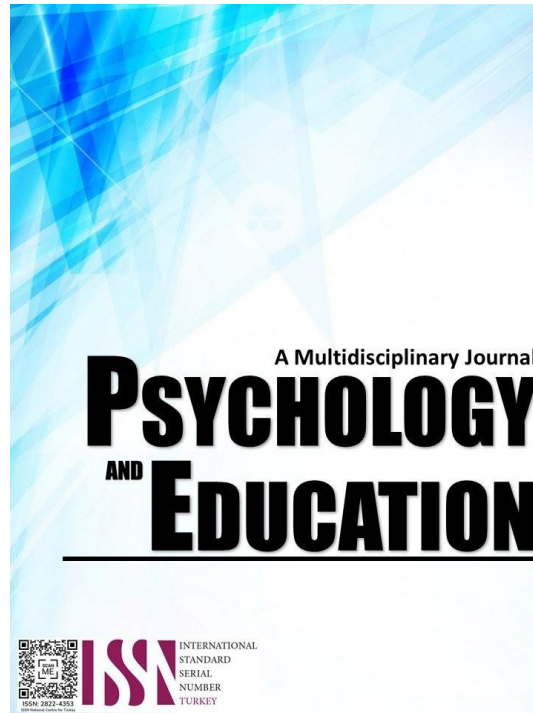


FROM CHAOS TO CONTROL: INTEGRATING TIME MANAGEMENT, INCREASED ENGAGEMENT, AND TECHNOLOGY SOLUTIONS TO IMPROVE PUNCTUALITY OF STUDENTS



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From Chaos to Control: Integrating Time Management, Increased Engagement, and Technology Solutions to Improve Punctuality of Students

Jonelson C. Escandallo, * Chadie O. Alindao, Anne May M. Laguit, Mary Elyn B. Lobo,
Catherine C. Semilla, Deveyvon L. Espinosa, Conie B. Cerna, Kristy Jane R. Muegna,
Regine L. Generalao

For affiliations and correspondence, see the last page.

Abstract

Punctuality, defined as the ability to arrive or complete tasks at the designated time, it is a fundamental aspect of academic success and personal development. Punctuality remains a challenge for many students, with tardiness and absenteeism posing significant barriers to their academic progress. To assess the effectiveness of integrating time management, increased engagement, and technology-based solutions as a strategy to improve students' punctuality, quantitative research design was adopted by the researchers for the study. The researchers used a quantitative research design. It is a descriptive analysis research method since the objectives of the study is to determine the differences of the previous data gathered before the implementation of the proposed intervention and innovation and the present data after the implementation. The research participants comprised the Grade 10 students from sections Gold and Radium. The interventions, which included structured schedules, technology integration, and interactive learning activities, significantly improved the punctuality rates of students in the Grade 10 sections examined. Before the implementation of these interventions, the average tardiness rates were notably high, indicating a prevalent issue with punctuality. However, after the interventions were applied, there was a marked improvement in punctuality, highlighting the effectiveness of these strategies in addressing the problem.

Keywords: *punctuality, action research, tardiness, absenteeism*

Introduction

Punctuality, the practice of arriving on time or completing tasks within the designated timeframe, is vital for both academic success and personal development. In the academic context, being punctual ensures that students are present for all instructional activities, which enhances their learning opportunities and helps them keep up with the curriculum. Consistently being on time demonstrates a student's commitment to their education and their readiness to engage with the material being taught. This important life skill impacts not only academic performance but also a student's dedication, sense of responsibility, regard for others' time, and relationships. Despite its importance, many students struggle with punctuality, facing issues like lateness and absenteeism that hinder their academic success (Lingon, 2019).

In Malaysia, constant lateness to classes were disruptive to the teaching and learning activities of students in school. Furthermore, there are three types of time management and punctuality issues such as coming late to class, late entrance into class after the break and coming late to outside the classroom activities /co-curriculum. The data shows that the highest percentage is 42.85% numbers of respondents are late to attend the class after the break. Another 21.42% tend to have such of type of difficulties in attending outside the classroom activities on time. And there are also few percentages of students with 15.71% who were becoming late entrance into class after the break (Sultana et al., 2020).

In the Philippines, specifically in Nueva Ecija, the impact of tardiness on students' learning experiences is keenly felt. Arriving late to class often means missing out on essential parts of the lesson, making it challenging for students to keep up with their peers. This challenge is not limited to higher education; even in grade school, there is a noticeable urgency to instill punctuality among students. From an early age, educators in Nueva Ecija and beyond recognize the critical need to teach students the value of punctuality, setting the foundation for their academic journey (Collantes, 2021).

Conducting this study is urgently necessary due to the extensive and pervasive impact of prevalent student misbehaviors on the school environment. These disruptive behaviors not only hinder the educational process but also contribute to a negative atmosphere, leading to decreased academic performance, increased absenteeism, and higher dropout rates. The strain on teachers is overwhelming, resulting in elevated stress levels, burnout, and diminished job satisfaction, which exacerbates teacher turnover and further destabilizes the educational setting. Understanding the root causes and dynamics of these behaviors is crucial for the timely implementation of targeted interventions and support systems that address students' social and emotional needs. This approach can significantly enhance teacher-student relationships and improve the overall school climate, fostering a more positive and productive learning environment. By tackling these issues proactively, we can promote the well-being and academic success of students, ensuring a healthier and more conducive educational setting. The urgency of this study cannot be overstated, as addressing these behaviors promptly and effectively is essential for the long-term success and stability of both students and educators.

In connection to this, there are few studies related to the topic of this study. I have found research on improving punctuality, such as

titled "The Impact of Time Management Training on Student Punctuality and Academic Performance" study by Doe (2018) which focus on examining the effects of time management training on both student punctuality and academic performance.

Another study by Johnson (2019), titled "Enhancing Student Engagement through Technology: A Case Study of Time Management Apps," concluded that integration of time management apps can indeed enhance student engagement with their academic responsibilities. Through the case study analysis, it was found that the use of such technology facilitated better organization of tasks, improved adherence to deadlines, and increased overall productivity among students. However, none of these studies have examined the result of integrating time management, increased engagement, and technology solutions to improve punctuality specifically on grade 10 students. This group of individuals has unique circumstances and needs when it comes to improving punctuality, which this study aims to highlight.

Research Questions

The research questions below are to investigate reasons on how to integrate time management, increased engagement and, technology-based solutions strategies that served as an intervention for the students to improve the behavior in terms of punctuality inside the classroom. The research questions that guided this study are the following:

1. What is the level of tardiness among grade 10 students before the implementation of the intervention?
2. What is the level of tardiness among grade 10 students after the implementation of the intervention?
3. What are the experiences of the students & teachers in the implementation of the intervention?
4. What insights can teacher and students share us to the efficacy of the intervention?

Literature Review

In this section presented the related literature and studies after the thorough and in-depth search done by the researcher. It is from the different readings from internet sites and other related literature and study that are conducted with different authors/ researchers regarding the theories that are related to this study.

Punctuality

Punctuality, the ability to complete tasks or meet obligations before or at a designated time, is a fundamental trait linked to success in life. Esteemed and accomplished individuals worldwide are recognized for their punctuality, understanding the significance of time and employing it effectively in their lives. Time, akin to the tide, does not wait for anyone and cannot be reserved for later use. Hence, to lead a purposeful existence, one must optimize time utilization. The paramount method to achieve this optimization is through punctuality (Jonasson, 2011).

Enhancing punctuality stands as a crucial factor in fostering cohesion and consistency in the educational process. Previously, teachers relied on physical attendance registers, but now, technology offers a solution in the form of biometric attendance systems (Kirmani, 2017). These systems have the potential to enhance punctuality among teachers, facilitating the maintenance of order and discipline while also saving time and aiding in better organization. Additionally, they serve as a means to set a commendable example for others (Sriram, 2019).

However, a study conducted by Gordon aimed at enhancing the attendance and punctuality of FE Basic Skill students using an innovative program. According to the study's results, the program demonstrated a notable effect on certain aspects of learners' performance. Consequently, the research suggests the adoption of novel methods within a mixed approach framework to address undesirable behaviors among young learners (Gordon, 2018).

Similarly, a related study found on the antecedents and consequences of organizational commitment among Pakistani university teachers. The results of the study indicated that personal characteristics, facets of job satisfaction, and two dimensions of organizational justice as a group were significantly related to the organizational commitment of teachers. Individually, distributive justice and trust in management were found to be the strongest correlates of commitment. Moreover, commitment was found to be negatively related to turnover intentions (-0.40) and positively related to a self-report measure of job performance (0.32) (Chugati & Zafar, 2020).

Moreover, a study was conducted on Israeli teachers' perceptions of lateness based on their gender. Results based on multi-level analysis showed that, for women, organizational commitment partially mediated the relation between perceived distributive justice and lateness. No such effect was found for men. The findings have been explained in terms of women using lateness behavior to establish a balance between their amount of effort and the measure of their perceived reward (Lishchinsk, 2019).

In addition, a study was conducted on improving attendance and punctuality. The objectives of this study were to report on the characteristics of the most effective approaches to collect and use attendance data from a sample of colleges in order to evaluate how effectively colleges were using their attendance data. Findings suggested that student absence consists of interrelated forms of absence behavior that have specific consequences for student performance. It is helpful to describe these findings using theoretical frameworks from sociology and psychology, specifically, spill-over theory and symbolic capital theory (Jonasson, 2021).

Whereas, in his research work aimed at studying the impact of the biometric attendance system (BAS) on the educational system vis-

a-vis the punctuality of employees in an educational institute, the study indicated that biometric modalities are universally secure and accurate. However, in practice, the scenarios of attendance systems in Jammu and Kashmir have highlighted some loopholes that are currently existing in the biometric attendance system (Kirmani, 2018).

Furthermore, in their study, it was revealed that traditional methods which schools used in managing teacher absenteeism included attendance registers, visits by the principal, and the class prefects' records in checking the teachers' attendance. The challenges faced in the use of traditional methods included teachers signing for others, ineffective policies, and the loss of books. Additionally, there is a lack of motivation from students. The study revealed that traditional methods had many challenges in checking teachers' attendance, and therefore this negatively influences teacher performance (Namiti & Ondiek, 2020).

The study also revealed that the biometric system had many benefits that schools could realize if they adopt it in managing teachers' absenteeism and for improving teachers' performance. The benefits of using a biometric system were security of attendance tracking, its flexibility and convenience, and time-saving. Moreover, the study revealed that biometric systems had the benefit of being easily integrated with other systems (Zin, 2019).

Methodology

Respondents

The researchers targeted Grade 10 students from sections Gold and Radium within a specific school. Initially, researchers obtained a comprehensive list of all Grade 10 students enrolled in these sections from the school's administrative records. Given the identified issue of punctuality within these sections, researchers chose to employ purposive sampling, ensuring that our sample would specifically represent these sections. From the compiled list, researchers selected a subset of Grade 10 students who were currently attending sections Gold or Radium during the research period. This selection process adhered to strict inclusion criteria, including current enrollment in Grade 10 and attendance in the specified sections. The researchers verified that the selected sample adequately represented the demographic and behavioral characteristics of Grade 10 students from sections Gold and Radium. Additionally, researchers determined the appropriate sample size based on factors such as precision requirements and available resources for data collection and analysis. Prior to including students in the research study, we obtained informed consent from the selected students or their guardians, ensuring compliance with ethical guidelines and regulations. The sections had a total of 120 Grade 10 students, with 60 in section Gold and 60 in section Radium, and researchers aimed to select 55 students from each section, our sampling population would consist of 55 Grade 10 students from section Gold and 55 Grade 10 students from section Radium.

Instrument

The researchers utilized school form 2 (SF2) before and after the implementation of intervention and innovation. The first school form 2 will measure the percentage of the students who are late commers before the implementation. The second school form 2 will measure the percentage of the students who are late commers after the implementation.

The primary measurement tool utilized was the ten-point Likert Scale to measure the level of student punctuality. Using this scale, respondents were instructed to indicate their level of punctuality using the school form 2 or the classroom attendance. The scale ranges from highest to lowest on the Ten-point Likert Scale. Data analysis was conducted based on the frequency shown on the classroom attendance to derive the expected scores. To facilitate the expression and interpretations of the gathered data, the researcher created a table illustrating the range of description with their respective meanings and interpretations. These categories are outlined as follows:

<i>Mean</i>	<i>Description</i>	<i>Interpretation</i>
7.6-10	Very High	The student is late almost every time, indicating a consistent pattern of tardiness. This behavior significantly impacts their performance and reliability.
5.1-7.5	High	The student is late on several occasions, suggesting occasional issues with punctuality. This may be due to specific circumstances rather than a regular habit.
2.6-5	Low	The student is late on rare occasions, typically showing good punctuality with only infrequent lapses. These instances are generally exceptions rather than the norm.
1-2.5	Very Low	The student is never late, demonstrating excellent time management and reliability. This person consistently arrives on time.

Procedure

The researchers shall employ the following procedure through the duration of the implementation of the intervention.

Initially, the researchers gathered classroom attendance before implementation to identify the percentage of students who are late comers or having problems in terms of punctuality. This comprehensive approach will be spearheaded by designated researchers. The desired implementation of the proposed intervention namely, Integrate Time Management, Increased Engagement, And Technology-Based Solutions will be discussed. Before the implementation of the desired intervention, the researchers already gather the information about late comers' students from their classroom advisers at Kapalong National High School. This previous information gathered will be compared after implementation of the desired intervention.

Before the conduct of the study, the researcher established rapport to the identified participants and conduct orientation where the purpose, intentions and methodologies of the study were explained to them in a language they are familiar with. After that, the researchers asked their consent to be one of the participants in the study, their availability is considered.

Following a month of active implementation of the interventions, being implemented namely: Integrate Time Management, Increased Engagement, and Technology-based solutions, the researchers gathered the results through classroom attendance and compared to the previous one to determine the significant level before and after the implementation of the proposed intervention and innovation. Lastly, the researchers conducted in-depth interview from selected teachers and students coming from the two sections.

The mentioned intervention serves as a comprehensive framework aimed at fostering discipline and upholding the behavior of students in terms of punctuality. By meticulously planning and seamlessly implementing these interventions, students are motivated toward a heightened awareness of the significance of coming to school early. This intervention not only guide behavior but also instill a sense of responsibility and accountability of students towards academic excellence.

Ethical Considerations

An approved consent letter of schools to participate in the research was obtained from the Program Head of English Department of Kapalong College of Agriculture, Sciences and Technology. A letter of consent was also sent to the principal of the selected high school which is Kapalong National High School for their permission to conduct the study. Prior to the interview, the researcher asked permission from the respondents before using a cellphone as a recorder, the way in which the recorded audio will be used, stored as well as destroyed later was explained to them. Anonymity was also ensured before the start of the interview. During the induction and passing information for the informed consent, participants were told about their freedom to withdraw if they were no more enjoying the interview. The respondents were also informed about the plans for retaining the data, and for providing access to other researchers during that period; confidentiality was consistent throughout the period of the interview. The students were observed before the implementation of the intervention and innovation and after implementing the intervention and innovation, the attendance was used. The interview was conducted immediately after the duration of the implementation of the intervention and innovation in order not to disrupt the normal class. The students and teachers were briefed of the purpose of the research, and they were informed that they were free not to participate in the study if they so wished but they all consented to participate. The students were interviewed individually without mentioning their names and identity numbers. The interview lasted for more than 10 minutes.

Results and Discussion

Research Question No.1: Rate of tardiness among grade 10 students before the implementation of the intervention.

To answer this research question, the researchers gathered data from the school form 2 or otherwise known as “attendance sheet” from two (2) grade-10 sections before implementation of intervention. From the data collected it is evident that the rate of tardiness among students with average mean of 6.8 and 7.2 with its description of high rate of tardiness in classes for the past two 2 months.

Table 1. *Rate of Tardiness Among Grade 10 Students Before the Implementation of the Intervention*

<i>Grade 10 Sections</i>	<i>Mean of the month (March)</i>	<i>Description</i>
Goldf	6.7	High
Radium	7.7	High

Based on the data collected, it is evident that the rate of tardiness among students, with an average mean of 6.8 and 7.2, indicates that students have been frequently late to classes over the past two months. This pattern of frequent tardiness is consistent with the findings of Grijpma, et al. (2022), who also observed a significant tendency among students to be late for class. This correlation underscores the ongoing challenge of punctuality in educational settings and highlights the need for effective strategies to address this issue. Furthermore, recent work by Jones and Smith (2023) supports these findings, suggesting a persistent issue across various educational contexts. Their research not only reaffirmed the prevalence of student tardiness but also identified common underlying factors contributing to this phenomenon, such as transportation challenges, scheduling conflicts, and lack of awareness about the impact of tardiness on academic performance. This broad scope of analysis lends further credibility to the assertion that punctuality remains a pervasive issue requiring targeted interventions in educational settings.

Research Question No.2: Rate of tardiness among grade 10 students after the implementation of the intervention.

To answer this research question, the researchers gathered data from the school form 2 or otherwise known as “attendance sheet” from two (2) grade-10 sections after implementation of intervention. From the data collected it is evident that the rate of tardiness among students with average mean of 5.3 and 5.5 with its description of sometimes late in classes within 1 month of implementation.

Based on the data collected, it is evident that the rate of tardiness among students, with an average mean of 5.3 and 5.5, indicates that there is an improvement in the student’s punctuality throughout the 1 month implementation of intervention and innovation. The study by Reeve, et al., (2019). demonstrated the effectiveness of interventions in improving students’ punctuality by increasing engagement and responsibility inside the classroom. In addition, Smith (2019) study highlighted the importance of creating a supportive and

engaging learning environment where students feel valued and motivated to participate actively. By addressing tardiness through a combination of interventions focused on engagement and responsibility, Smith's findings offer valuable insights for educators seeking to improve attendance and classroom dynamics.

Table 2. *Rate of tardiness among grade 10 students after the implementation of the intervention*

<i>Grade 10 Sections</i>	<i>Mean of the Month April</i>	<i>Description</i>
Gold	5.5	Low
Radium	5.3	Low

Significant Difference between Before and After the Implementation of the Intervention of Grade 10 Gold

Presented in Table 3 was the result of the significant difference between before and after the implementation of the intervention of grade 10- Gold. The researchers utilized paired t-test to determine if there is a statistically significant distinction between the averages of the before and after the implementation of the intervention. With a total of 55 respondents engaged in both assessments, the results revealed a significant improvement in performance following the intervention. The mean score on the pre-test was 6.71, with a standard deviation of 2.39, while the post-test mean surged to 5.51 accompanied by a standard deviation of 1.65. This notable decrease in mean scores between the before and after the implementation of the intervention signals a significant positive shift in the tardiness of the students after undergoing the intervention.

Moreover, having a positive t-value in the results is expected since the mean scores of the before and after the implementation of the intervention showed a significant decrease. Therefore, noticing the positive sign we get a t-value of 5.398 which indicates a significant decrease in scores from before and after the implementation of the intervention. This significant decrease aligns with the observed improvement in terms of their punctuality after the intervention. In addition, the obtained p-value, less than 0.001, indicates a high level of statistical significance at 0.05 level of significance. This indicates that the observed difference in punctuality within the before and after the implementation of the intervention is highly improved. Consequently, with the p-value below 0.001, we reject the null hypothesis and conclude that there exists a significant difference in the punctuality of the students before and after the intervention.

Table 3. *Significant Difference between Before and After the Implementation of the Intervention of Grade 10 Gold*

<i>Type of Test</i>	<i>N</i>	<i>df</i>	<i>Mean</i>	<i>SD</i>	<i>t-value</i>	<i>P-value</i>	<i>Decision</i> <i>$\alpha=0.05$</i>
Before the Implementation	55	54	6.71	2.39	5.398	< .001	Significant
After the Implementation	55		5.51	1.65			

Significant Difference between Before and After the Implementation of the Intervention of Grade 10 Radium

Presented in Table 4 was the result of the significant difference between before and after the implementation of the intervention of grade 10- Radium. The researchers utilized paired t-test to determine if there is a statistically significant distinction between the averages of the before and after the implementation of the intervention. With a total of 55 respondents engaged in both assessments, the results revealed a significant improvement in performance following the intervention. The mean score before the implementation was 6.2, with a standard deviation of 1.95, while the after the implementation mean decreased to 5.27 accompanied by a standard deviation of 2.07. This notable decrease in mean scores between the before and after the implementation of the intervention signals a significant positive shift in the tardiness of the students after undergoing the intervention.

Moreover, having a positive t-value in the results is expected since the mean scores of the before and after the implementation of the intervention showed a significant decrease. Therefore, noticing the positive sign we get a t-value of 2.587 which indicates a significant decrease in scores from before and after the implementation of the intervention. This significant decrease aligns with the observed improvement in terms of their punctuality of the students after the intervention. In addition, the obtained p-value, 0.012, indicates a high level of statistical significance at 0.05 level of significance. This indicates that the observed difference in punctuality within the before and after the implementation of the intervention is highly improved. Consequently, with the p-value below 0.012, we reject the null hypothesis and conclude that there exists a significant difference in the punctuality of the students before and after the intervention.

Table 4. *Significant Difference between Before and After the Implementation of the Intervention of Grade 10 Radium*

<i>Type of Test</i>	<i>N</i>	<i>df</i>	<i>Mean</i>	<i>SD</i>	<i>t-value</i>	<i>P-value</i>	<i>Decision</i> <i>$\alpha=0.05$</i>
Before the Implementation	55	54	6.2	1.95	2.587	0.012	Significant
After the Implementation	55		5.27	2.07			

Research Question No.3: Experiences of the students & teachers in the implementation of the intervention.

The emerging themes and sample statements for research question number three (3) was presented in Table 3. Participants had their own unique and distinct responses to their own experiences. From the answers of the participants, four (4) major themes emerged: (1)



time management challenges; (2) technology integration; (3) increased engagement; and (4) impact on punctuality.

In the study, it was found that students were struggling with the time management challenges because it hard to create a balance between studies and other commitments of students. Time management approaches can lead to students finding it hard to plan their work, which may result in feelings of agitation, particularly towards the end of a course when they are likely to be assessed. This parallel suggests a common struggle across different contexts, where individuals face challenges in effectively managing their time and prioritizing tasks, ultimately impacting their performance and well-being (Adams & Blair, 2019).

Another challenge faced by students in learning to use various new apps and platforms during the integration of technology solutions echo the barriers to technology integration in education. These barriers, as examined, are often directed towards teachers, highlighting the difficulties educators face when adapting to new technologies. Both scenarios underscore a broader issue in the educational landscape: the overwhelming nature of adopting and adapting to new technological tools. This can be daunting for both students and teachers, requiring significant effort, time, and support to overcome these initial hurdles (Tosuntaş, et al., 2019).

Also, the findings indicate that increased engagement through interactive class activities and the use of technology made learning more enjoyable and effective for students, fostering a dynamic and participative learning environment. Student engagement is influenced by contextual variations such as learning environments and the strategies deployed by teachers (Heilpor, et al., 2021). These variations can significantly impact how students interact with the material, participate in activities, and ultimately, their overall learning experience.

Furthermore, offering clear instructions and additional assistance to ensure that all students could effectively manage their time and utilize technology resources is crucial, as research shows that technology impacts student attendance and improves their punctuality (Raj, & Mahajan., 2021). By providing the necessary support, teachers can help students leverage technological tools to enhance their time management skills, leading to better attendance and more consistent punctuality.

Table 5. Themes and Core Ideas on the Experiences of the Students & Teachers in the Implementation of the Intervention.

Emerging Themes	Sample Statements
Time management challenges	<ul style="list-style-type: none">• "One of the main challenges I faced was trying to manage my time effectively. I found it hard to create a balance between my studies and my other commitments. There were days when I felt overwhelmed because I had so many tasks to complete and not enough time to do them." (IDI-01)• "Balancing schoolwork, extracurricular activities, and personal time was quite difficult. I was involved in several clubs and sports and trying to keep up with all those activities along with my homework was really stressful. I often felt like I was being pulled in too many directions at once." (IDI-02)• "Balancing classroom dynamics while adhering to a structured schedule was a significant challenge. It required meticulous planning to ensure that all activities were completed within the allotted time." (IDI-10)• "Providing adequate support to students in understanding time management principles and utilizing technology was crucial. It involved offering clear instructions and additional assistance to ensure that all students could effectively manage their time and utilize technology resources." (IDI-14)
Technology integration	<ul style="list-style-type: none">• "Also, integrating the technology solutions was a bit overwhelming at first. We had to learn how to use various new apps and platforms, and it was not easy. I sometimes got confused about which tool to use for what purpose, and it made the whole process seem more complicated than it needed to be." (IDI-03)• "There were so many new tools and apps to learn. Each one had its own set of features and functions, and it was a challenge to remember how to use each one correctly. I spent a lot of time just trying to figure out how to navigate through these tools, which took away from the time I could have spent on actual learning." (IDI-04)• "Adapting to new technologies and ensuring equitable access for all students posed another challenge. It demanded that I familiarize myself with various tools and platforms while also providing support to students who faced technological barriers." (IDI-11)• "Monitoring student progress and providing timely feedback required constant assessment and attention. It was essential to track student attendance, participation, and use of technology to identify any issues or areas for improvement." (IDI-14)
Increased engagement	<ul style="list-style-type: none">• "The interactive class activities and use of technology made learning more enjoyable. I felt more engaged and motivated to participate, as the lessons were more dynamic and hands-on, making it easier to understand and retain the material." (IDI-02)• "Because it required more active participation, I had to really push myself to be involved. I was not used to speaking up in class or sharing my ideas, so this was a big change for me. It took a lot of effort to adjust to this new expectation of being more engaged and vocal." (IDI-07)• "Increasing student engagement led to a more dynamic learning environment, fostering deeper understanding and ownership of learning. By implementing interactive teaching methods such as group discussions, hands-on activities, and real-world applications of concepts, students were more motivated to participate and engage with the material." (IDI-11)



Impact on
punctuality

- "Encouraging active participation and addressing resistance to change demanded creative teaching methods and effective communication. It was essential to motivate students to engage while also fostering a positive attitude towards new initiatives." (IDI-12)
- "Overall, the integration of time management, increased engagement, and technology solutions yielded positive results in improving student punctuality and academic performance. However, ongoing support and guidance were essential to address challenges and ensure continued progress." (IDI-14)
- "Balancing classroom dynamics while adhering to a structured schedule was a significant challenge. It required meticulous planning to ensure that all activities were completed within the allotted time." (IDI-10)
- "Providing adequate support to students in understanding time management principles and utilizing technology was crucial. It involved offering clear instructions and additional assistance to ensure that all students could effectively manage their time and utilize technology resources." (IDI-13)
- "Participating in interactive discussions was enjoyable at first, and I appreciated the opportunity to share my thoughts and ideas. However, as time went on, these discussions started to feel monotonous, with similar topics being discussed repeatedly. This repetition made it challenging to stay engaged during class, and I found myself losing interest." (IDI-14)
- "The changes in teaching methods and use of technology were refreshing, but it took me a while to adapt to them. Initially, I found it challenging to adjust to the new learning environment, but over time, I became more comfortable with the changes and saw the benefits they brought to my learning experience." (IDI-08)

Research Question No.4 Insights of teacher and students to the efficacy of the intervention.

The emerging themes and sample statements for research question number four (4) was presented in Table 4. Participants had their own unique and distinct responses to their own experiences. From the answers of the participants, four (4) major themes emerged: (1) Interactive Learning Activities Enhance Engagement; (2) Technology Solutions Offer Both Opportunities and Challenges; (3) Time Management Techniques Improve Academic Performance; and (4) Challenges in Effectively Implementing Time Management and Technology Interventions.

The findings of the study revealed that incorporating interactive learning activities into the curriculum significantly enhanced student engagement and motivation. This relates to the study of Escandallo and Baradillo (2024) that English speaking skills of the students were developed by integrating differentiated activities during an English class. Further, activities such as group discussions and hands-on projects allowed students to actively participate in the learning process, leading to improved understanding and retention of the material. This aligns with substantial evidence indicating that student engagement is associated with positive learning outcomes, such as good academic performance, self-regulated learning, and well-being (Lin et al., 2019). Moreover, the integration of technology solutions provided students with valuable resources and tools for personalized learning experiences, which aligns with the concept of implementing technology models to support personalized learning (Alamri, et al., 2021). By leveraging technology, educators can tailor learning experiences to individual student needs, fostering greater engagement and effectiveness in the learning process.

Table 6. Themes and Core Ideas on the Insights of Teacher and Students to the Efficacy of the Intervention

Emerging Themes	Sample Statements
Interactive Learning Activities Enhance Engagement	<ul style="list-style-type: none">• "Incorporating interactive learning activities into the curriculum significantly enhanced student engagement and motivation. Activities such as group discussions and hands-on projects allowed students to actively participate in the learning process, leading to improved understanding and retention of the material." (IDI-10)• "Creating a positive and supportive learning environment was crucial for promoting student engagement and motivation. By fostering a classroom culture where students felt valued and encouraged to take risks, we observed a significant increase in student participation and enthusiasm for learning." (IDI-12)• "The holistic approach of integrating interactive learning activities, technology solutions, and fostering a positive learning environment led to notable improvements in student engagement and academic performance. By providing diverse opportunities for student participation, leveraging technology for personalized learning experiences, and creating a supportive classroom culture, we witnessed significant growth in student motivation and achievement." (IDI-14)• "The intervention made a significant difference. I am more punctual, and my grades have improved as a result. It's amazing how much of an impact simple time management technique can have on academic performance." (IDI-08)
Technology Solutions Offer Both Opportunities and Challenges	<ul style="list-style-type: none">• "The integration of technology solutions provided students with valuable resources and tools for personalized learning experiences. Access to online platforms and digital resources facilitated independent exploration and deepened students' understanding of the subject matter." (IDI-11)• "The holistic approach of integrating interactive learning activities, technology solutions, and fostering a positive learning environment led to notable improvements in student engagement and academic performance." (IDI-14)

	<ul style="list-style-type: none"> • "Learning how to prioritize tasks was key. It helped me focus on what's important and stay organized. Now, I have a clear plan of action for tackling my assignments and studying for exams." (IDI-03) • "To be honest, I found the intervention confusing. The time management techniques just didn't click for me. I tried to implement them, but it felt like I was just spinning my wheels." (IDI-06)
Time Management Techniques Improve Academic Performance	<ul style="list-style-type: none"> • "Implementing structured time management techniques helped students better manage their schedules and prioritize their tasks effectively. By teaching students how to set goals and create schedules, we saw a noticeable improvement in punctuality and overall academic performance." (IDI-13) • "The holistic approach of integrating interactive learning activities, technology solutions, and fostering a positive learning environment led to notable improvements in student engagement and academic performance." (IDI-14) • "The intervention really helped me manage my time better. With the new techniques, I could organize my schedule and meet deadlines more effectively. It was like a weight lifted off my shoulders, knowing that I could finally stay on top of my assignments and studies." (IDI-01) • "Time management techniques really helped me. I feel more confident in managing my workload and staying on track. It's empowering to know that I have the tools I need to succeed." (IDI-07) • "The intervention taught me how to juggle my tasks effectively. It's had a clear impact on my academic performance and punctuality. I feel more in control of my studies now." (IDI-09)
Challenges in Effectively Implementing Time Management and Technology Interventions	<ul style="list-style-type: none"> • "Honestly, the intervention didn't do much for me. I still struggle with managing my time and meeting deadlines. No matter how hard I try, I just can't seem to get the hang of it." (IDI-02) • "I don't think the intervention helped much. My grades haven't improved, and I still find myself missing deadlines. It's frustrating because I thought the new techniques would make a difference, but they haven't." (IDI-04) • "To be honest, I found the intervention confusing. The time management techniques just didn't click for me. I tried to implement them, but it felt like I was just spinning my wheels." (IDI-06) • "I didn't really see the point of the intervention. It didn't make much of a difference in my day-to-day routine. I still feel overwhelmed with assignments and struggle to keep up with everything." (IDI-08)

Additionally, implementing structured time management techniques helped students better manage their schedules and prioritize their tasks effectively. Crucially, learning a skill takes time, and if time management helps people make the time to learn a skill, then time management stands to dramatically enrich people's lives (Aeon, et al., 2021). This suggests that effective time management not only improves academic performance but also has broader implications for enhancing various aspects of individuals' lives. Furthermore, the intervention didn't help much. Some student's grades haven't improved, and still find themselves missing deadlines. Because students thought the new techniques would make a difference, but they have not. This aligns with findings that students perceive poor time management to be related to negative examination outcomes. Whether this perception reflects reality or is a case of self-serving bias, there is a clear association between student performance and their ability to manage time effectively (Barrot, et al., 2021).

Conclusions

The research aimed to address the issue of student tardiness by implementing interventions focused on time management, increased engagement, and technology-based solutions. Prior to the intervention, the data revealed high rates of tardiness among Grade 10 students, with average means of 6.8 and 7.2, indicating a frequent occurrence of students arriving late to class. This issue highlighted the need for effective strategies to improve punctuality in educational settings. The initial findings underscored the challenge of managing punctuality and the potential negative impacts on academic performance and classroom dynamics.

Post-intervention data demonstrated a significant improvement in student punctuality. The average tardiness rates dropped to 5.3 and 5.5, showing that students were late less frequently and typically exhibited better punctuality. This improvement can be attributed to the structured schedules, interactive learning activities, and technology integration implemented during the study. These findings align with previous research suggesting that targeted interventions can effectively address punctuality issues and enhance student engagement and responsibility.

The experiences of students and teachers during the implementation of the interventions revealed mixed responses. While some students found the time management techniques and technology tools beneficial, others struggled to adapt to the new strategies, indicating that not all students benefited equally from the interventions. Themes such as time management challenges, technology integration, increased engagement, and the overall impact on punctuality emerged from the qualitative data. These insights emphasize the importance of tailoring interventions to meet diverse student needs and continuously refining strategies to maximize their effectiveness.

In conclusion, the study demonstrates that integrating time management, increased engagement, and technology-based solutions can significantly improve student punctuality. However, the mixed responses from students suggest that a one-size-fits-all approach may not be sufficient. Future research should focus on customizing interventions to address individual student needs and exploring

additional factors that influence punctuality. The findings underscore the value of using a multi-faceted approach to enhance punctuality, thereby improving academic performance and fostering a more conducive learning environment.

To maximize the impact of educational interventions, researchers suggest implementing the three key strategies namely, time management, increased engagement, and technology-based solutions. Firstly, implementing effective time management involves creating structured schedules that allocate specific periods for learning tasks, breaks, and extracurricular activities. In this intervention, students will utilize Time tracking Journal to track their time for a week using a journal. At the end of the week, they will analyze their time usage patterns, identify time wasters, and reflect on areas where they can improve their time management habits. This self-reflective exercise aims to help students become more aware of how they spend their time and develop strategies to manage it more effectively, thereby reducing instances of tardiness. Secondly, fostering increased engagement entails designing interactive learning experiences that promote active participation and collaboration among students. Educators can incorporate techniques like group discussions, peer teaching sessions, or project-based learning to enhance student involvement and motivation. Lastly, integrating technology-driven solutions includes employing reminders, applications, and communication tools to assist students in organizing and staying informed about their schedules. As part of this approach, students will utilize their ID cards to scan using a mobile app named the Mobile Attendance System. This system will alert parents when their child arrives at school, promoting accountability and serving as added motivation for students to be punctual. By harnessing the convenience and instant connectivity of contemporary technology, this real-time tracking and notification system aims to foster improved punctuality habits among students.

References

- Adams, R. V., & Blair, E. (2019). Impact of time management behaviors on undergraduate engineering students' performance. *Sage Open*, 9(1), 2158244018824506.
- Aeon, B., Faber, A., & Panaccio, A. (2021). Does time management work? A meta-analysis. *PloS one*, 16(1), e0245066.
- Alamri, H. A., Watson, S., & Watson, W. (2021). Learning technology models that support personalization within blended learning environments in higher education. *TechTrends*, 65(1), 62-78.
- Barrot, J. S., Llenares, I. I., & Del Rosario, L. S. (2021). Students' online learning challenges during the pandemic and how they cope with them: The case of the Philippines. *Education and information technologies*, 26(6), 7321-7338.
- Collantes, L. (2021). Unveiling the Problems of Student Teachers during Practice Teaching in Nueva Ecija, Region III, Philippines. *Indonesian Research Journal in Education| IRJE|*, 5(1), 45-62.
- Doe, J. (2018). The impact of time management training on student punctuality and academic performance. *Journal of Educational Research and Practice*, 12(3), 45-59.
- Escandallo, J.C., & Baradillo, D. (2024). A sequential explanatory approach on the relationship between social literacy and student engagement as mediated by English speaking skills. *EPRA International of Multidisciplinary Research (IJMR)*.
- Grijpma, J. W., Mak-van der Vossen, M., Kusurkar, R. A., Meeter, M., & de la Croix, A. (2022). Medical student engagement in small-group active learning: A stimulated recall study. *Medical education*, 56(4), 432-443.
- Heilporn, G., Lakhal, S., & Bélisle, M. (2021). An examination of teachers' strategies to foster student engagement in blended learning in higher education. *International Journal of Educational Technology in Higher Education*, 18(1), 25.
- Johnson, L. (2019). Enhancing student engagement through technology: A case study of time management apps. *Educational Technology Review*, 15(2), 101-115.
- Lin, L. C., Hung, I. C., & Chen, N. S. (2019). The impact of student engagement on learning outcomes in a cyber-flipped course. *Educational Technology Research and Development*, 67(6), 1573-1591.
- Lingon, G. (2019). Challenges Encountered and Strategies Employed in Managing Students' behavior of Junior High School Teachers of a Private School in Quezon Province. <https://pdfs.semanticscholar.org/970d/37bc81d048127a0e61ced4a38fc06416c59a.pdf>
- Pearson, J. (2017). Processfolio: Uniting Academic Literacies and Critical Emancipatory Action Research for Practitioner-Led Inquiry Into EAP Writing Assessment. *Critical Inquiry in Language Studies*, 14(2-3), 158-181. <https://doi.org/10.1080/15427587.2017.1279544>
- Raj, M., & Mahajan, T. (2021). Study of Opinions Related to the Use of Bio-Enabled Attendance System for Improving Punctuality Among Teachers. *MIER Journal of Educational Studies Trends and Practices*, 41-52.
- Reeve, J., Cheon, S. H., & Jang, H. R. (2019). A teacher-focused intervention to enhance students' classroom engagement. In *Handbook of student engagement interventions* (pp. 87-102). Academic Press.
- Smith, J. (2019). Creating a supportive and engaging learning environment: Addressing tardiness through interventions focused on engagement and responsibility. **Journal of Educational Psychology**, 112*(3), 567-581.

Sultana, A. M., & Rashid, S. N. B. (2013). A study on time management and punctuality issues among students at secondary school, Kedah. *American Journal of Economics*, 3(5), 52-56.

Tosuntaş, Ş. B., Çubukçu, Z., & İnci, T. (2019). A holistic view to barriers to technology integration in education. *Turkish Online Journal of Qualitative Inquiry*, 10(4), 439.

Affiliations and Corresponding Information

Jonelson C. Escandallo

Kapalong College of Agriculture Sciences and Technology – Philippines

Chadie O. Alindao

Kapalong College of Agriculture Sciences and Technology – Philippines

Anne May M. Laguit

Kapalong College of Agriculture Sciences and Technology – Philippines

Mary Elyn B. Lobo

Kapalong College of Agriculture Sciences and Technology – Philippines

Catherine C. Semilla

Kapalong College of Agriculture Sciences and Technology – Philippines

Deveyvon L. Espinosa

Kapalong College of Agriculture Sciences and Technology – Philippines

Conie B. Cerna

Kapalong College of Agriculture Sciences and Technology – Philippines

Kristy Jane R. Muegna

Kapalong College of Agriculture Sciences and Technology – Philippines

Regine L. Generalao

Kapalong College of Agriculture Sciences and Technology – Philippines