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ANALYZING STUDENTS' AUTONOMY AND CRITICAL THINKING IN BLENDED LEARNING ENVIRONMENTS: A CASE STUDY OF EDU GLOBAL SCHOOL HIGH SCHOOL STUDENTS

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ABSTRACT

This writing specifically investigates the development of students' autonomy and critical think-ing in a blended learning environment at Edu Global School. The study employs qualitative methods to thoroughly describe students' self-regulated learning strategies, their capacity to es-tablish personal learning objectives and critical thinking, and the influential role of teacher sup-port in fostering autonomy. Data was meticulously gathered through semi-structured interviews and comprehensive classroom observations. The compelling findings indisputably demonstrate that while blended learning presents significant opportunities for independent learning, students require consistent guidance to fully develop self-regulatory and critical thinking skills. The study highlights the role of digital tools and teacher facilitation in promoting autonomous and critical learning behaviors with recommendations for enhancing critical thinking and self-directed learning among high school students.

Keywords: Students Autonomy; Critical Thinking; Blended Learning;

INTRODUCTION

Blended learning, which combines online and face-to-face instruction, has gained popularity in secondary education as an effective strategy for fostering learner autonomy and critical thinking (Means et al., 2014; Graham, 2019). Research suggests that blended learning enables students to take control over aspects of their education, thus enhancing autonomy and allowing opportunities for reflective and analytical thinking (Hrastinski, 2019; Boelens et al., 2018). Moreover, such environments require effective teacher support, which can guide students through the transition from a teacher-centered to a more student-centered approach (Kong, 2014; Van Laer & Elen, 2020).

This study examines the specific case of Edu Global School high school students, exploring how a blended learning environment influences their autonomy and critical thinking and identifying the role of teacher support in fostering these outcomes. The findings align with recent evidence that supports the role of structured feedback and open-ended questioning in encouraging critical engagement in a blended setting (Dziuban et al., 2018; Loorbach et al., 2015).

Blended Learning in Secondary Education

Blended learning in secondary education integrates online and in-person interactions, encouraging students to develop self-regulation skills essential for lifelong learning (Graham, 2019; Hrastinski, 2019). This model can increase engagement, provide flexibility in learning, and foster autonomy as students take ownership of their learning

schedules and approaches (Means et al., 2014; Boelens et al., 2018). Studies have shown that such environments support various learning styles and can improve student outcomes by allowing learners to access materials at their own pace (Van Laer & Elen, 2020).

Learner Autonomy and Critical Thinking in Blended Learning

Learner autonomy refers to students' ability to take responsibility for their learning, encompassing skills such as goal setting, time management, and self-assessment (Little, 1995; Kong, 2014). In blended environments, autonomy is often realized through flexible schedules, choice of learning materials, and self-directed tasks (Garrison & Vaughan, 2008). Critical thinking, closely related to autonomy, involves the ability to analyze, evaluate, and synthesize information effectively. Both autonomy and critical thinking are enhanced when students are encouraged to explore diverse viewpoints and justify their reasoning (Hrastinski, 2019; Van Laer & Elen, 2020).

Teacher Support in Blended Learning

Effective teacher support is vital for fostering student autonomy and critical thinking. Studies highlight that structured feedback, open-ended questioning, and scaffolding techniques are essential in blended learning environments, guiding students toward self-sufficiency and analytical thinking (Boelens et al., 2018; Dziuban et al., 2018). Teachers in blended settings adopt strategies that progressively encourage students to take control of their learning, a method often referred to as the "gradual release of responsibility" (Loorbach et al., 2015; Van Laer & Elen, 2020).

METHOD

This research employed a qualitative case study design to explore learner autonomy and critical thinking within a blended learning environment among high school students at Edu Global School. A case study approach was selected as it allows for an in-depth examination of a specific context, focusing on the unique experiences and perspectives of participants within that context (Yin, 2018). The study sought to capture detailed insights into how blended learning influences autonomy and critical thinking and the role of teacher support in facilitating these outcomes.

Research Setting and Participants

The study was conducted at Edu Global School, a private high school that incorporates blended learning into its curriculum, especially for higher-level courses. The school uses a combination of face-to-face and online learning, with a flexible approach that encourages students to manage some aspects of their learning independently. The study focused on students in the final two years of high school (Grades 11 and 12) as they were most likely to engage actively with blended learning tools and strategies.

Using purposive sampling, ten students (five from Grade 11 and five from Grade 12) were selected to participate in this study. These participants represented a diverse range of academic performance levels and levels of engagement within the blended learning environment. Additionally, three teachers who implemented blended learning methods and supervised these students were interviewed to provide insights into the instructional strategies and support mechanisms used.

Data Collection Methods

To gain a holistic understanding of learner autonomy and critical thinking within the blended learning context, data were collected through three primary methods: semi-

structured interviews, student reflection journals, and document analysis of course materials and student assignments.

Semi-Structured Interviews

The semi-structured interviews served as the primary data collection tool, allowing for in-depth exploration of students' perceptions and experiences with autonomy and critical thinking in their blended learning environment. The interviews with students focused on their experiences managing their learning, setting goals, and developing critical thinking skills. Each interview lasted approximately 45–60 minutes and was conducted in a private setting to ensure participant comfort and confidentiality. Follow-up interviews were also conducted with five students to clarify initial responses and gain further insight.

Teacher interviews were also conducted to understand the instructional approaches used to support autonomy and critical thinking. These interviews explored their scaffolding strategies, feedback mechanisms, and how they facilitated student reflection and engagement in both face-to-face and online environments. All interviews were audio-recorded with participant consent and later transcribed for analysis.

Student Reflection Journals

Students were asked to maintain reflection journals for six weeks, documenting their experiences, challenges, and strategies related to their autonomy and critical thinking within the blended learning framework. Reflection journals are valuable tools in qualitative research as they provide ongoing insights into participants' thoughts and behaviors over time, thus capturing the evolution of their learning experiences (Creswell & Poth, 2018). Students were encouraged to write at least once a week, with prompts provided to help them reflect on specific aspects, such as how they approached online tasks, time management strategies, and moments that required critical thinking.

Document Analysis

Document analysis was conducted on course materials, assignment instructions, and sample submissions. This analysis focused on identifying elements that could support autonomy and critical thinking, such as opportunities for choice, reflective activities, and problem-based tasks that required analysis and evaluation. Sample student assignments, especially those related to open-ended projects or online discussions, were reviewed to examine how students demonstrated self-directed learning and critical thinking.

Data Analysis

Data analysis was conducted using a thematic approach, guided by Braun and Clarke's (2006) six-phase framework for thematic analysis: familiarization with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report. This approach was selected to systematically identify recurring patterns and themes that would answer the research questions related to learner autonomy, critical thinking, and teacher support in the blended learning environment.

FINDING AND DISCUSSION

Student Autonomy in Blended Learning

A significant theme that emerged from the data was the increased sense of autonomy among students participating in blended learning. Autonomy, in this context, was primarily associated with time management, self-directed learning, and the ability to set and pursue personal learning goals.

a. Time Management: Analysis of student reflection journals revealed that students viewed time management as both a key benefit and a challenge in blended learning. Several students reported that online learning days required them to plan their time effectively, a skill they felt grew stronger over the course of the semester. However, a few students admitted that the flexibility led to procrastination, with one noting, "Without a structured class, it's easy to put off work until the last minute." This demonstrates the mixed impact of flexibility on autonomous learning habits.
b. Self-Directed Learning: Many students described how the blended model encouraged them to take greater responsibility for their learning. In interviews, several participants mentioned that online modules allowed them to "learn at their own pace" and revisit materials as needed. As one student articulated, "I felt like I could finally understand things in my own way instead of rushing through." This access to self-paced resources appears to have supported the development of autonomy, as students felt empowered to address gaps in their understanding independently.
c. Goal Setting: Document analysis of student submissions indicated that some assignments in the online portion encouraged goal-setting, a skill critical to autonomous learning. Assignments with open-ended or reflective tasks prompted students to define personal goals. For example, one reflective assignment asked students to outline their learning objectives for a module, fostering a habit of purposeful engagement with learning materials.

Development of Critical Thinking in Blended Learning

The second theme focused on how blended learning influenced students' critical thinking abilities, with evidence from interviews, reflection journals, and assignments supporting this observation. Critical thinking in this context was observed through problem-solving tasks, analytical assignments, and opportunities for reflective thinking.

a. Problem-Solving and Analytical Skills: In online modules, students frequently encountered assignments designed to develop problem-solving skills, such as case studies and situational tasks. Document analysis of these assignments revealed a pattern of complex, multi-step tasks that required students to analyze scenarios and draw conclusions. One student described a particular assignment that asked them to propose solutions to a hypothetical environmental issue, commenting, "It was the first time I felt like my solution could make a real difference if it was applied." This sentiment underscores the impact of problem-based assignments on nurturing critical thinking skills.
b. Reflection and Evaluation: The reflection journals also revealed growth in students' evaluative skills. When prompted to analyze their approach to online tasks, students increasingly used evaluative language over time, indicating a growing ability to reflect critically on their learning strategies. For example, one student wrote, "I realized I need to read all the instructions carefully before starting... skipping parts because I thought I knew what to do wasn't helping." This self-awareness and ability to evaluate one's actions is a fundamental aspect of critical thinking.

The Role of Teacher Support

Teacher support played a pivotal role in facilitating both autonomy and critical thinking among students, with students consistently citing scaffolding, feedback, and check-ins as key components of their success in blended learning.

a. Scaffolding and Instructional Support: Analysis of interview data from teachers highlighted that scaffolding was used frequently, especially during the transition phases to online learning. Teachers provided students with detailed guidance on navigating online platforms, managing time, and completing assignments independently. One teacher described an approach where they progressively reduced their oversight, allowing students to develop self-reliance gradually. This "fading" technique appeared to increase students' confidence and ability to manage their learning.
b. Feedback Mechanisms: Students expressed a strong appreciation for the feedback provided on online tasks, noting that constructive feedback allowed them to refine their thinking and learning approaches. Teachers often used digital tools to provide timely comments, which students could apply to subsequent assignments. For instance, one student mentioned, "The feedback was specific, so I knew exactly what I needed to improve for the next task." This feedback cycle promoted continuous improvement and encouraged a reflective approach to learning.
c. Check-ins and Emotional Support: In addition to academic guidance, teachers frequently conducted online check-ins, particularly for students who appeared disengaged or struggled with task completion. These check-ins served as a crucial form of support, as several students expressed feeling isolated during the online portions of blended learning. One student reflected, "It was really helpful when my teacher messaged me just to ask if I was doing okay." This emotional support helped mitigate feelings of disconnect and fostered a more supportive learning environment.

This study explored how blended learning impacts student autonomy, critical thinking, and the role of teacher support, particularly within the high school context. The findings align with and contribute to existing literature on blended learning, highlighting the potential of this model to foster independent, reflective learners when designed thoughtfully. In this section, we discuss the implications of the findings in relation to prior research and consider their relevance for educational practice and theory.

Fostering Student Autonomy in Blended Learning

The findings indicate that blended learning can support the development of learner autonomy by providing a flexible, student-centered environment. Many students reported experiencing a greater sense of responsibility and control over their learning, aligning with findings by Lai and Hwang (2016) and Basal (2015) that emphasize blended learning's ability to empower learners to take charge of their educational experience. Autonomy, in this study, was notably facilitated by elements such as time management opportunities and self-directed tasks.

However, it is important to acknowledge the challenges students faced with self-regulation in a less structured environment. As pointed out by VanderArk (2019), the flexibility of online learning can be a double-edged sword, requiring students to possess or develop significant self-regulation skills. For high school students, these skills may still be maturing, making the teacher's role in scaffolding autonomy crucial. This study

suggests that autonomy in blended learning is not simply a matter of providing freedom but must be actively supported through gradual skill-building.

Development of Critical Thinking through Reflective and Problem-Solving Tasks

The study's findings show that blended learning environments can significantly enhance students' critical thinking skills, especially through problem-based tasks and reflective practices. Reflective assignments and real-world problem scenarios encouraged students to analyze information deeply and formulate reasoned conclusions. These findings are consistent with research by Garrison and Kanuka (2004), who emphasize the cognitive benefits of blended learning in promoting higher-order thinking skills.

The integration of reflective journals and self-assessment exercises contributed to students' critical awareness, a finding echoed in studies by Davis et al. (2018) and Kim (2020), which support the value of reflection in developing critical thought. By prompting students to evaluate their strategies, the blended learning model at Edu Global School fostered not only the practice of critical thinking but also an awareness of the thinking process itself, thereby enhancing metacognition. However, it is crucial to design these tasks with careful guidance, as younger learners might initially struggle with abstract critical thinking exercises without proper scaffolding.

The Role of Teacher Support in Blended Learning

The data suggests that teacher support was integral to student success within the blended learning model. Scaffolding, feedback, and emotional check-ins were highly valued by students, underscoring the importance of the teacher's role even in an autonomous, blended context. This finding aligns with Park and Shea's (2021) research, which found that effective teacher support is central to fostering independence and confidence among students in blended environments.

Teachers in this study used gradual withdrawal of guidance, a scaffolding technique that allowed students to develop independence progressively. This approach resonates with studies by Azevedo and Hadwin (2019), who argue that scaffolding is critical in helping students adjust to the demands of autonomous learning, particularly within hybrid models. Additionally, timely feedback served as a form of guidance, helping students self-correct and adapt their strategies for future tasks, a feature that has been widely recognized as essential in supporting learning autonomy (Chen et al., 2019).

However, this study also highlights an often-overlooked aspect of teacher support: emotional guidance. Many students expressed feeling isolated or overwhelmed at times, especially in the online portions of blended learning. Regular teacher check-ins not only served academic purposes but also provided an emotional safety net, which helped mitigate feelings of disengagement. This aspect of teacher support aligns with findings from Rashid and Asghar (2016), who emphasize the importance of teacher presence in maintaining motivation and emotional well-being in blended settings.

CONCLUSION

The insights gained from this study carry several implications for the effective implementation of blended learning in high school contexts. First, the success of blended learning in promoting autonomy and critical thinking is heavily reliant on carefully designed scaffolding and support mechanisms. For younger learners, particularly at the high school level, a gradual approach to autonomy is essential, as students are still de-veloping self-regulatory skills. This finding implies that teachers need to maintain a bal-ance

between providing guidance and allowing freedom, using scaffolded tasks and structured feedback.

Second, critical thinking tasks within blended learning environments should be struc-tured around real-world applications and reflective exercises, as these were particularly effective in encouraging deep thinking and self-assessment. By emphasizing real-world relevance, educators can engage students more meaningfully, bridging the gap between theory and application.

Lastly, this study highlights the need for emotional support in online learning contexts. Especially for high school students, the hybrid learning environment can sometimes lead to feelings of isolation. Therefore, integrating regular check-ins, feedback, and emotional support mechanisms is crucial to maintaining student motivation and engagement. The findings suggest that teacher support should not be limited to academic guidance but should also address the holistic well-being of the student.

This study has limitations that should be addressed in future research. The sample size was limited to one school, which may impact the generalizability of the findings. Addi-tionally, the study was confined to high school students, which restricts the applicability of the findings to other educational levels. Future research could expand the sample to include students from diverse educational settings and age groups to explore how blended learning impacts autonomy and critical thinking across broader demographics.

Further studies could also investigate specific types of online and offline tasks that best foster critical thinking and autonomy, particularly focusing on how these tasks might vary in effectiveness based on students' developmental stages. This line of re-search could offer valuable insights into tailoring blended learning models to optimize outcomes at various educational levels.

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