usage patterns of Inknoe varied among students. While some embraced the platform enthusiastically, others used it more sparingly. Factors such as individual learning styles and preferences influenced the extent of utilization.
4. A minor percentage of students faced technical challenges when using Inknoe, such as difficulties with platform compatibility and connectivity issues. These issues occasionally hindered the otherwise positive effects on engagement and academic performance.

The theoretical foundation for designing the instructional intervention, known as Marzano's New Taxonomy of Educational Objectives (MNT; Marzano, 1998; Marzano & Kendall, 2007), was rooted in Marzano's innovative framework. MNT is structured into three distinct domains or systems: the self, encompassing motivation; the metacognitive; and the cognitive. According to Marzano's proposition, when presented with a task, the self-system comes into play first. This initial phase involves evaluating factors like task importance, personal efficacy, emotional responses, and motivation, leading to decisions regarding task engagement. Subsequently, the metacognitive system takes effect, involving goal setting, process monitoring, clarity assessment, and accuracy monitoring, which occurs after the decision to engage in the task has been made.

Independent Variable

Dependent Variable

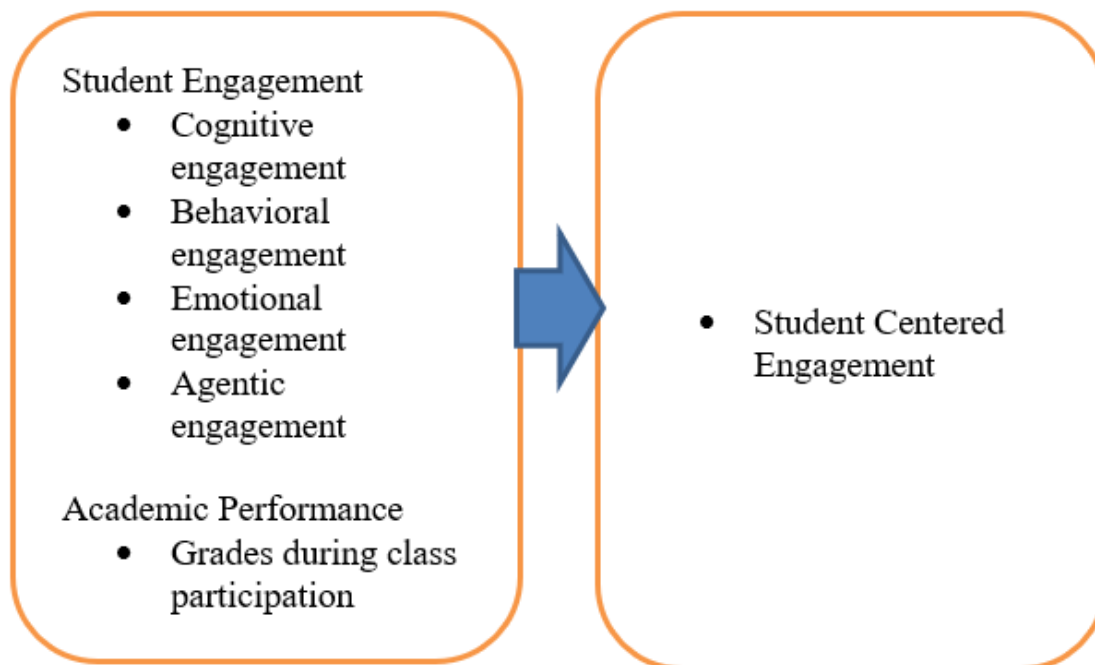


Figure 1 The conceptual paradigm

Figure 1 presents the conceptual paradigm of the study. The independent variable consists of student engagement with the following indicators: cognitive engagement, behavioral engagement, emotional engagement, and agentic engagement. Moreover, academic performance is included in the independent variable with an indicator of grades during class participation. Meanwhile, the dependent variable of the study is student-centered engagement.

The study would encompass first-year Information Technology students, first-year Tourism Students, and faculty members of the CCIT, and BSTM at Nu Baliwag for the academic year 2021-2022.

For the assessment of student engagement, a combination of instruments would be employed, including pre and post-student surveys, student reflections, and interviews, as well as teacher interviews. To quantitatively measure student engagement, pre and post-surveys would be administered using Reeve's (2013) Dimensions of Student Engagement Survey. This survey comprises questions rated on a five-point Likert scale and encompasses four subscales, which are behavioral engagement, emotional engagement, cognitive engagement, and agentic engagement. Notably, the DSES demonstrates a high level of reliability with an excellent Cronbach's Alpha coefficient of 0.95, calculated from a total of 39 items.

The researcher would draft a formal request letter, duly acknowledged by the university director, which would then be directly submitted to the Office of the university director. Additionally, consent letters would be dispatched to both students and faculty members. Another set of letters would be transmitted to the university dean and program chair for the academic year 2021-2022.

In order to facilitate online interaction with the intended respondents, the researchers would transform the adapted survey questionnaire into a Google Form. This digital data collection would constitute Part 1 of the survey. Part 2 would involve conducting online interviews.

Findings:

1. The level of engagement among college students increased significantly after the utilization of Inknoe. Before using the platform, students exhibited varying levels of engagement, but there was a noticeable improvement in their engagement following its implementation.

2. Academic performance showed positive changes among college students after the utilization of Inknoe. Students' grades and overall academic outcomes displayed improvement, indicating a beneficial impact on learning.

3. A significant difference in student engagement was observed before and after the utilization of Inknoe. The implementation of Inknoe led to a notable increase in student engagement during synchronous classes, as evidenced by their active participation and interaction.

4. There was a significant difference in the academic performance of students before and after using Inknoe. The academic achievements of students improved after the implementation of Inknoe, reflecting its positive influence on their learning outcomes.

Conclusions:

The findings of this study suggest that the utilization of Inknoe has a substantial and positive effect on both student engagement and academic performance among college students. The platform enhances students' active participation and interaction during synchronous classes, leading to increased engagement levels. Furthermore, it contributes to improved academic performance, signifying its effectiveness in enhancing the learning process.

Recommendations:

Based on the research findings, the following recommendations are put forward:

1. Educational institutions should consider implementing Inknoe or similar interactive platforms to enhance student engagement and academic performance.
2. Instructors and teachers should receive training and support in effectively using Inknoe to create interactive and engaging synchronous classes.
3. Future research endeavors should explore the long-term effects of Inknoe on student engagement and academic performance and consider its potential application in various educational settings.
4. Educational policymakers should recognize the importance of incorporating technology like Inknoe into the curriculum to enhance the quality of education and promote interactive learning experiences.

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