

The Relationship between School Attitude and Learning Style among Social Science Students in Malaysian Private Higher Education Institutions

Syarifah Mastura Binti Syed Abu Bakar^a, Malathi Karumanan^{b*} & Hanaliza Binti Kamis^b

^a*Nilai University, No 1, Persiaran Universiti, Putra Nilai,
71800 Nilai, Negeri Sembilan*

^b*KDU University College, Jalan Kontraktor U1/14, Seksyen U1,
40150, Shah Alam, Selangor*

Abstract—School attitude is an important element that stimulates students' motivation to perform well at college/university, while learning style refers to students' ability to acquire knowledge and participate in the learning experience. One of the more popular instrument to identify this learning style is VARK – visual (V), aural (A), read/write (R) and kinesthetic (K). This is particularly important for private higher education institutions (PHEI) in Malaysia as the industry is extremely competitive and the need to brand the institution for sustainable competitive advantage by matching school attitude with learning style becomes crucial. With this background, the research aims to examine the relationship between high/low school attitude and learning style among social science students in PHEI. This was undertaken using the School Attitude Assessment Survey and VARK Learning Style Inventories administered to 300 social science students in two PHEI in Klang Valley. Results of the study revealed that students with high school attitude were positively correlated to visual, aural, read and write, kinesthetic and mixed leaning styles. Furthermore, mixed learning style was the preferred learning style for both students' with high and low school attitudes.

*Corresponding author: malathi.k@kdu.edu.my

Keywords—VARK, learning style, school attitude, private higher education.

I. INTRODUCTION

There is a widespread perception that private higher education (PHE) providers do not enhance the quality of higher education in Malaysia (Wilkinson and Yusoff, 2005). Contributing factors to this perception have been linked to dissatisfaction towards teaching methods (Sohail and Saeed, 2003) and value/quality of education (Zain, Jan and Ibrahim, 2013). Existing researches have mainly focused on the influence of VARK (Visual, Aural, Reading/Writing, Kinesthetic) among clinical and hospitality students, taking into account variables such as conventional/online/blended learning and gender. This creates an opportunity space for investigating the role of VARK and students' high/low school attitude in PHE institutions (PHEI).

II. RESEARCH QUESTIONS

The research aims to answer two questions as seen below:

1. What is the relationship between students' school attitude and VARK learning style among social science students in PHEI?
2. Which is the prevailing learning style that corresponds with high/low school attitude among social science students in PHEI?

III. LITERATURE REVIEW

The literature review will present the main ideas of discussion and important findings from relevant academic sources relating to the key areas of school attitude, VARK Learning Style Inventories and Malaysian PHEI.

A. School Attitude

There are many school related factors that can be associated to students' achievement. While Bouchev and Harter (2005) linked achievement to students' perceptions of their academic abilities, Wei and Williams (2004) related it to the feeling of belonging to and pride in their school. Needham, Crosnoe and Muller (2004) stated that achievement can also be based on students' perceived relationships with teachers.

In addition to these factors, Phalet, Andriessen and Lens (2004) stated that the level of performance can be based on students' motivation to perform. They added that this motivation can be influenced by how much the students value schooling and education.

Since most of the existing researches are on school related attitudes, McCoach and Siegle (2003) suggested that an integrated assessment of school attitude and motivation is needed for measuring beliefs predictive of scholastic achievement. The School Attitude Assessment Survey – Revised (SAAS-R) by McCoach and Siegle (2003) was developed with this end in mind. The instrument measures students' academic self-perception, attitude toward school, attitude toward teachers, goal valuation and motivation/self-regulation. Together these five factors aim to predict students' school attitude.

B. Learning Styles

McLeod (2010) emphasized that by knowing the learning style of the individual, it helps the learning to be focused on the preferred method. Grasha (1996, p.41) has defined learning style as "personal qualities that influence a student's ability to acquire information, to interact with peers and the teacher, and otherwise participate in learning experiences". Despite the fact that there are so many studies on learning styles, Anderson and Adam (1992) found that there is still little agreement on the precise definition of learning style. This is supported by Scott (2010) who observed that the term 'learning style' is characterised by many confusions on the concept itself and therefore, it is difficult to establish a definition which can be generally accepted.

As Kwakman (1999) stated, learning is a social process. He identified that the individual characteristics and the psychological meaning of the learning situation may influence the learning process. There is a need for both the educator and the learner to identify the learning preferences in order to match the teaching style and learning environment with the

learner needs. There are many theories and instruments that can be used to identify the learning preferences. A few key examples of theories are that of Mills's (2002), Felder–Silverman (1988) and Kolb's (1984).

One of the common learning style instrument is VARK which was developed by Fleming (2001; Fleming and Mills, 1992). VARK is an acronym that stands for Visual (V), Aural (A), Read (includes writing) (R), and Kinesthetic (K). According to Fleming (2001), these are the sensory modalities that humans use for learning and processing information. VARK learning styles inventory is an instrument that can be used to measure instructional preferences independent of personality characteristics, information processing strategies and social interaction strategies in the classroom. Individuals who prefer visual, learn and process information which is presented in charts, graphs and other symbolic devices instead of words while aural individuals prefer to have spoken lessons. Read/write individuals prefer to learn from printed text and kinesthetic individuals prefer to use direct practice in their learning process.

VARK questionnaire uses observations of behaviors and concrete incidents that respondents can recall or imagine and identify (Fleming, 2001). VARK is popular due to its face validity and simplicity (Leite, Svinicki and Shi, 2010) and is designed to help people create awareness on learner differences and therefore inspire the educators to use wide ranging instructional methods. The instrument has been extensively used for students to identify their own learning style and preferences and thus help the students to better plan their learning strategies based on their strengths (Fleming, 2001).

C. Relationship between School Attitude and Learning Style

Currently there seems to be no existing literature that review, research and/or report on the relationship between school attitude and learning style. A contributing reason can be the fact that the SAAS-R was initially developed to differentiate between under achieving and high achieving gifted students. Although researchers such as Suido, Shaffer and Shaunessy (2008) as cited in Perez, Costa and Corbi (2013) have tried to extend that boundary to ordinary high school students, no other studies have been found investigating SAAS-R and students of higher learning institutions.

D. Malaysian Private Higher Education Institution

In Malaysia, the term higher education refers to all post-secondary education (Wilkinson and Yusoff, 2005). However, in this paper, the definition will be confined to institutions offering tertiary education leading to the award of certificates, diplomas and degrees (undergraduate and post graduate). Within this scope of definition are included private colleges, university colleges, universities and foreign university branch campuses. Wilkinson and Yusoff in their 2005 comparative study of public and PHE in Malaysia has indicated Arts and Social Sciences, Economics and Business and Information Technology as prominent fields of study (Wilkinson and Yusoff, 2005).

There are 470 PHEI registered with Malaysian Qualifications Agency (MQA, 2015). These institutions comprise 52.5% of student enrolment in Malaysian higher education totalling to 921, 797 students (Jamshidi, Arasteh, NavehEbrahim, Zeinabadi and Rasmussen, 2012). The Malaysian government has actively supported this industry to develop their own differentiated education strategy (Sohail and Saeed, 2003) in line with developing nations' emphasis on intellectual capital and knowledge based societies that can raise the country's economic growth (Jamshidi et al., 2012).

Within the scope of this research, the literature review has shown that there is a widespread perception that PHEI providers do not enhance the quality of higher education in Malaysia (Wilkinson and Yusoff, 2005). Contributing factors to this perception have been linked to dissatisfaction towards teaching methods, student-faculty interactions and dissatisfaction with class sizes among foundation and first year degree students who prefer smaller size classes (Sohail and Saeed, 2003). Zain, Jan and Ibrahim (2013) are also in agreement by stating that cost of education; value/quality of education; type, content and structure of programs; and faculty qualifications as some of the determinant factors of students' choice of PHEI in Malaysia. They further stated that these have increased the challenges facing PHEI more so when public institutions are gradually increasing the quality of education offered.

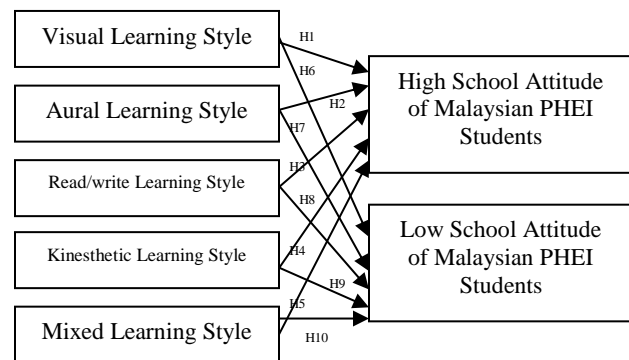
The review thus far would have clearly highlighted the need for Malaysian PHEI to pursue market driven strategies that are responsive to the needs and wants of consumers (Jamshidi et al., 2012; Sohail and Saeed, 2003). This is especially relevant considering the intensely competitive nature of the industry (Loh, 2011; Zain, Jan and Ibrahim, 2013) and to appropriately position PHEI when Malaysians are constantly weighing the quality of education between both the public and private sectors (Zain, Jan and Ibrahim, 2013). It has been previously established that value/quality is an influencing factor in the choice of PHEI (Jamshidi et al., 2012; Loh, 2011). Loh (2011) has further stated that market leadership in Malaysian PHEI can be established through sustainable competitive advantage stemming from image and branding that guarantee a specific level of quality. This should be taken as a directional cue by the PHEI institutions considering that students in PHEI do not consider fees (as PHEI charges higher fees than public sectors) to be a barrier in pursuing higher education, where in the same research teaching methods and student-faculty interactions have been highlighted as sources of student dissatisfaction (Sohail and Saeed, 2003).

With the backdrop of this review of past researches, the following hypotheses were formulated:

- H1: Students with high school attitude are associated to visual learning style.
- H2: Students with high school attitude are associated to aural learning style.
- H3: Students with high school attitude are associated to read/write learning style.
- H4: Students with high school attitude are associated to kinesthetic learning style.

- H5: Students with high school attitude are associated to mixed learning style.
- H6: Students with low school attitude are associated to visual learning style.
- H7: Students with low school attitude are associated to aural learning style.
- H8: Students with low school attitude are associated to read/write learning style.
- H9: Students with low school attitude are associated to kinesthetic learning style.
- H10: Students with low school attitude are associated to mixed learning style.

IV. RESEARCH MODEL



V. METHODOLOGY

This research will be a quantitative research involving personally administered survey to social science students at PHEI. The questionnaire was administered to 300 social science students at KDU University College (KDU) and INTI University College (INTI). These institutions are situated in Klang Valley (Selangor), a region defined by ten municipalities which together accounts for 20% of Malaysia's population (Pemandu, 2012) and as such will be a representative study in this research.

A. Research Instrument

Section one of the questionnaire asked students to identify general information about themselves such as age, level of education and program specialization.

Section two assessed the students' school attitude. The 35 questions in this section allow respondents to be categorized into students with high or low school attitude. The School Attitude Assessment Survey – Revised (SAAS-R) by McCoach and Siegle (2003) measures students' academic self-perception (7 questions), attitude toward school (5 questions), attitude toward teachers (7 questions), goal valuation (6 questions) and motivation/self-regulation (10 questions). Perez, Costa and Corbi (2013) confirm that the five-factor structure of the instrument is valid with high levels of internal consistency reliability among students in general education from their review of the study done by Suldo, Shaffer and

Shaunessy (2008).

The final section helps to identify students' learning style through 16 questions centered on visual, aural, reading/writing and kinesthetic learning styles. VARK Learning Style Inventory was developed by Fleming (2001; Fleming and Mills, 1992) to measure learning preferences and its validity has been established in numerous studies such as that of Leite, Svinicki and Shi (2010).

B. Sampling

This study utilized non-probability sampling as its sampling design. This is because it involves collecting information from members of the population who are conveniently available to provide it. Therefore, convenience sampling was chosen (Cooper, 2014). Of the 300 questionnaires administered, 74% (222 questionnaires) was usable for the purpose of this study.

C. Data Collection Method

Data collection method is via personally administered questionnaire where completed responses can be collected within a short period of time and any doubts the respondents might have can be clarified immediately (Cooper, 2014).

D. Data Analysis

Data analysis was done using Statistical Package for Social Sciences (SPSS Version 20). Descriptive and correlation testing were used to analyze the data.

VI. RESULTS

The primary purpose of this study was to compare VARK learning styles between students with high/low school attitude. Using descriptive analysis, the study is significant and reliable to be conducted (Cronchba alpha is 0.74), with reliability value done on all variables. Table I shows the descriptive statistics of students' learning style and level of school attitude.

TABLE I
STUDENTS' SCHOOL ATTITUDE
AND LEARNING STYLE

Types of Learning Style	High School Attitude	Low School Attitude	Total
	N	N	
Visual (V)	9	2	11
Aural (A)	13	9	22
Read and write (R)	29	16	45
Kinesthetic (K)	13	9	22
Mixed (M)	79	43	122
Total	143	79	222

Table 1 summarizes the results of the five-factor school attitude structure (attitude toward school, academic self-perception, attitude towards teachers, goal valuation and motivation/self-regulation). 64% of the total respondents have high school attitude and 36% of the respondents are

categorized as low school attitude. This study found that students with high level of school attitude are positively correlated with visual, aural, read and write, kinesthetic and mixed learning styles, while students with low school attitude showed no correlation with any of the learning style. It also clearly highlighted that mixed learning style was the preferred learning style among both students with high and low school attitudes.

Based on Figure 1, female students are more of read/write, kinesthetic and multi learners while male students are more of read/write, aural and mixed styles of learning. Overall, Figure II shows that the number of female students (N= 126) is more in both attitude levels compare to male students (N=96). In both attitude level, female shows 55% in high attitude and 65% in low attitude level. While male shows lower percentage than female, 47% in high attitude level and 53% in low level attitude.

FIGURE I
STUDENTS' GENDER AND LEARNING STYLE

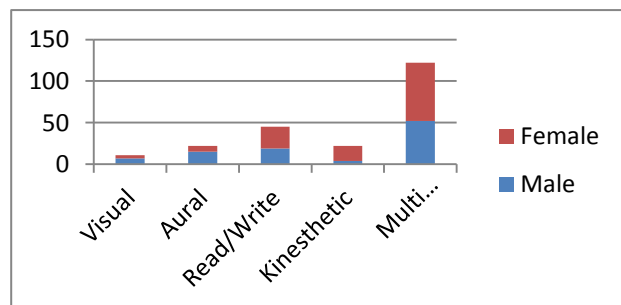
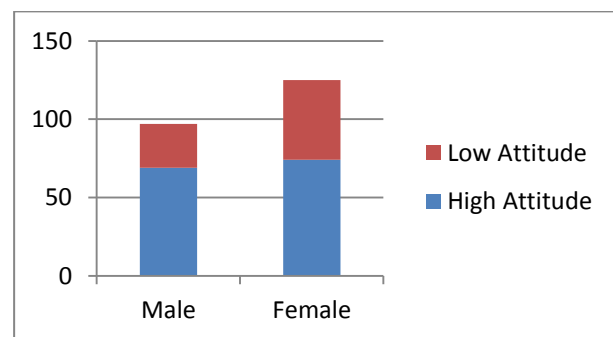


FIGURE II
STUDENTS' GENDER AND STUDENTS' SCHOOL ATTITUDE



VII. DISCUSSION

The study found that there is a positive correlation between high school attitude and VARK learning style among students in private higher education in Malaysia. As such, SAAS-R can be a reliable predictor of learning style/s especially among students with high school attitude. The results indicate that H1, H2, H3, H4 and H5 are supported. This study shows that 55% of respondents (122 respondents) have more than one type or mixed learning style. As such, PHEI can utilize this measure to ensure the teaching and learning environment

match that of the students' learning style. Furthermore, as more than half of the respondents (43 out of 79 respondents) with low school attitude have indicated mixed learning as their preferred style, this could also help the faculty in curriculum and assessment design intended to improve the performance of this group of students.

VIII. LIMITATION AND IMPLICATION

As this was an exploratory cross-sectional study, this research is unable to gauge any changes in learning style preferences over time. Studies that examine students longitudinally are needed. This study is conducted only on a small size of population of students studying in two PHEI in Klang Valley. Therefore, to generalise the results for larger group of students in PHEI, the study must be extended by taking a comprehensive sample of all the students in PHEI as well as across various streams and PHEI in Malaysia.

This research will allow a new understanding on the different needs of social science students with regards to learning styles. This will allow educators to employ various techniques for equal development of all students in a classroom. At the same time, student's awareness of their preferred learning style is important to enable them to learn effectively.

Finally, understanding the learning styles of students (especially those of low school attitude) will help to develop suitable modifications in curriculum and assessment. A study that examines a group of students' school attitude before and after changes in teaching and learning environment that is catered towards mixed learners can ascertain whether this change enables to shift students' from low to high school attitude.

IX. CONCLUSION

School attitude and learning style are both important elements in faculty-student teaching and learning process. Findings clearly support the importance of mixed learning style in class especially for those having low school attitude. The study revealed important implications to educators, program designers, evaluators and counsellors of PHEI who are aiming and targeting for the performance of students as an instrument to strategically position their institutions.

ACKNOWLEDGEMENT

The authors will like to express their sincere appreciation to KDU University College for the research grant awarded that enabled the undertaking of this study.

REFERENCES

[1] Anderson, J. A. and Adams, M., "Acknowledging the learning styles of diverse student populations: Implications for instructional design," In L. B. Border & N. V. N. Chism (Eds.), *Teaching for Diversity*, San Francisco: Jossey-Bass, pp. 19-34.

- [2] Bouchev, H. A. and Harter, S., "Reflected appraisals, academic self-perceptions, and math/science performance during early adolescence," *Journal of Educational Psychology*, vol. 97, pp. 673-686, 2005.
- [3] Cooper, D.R., *Business Research Methods*. 6th edition. Boston: McGraw-Hill, 2014.
- [4] Felder, R. M. and Silverman, L. K., "Learning and teaching styles in Engineering education," *Engineering Education*, vol.78, no.7, pp. 674-681, 1988.
- [5] Fleming, N. D., "Teaching and learning styles: VARK strategies," Christchurch, New Zealand: Author, 2001
- [6] Fleming, N. D. and Mills, C., "Not another inventory, Rather a catalyst for reflection." *To Improve the Academy*, vol. 11, pp.137-143, 1992.
- [7] Grasha, A. F., *Teaching with Style*. Pittsburgh: PA-Alliance, 1996.
- [8] Heck, R.H., "Teacher effectiveness and student achievement", *Journal of Educational Administration*, vol. 47, no.2, pp. 227 - 249, 2009.
- [9] Jamshidi, L., Arasteh, H., NavehEbrahim, A., Zeinabadi, H. and Rasmussen, P. D., "Development patterns of privatization in higher education", *The International Journal of Higher Education and Educational Planning*, vol.64, no.6, pp. 789-803, 2012.
- [10] Kolb, D., *Experiential learning: Experience as the source of learning and development*, New Jersey: Prentice-Hall, 1983.
- [11] Kwakman, C. H. E., "Teacher learning during the career," *Doctoral Dissertation*, Nijmegen University, The Netherlands, 1999.
- [12] Leite, W. L., Svinicki, M. and Shi, Y., "Attempted validation of the scores of the VARK: Learning styles inventory with multitrait-multimethod confirmatory factor analysis models," *Educational and Psychological Measurement*, vol.70, no.2, pp. 323-339, 2010.
- [13] Loh, T. H., "Sustainable competitive advantage for market leadership amongst the private higher education institutions in Malaysia," *Journal of Global Management*, vol.2, no.2 pp. 227-252, 2011.
- [14] Malaysian Qualification Agency, Malaysian Qualifications Registry, 2015.
- [15] McCarthy, B., *Teaching to Learning Styles*; London: Routledge, 2004.
- [16] McCoach, D.B. and Siegle, D., "The School Attitude Assessment Survey-Revised: A new instrument to identify academically able students who underachiever", *Educational and Psychological Measurement*, vol.63, no.3, pp. 414-429, June 2003.
- [17] McLeod, S.A. (2010). Kolb The Learning Style Inventory. Retrieved from <http://www.simplypsychology.org/learningkolb.html> on 23 August 2015
- [18] Mills, D. W., "Applying what we know: Student learning styles," 2002.
- [19] Needham, B. L., Crosnoe, R. and Muller, C. 2004. Academic failure in secondary school: The inter-related role of health problems and educational context. *Social Problems*, 51, 569-586.
- [20] Phalet, K., Andriessen, I. and Lens, W., "How future goals enhance motivation and learning in multicultural classrooms," *Educational Psychology Review*, vol. 16, pp. 59-89, 2004.
- [21] Perez, P.M., Costa, J.L.C. and Corbi, R.G., Psychometric properties of the Spanish adaptation of the School Attitude Assessment Survey - Revised," *Psicothema*, vol.26, no.3, pp.423-430, 2014.
- [22] Scott, C., "The enduring appeal of learning styles," *Australian Journal of Education*, vol. 54, no.1, pp. 5-17, 2010.
- [23] Sohail, S. M. and Saeed, M., "Private higher education in Malaysia: students' satisfaction levels and strategies implications," *Journal of Higher Education Policy and Management*, vol.25, no.2, pp. 173-181, 2003.
- [24] Wei, H. and Williams, J. H., "Relationship between peer victimization and school adjustment in sixth-grade students: Investigating mediation effects," *Violence and Victims*, vol. 19, pp. 557-571, 2004.
- [25] Wilkinson, R. and Yusoff, I., "Public and private provision of higher education in Malaysia: A comparative analysis," *Higher Education*, 50, no. 50, pp. 361-386, 2005.
- [26] Zain, O. M., Jan, M. T. and Ibrahim, A. B., "Factors influencing students' decision in choosing private institutions of higher education in Malaysia: A structural equation modeling approach," *Asian Academy of Management Journal*, vol.18, no.1, pp. 75-90, 2013.

All three authors have between 10-15 years' experience in the Malaysian Private Higher Education Industry (PHEI) ranging from lecturing to managerial positions, mainly involving collaboration programmes with institutions of higher learning from UK and Australia