

The Relationship between Students' Learning Styles and Academic Performance in Accounting

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ABSTRACT

A learning style is the distinctive method of an individual to process and comprehend new information and skills. Whereas learning a course like in the case of learning an accounting course for non-accounting students is always considered challenging as it requires students to understand the theory and application of accounting principles. As such, this paper investigates the relationship between students' learning style; adopted by non-accounting students in learning an accounting course; and the impact it has on their academic performance. The results show that there is a relationship between students' learning style and their academic performance statistically. Students who adopted pragmatist and theorist learning styles indicated a higher level of success in academic performance as compared to reflector and activist learning styles. This paper is expected to contribute to the literature of students' performance in an accounting course and learning styles adopted by the students majoring in other programmes using the Honey and Mumford learning style model.

Keywords: Accounting; Learning style; Academic performance

INTRODUCTION

The primary objective in education is the learning process, where part of the process is to understand the learning styles of students. Hence, the concept of learning styles has become the focal area in education literature, with many theories about learning styles put forward are to better understand the dynamic process of learning (Dantas and Ana, 2020). Furthermore, educational theories suggest that identifying individual learning preferences allow for a more effective learning environment. There are several learning models that identify several different approaches in learning activities that suit students' preference. This paper refers to the Honey and Mumford Model in identifying students' learning style that were adopted by students in studying accounting. The Honey and Mumford's learning style questionnaire (LSQ) measures students' learning styles into reflectors, theorists, activists and pragmatists. Each learning style has strengths and weaknesses which suggest that each style has a distinctive approach in the learning process. This leads to the question of whether any other students in different majors can adapt to the technical and quantitatively academic discipline of accounting. An accounting course is found to be exam oriented, too much workload and information; very tough and difficult with hard-to-understand concepts; these are among some of the negative perceptions of non-accounting students (Malgwi, 2006). In University Teknologi MARA (UiTM), students majoring in social science studies as well applied science studies are required to enroll in an accounting course. The program majors include computer science, sport science,

plantation and agriculture, business studies, wood industry, culinary, and few other courses. Unfortunately, accounting was found by many students as one of the toughest subjects for non-accounting majors to pass (Elias, 2005). Therefore, the main objective of this paper is to identify the relationship between students' learning style and their academic performance in an accounting course.

LITERATURE REVIEW

The emergence of various learning style models has been studied and the most distinguished model was developed by Kolb in 1984. According to Kolb, learning is a holistic process of knowledge creation which requires the interaction between social and personal knowledge. This model views learning as a circular process which involves four processes in the learning cycle. It starts with the Concrete Experience (CE) which forms the basis for observation and reflection on experiences. Then, the Reflective Observation (RO) which evaluates the situation in order to contribute to the solution of the problem that then leads to Abstract Conceptualisation (AC), which involves the generation of theories and finally, the Active Experimentation (AE), where theories and concepts are put into practice. This learning style model is the basis for the learning style model developed by Honey and Mumford in 1992.

Learning Style: Honey and Mumford Model

This model is represented by Activist, Reflector, Theorist and Pragmatist learning styles which correspond to the AE, RO, AC and CE approaches of the Kolb cycle.

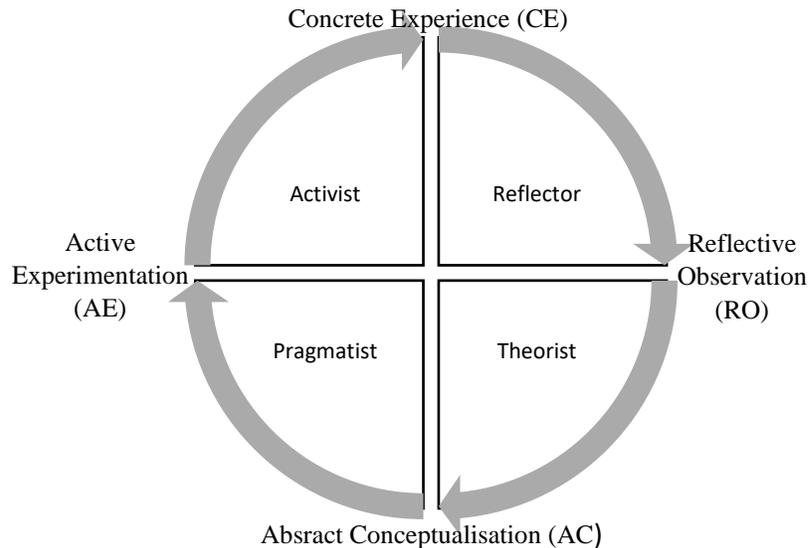


Fig 1 The Learning Style of Kolb and Honey and Mumford

Activist learners learn best in situations of concrete action, where experimentation, learning by making mistakes and being corrected is favoured. They are open-minded and consider acting first without thinking of the consequences. Some of their preferred learning activities involve group discussions, problem-solving, puzzles, and brainstorming. Reflectors share a style of learning that prefers a combination of observation and thinking to learn. They are thoughtful and consider many possibilities and implications in an act before taking a decision. They observe, listen, investigate and review what happens before making their own point. They prefer to adopt a low profile and have a slightly distant individual. Theorist learners

are more comfortable with learning from explanatory models, theories, statistical data, analysis and synthesis. Theorists adapt and integrate observations into logical sound theories because they need to understand the logic behind the actions. Discussions, reading, case studies, with stimuli that allow them time to think, seek theoretical explanations, formulate models and use problem solving are examples of activities most suitable for these learners. Pragmatist learners apply to practice analytical knowledge to create new things and solve problems. They identify new ideas and take the first opportunity to experiment with applications. They are essentially practical, down- to-earth and they make practical decisions to solve problems. Honey and Mumford (1986) suggest that, everyone tends to fall into one or two of the learning style categories. Meanwhile, Kolb and other psychologists suggest that an effective learning process should engage with each of the learning styles. The Kolb cycle shows how the learning process should be involved with each learning style.

Learning style and academic performance

This paper assesses the influence of learning styles on academic performance. Previous studies showed that there are relationships between learning style and academic performance (Nelson et al, 1993; Sandmire and Boyce, 2004; Lin and Laswad, 2011; Seiver et al, 2014; Polat et al., 2015; Gaikwad, 2017; Ling et al, 2017; Ojeh et al, 2017 and İlçin et al, 2018). Some of these findings represent students' performance in their major courses that include physiotherapy students (İlçin et al, 2018), pre-clinical medical and health students (Ojeh et al, 2017; and Sandmire and Boyce, 2004), finance students (Seiver et al, 2014), engineering students (Gaikwad, 2017 and Devrim and Eryilmaz, 2011) MBA students (Ling et al., 2017) and accounting students (Lin and Laswad, 2011). However, among the very limited studies available, not many have investigated the relationship between non accounting students' performance in accounting course and their learning style using the Honey and Mumford model.

Polat et al (2015) studied business administration students who enrolled in an accounting course and found out that there is a relationship between learning styles and academic achievement. The study reported that when students adopted a pragmatist learning style, they were more successful in their learning. On the contrary, Wilkinson et al (2014), reported that overall academic performance was not influenced by learning styles and students with high pragmatist scores did not perform better in modules when comparing medical and dental students. While a study by Akbar (2010) stated that students of humanities and basic sciences indicated that none of the Honey and Mumford's learning styles had meaningful relation with students' academic performance. The results also indicated negative and meaningful correlation was observed between activist learning styles and reflector and theorist ones.

Thus, this paper is expected to contribute to the literature of students' performance in an accounting course and learning styles adopted by the students majoring in other programmes using the Honey and Mumford learning style model. The main objective is to identify the relationship between student learning style and academic performance in accounting course. Therefore.

H₀: Learning styles and academic performance are independent.

H₁: Learning styles and academic performance are not independent from each other.

RESEARCH METHODOLOGY

Survey Design

The survey was conducted to identify students' learning style which were divided into three parts. The first part consisted of descriptive analysis of the participants. Second part of survey was to identify their learning styles based on the Honey and Mumford Model. The final part of the survey was to identify other factors that contributed to their learning process. This part was divided into five scales, where "strongly disagree" and "disagree" were identified into category "1" and "2" while "agree" and "strongly agree" into category "4" and "5". Whereas, "3" indicated neutral neither disagree nor agree. The academic performance of the students was obtained from the participants' scores in the major assessments including assignments, tests, quizzes and final examination result, which was represented by their final grade. For the purpose of analysis, the results were divided into three groups which is excellent (participants with grade A+,A,A-), average (participants with grade B+,B, B-) and poor performance (participants with grade C and below).

Sampling and descriptive analysis

The quota sampling that was taken as the sample investigated here was taken from 142 students from the Faculty of Administrative Science and Policy who enrolled for the Financial and Management Accounting (ACC466) course. The responses of the survey indicated 100% of the students participated in the survey which consisted of N = 142 (30 males, 112 females). Mean age of the participants was 20.12 years (SD = 2.5; range: 18–21 years). ACC466 is a course consisting of three main areas in accounting which are financial accounting, management accounting, and financial management comprising of about 50% theory and 50% calculation. Whereas, the Faculty of Administrative Science and Policy students were chosen for the data survey of this study as they made up the majority number of students that took this course (ACC466) in University Teknologi MARA (UiTM), Seremban Campus.

RESULTS AND DISCUSSION

Survey questions as tool of data collection were adapted from "The Learning Styles Inventory" developed by Honey and Mumford in 1992. The statistical analysis of the survey was analysed using IBM SPSS Statistics 25.

Table 1 Reliability Coefficient

Reliability Statistics	
<i>Cronbach's Alpha</i>	<i>N of Items</i>
0.780	80

Table 1 shows the reliability test of the survey that indicated that the alpha coefficient for the 80 items was 0.78, suggesting that the survey questions have reasonably acceptable internal consistency.

Table 2 The Learning Styles Adopted by Participants

Learning style	Frequency	%
<i>Pragmatist</i>	38	26.8
<i>Activist</i>	46	32.4
<i>Theorist</i>	40	28.2
<i>Reflector</i>	18	12.7
<i>Total</i>	142	100.0

Table 2 demonstrates that the learning style adopted by the participants indicated that 32.4% were represented by activist learning style and followed by theorist and pragmatist with 28.2% and 26.8% respectively. Only 12.7% participants applied reflector learning style out of 142 participants. Table 3 below discusses students' learning styles and their academic performance.

Table 3 The Learning Styles Adopted by Participants and Their Academic Performance

Percentage out of each learning style								
	Excellent		Average		Poor		Total	
	<i>Frequency</i>	<i>Percent</i>	<i>Frequency</i>	<i>Percent</i>	<i>Frequency</i>	<i>Percent</i>	<i>Frequency</i>	<i>%</i>
Pragmatist	12	31.58%	16	42.11%	10	26.32%	38	100.0%
Activist	8	17.39%	26	56.52%	12	26.09%	46	100.0%
Theorist	12	30.00%	18	45.00%	10	25.00%	40	100.0%
Reflector	4	22.22%	10	55.56%	4	22.22%	18	100.0%
Total	36		70		36		142	

In terms of academic performance, students who adopted pragmatist learning style comprised 31.58%; this was followed by theorist learning style where 30% of them had excellent academic performance which is the highest percentage of those who achieved success adopted these learning style. Technically, students adopting these styles prefer reading, experimenting with theories, ideas, and techniques, and taking the time to think about how their actions relate to reality. This might explain the fact that students who study by understanding the theory, analyse, practise, and are able to relate to the underlying theory with the real world, have a higher tendency to succeed in an accounting course. The result is partly consistent with Polat et al. (2015), where they found that students who adopted the pragmatist learning style were more successful than others. However, interestingly, the pragmatist learning style also had the highest percentage of students with poor academic performance at 26.32%, followed by the activist learning style with 26.09%. Students with activist learning style had the lowest number of students' success in academic performance (17.39%) and second highest number with poor academic performance (26.09%). It was noted that activists learn by performing actions and thus lack thinking skills. This explains why those with activist learning style were unlikely to perform academically since the accounting course required students to have critical thinking skills. Activist who learn by doing first without considering subsequent effects of their actions indicated that this learning method was not suitable for an accounting course. This research finding further explained that those who adopted the pragmatist learning style had a higher chance of either success or failure as compared to others. Those who were not successful might be due to their inability to fully execute their preferred learning style, such as the inability to find a connection between theory and practice, etc.

Table 4 below indicates the test of hypothesis whether there is a relationship between students' learning style and their academic performance.

Table 4 Test Results of Chi-Square of Independence Between Learning Styles and Performance Level

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	72.178 ^a	33	.000
N of Valid Cases	142		

The relation between the performance level and the learning styles adopted by the students are compared with the data collected from the participants. In this context, the hypotheses are as follows:

H₀: Learning styles and performance level are independent of each other.

H₁: Learning styles and performance level are not independent of each other.

When analysing Table 4, it is observed that the value of Pearson Chi-Square is lower than 0.05 and so H₀ is rejected. Therefore, it can be said that there is a relationship between the performance level and the learning styles.

CONCLUSION

This paper was carried out to investigate whether there is a relationship between students' learning style and their academic performance. The results show that there is a relationship between students' learning style and their academic performance statistically. Students who adopted the pragmatist and theorist learning style showed better academic performance in the accounting course while those who adopted the activist learning style showed low rate of success and higher rate of poor academic result. Activist learning style preferred doing and exploring new experiences, but they failed to review and make conclusions from their experiences. As such, to succeed students need to engage with each of the learning styles particularly pragmatist and theorist. These learning styles require students to learn by reading, experimenting with theories, ideas, and techniques, and taking the time to think about how their actions relate to reality. This is consistent with the nature of accounting courses which require critical thinking skills and the ability to comprehend accounting principles which is lacking in the activist learning style. Accordingly, accounting courses do not only involve numbers, data, and calculation but also requires fact-finders. In conclusion, to succeed in an accounting course, students should not rely merely on one style in the learning process. The Kolb cycle illustrates that the learning process is a learning cycle that students should complete to succeed academically. The limitation of the study was that the participants were only from the Faculty of Administrative Science and Policy. Thus, for future research, comparisons between different faculties may give insight into the different academic backgrounds and their learning styles. In addition, with more statistical analyses further significant findings can be found with regards to the relationship between students' learning style and other factors that contribute to their academic performance.

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