PREFACE

The SIG CS@e-Learning committee sincerely appreciates the dedication and contributions of the educators from Jabatan Sains Komputer & Matematik (JSKM), UiTM Penang Branch, in bringing the 9th edition to fruition. This edition received 30 scholarly articles, all of which met the required criteria and were accepted. Authors are encouraged to further refine their research with additional insights and discussions for potential publication in high-impact journals indexed by SCOPUS, WOS, or ERA.

The theme for the ninth volume, "Beyond Boundaries: The Multidimensional Horizons of E-Learning," reflects the continuous evolution of digital learning. Over the past few decades, elearning has proven to be a transformative force in education, demonstrating exceptional adaptability and effectiveness. The widespread use of mobile technology has expanded its reach, making e-learning an essential component not only in higher education and vocational training but also in primary and secondary education. Emerging trends such as artificial intelligence (AI), micro-credentials, big data, virtual and augmented reality, blended learning, cloud-based platforms, gamification, mobile learning, the Internet of Things (IoT), and online video are reshaping the digital learning landscape.

SIG CS@e-Learning remains dedicated to fostering academic excellence through impactful publications. With continuous commitment and innovation, we aspire for JSKM to attain recognition in esteemed academic journals, further advancing the frontiers of e-learning.

Ts. Jamal Othman Chief Editor SIG CS@e-LEARNING Beyond Boundaries : The Multidimensional Horizons of E-Learning **Vol. 9, 24 March 2025**

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ASSESSING STUDENT PERCEPTIONS OF ACADEMIC ASSIGNMENTS

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ABSTRACT

Academic assignments are critical in shaping student learning experiences, providing opportunities to apply theoretical concepts to practical scenarios. This study examines student perceptions of assignments, focusing on their clarity, relevance, and applicability to real-world contexts. A structured Likert-scale survey was employed to assess key factors, including the alignment of assignments with course objectives and their effectiveness in fostering critical thinking and problem-solving skills. The findings reveal the significance of clear instructions and well-defined objectives in enhancing student engagement and learning outcomes. This article offers actionable recommendations for educators to design assignments that bridge the gap between academic learning and practical applications, ensuring students are equipped with the skills needed for future success.

Keywords: student perceptions, academic assignments, learning experiences, critical thinking, problem-solving skills.

Introduction

Academic assignments are a vital component of education, helping students bridge theoretical knowledge with practical skills. Beyond assessing understanding, well-crafted assignments develop critical thinking, problem-solving, and industry-relevant competencies. As industries evolve, there is growing concern about whether assignments adequately prepare students for real-world challenges. This study examines student perceptions of assignments, focusing on their clarity, relevance, and alignment with industry needs. By analyzing feedback, it highlights how assignments can be enhanced to better equip students for professional success while fostering academic growth.

Literature Review

Academic assignments play a crucial role in student learning and assessment, offering significant potential to enhance the overall learning experience. Typically, students are graded based on their progress of the assignments. Numerous studies on students' perspectives regarding assignments provide a range of insights. Students tend to have a positive perception of assignments when it includes hands-on activities, problem-solving tasks, and real-world applications (Samuel et al., 2024). Findings from Samuel et al. (2024) revealed that the complexity of the task, the level of instructor support, and previous

group work experience are other elements that affect how students perceive their experiences with group assignments. Well-organised group projects with precise instructions and equitable evaluation standards have been shown to increase student involvement and satisfaction (Chapman & Van Auken, 2001). Additionally, group projects help students develop essential skills such as communication, leadership, and conflict resolution (Oakley et al., 2004). Group work is a powerful tool for promoting the growth of a broader range of knowledge through debate, concept clarification, and evaluation of others' proposals (Hassanien, 2006)

However, Mir & Roy (2024) reported that students encounter psychological obstacles such as procrastination, task management, and pressure when dealing with assignments and deadlines. Factors influencing students' attitudes towards assignments include teaching styles, assignment length, time allocation, and course difficulty. Moreover, students listed some drawbacks of working in groups, including relying on others, lacking time management, and having poor commitment and attitude (Bentley & Warwick , 2013). Interestingly, students' perceptions of group work are primarily shaped by their past experiences rather than personality traits (ElMassah et al., 2020). According to Hassanien (2006), the biggest obstacles people have when working in a group are inadequate communication and low participation at meetings.

Methodology

This study utilized a quantitative approach to evaluate students' perceptions of academic assignments and their effectiveness in preparing students for practical, real-world applications. The participants consisted of 28 students enrolled in semesters 6 to 9 of the Civil Engineering program at UiTM Cawangan Pulau Pinang. All participants were taking the subject Further Differential Equations (MAT480) during the October 2024–February 2025 semester.

Data collection was conducted through a structured questionnaire distributed via Google Forms. The questionnaire included Likert-scale items designed to assess key aspects of the assignments, such as clarity of instructions, alignment with learning objectives, relevance to real-world applications, difficulty level, and assessment criteria. The questions were aimed at gathering insights into how well the assignments bridged theoretical knowledge with industry-relevant skills.

The responses were analyzed to identify patterns in student perceptions, focusing on how the assignments contributed to their learning experience and professional readiness. The study ensured anonymity and voluntary participation, complying with ethical guidelines for educational research.

Result and Discussion

The study included 28 students from semesters 6 to 9 of the Civil Engineering program at UiTM Cawangan Pulau Pinang. These participants were enrolled in the Further Differential Equations (MAT480) course, ensuring a focused perspective on the subject's assignments.

A majority of respondents (80%) agreed or strongly agreed that the instructions for the assignments were clear and easy to follow, while only a small fraction expressed uncertainty or disagreement. This highlights the effectiveness of the provided guidelines in facilitating task comprehension. Clear instructions play a crucial role in ensuring that students can focus on applying their knowledge rather than struggling with ambiguity.

Most students (75%) reported that the assignments aligned well with the course objectives, particularly in understanding differential equations and Fourier series. However, a small percentage suggested that certain tasks could better emphasize key objectives, indicating that slight modifications in assignment design.

Approximately 70% of respondents agreed that the assignments had a strong connection to realworld applications. Students highlighted the relevance of solving differential equations and analysing Fourier series to practical engineering scenarios, though some suggested incorporating more direct examples from industry practices. This feedback highlights an opportunity for educators to integrate real-world case studies, guest lectures from industry experts, or project-based assignments that simulate engineering scenarios.

The difficulty level of the assignments was rated as appropriate by 85% of students. Respondents appreciated the balance between challenge and accessibility, though a few noted that some questions were overly complex for their current skill level. However, a few respondents felt that certain questions were overly complex, suggesting that some assignments might require better scaffolding, such as guided problem-solving steps or additional practice exercises to support students struggling with advanced concepts.

A majority of students (78%) agreed that the marking scheme and assessment criteria were transparent and well-communicated, enabling them to understand performance expectations. Clearly defined rubrics and detailed feedback from instructors can further enhance student confidence and motivation.

Students indicated that the assignments enhanced their analytical and problem-solving skills, with 72% agreeing that the tasks contributed to their professional readiness. Some participants recommended integrating more collaborative or project-based tasks to further simulate real-world challenges. These suggestions align with modern educational approaches that emphasize experiential learning and real-world application of theoretical knowledge.

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Figure 1: Student Perceptions of the Assignment

Conclusion

As a conclusion the assignments were generally effective in meeting educational objectives and preparing students for practical challenges. However, while a majority of students recognized the relevance of the assignments to real-world applications, some suggested that integrating more industry-based examples and collaborative elements could further enhance their practical value. This highlights an opportunity for educators to refine assignment design by incorporating case studies, project-based learning, and industry collaboration to bridge the gap between academic learning and professional demands. Overall, the study underscores the importance of continuously evaluating and improving academic assignments to ensure they remain effective in preparing students for real-world challenges. By aligning coursework with industry expectations and fostering essential skills, institutions can better equip graduates to transition seamlessly into the workforce. Future research could expand on this study by involving industry professionals in assignment development and assessing long-term impacts on student career readiness.

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