

Learning Styles Preferences between Gender and Majors of Programme among Politeknik Tuanku Syed Sirajuddin Student

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Abstract: This study aimed to determine the learning styles preferences between gender and majors of programme among students in Politeknik Tuanku Syed Sirajuddin. It involved 270 respondents representing the Department of Commerce student. From several model learning styles, KOLB learning styles are selected for purpose of this study. There are four major learning styles in KOLB theory including theorists, reflective, pragmatic and active. Honey and Mumford learning styles questionnaire was used as an instrument in this study on 270 of accounting, business studies and secretarial science students. The sample was randomly selected. The validity of the questionnaire was assessed through experts' views and reliability was calculated using Cronbach's alpha coefficients ($\alpha=0.74$). Data were analysed using SPSS Version 16.0 software. According to the results, 88 or 33% of male and female students preferred to use reflective learning styles. It is similarly with accounting and business student preference learning styles result. Nevertheless secretarial student preferred theorist learning styles with 26%. The findings suggested that lecturer have to improve teaching strategy while considering the students preferred teaching style. Besides that it will lead to development of new curriculum design but at the same time students need to be encouraged to learn, explore and apply new information in new ways.

Key words: KOLB theory, theorists, reflective, pragmatic, active

1.0 INTRODUCTION

Every person acquires knowledge by their own learning styles [1]. This is parallel with finding by Price [2] different personality has different learning style. Besides that, learning styles are also the way for an individual to respond to the world around him and use his learning style to interact with the environment. Learning style preferences refer to the "characteristic strengths and preferences in the ways (people) take in and process information" [3]. There are four models of learning style which are Dunn and Dunn Model, Kolb Learning Styles, Honey and Mumford: Learning Styles Questionnaire and Herman: Whole Brain Style Preference. However, none of the learning style is either good or bad. Thus, the selected learning style is depends on the individual. Students in Higher Education Institutions should be smart enough to manage their own learning styles to ensure success in

academics. Furthermore, students need suitable experience in their field of study. Not all types of learning style will give positive impact on the students experience in gaining knowledge. Through the experience of the nature of thought it is not an idea that cannot be changed but it is formed and shaped as shown from experience [4]. Therefore, learning is process in which the concept is always modified by experience.

Teaching methods used by the lecturers to make the teaching process smoothly and students learn more effectively should adapt the learning style that suits them. A typical learning situation is no longer restricted to the talk and chalk method. Learning style is not really emphasized on what is learned but instead it emphasizes on how a person learns.

Therefore, lecturers must be wise to change the teaching methods to suit the students learning style in

order to achieve an effective teaching and learning process. Therefore, it is important for a lecturer to identify the students learning style and help them to adopt a learning style that can improve motivation and achievements. In addition, a study conducted by Norhani Bakri et al [5] to identify the causes of weak performance in learning among students found that one of the causes is the technique of learning.

Based on the observations, Polytechnic student faced with problems to solve tasks such as projects, case studies and problem based assessment. All these requires students to make decisions criticises, create, evaluate, and investigate and so on. This is because, they prefer depend on lecturer rather than make on their decisions in learning process.

Since learning styles also play an important role in student achievement, then a study of learning styles must be made to solve learning problems among polytechnic students and help student become better learners. It coincides with study done by Nzesei [6] when there is strong positive and statistically significant relationship between learning styles and academic achievement for the tri modal learners, and among male and female students. This fact is reinforced with the findings from the study of Wei, Hoo & Jasmine [7] when suggested that participants' preferred learning styles have significant influence on students' academic achievements.

2.0 LITERATURE REVIEW

This research aims to determine the learning styles preferences and gender and majors of study among students in Commerce Department Polytechnic Tuanku Syed Sirajuddin. Therefore, some of the reviews previous research related to this study will be used as a reference to give students and lecturer the knowledge and insights on learning styles.

2.1 KOLB Learning Style

Kolb learning style was introduced by David Kolb in 1984. According to Leigle & Janicki [8] learning outcomes will improve when different modules used according to the type of students. In this model, KOLB defines learning style as a two scale dimensions which are how students receive information and how students process information.

Kolb [4] classifies Kolb learning styles into four main tendencies which are concrete experience, abstract conceptualization, reflective observation and active experimentation [9]. Next Kolb [4] suggests, that the individual is not directly dominated by one particular learning styles, but tend to form a specific combination of learning styles, that are classified into four (4) aspects Diverger, Converger, Assimilator and Accomodator but for the purpose of this study the focus is only on four main tendencies which are concrete experience, abstract conceptualization, reflective observation and active experimentation.

2.1.1 Concrete Experience or Feeling

As stated by Kolb [4], these people love to make comparisons, acting on feelings and do not like doing things through reading. Moreover, they like to interact with feedback, skills activities and guided self-learning that is suitable for them. Hartman [10] classify them as the pragmatists. They prefer to try out an idea, theory and available techniques to determine whether it is useful in real situations or not. Concrete experience actually doing the activity.

2.1.2 Reflective Observation or Visual

This individual is a reflective, love to try, introversion, careful when making judgments and always refer to expert to seek views and explanation [4]. Hartman [10] believes they preferred to gather information, analyze data and take time to make a decision and a conclusion. When the reflector acts, they will take into account the observations and views of others as well as what is happening and the one that is going to happen. Reflective observation prefers reflecting on performance in the activity, considering successes and failures.

2.1.3 Abstract Conceptualization or Thinking

According to Kolb [4], that individual is the one who has a logic and reflective thinking, rational evaluation, object-oriented and symbol, love 'impersonal' learning situations, which is concerned with theories, ideas and systematic analysis. Hartman [10] believe that they tend to be in a way of learning that can help them with reading and thinking. Ways like talking and discussing is not suitable for them. They are classified into individual types of theory and objective. Summary and conclusions are often made based on facts, analysis and

logic. In simple word they apply theory to the experience of doing the activity.

2.1.4 Active Experimentation or Action

Kolb [4] clarify this individual is an extrovert, dislike passive learning situation such as lectures. Besides, they prefer to be involved in a situation such as problem solving, group discussion, feedback and homework. Hartman [10] believes they love to seek new experiences, open-minded, techniques, brainstorming and 'buzz' sessions. They always consider theory and reflection to guide planning for subsequent experiences

2.1.5 Combination of Learning Styles

Since the individual is not directly dominated by one particular learning styles, so in Kolb 1984 then a specific combination of learning styles are formed. They are classified into four (4) aspects Diverger, Converger, Assimilator and Accomodator. Divergers or reflectors like to think about the activity and observe other peoples' takes on the matter. While assimilators or theorists relate the task at hand to other experiences or concepts. Converggers or pragmatists like to think about how to apply theory in practice. Accommodators or activists like to jump into trying the activity.

3.0 METHODOLOGY

3.1 Preface

This study basically uses quantitative methods involving surveys. A cross- sectional research design was used in this study to quantify the learning styles preferences between gender and majors of programme among students in Politeknik Tuanku Syed Sirajuddin.

3.2 Procedures and Information Of Data Collection

Table 3.1: Distribution and Data Collection

Method	Description
1. Population	1. Population is the number of students from Commerce Department PTSS semester 1 to semester 6. The total population stood at 876.
2. Sample	2. Samples were selected through a table [11]. 3. Total population in the table shows that the number of respondents who fit into the sample is 270.
3. Sampling technique	4. Random Sampling procedures

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|--------------------|---|
| 4. Instrument | 5. Questionnaires – Learning Styles Questionnaires by Honey and Mumford [12] consists of 40 questions. |
| 5. Data Collection | 6. The researcher select the samples according to the major of programme in Commerce Department PTSS.
7. Data were collected using questionnaire composed of two parts. The first part included questions such gender and major programme. The second part was the learning style question adapted from Honey and Mumford. |

3.3 Reliability Analysis

Reliability test using Cronbach's Alpha was conducted on most variables to measure the inter reliability. A good level of reliability and can be accepted if the alpha of more than 0.7 [13]. The variables that were tested include theorists learning style ($\alpha=0.73$) reflective learning style ($\alpha=0.70$), pragmatic learning styles ($\alpha=0.75$) and learning style ($\alpha=0.75$) showed that all the variable has good internal consistency with a Cronbach alpha coefficient above 0.7.

4.0 DATA ANALYSIS AND RESULTS

Data analysis is done to find out the results from the research that has been done. The results obtained from the analysis of SPSS and included in tables and figures for easy to read.

Table 4.1: KOLB learning styles between Gender

		Frequency	
Learning Styles		Male	Female
Theorists Learning Styles	Learning	13	44
Reflective Learning Styles	Learning	25	63
Pragmatic Learning Styles	Learning	16	55
Active Learning Styles	Learning	9	45
Total		63	207

Table 4.2: KOLB learning styles between Major Programme

Learning Styles	Frequency			Mean
	*DAT	*DBS	*DSK	
Theorists Learning Styles	41	4	26	2.5
Reflective Learning Styles	48	15	25	2.5
Pragmatic Learning Styles	35	7	14	2.4
Active Learning Styles	28	7	22	2.4
Total	150	33	87	2.45

*DAT – Diploma in accountancy

*DBS- Diploma in Business Study

*DSK – Diploma in Science Secretar

Data are reported as percentage of students in each category of learning styles. The data analysis performed clearly shows male and female students preferred to use reflective learning styles while accounting and business students preferred reflective learning styles compared than secretarial student who choose theorist learning styles.

From the result, overall commerce department student tend to choose reflecting learning styles at first place while theorists learning styles as a second place. According to Kolb model 1984, the combination of both styles will develop the assimilating learning preference. For them, ideas and concepts are more important than people. These people require good clear explanation rather than practical opportunity. They excel at understanding wide-ranging information and organizing it in a clear logical format.

People with an assimilating learning style are less focused on people and more interested in ideas and abstract concepts. People with this style are more attracted to logically sound theories than approaches based on practical value.

5.0 DISCUSSION

The study was performed on semester 1 until semester 6 Commerce Department students of Politeknik Tuanku Syed Sirajuddin. The aim of this study was to determine the preferences learning styles between gender and major of programme based on the Honey and Mumford model standard questionnaire. Awareness of learning styles of students is very helpful in education systems

and helps lecturer identify and solve learning problems of students. Similarly, it helps students learn more efficiently.

Among 270 students filling and returning the questionnaires, 88 (33%) preferred reflective learning style. Their dominant style was one of following characteristics: careful, thoughtful, good at listening to others and assimilating information. Seventy one (71) which represent 26% strengths in logical "vertical" thinking, rational and objective acquire information, good at asking probing questions and disciplined approach through lectures and they are called learners with the theorists learning style.

Furthermore, 21% which represent 16% of secretary science students preferred keen to test things out in practice these individuals are known as pragmatist. In addition another 21% preferred learning though optimistic about anything new and therefore unlikely to resist change. This group is called learners with the activist learning style. Overall, 40% of male students and 30% of female students preferred using the reflective learning style.

The implication of this study is to identify the necessity for effective learning and teaching strategy based on the majority preferences in different learning styles context. The researcher made proposals to improve further in future studies, particularly in relation to extend other major of programme in Polytechnic. The information about students learning style can be used to develop a potentially useful learning strategies [14].

6.0 CONCLUSION

As conclusion, reflective and theorist learning style is the most dominant learning style in Commerce department, Politeknik Tuanku Syed Sirajuddin. People with this learning style are best at understanding a wide range of information and putting it into concise, logical form. Individuals with an assimilating style are less focused on people and more interested in ideas and abstract concepts. Generally, people with this style find it more important that a theory have logical soundness than practical value. The assimilating learning style is important for effectiveness in information and science careers. In formal learning situations, people with this style prefer readings, lectures, exploring analytical models, and having time to think things through [15].

It is recommended that all lecturer understand students learning styles so it will have important implications for Polytechnic course design and assessment, as well as on student outcomes. This will help students to develop more enthusiasm towards the subject, enhance the learning process and perform better. Being aware of learning style can; 1) motivate lecturers to move towards learning styles of student from their own teaching method; 2) overcome students learning problem; 3) improve teaching strategy while considering the students preferred teaching style; and 4) lead to development of new curriculum design. 5) encourage students to learn, explore and apply new information in new ways.

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