

EXAMINING KOLB'S LEARNING STYLE AMONG UNIVERSITI TEKNOLOGI MARA CAWANGAN PULAU PINANG (UiTM CPP) STUDENTS

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ABSTRACT

This study examines the learning style preferences of students at Universiti Teknologi MARA Cawangan Pulau Pinang (UiTM CPP) using Kolb's Learning Style Model, which categorizes learners into four types which are activists, theorists, reflectors, and pragmatists. The research involved 50 students from the Centre of Civil Engineering Studies, utilizing a questionnaire based on Kolb's framework to determine their preferred learning styles. The results reveal a strong preference for activist and reflector learning styles among the students, with activists showing a very strong inclination toward hands-on and dynamic learning experiences, while reflectors prefer to engage in thoughtful observation and analysis. Theorist and pragmatist styles were less favored, exhibiting a more moderate preference level among the students. Interestingly, no significant differences in learning style preferences were observed between diploma and bachelor's degree students, indicating a similar pattern of learning style distribution across educational levels. These findings highlight the need for educators to diversify their teaching methods to cater to the varied learning preferences of students. The study suggests that a more personalized approach to teaching could improve educational outcomes by aligning instructional strategies with students' learning preferences. Future research should consider exploring how these learning style preferences might evolve over time and how they influence students' academic performance.

Keywords: *learning style, activist, theorist, reflector, pragmatist*

Introduction

Students encounter a range of challenges in their learning journeys, which can significantly impact their academic success and overall well-being. Common difficulties include lack of motivation, poor time management, inadequate study skills, and insufficient support (Balduf, 2009). Among these, one critical challenge is the misalignment between teaching methods and students' preferred learning styles. When classroom instruction does not align with a student's learning style, the student may struggle to understand and engage with the material effectively (Biggs, 1999).

Understanding students' learning styles is essential for creating an effective and inclusive educational environment. Learning styles refer to the preferred ways individuals absorb, process, and remember information (Ray, 2024). Studying these styles means exploring into the cognitive, emotional, and environmental factors that shape how students engage with educational material. By

identifying and adapting to these learning preferences, educators can tailor their approaches to meet the unique needs of each student.

Identifying student learning styles is crucial for several reasons. Firstly, it enhances learning efficiency. By understanding whether a student is a visual learner, who benefits from diagrams and charts, or an auditory learner, who prefers listening to explanations, educators and students can adapt their approaches accordingly (Claire,2024).Secondly, align the teaching strategies with learning styles increases focus and concentration. Creating a study environment that matches a student’s preferred learning style helps minimize distractions and boosts concentration (LearnFree, 2024).Lastly, understanding learning styles improves communication and relationships. Educators who grasp their students' individual learning styles can engage in more effective communication and develop stronger connections (Fleming & Grace, 2023).

Kolb's learning style model, as discussed by Huang and Busby (2007), offers a framework for understanding how individuals approach learning. This model emphasizes experiential learning and the diverse ways learners engage with educational content. There are four basic learning styles that were suggested in Kolb's learning style model which are activist, reflector, theorist and pragmatist. By recognizing and accommodating these different styles, educators can tailor their teaching methods to better suit students' needs and preferences, thereby enhancing the learning experience and outcomes.

The objective of this paper is to examine students' preferred learning styles among diploma and bachelor’s degree students at Universiti Teknologi MARA Cawangan Pulau Pinang. This paper aims to contribute to the development of more effective teaching strategies and improve educational outcomes by aligning instructional methods with students' individual learning needs.

Methodology

This study was conducted at Universiti Teknologi MARA Cawangan Pulau Pinang (UiTM CPP) and involved 50 students from the Centre of Civil Engineering Studies. The students were from two different educational levels, namely, diploma and bachelor’s degree. This study adopted the questionnaire from Kolb D.’s (1984) which emphasizes learning as a process transforming experience into knowledge.

Kolb's learning styles theory is a well-known model in the field of experiential learning, identifies four distinct learning preferences: activists, theorists, reflectors, and pragmatists (Chan et al., 2021) (Yue & Mei-li, 2021). The questionnaire was created using Google Form and distributed to the students over WhatsApp. The four components of the survey correspond to the four student types

identified by Kolb. The responses were evaluated based on the number of questions they answered yes to in every section.

Activists are individuals who prefer to engage in hands-on experiences and excel in dynamic, action-oriented environments where they can participate and experiment without limitations. These learners are open to new challenges and experiences and often tend to immerse themselves in activities that involve immediate engagement and interaction.

Theorists are people who would rather approach education logically, analytically, and methodically. The importance of abstract conceptualization within Kolb's model is illustrated by the fact that they prefer to understand the fundamental principles and theories that determine various events and try to make sense of their experiences by integrating them into a logical framework.

In contrast, reflectors prioritize taking a step back to thoughtfully evaluate their observations and analyse their experiences before making any conclusions. This allows a thoroughly reflective analysis that helps learners to understand their learning experiences and thus encourages them to review their experiences from multiple perspectives to gain deeper insights and improve future actions.

Lastly, pragmatists are learners who focus on applying their knowledge to real-world situations and prefer to implement concepts in practical ways in order to achieve concrete results. They are driven by the usefulness and practicality of ideas and hands-on experiments including trial-and-error approaches in learning. This approach emphasizes actionable outcomes and problem-solving through practical experience.

Result and Discussion

Data were collected through Kolb's Learning Style Questionnaires developed by Kolb (1984). The source of Kolb's Learning Style Questionnaire is based on David Kolb's Experiential Learning Theory, which he published in 1984. The simple analysis used Microsoft Excel to examine students' preferred learning styles.

Fifty students from Universiti Teknologi MARA Cawangan Pulau Pinang (UiTM CPP) were voluntarily involved in this study. The bar chart below illustrates the frequency of education level by gender. (Figure 1)

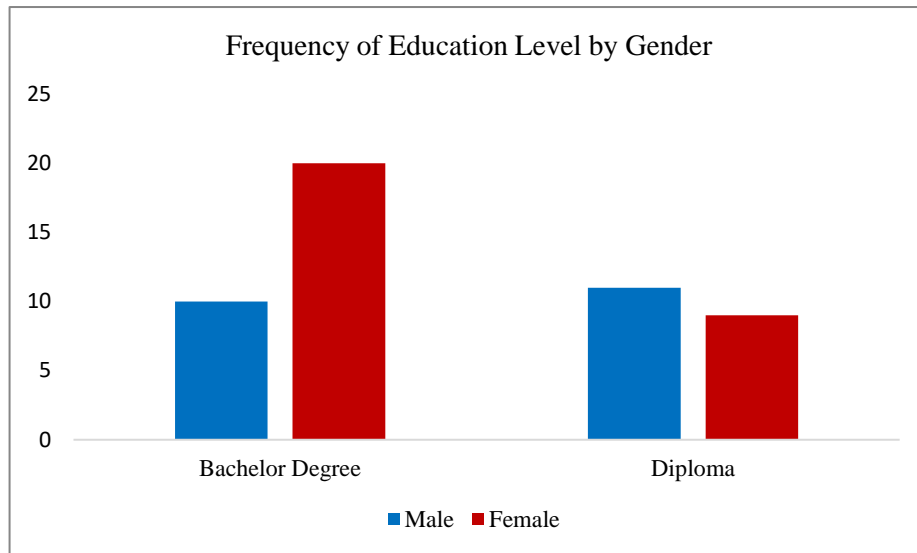


Figure 1: Frequency of education level by gender

Out of fifty students, sixty per cent (60%) had bachelor's degree, whereas forty per cent (40%) were diploma students.

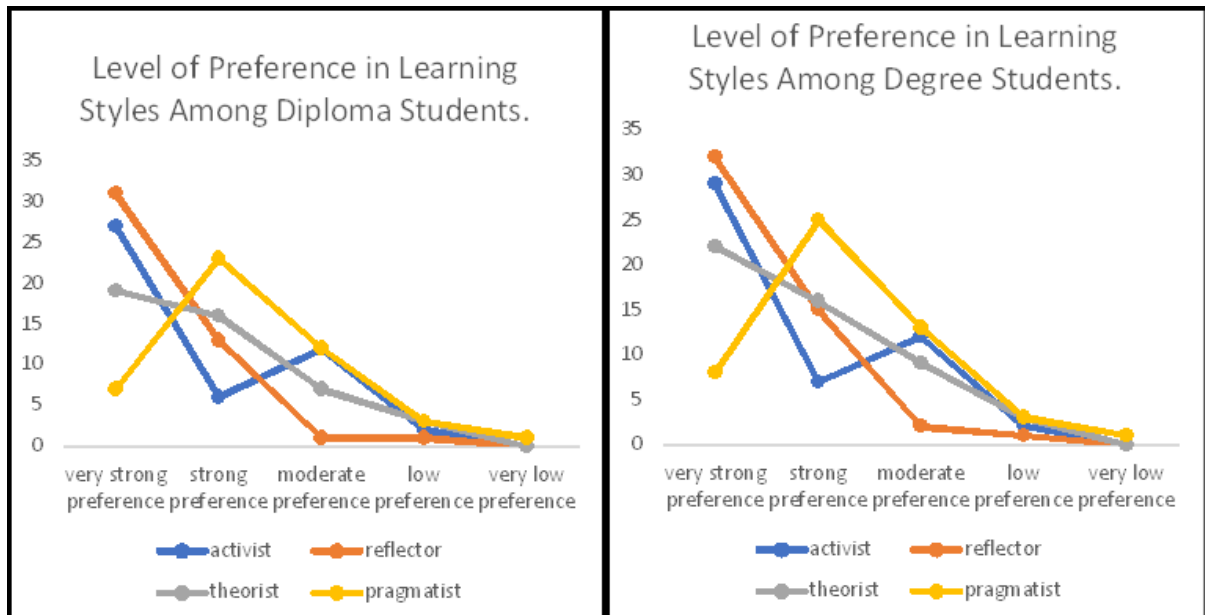


Figure 2: Level of preference in learning styles among diploma and bachelor's degree students.

Table 1: Frequency table of students' preference level in learning style.

Education Level	Preference Level	Type of Learning Style			
		activis t	reflector	theorist	pragmatist
Diploma	very strong preference	27	31	19	7
	strong preference	6	13	16	23
	moderate preference	12	1	7	12
	low preference	2	1	3	3
	very low preference	0	0	0	1
Bachelor's Degree	very strong preference	29	32	22	8
	strong preference	7	15	16	25
	moderate preference	12	2	9	13
	low preference	2	1	3	3
	very low preference	0	0	0	1

Figure 2 shows the result of students' preferred learning styles for both bachelor's degree and diploma students. The x-axis represents the bachelor's degree of preference, ranging from 'very strong preference' to 'very low preference'. The y-axis represents the number of students, ranging from 0 to 35. Each line represents a different learning style: activist, reflector, theorist, and pragmatist. For both groups, students who preferred the activist learning style start high at 'very strong preference' but drop significantly towards 'very low preference.' This suggests that a significant number of students have a very strong preference for an activist learning style.

On the other hand, students who preferred the reflector learning style showed a more balanced distribution, indicating a moderate preference among students. There is a peak at 'moderate preference,' suggesting that more students prefer this style moderately for students who preferred the theorist-leaning style. Finally, the pragmatist learning style shows a balanced trend, but fewer students have a very strong preference.

According to the line pattern, there is no difference in their preferred learning styles for both bachelor's degree and diploma students. However, more students strongly prefer the reflector and activist style compared to the theorist and pragmatist style. The graph indicates that while many students strongly prefer the activist style, the theorist style is more commonly preferred at a moderate level. This can inform educators about the diversity in learning preferences among students.

Conclusion and Recommendation

The study examined the learning style preferences among diploma and bachelor's degree students at Universiti Teknologi MARA Cawangan Pulau Pinang using Kolb's Learning Style Questionnaire. The

results reveal that both diploma and bachelor's degree students exhibit a strong preference for the activist and reflector learning styles, with a significant number of students showing a very strong preference for the activist style. Theorist and pragmatist styles were less favoured, with a more balanced distribution across the different levels of preference. Importantly, the study found no significant difference in learning style preferences between diploma and bachelor's degree students. These findings highlight the diversity in learning preferences, suggesting that educational strategies should be tailored to accommodate the varied learning styles of students to enhance their learning experiences.

Based on the study's findings, it is suggested that educators take into consideration the various learning preferences that have been observed, implement a variety of instructional strategies, and incorporate techniques that accommodate all learning styles. Future research could also focus in examining how learning style preferences changes over time as students' progress through their study years, and assess how these changes impact their academic performances.

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