STUDENTS’ LEARNING STYLE AND THEIR ACADEMIC ACHIEVEMENT FOR TAXATION COURSE – A COMPARISON STUDY

Too Shaw Warn
INTI University College, Malaysia (too_sw@intimal.edu.my)

ABSTRACT

This paper asserts to determine if there is any difference in the students’ learning style for subjects with different assessment orientation (theoretical versus computational) and if there is any association between students’ learning style and their academic performance in two final year subjects, with and without controlling for their previous academic achievement. Kolb’s (1976) Learning Style Inventory (LSI) was used to gauge the learning style of the final year accounting students of an institute of higher learning. The students were required to complete two sets of LSI questionnaires in relation to two final year subjects with different final assessment orientation, such as Malaysian Taxation which is mainly computational oriented and Financial Strategy which is mainly theoretical oriented. The students’ final examination results for both subjects were extracted for study of its association with their learning style. Students’ learning style is “Converger” dominant for Malaysian Taxation subject, but it’s “Accommodator” dominant for Financial Strategy subject. As such, there is a difference between learning style for subjects with different assessment orientation. However, there is no significant association between the students’ learning style and their academic performance, with or without controlling for their previous academic achievement. Future research could consider combining learning style with some other factors, such as study strategy, and test their association with the academic performance.

KEYWORDS

Learning style, KOLB, LSI, Academic performance, Academic achievement, Converger, Accommodator, Assimilator, Diverger

BACKGROUND

A learning style refers to a person’s preferred way of learning. There are a couple of definitions for learning style. Grasha (1990) defined it as “the preferences student have for thinking, relating to others, and particular types of classroom environments and experiences” (p.26). Cornett (1983) defined it as “a consistent pattern of behavior but with a certain range of individual variability”(p.9). A person, especially students do not learn in the same way and a number of different learning styles exist (Entwistle, 1981; Honey and Mumford, 1992; Kolb, 1976 ; Schmeck, 1988). A learning style can also change according to experience.

Different individual uses different learning style and the effectiveness of the learning style also varies among individuals.
Current research questions are as follows:-
(a) Do students employ different learning style towards subjects with different assessment orientation (i.e. theoretical versus computational basis)?
(b) Are students’ academic performances associated with their learning style?

The objectives of current research are:-
(a) to study if there is any difference in students’ learning style for subjects with different assessment orientation (i.e. theoretical versus computational basis)
(b) to study if there is an association between students’ learning style and their academic performance

LITERATURE REVIEW

Learning is defined in various ways by various researchers. Honey and Mumford (1992) states that learning exists when someone can do something that he could not do previously. They further characterize learners to four groups e.g. activists, theorists, pragmatists and reflectors.

Learning Style Inventory (LSI) by Kolb (1976) as cited by Zanich (1991) states that an effective learner relies on four different learning modes, e.g. concrete experience, reflective observation, abstract conceptualization and active experimentation. Each learner possesses different learning modes to achieve his/her learning objectives. Kolb (1976) further classifies learning style into four types, e.g. converger, diverger, assimilator and accommodator. Converger combines abstract conceptualization and active experimentation in order to test the theory in practice. Diverger combines concrete experience and reflective observation and considers specific experience from different perspectives. He is imaginative, interested in people and good at generating ideas. Assimilator combines reflective observation and abstract conceptualization and excels in the development of theoretical frameworks. Finally, the accommodator combines concrete experience and active experimentation, using the results of his/her testing as a basis for new learning. Kolb et al. (1979), as cited by Marriott (2002), classified various job profession into their learning style, as follows:-

<table>
<thead>
<tr>
<th>Learning Style</th>
<th>Profession</th>
</tr>
</thead>
<tbody>
<tr>
<td>Divergers</td>
<td>Counsellor and Personnel Manager</td>
</tr>
<tr>
<td>Assimilator</td>
<td>Scientist and Mathematician</td>
</tr>
<tr>
<td>Convergers</td>
<td>Engineer and Accountant</td>
</tr>
<tr>
<td>Accomodators</td>
<td>Risk-taker such as Businessman and Marketers</td>
</tr>
</tbody>
</table>

Students’ achievement is associated with their learning style. For instance, Cano and Justicia (1993), demonstrate that students with better academic achievement scored higher in Concrete Experience, Abstract Conceptualisation and Reflective Observation than those with poorer academic achievement. This result is further substantiated by Cano-Garcia and Hughes (2000) who also demonstrate that students with better academic achievement scored higher in Concrete Experience. This indicates that learning style is one of the predictor of
academic achievement, for study performed in Spain.

However, empirical research indicates inconclusive association between reflective thinking and the academic performance in different disciplines. For instance, Phan (2007) demonstrates that understanding (being part of reflective thinking) is related negatively with academic performance for students of educational psychology, whereas, critical thinking (part of reflective thinking) is positively associated with academic performance for students in the mathematics discipline.

Review of literature indicates that learning style preference is affected by various factors and it in return may have some degree of association with the academic achievement of the learners.

METHODOLOGY

Kolb’s (1976) LSI was used in the current research as this LSI has been tested extensively in the literature, as stated by Marriott (2002). Two sets of LSI were issued to the students pursuing Accounting Program with a local private higher education institution. Final year (Year 3) undergraduate students were being selected as sample for this study as they have gone through longer learning experiences and are better able to differentiate and adopt different learning style under different environment, as compared to undergraduates of Year 1 and 2.

The students were required to complete 2 sets of LSI in relation to two final year subjects with different final examination assessment orientation, e.g. Malaysian Taxation (mainly computational oriented) and Financial Strategy (mainly theoretical oriented). The LSI questionnaires were distributed to 70 students of three semesters in year 2008.

Since one of the objectives of this research is determining the association between the students’ learning style and their academic performance. Their academic performance for the two subjects (i.e. Financial Strategy and Malaysian Taxation) are based on their grade obtained in the final examination assessment component. The results of interim assessment are not considered in this study as both subjects have different assessment method. For instance, group assignment is one of the assessment strategies for Financial Strategy subject, but not for Malaysian Taxation subject. Therefore, only final examination component is being considered as it is a written examination for both subjects. Financial Strategy subject mainly relates to analysis of the corporation’s environment and assessment of its strategic options, within the context of the corporation’s objectives. Whereas, Malaysian Taxation subject mainly relates to the computation of individual and corporation’s tax liability and tax planning strategy. Different assessment orientation is observed for both subjects in the final examination question papers. Financial Strategy main assessment orientation is theoretical based, whereas Malaysian Taxation subject is mainly computational based.

Students’ previous academic profile was also obtained from their score for 9 modules taken at Year 1 & 2 of the Accounting program. Grade point averages were calculated to measure their previous academic profile. The students’ academic profile is used as a control variable for the study of association between their learning style and academic performance.
The theoretical framework of the current study is presented in the Appendix I.

RESULTS

Respondents’ Profile

Fifty four out of seventy students are female (77%), whereas 23% are male students. Seventy percent of the students are Malaysian, while 30% are non-Malaysian, who are from China, Indonesia, Myanmar and Nigeria.

Students’ Learning Style for Malaysian Taxation and Financial Strategy subject

The following table shows the frequency distribution of the learning style for both subjects as measured by Kolb (1976):

<table>
<thead>
<tr>
<th>Learning style</th>
<th>Malaysian Taxation</th>
<th>Financial Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency %</td>
<td>Frequency %</td>
</tr>
<tr>
<td>Converger</td>
<td>39</td>
<td>32</td>
</tr>
<tr>
<td>Diverger</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Assimilator</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>Accomodator</td>
<td>34</td>
<td>50</td>
</tr>
</tbody>
</table>

Above table shows that student from the same academic program practices different learning style when dealing with different subjects in the course. A “Converger” style is being observed for accounting students doing the Malaysian Taxation course. According to Kolb (1976), students who practice more in both “Abstract Conceptualization” and “Active Experimentation” learning styles are said to be a “Converger” dominant.

However, as for the Financial Strategy subject, more students seem to adopt “Accomodator” style, in preparing for their final examination. Students who practice more in both “Concrete Experience” and “Active Experimentation” are said to be “Accomodator” dominant.

A Converger dominant person is someone who relies on logical reasoning, rather than feelings, when making decisions. In addition, he learns better through work examples and participation in discussion, rather than watching what other do or listening to what others say. This portrays that the students taking the Malaysian Taxation subject are active learners in which they would participate and explore new experiences, by relating it to the concepts, rather than just being the observers, in their learning cycles.

On the other hand, an Accomodator dominant person is a person who is action-oriented and a risk taker. He is the person who would carry out plans and experiments and involving himself in new experiences.
As such, there is a difference in the types of learning style for students who are preparing for the final assessment of theoretical (i.e. Financial Strategy subject) and computational (Malaysian Taxation subject) based subject.

**Students’ Learning Style and Their Academic Performance**

Current study shows no significant association between the students’ learning style and their academic performance for Malaysian Taxation and Financial Strategy subject, with or without controlling for the students’ previous academic achievement. This result is not surprising, giving the inconclusive association between the learning style and academic performance produced in prior literature. As cited by Phan (2008), positive association found between the two variables for mathematics discipline (Phan, 2006), negative association for education psychology subject (Phan, 2007) and no significant association for curriculum studies (Phan, 2006).

**Conclusion**

This study aligns with the results from Kolb et al. (1979), as cited by Marriott (2002), that a person who is CONVERGER dominant uses hypothetical-deductive reasoning in handling a situation. He is actively applying concepts in answering a given problem. Since Malaysian Taxation is a subject of mainly computational based, where there is only a single solution (i.e. based on the tax law principle) to a problem, Converger style of learning is mainly adopted for this subject.

This research also aligns with the contention by Kolb et al. (1979), as cited by Marriott (2002), that a person who is ACCOMODATOR dominant will normally carry out plans and experiments and tends to solve problem in an intuitive trial and error manner, and this is especially true for business study. As for Financial Strategy subject which is mainly theoretical based and business strategy-focused, there is no one way of solution available. The student has to plan and try out various solutions for a problem.

As such current research indicates to the learners that subjects with different assessment orientation may need adoption of different learning style as the requirement of the assessment differs between subjects of theoretical and computational based.

No significant association observed between the learning style and the academic performance for both subjects. There could be other possible predictor of academic performance. It may be attributable to the study strategy (surface or deep), which has been proven to have significant relationship between the two constructs by (Cano, 2005; Fenollar et al., in press; Phan, 2006; Simons et al., 2004).as cited by Phan (2008).

As such, it is recommended that future research may study the association between the learning style, combined with the study strategy, with the academic performance. The study strategy coupled with the learning style may be a booster for the relationship with the academic performance.
REFERENCES


APPENDIX I

The graphical theoretical framework for the current research is as follows:

**Theoretical Framework**

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Students’ Learning Styles

Measured by

Kolb’s LSI (1976)
1. Concrete Experience (CE)
2. Active Experimentation (AE)
3. Reflective Observation (RO)
4. Abstract Conceptualization (AC)

Association with

(1) 2 subjects (Financial Strategy & Malaysian Taxation)
(2) Academic performance

Controlling factor: Student’s previous academic achievement
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