INTERNATIONAL STUDENTS' LEARNING STYLES AND PERCEPTION IN UNIVERSITI PENDIDIKAN SULTAN IDRIS

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Abstract
This study reports the learning styles of international students of the Universiti Pendidikan Sultan Idris (UPSI) in Malaysia. There were 50 international students selected randomly from the university in this study. Three research questions were answered by employing an instrument consisting of 44 questionnaire items. Result showed that the international students had eight different learning styles. Global learners, verbal learners and reflective learners shared the same highest score compared with others. The centre focus of this study is the learning problem and experience of the international students. An interview was carried out with six international students for further investigation. The qualitative responses showed that they had overcome the problem with peer learning. This study suggests that a combination of traditional lecture and student-centered teaching methods would be suitable for the international students' learning styles. In addition, a further study about the rate of return of having the international students in the university can be done.

Key words: international students, learning styles, learning problem, learning experience.

Introduction

Local colleges and universities are encouraged by the Ministry of Higher Education of Malaysia to take international students to study in their academic programs. There were 80,770 international students from over 150 countries in 2009, 80,000 students in 2010 and 90,000 students in 2011, who studied in Malaysia (Chi, 2011, 11 September,). Majority of them are from Iran, Indonesia and China. The presence of international students is important because it becomes a source for national revenue and university funding. The increase of international students contributed about RM600 billion to Malaysia's national revenue (Chi, 11th September, 2011). About 80 percent of the international students have enrolled in private universities and another 20 percent are in public universities.

The Universiti Pendidikan Sultan Idris, UPSI (Sultan Idris Education University) is a public university that has experienced an increase in the number of international students. It increased from 79 students in the year 2010 to 180 students in 2012 (Ministry of Higher Education, 2011). The university has to transcend national borders to attract more international students. The presence of international students has benefited the university in financial aspect, as stated earlier. However, teaching international students becomes a big challenge for its academic lecturers. Most of the international students are facing learning difficulties after they enter the university. Therefore, it is important to study the international students' learning experience in order to find out whether the current education system is able to meet their needs.

Problem Statement

Most of the international undergraduate students range from 19 to 20 years old. They may face cultural issues, homesickness, language barriers and pressure to get a degree scroll within four years. Despite the entrance requirements, they may face difficulties to pass their English Course.

The main problem of the international students is their poor academic performance. Referring to their previous performance, 95 percent of them did not have good performance during examination (Faculty of Management and Economics, 2011). Their level of performance may be due to their learning style. Prior researches indicates that majority of the Asian students are generally regarded as rote learners (Chow, 1995; Martinsons & Martinsons, 1996; Neild, 2007; Tan, 2011). They are thought to learn by rote and memory. Students may also lose their study interest when they are not able to understand and get poor performance. Performance level differences between students are the focus of lecturers and this study is to help international students to develop proper learning methods. The key successes in teaching may ultimately depend on understanding the learning styles of students who enroll in the faculty courses. Many lecturers will use same teaching technique and hope to cover most students' learning styles during their lectures (Diaz & Cartnal, 1999). This method would not suit to all the students, especially international students. Different learning styles may need different teaching method to help them for better understanding. Besides, less literature of international students' learning styles in Malaysia was found in the review of relevant literature for this study. This is the research gap that yet to be filled.

Purpose of the Study

The main purpose of this paper is to investigate international students' learning styles and their learning experience in management and economics courses. This study is important because it may provide insights for future course enhancement on how to teach international students. The objectives of this study are as follows:

1. To investigate international students' learning styles.

2. To understand the learning difficulties faced by international students.

3. To get feedback from international students about their learning experiences.

Conceptual Framework

The conceptual framework of this study is based on the work of Felder and Silverman (1988) entitled "Index of Learning Styles". According to Felder and Silverman (1988), learning preferences can be divided into four dimensions of learning styles. Each dimension has two different styles: Sensing and Intuitive Learners, Visual and Verbal Learners, Active and Reflective Learners and Sequential and Global Learners. Based on their theory, a conceptual model of the present study is built as presented in Figure 1.

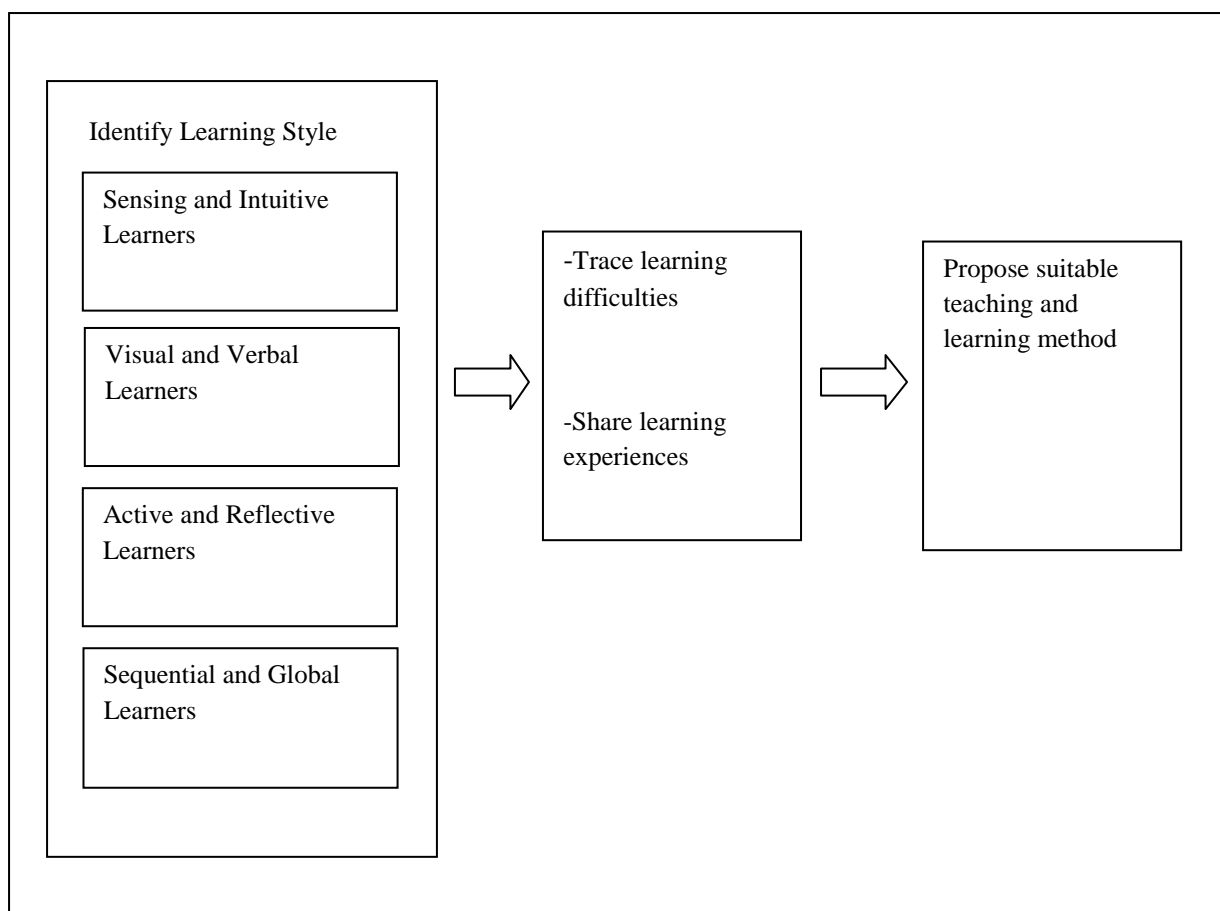| Identify Learning Style		
Sensing and Intuitive Learners	-Trace learning difficulties	Propose suitable teaching and learning method
Visual and Verbal Learners		
Active and Reflective Learners	-Share learning experiences	
Sequential and Global Learners		

Figure 1: Conceptual Framework Based on Felder and Silverman (1988) Learning Styles

For this model, conceptual framework based on Felder and Silverman (1988) is to identify international students' learning styles. Besides, international students' learning difficulties could trace after identifying their learning styles. They shared their learning experiences through interview. Then, a proper teaching and learning method should propose dimensions of learning styles that give them a better learning atmosphere. Lecturers could instruct a lesson with multiple learning styles, which could challenge the students to expand their range of learning styles and aptitudes at a slower pace (Romanelli, Bird & Ryan, 2009). The students could bring extra focus on their weaker areas and ask additional assistance from the lecturers. They could present their own study techniques that complement their learning styles.

Methodology

Research design

This study employed a mixed method (Quan + qual) explanatory design. The use of this method was used to provide a richer picture of the nature of international students' learning styles than using a single method.

A descriptive method was applied in the quantitative study. The selection of a descriptive method was appropriate because it allowed for comparing the means to check for the learning styles. A follow-up interview was employed in the qualitative study. The qualitative results provide additional explanations to the research questions.

Quantitative samples

The samples were 50 undergraduates from a public university in Malaysia. They were selected randomly according to basic course of study, in order to get a clearer picture for the international students' learning styles.

Qualitative subjects

Six students were selected according to the purposive sampling technique as qualitative subjects. Although gender was not a selection criterion for this study, it was noted that three subjects were female and the other three were male students. It was a balance between male and female subjects. The purpose of the interview is to provide students an opportunity to express their learning experience. They were three from China, two from South Korea and only one from the United States. This group of students was considered to represent a meaningful yet manageable analysis within the context and content of a study. The interview also provides information about the difficulties they faced while learning in Malaysia.

Instrument

A set of questionnaire adapted from Felder & Soloman (n.a.) is employed for this study. The questionnaire instrument has got consent from the North Carolina State University and its copyright is under the same university. The structured questionnaire consists of 44 close-ended items. All the items are phrased based on 2-point, A and B only. Each response corresponds to either one of the categories related to the four dimensions (Felder & Spurlin, 2005). This questionnaire has been designed to access four dimensions of learning style: Sensing and Intuitive Learners, Visual and Verbal Learners, Active and Reflective Learners and Sequential and Global Learners. Felder (1993) points out that an individual's preference on a given scale may be strong, moderate or almost non-existent.

Validity and reliability of the instrument

Contact and face validity must be measured to ensure a set of systematic assessments can be employed in this study. First of all, several reports about the validity of the instrument had been published, the T-test correlation coefficients varied between .7-.9 for an interval of four weeks test (Felder & Spurlin, 2005). Besides, the reliability of the instruments had been measured by using Cronbach's alpha coefficient greater than 0.5. However, the reliability of the instrument had been measured again in order to check whether the suitability of the instrument in measuring the learning styles of international students in Asia. After running the data, the results indicated that all the items were high reliability ranging from 0.924 to 0.929. These results are in line with the benchmark that an instrument with the coefficient of 0.70 or above has a high reliability standard (Sekaran & Bougie, 2010). Therefore, all the items are reliable and usable.

Results

a) Findings from questionnaire

There are eight perceptual learning styles in the distribution: global learners, verbal learners, reflective learners, active learners, intuitive learners, sensing learners, sequential learners and visual learners. Surprisingly, 13 of 50 participants indicated equivalent score for two or three learning preferences. It was 26% of the analyzed participants.

Most of the analyzed participants were global learners 21.3 % (13 participants), followed by 19.0% (12 participants) verbal learners and 17.0 % (11 participants) of reflective learners. There were 16% (10 participants) of active learners and 11.1% (7 participants) of intuitive learners. Not many of the participants were sensing learners with 6.3% (4 participants) and sequential learners with 6.3 % (4 participants) too. Only 3.0% (2 participants) of the learners was visual learners. An illustration of graph is shown in Figure 2.
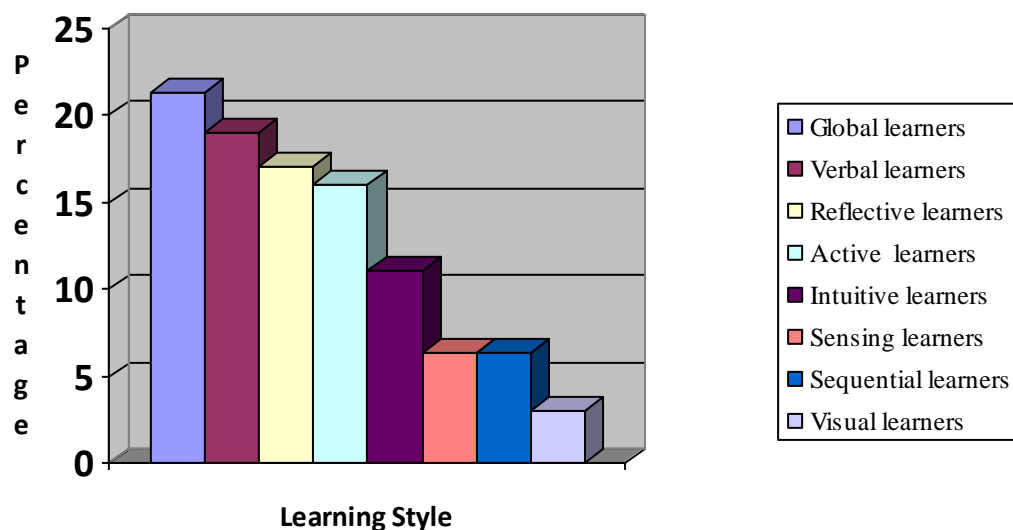

Figure 2: The Learning Styles of International Students

b) Findings from interviews with international students

Learning difficulties

The first question posed in the research was whether the students were facing learning difficulties while studying in our university. All of them said that they really faced the problem when they first arrived. The data related to the question is presented as follows

Paragraph 1

Students	Students' Response
G1	*Yes, there is a lot of problem.*
G2	*Of course.*
G3	*Yes, really a lot.*
B1	*I can't imagine about the problem.*
B2	*A lot.*
B3	*Expected a lot of problem.*

The international students generally come from Asian countries. Most of them are from non-English learning backgrounds. Therefore, most of them were facing language problem. Even though they had attended one semester English intensive class, the learning problems still occur especially during their first semester.

While they learned in lecture, they had to master listening, writing and speaking. Since they were non-native speakers, the major problem occurred when they were having oral presentation.

Paragraph 2

B1: " *This university has many good and knowledgeable lecturers but I can't*

accept their teaching style, totally different from my country. I can't speak

English fluently. Therefore, I can't understand part of their lectures when

they speak too fast!"

B2: " *The accent of the lecture is sometimes quite difficult to understand. Some*

lecturers have a strong Malay accent. Sometimes, the lecturers suddenly

convert the whole conversation to Malay. I really failed to understand."

B3: " *Just like other international students, I have language barrier. The major*

problem is from the language. Besides, my major in secondary school was

music and now I have shifted to business study without having any

foundation in business. In terms of course registration, I also faced problem

because I don't know how to do online registration"

G1: " *I find difficult to speak to local students. It is difficult for me to go to the class*

because the university is too big."

G2: " *I don't like the weather in Malaysia, it's too hot and humid. Before I start the*

new semester, I do not realize that there is another Korean student, I am

lonely, afraid and worry."

One of the students from western country faced a different problem. She can understand English very well but the only problem that she faced was she could not understand Malay when some lecturers switch their conversation from English to Malay.

Paragraph 3

G3: " *I can understand about what the lecturers say when they use English. But I face a*

culture shock when entering this university. This university has a small class

system, the lecturer will know the students easily. Some lecturers like to use

Malay while teaching and I couldn't understand."

Besides, Asian students are normally from a more passive learning environment. Therefore they might face the language problem when they come to oral presentation. The interviews are as follow:

Paragraph 4

G1: " *My English is not really good. I am scared of presentation in class*."

B1: " *I am too shy to speak English in front of public*."

B2:" *I never present in front of the class and I have to present in front of the lecture*

   hall."

B3:" *Oh, my God ! Presentation is really scarcely*!"

G2:" *I feel too shy to present in front of others*."

However, the girl from western country liked the presentation very much. She had experienced oral presentation when she was in her secondary school. Her secondary school had a similar system with our university in which oral presentation becomes a part of the course work assessment within one semester.

Paragraph 5

G3: " *It's good to have an assessment throughout semester rather than only rely on a*

   final examination. I have used to the presentation. I practice this since my high

   school. The only problem is this university is too strict on the students'

   attendance. In our country, if you are an adult student, nobody will care

   whether you attend or not because it is your own responsibility. You can pass

   if you sit for the examination and pass the examination. "

c) **Learning Experience**

Most of them take quite some time to overcome the problem. The data is presented in the form of table.

Paragraph 6

Students	Students' Response
G1	*About one year.*
G2	*8 months.*
G3	*A few weeks.*
B1	*3 semesters.*
B2	*2 semesters.*
B3	*10 months.*

The international students have a different learning experience with the local students when they studied abroad. They gained a good learning experience when they overcome their leaning difficulties. They shared their experiences with joy and sorrow during the interview. One boy from China said:

Paragraph 7

B1; " *I consult local Chinese because they can speak Mandarin, they are really*

helpful."

Some of them gave their opinions like follow:

B2: " *Normally I ask for help from my friends. They have better English foundation*

than me."

B3*: " I use Google translator and check for dictionary. I like to say Malaysia is a*

good place for learning, I ask around and most of the local students are

helpful.."

G1*: " I like to seek help from seniors."*

G2*: " I try my best to get friends from local. I meet them in the library and try to*

communicate with them with English. I make friend with Malay and Chinese

students."

G3: " *I get help from international students and local students. They come to my*

house and teach me how to survive in this university."

University programs in Malaysia seem to give students more chances to share their thought from discussion and presentation. They also allow students to voice their opinions. The university system is student-orientated, emphasized on students' critical thinking and based on problem solving. The following students said,

Paragraph 8

B1: " *…. We have to discuss the questions and although sometimes we feel shy to talk,*

we must force ourselves to talk even by using broken English."

G3: " *I have to prepare the lesson earlier because I like to contribute during*

discussion, and let me think."

The international students also felt that the university system trained them to be independent from getting their own answers from tutorial instead of waiting the lecturers to spoon feed them. Some of them said,

Paragraph 9

B2: " *Good for getting a new experience, training myself to seek for knowledge."*

G2: " *It really can train my writing skill."*

Majority of the international students does not have experience in doing group work and assignment, except G3 from the west. The following students express their feelings.

Paragraph 10

B3: " *I never try to study or do work in group but it is a good experience*."

G3: " *I experience the group work when I was in my high school, no problem at all*."

When discussing about the lecturers' teaching style, majority of them liked it. They said,

Paragraph 11

G1: " *It is good to study here, I really got a lot, the lecturers are good*."

G3: " *I won't say I like all of the lecturers but I like most of them*."

     Most of the students admitted they have changed their learning style when they entered the university. B1 and G1 admitted they have changed their learning style.

Paragraph 12

B1: " *In my country, I use rote learning, I have to learn in group and discuss only that I can*

    cope."

G1: " *We all memorize and do not need to discuss but here we need the help from*

    others and do discussion."

     Some of the international students might select Malaysia as their second home. One of them has planned to work in Malaysia after graduation.

Paragraph 13

B1*:" I plan to go back to my home country for a short while after graduate, but I*

    Have to improve my writing and speaking skills. If there is a chance, I would like

    to work in Malaysia."

G1: " *I like to work either in Singapore or Malaysia*."

B2: " *I like Malaysia, I plan to select Malaysia as my second home.*"

     Majority of the interviewees feel that they have improved their English after a few semesters. They hope that they could get a better working opportunity and competitive when working.

Paragraph 14

 B3:" *I have improved my English.*"

B1:" *I can understand better and I hope I can get a better job*."

     G3 always has a different experience than others. She said that learning in this university was a chance to train her to be independent and work hard rather than stay at home.

Paragraph 15

G3: " *I won't say that it is a good or bad experience learning in this university, what I feel*

    is I train myself to be responsible. I am very messy at home but I force myself to

    work hard and tidy up. In term of study, I force myself to work hard to pass the

    examination."

Discussion

According to the analyses, all the international students had different learning styles.   The distribution consists of eight perceptual learning styles: global learners, verbal learners, reflective learners, active learners, intuitive learners, sensing learners, sequential learners and visual learners. It is a known fact that everybody has different learning style. This statement is supported by Felder and Soloman (n.a).

Researchers found that major changes or modifications of teaching styles might not be a necessary to create a classroom atmosphere that addresses multiple learning styles effectively (Romanelli, Bird & Ryan, 2009). Lecturers should consider all types of learning styles in order to get compatible teaching styles to everybody. In addition, lecturers should design the learning plan and activities that can achieve the learning outcome. The lecturer must select an appropriate teaching style that can suit to all the students. It is really not easy to plan a lesson that can teach with several learning styles, perhaps can tackle three learning styles in a lesson. For example, visual and verbal learners can prepare a lesson with presentation and power point slides.

From the interviews findings, the international students faced a few learning difficulties such as: Poor English foundation, communication problem, rote learning and inability to cope with the teaching style in the university. The major problem was their English foundation. Most of them were from Asian and English was not their medium when they were in secondary school. The medium used in the university lessons is English and from the findings, some students even complaint that some lecturers tend to switch the language from English to Malay.

As written in the literature review and confirmed by the findings of this study, Asian students have a different style of learning; most of them are passive learners since secondary school. They were closely affected by the kinds of pedagogies that were used in their home country. Furthermore, the non-native speakers have to understand different English accents of the country they study abroad. Most of the international students' preference for rote learning was therefore apparently lack of critical thinking skills (Arkoudis, 2006). They need time to adopt their learning preferences in a foreign university context. This research findings support this literature (Wierstra, Kanselaar, Der Linden, Lodewijks & Vermunt, 2003).

Literature also found that Asian students seldom speak in class (Hellsten &Prescott, 2004). The Asian students feel self-conscious and most of them did not use to speak in English. The perpetuation of this perception may cause them reluctance to speak in public (Hellsten & Prescott, 2004). Biggs (1996) and Chan (1999) believed that Chinese learners are more active in one- to-one interaction with the lecturers, as well as engaging in peer discussion outside their class. Majority of the international students in this university are from China. Therefore they practice the same scenario and seldom express their views.

The findings from the interviews have shared the same view with prior research that the interaction between local and international students would show significant results in psychological, social and academic adaptation (Ward, 2001). In addition, the international students would have positive mood, less depression, greater life satisfaction, happiness and self-esteem if they interact more with local students (Furham & Erdmann, 1995, Noels, Pon & Clement, 1996, Klineberg & Hull, 1979). The international students have an experience to develop and train themselves in English speaking environment. Besides, the university system also provides them an opportunity to learn independently.

The findings of this study indicate that the international students' learning experience were consistent with the findings from previous studies. From the students perceptions, we find that the students can shift from "teacher-orientated teaching" method to "student-centered teaching method" if the university provide a proper learning environment. It is proven by the prior research; learning style can be influenced by environmental aspect (Sarasin, 2006). In the point of view of Sarasin (2006), personality also can influence learning style. An out-going student may need intention with others to process information.

One strategy could not be used for the whole semester. A meaningful lesson must be conducted by a smart lecturer. A lecturer should understand the students' learning styles earlier in order to plan or develop successful learning strategies.   Sometimes the students may adapt to a new learning style but they fail to perform during the assessment.

The combination of traditional teaching method together with the student-orientated learning strategies can be the better choice because the adult students have already tied to their former learning method. With the combination of two methods, the international students can adapt to a learning environment easily.

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