# A CASE STUDY OF LEARNING STYLES AMONG TOP STUDENTS IN UNIVERSITI MALAYSIA SABAH.

Alfred Chan Huan Zhi<sup>1</sup>, Muhammad Idris Bin Bullare@Bahari<sup>2</sup>, Lailawati Bte Madlan@Endalan<sup>1</sup>, Hajah Siti Rafidah Binti Haji Md Said<sup>3</sup>, Darwis Manainus Bin Hj. Awang Kangit<sup>4</sup>.

<sup>1</sup>Lecturer, Faculty of Psychology and Education, Universiti Malaysia Sabah, Malaysia
 <sup>2</sup>Head, Psychology and Social Health Research Unit, Universiti Malaysia Sabah, Malaysia
 <sup>3</sup>Ph.D. Students, Faculty of Psychology and Education, Universiti Malaysia Sabah, Malaysia
 <sup>4</sup>Head, Academic Services Division, Universiti Malaysia Sabah, Malaysia

Corresponding author: alfred@ums.edu.my

## Abstract

This paper looks at the top students final year in their program for the last semester from the Faculty of Psychology and Education, Universiti Malaysia Sabah. There were seven-programme offered in the Faculty of Psychology and Education which is seven top students were served as a subject in this study. We present an exploratory multiple case studies of comprehending and categorising the learning styles of top students. The purposed of this study was conducted to find out and specify their learning and studying style that allowed them to achieve the high rank in their program. This research was used a rigorous multi-step approach for its qualitative methodology. In order to find out the top students' Universiti Malaysia Sabah learning style were preferred more than 10's learning styles model was used. As a base line in this research, there are six themes were used in this case studies, which is T1- Lecture, T2- Tutorial, T3-Individual Assignment, T4- Group Assignment, T5- Study Tactic and T6-Lecturer. Results indicated that the six themes of learning style preferences considered in the interview questions were positively preferred.

**Keywords:** Learning Style, top student, case study, Universiti Malaysia Sabah.

# Introduction

Learning styles are unquiet with how we learn and not automatically what we learn (Clark 2004). As faculty in esteemed University, we have come beyond a broad assortment of students over the past years. These students, who are admitted to the 3 to 4 year undergraduate psychology and education, have dissimilarity socio-economic backgrounds. Each of these students has their own reasons for choosing every programs offered at Faculty of Psychology and Education. But when we are bring a route to such a set of students in a program. We always locate dissimilarity in the learning skill among that set. Students from all levels who are equipped with excellent study skill will definitely perform well in their studies (Gettiner & Seibert, 2002). As we all know, each student responds differently to a learning situation. This response will be effected by the way the student thinks, they past experience, the demands of the environment and the current task. This approach is recognised as the individual's learning style. A successful learner will be able to adapt his or her approach to meet the needs of any task, but not all learners will have developed learning style. Student who can perform well in his or her academic performance has a big chance to be a top student in their programme. A top student is exactly about being on top of the grades ranking. It concerns the students who get the highest grades in all subjects. These top students are director to their personal schedules and learning style. They also know what to retain and which information matters most. Students are inspired to exert their efforts and concentrate on their studies in order to

achieve academic success (Schunk & Zimmerman, 1998). It shown that all students need the proper guidance and motivation to perform well in their studies. Basically, most the universities in Malaysia were adopted the grade point average (GPA) system from the United States education system. In Universiti Malaysia Sabah (UMS), the highest GPA point is 4.0 and the passing GPA point is 2.0.

In UMS, student will be terminated on their course if they cannot perform very well in their academic achievement, as their got CGPA (cumulative grade point average) below 2.0 for more than three times. In educational institutions around the world, the GPA system is the preferred system in evaluating students' academic performance (Mariati, Ahmad, Azmand &Herdayuwati, 2015). The results of students are reflective of their knowledge of a subject matter. Neither student gets a good GPA nor failing subject usually reflects their knowledge. But most often, it reflects student's efforts towards learning-studying as well. There are a number of factor that cause students in Universities to perform poorly in their studies. Student requires pouring a lot of efforts and time to completing their assignment and preparing for tests and final exam. Students who fail to adapt to this system would suffer by getting poor results. Crede & Kuncel (2008) claimed that student's major problem is learning patterns, attitude, poor study skills and lack of encouragement. Only a few students manage to get the high CGPA in their studies. Apart from this, it was important that students were given advice and guidance in order to assist them to improve in the coming semesters. The purposed of this study was conducted to find out and specify learning and studying style top student that allowed them to achieve the high rank in their program. Beside that the universities could help the other students to improve the academic performance in the upcoming semesters.

## **Literature Review**

## 1. Learning Style: An Overview

The locution of "learning styles" is being used in educational literature since 1970s. Coffield, Moseley & Ecclestone (2004) identified 71 models of learning styles. Emerging from the concept of learning styles, there a divers interpretation has been offered for the locution "learning style" such as cognitive style, learning preferences, learning approaches and information processing. These locutions of learning style have same meaning where as involve how students adopt certain strategies when studying. A learning style is defined as the characteristics, strengths and preferences in how people receive and process information (Felder & Silverman, 1988; Allinson & Hayes, 1996; Felder & Brent, 2005; Hsieh et al., 2011). Generally, it considered as characteristic, cognitive, affective, and psychological behaviours that serve as relatively stable indicators of how learners perceive, interact with, and respond to a learning environment (Murat, 2013). It also refers to the fact that every person has his or her own method or set of strategies when learning (Schemeck 1988; ChanLin, 2009; Ford & Chen, 2000; Weinstein, 1996). Defines the strengths and preferences in the ways students' process information to form a certain learning profile (Realice, 2015). These profiles propose behavioural tendencies and not absolute predictors of behaviour (Felder & Spurlin, 2005). Coffield et al., (2004), categorised learning style models into five families based on fundamental all-embracing concepts. Table 1. shown the five families of learning styles.

Categorise		Author (s)	Assessment tool	Year
a.	Learning styles and preferences are	Dunn & Dunn	- Learning Style Questionnaire.	1979
	largely constitutionally based,		- Learning Style Inventory.	1975
	including four modalities: visual,		- Building Excellence Survey.	2003
	auditory, kinesthetic, and tactile.	Gregorc	- Gregorc Mind Styles Delineator.	1977
b.	Reflect deep-seated features of the cognitive structure, including patterns of abilities.	Riding	- Cognitive Styles Analysis.	1991

c.	A relatively stable personality type.	Apter	- Motivational Style Profile.	1998
		Jackson	- Learning Style Profiler.	2002
		Myers-Briggs	- Myers-Briggs Type Indicator.	1962
d.	Flexibly stable learning preferences.	Allison and Hayes	- Cognitive Style Index.	1996
		Herrmann	- Brain Dominance Instrument.	1995
		Honey & Mumford	- Learning Style Questionnaire.	1982
		Felder &	- Index of Learning Styles.	1996
		Silverman		
		Kolb	- Learning Style Inventory.	1976
			- LSI Version 3.	1999
e.	Learning approaches, strategies,	Entwistle	- Approaches to Study Inventory.	1979
	orientations, and conceptions of		- Revised Approaches to Study	1995
	learning.		Inventory.	
			- Approaches and Study Skills	2000
			Inventory for	
			Students.	
		Sternberg	- Thinking Styles	1998
		Vermunt	- Inventory of Learning Styles	1996

# 2. The Learning Style Theories

There have been many investigations into learning style. These have been conducted in isolation and have given rise to a large number of different learning style labels. Curry (1983) proposed the 'Onion' model to group. She suggested could be grouped into levels resembling the layers of onion:

"By this organisation learning behaviour is fundamentally controlled by the central personality dimension, translated through the middle strata information processing dimensions and, given a final twist by interaction with environmental factors encountered in the outer strata."

Curry's Onion Model provides a well-established framework within which to view the main learning style theories (Riding & Rayner, 1998). There are three layers in this model: the outer layer, middle layer and inner layer.

# a) The Outer Layer: Instructional Preference.

The outer layer of Curry's model examines instructional preference. This layer is considered to be most observable, least stable and most easily influenced. The main theory of instructional preference is proposed by Dunn and Dunn (1978). There are five basic elements that stimuli affect an individuals' ability to perceive, interact with and respond to the learning environment. The dimensions such as:

- Environmental: noise level, light temperature and class design.
- Emotional: motivation, persistence, responsibility and structure.
- Sociological: learning group, presence of authority figures, learning in varied ways.
- Physiological: perceptual, intake, time and mobility.
- Psychological: global vs. analytic, impulsive vs. reflective, hemispheric domination.

Dunn & Dunn's theory concerned with stimuli that affect learning. There are 65 different studies specifically addressed college students' learning styles as define by the Dunn and Dunn Learning Style Model (Dawn, Rita, Ralph, Gene, Robert, Samuel & Andrea, 2007). All examined identified diversity among students' unique learning style. The main theory in this study is Dunn

and Dunn (1979). It defines learning styles as "a term that describes the variations among learners in using one or more senses to understand, organize, and retain experience."

# b) The Middle Layer: Information Processing Style

The middle layer of Curry's model examines information processing style. This layer is concerns an individual's intellectual approach to assimilating information (Curry, 1983). Currently, It also surrounded by many of the learning style theories. There are five theories fall into this layer, such as an experiential learning cycle by Kolb (1984), learning style questionnaire by Honey and Mumford (1992), McCarthy's 4MAT system by McCarthy (1997), Gregorc's Learning Style theory (1982), and Gardener's Multiple Intelligence (1982). Table 2. shown the five theories of learning styles and learning preferences of dimensions for the middle layer of Curry's Model (1983).

## Table 2.

The Middle Layer Of Curry's Model (1983): Theories And Dimensions Of Learning Style

A	uthor and Theory (s)	Dimension (s)
1	An Experiential Learning Cycle (Kolb, 1984)	- Converger, Accommodator, Diverger, Assimilator
2	Learning style questionnaire (Honey & Mumford, 1992)	- Activist, Theorist, Pragmatist, Reflector.
3	McCarthy's 4MAT system (McCarthy, 1997)	- Innovative, Analytic, Common Sense, Dynamic.
4	Gregorc (1982)	- Concrete sequential, concrete random, abstract sequential, abstract random.
5	Multiple Intelligence (Gardener, 1993)	- Linguistic, Logical Mathematical, Musical, Bodily Kinesthetic, Spatial, Interpersonal, Intrapersonal.

# c) The Inner Layer: Cognitive Personality Style

The inner layer of Curry's model examines cognitive personality style, addressing an individual's approach to adapting and assimilating information (Curry, 1983). There are five main theories fall into this category, such as The Felder and Silverman Learning Style Model (Felder, 2000), Field-dependence and Field-independence theory by Witkin and Goodenough (1982), The Myers-Briggs Type Indicator (Association for Psychological Type, 2000), MBTI Kiersey (Kiersey, 2000) and Cognitive Style Analysis by Riding and Rayner (1998). Table 3. shown the five theories of learning styles and preferences of dimensions into theories for the inner layer of Curry's Model (1983).

Table 3.
The Inner Layer Of Curry's Model (1983): Theories And Dimensions Of Learning Style

Author and Theory (s)		Dimension (s)		
1	The Felder and Silverman Learning Style Model (Felder, 2000).	-	Sensing/Intuitive, Visual/Verbal, Inductive/deductive, Active/Reflective, Sequential/Global.	
2	Field-dependence and Field-independence theory (Witkin&Goodenough, 1982).	-	Field-dependence, Field-Independence.	
3	The Myers-Briggs Type Indicator (MBTI) (Assc. for Psychological Type, 2000)	-	Extraversion/Introversion, Sensing/Intuition, Thinking/Feeling, Judging/Perceiving.	
4	MBTI Kiersey (Kiersey, 2000)	-	Four dimensions MBTI, 16 variants.	
5	Cognitive Style Analysis by Riding and Rayner (1998).	-	Wholist-analytic, verbal-imagery	

# **3.** Types of Learners in Learning Style

Learning styles categorized the types of learners in learning style as follows:

- Auditory Learners: Auditory learners are "students who enjoy the oral-aural learning channel. Thus they want to engage in discussions, conversations, and group work. These students typically require only "oral directions" (Oxford, 1995).
- **Visual Learners:** Visual learners are learners who "prefer to learn via the visual channel. Therefore they like to read a lot, which requires concentration and time spent alone. Visual students need the visual stimulation of bulletin boards, videos and movies. They must have written directions if they are to function well in the classroom" (Oxford, 1995).
- **Tactile Learners:** Tactile learning "suggests learning with one's hands through manipulation or resources, such as writing, drawing, building a model, or conducting a lab experiment" (Kinsella, 1995).
- **KinaestheticLearners:** Kinaesthetic learning "implies total physical involvement with a learning environment such as taking a field trip, dramatizing, pantomiming, or interviewing." (Kinsella, 1995).
- **Group Learners:** A group learner is the one who "learns more effectively through working with others" (Reid, 1995).
- **Individual Learners:** An individual learner is someone who "learns more effectively through working alone" (Reid, 1995).

Jensen (1987) presented relationship of MBTI type and learning style. Lawrence (1984) summarised the learning preferences associated with involving the MBTI. Table 4. shown the explanation as follows:

D: ·	nce with MBTI	
Dimensions	By Jensen (1987)	By Lawrence (1984)
Extraversion: Introversion:	Extraversion student learn best in situations filled with movement, action, and talk. They prefer to learn theories or facts that connect with their experience, and they will usually come to a more thorough understanding of these theories or facts during group discussions or when working on cooperative projects. Extraversion student tend to leap into assignments with little 'fore-thought', relying on trial-and-error rather than anticipation to solve problem. Introversion student may be quieter and less active in the classroom, teacher may feel the	<ul> <li>Talking, discussion, psychomotor activity, working with a group.</li> <li>Reading/verbal</li> <li>Reasoning, time for internal</li> </ul>
	need to press them into taking part in-group discussions. Teachers need to respect their need to think in relative solitude, for that is how they think best. Introversion student will be more willing to share their ideas when given advance notice. This will allow them time to think about how they will become active in the classroom.	processing, - Working individually.
Sensing:	Sensing student learn best when they move from the concrete to the abstract in a step-by- step progression. They are thus at home with programmed, modular, or computer assisted learning. They value knowledge that is	<ul> <li>Tasks that call for carefulness, thoroughness and soundness of understanding,</li> <li>Going step by step.</li> <li>Tasks that call for observing</li> </ul>

Table 4.
Learning Style With MBTI by Jensen (1987) and Lawrence (1984)

	practical and want to be precise and accurate in their own work. They tend to excel at memorising facts.	<ul><li>specifics.</li><li>Tasks: all for memory of facts.</li><li>Practical interest.</li></ul>		
Intuition:	Intuitive student tend to leap to a conceptual understanding of material and may daydream or act-out during drill work or predominately factual lectures. They value quick flashes of insight but often careless about details. They tend to excel at imaginative tasks and theoretical topics.	<ul> <li>Tasks that callsfor quickness of insight and in seeing relationships.</li> <li>Finding own way in new material.</li> <li>Tasks that call for grasping general concepts.</li> <li>Tasks that call for imagination.</li> <li>Intellectual interests (independent of intelligence).</li> <li>Reading.</li> </ul>		
Thinking:	Thinking students are motivated when provided with logical rationale for each project and respect their competence. They prefer topics that help them to understand system or cause-and-effect relationships. Their thought is syllogistic and analytics.	<ul> <li>Logical organisation of teacher.</li> <li>Objective material to study.</li> </ul>		
Feeling:	Feeling student are most motivated when shown the human angle topic. Feeling student think to clarify heir values and extent networks of values. Even when their expressions seem syllogistic, they usually evolve from some personally held belief or value.	<ul> <li>Personal rapport with teacher.</li> <li>Learning through personal relationships.</li> </ul>		
Judging:	Judging student tend to gauge their learning by the completion of tasks: reading "X"- amount of books, writing "X" amount of papers, or making "X"-amount of reports. Thus they prefer more structured learning environments that establish goals for them to meets.	<ul> <li>Work in steady, orderly way.</li> <li>Formalised instruction.</li> <li>Prescribed tasks.</li> <li>Drive toward closure, completion</li> </ul>		
Perceiving:	Perception student tend to view learning as a freewheeling, flexible quest. They care less about deadlines and the completion of tasks. They prefer open and spontaneous learning environments and feel "imprisoned" in a highly structured classroom.	<ul><li>Work in flexible way, follow impulses.</li><li>Informal problem solving.</li></ul>		

# Methodology

This section describes the research methodology and steps taken in conducting this study.

## a. Study Design

An exploratory multiple case study research method by Yin (2011, 2013) was used in this study. This study was conducted in February 2019. Study design was selected because it gave the possibility to investigate learning styles' top student at multiple levels of analysis and in a real context (Yin, 2013). Beside that, an exploratory multiple case study enables the researcher to explore differences within and between cases. The goal is to replicate findings across cases. Because comparisons will be drawn, it is imperative that the cases are chosen carefully so that the researcher can predict similar results across cases, or predicts contrasting results based on a theory (Yin, 2013). We expect to better comprehend the specific learning style and participation types likely to improve learning performance.

## b. Participant

The purposive sampling technique was used to identify students for taking information. The respondents qualitative for our case study are top students final-year university students from Faculty Psychology and Education at Universiti Malaysia Sabah. There are six program were offered in Faculty Psychology and Education, automatically the total number of respondents who participated in this study is seven top students. They were all aged between 21 and 26 years old who wanted to join this project voluntarily.

## c. Instrument

In order to identify top students' learning style from Faculty Psychology and Education, we distributed a set of interview questions with a semi-structured question and structured question. At the first interviewed was used semi-structured question, which is "how do you think you learn best in your learning?" and "why do you think these types of learning are the effective way for you to learn?" Structured question was rebuilt and redesigned to collect the relevant information from the previous respondent for the next interviewed. For the qualitative portion short interviews were conducted for top student respondents to investigate their choice of preferences in studying. Table 5. shown as final interview questions for the top student.

	Theme	Question	
1	Lectures	a.	How do you think you learn best in your lectures?
		b.	Why do you think these types of lectures are the effective way for you
			to learn?
2	Tutorial or/and Lab	a.	How do you think you learn best in your tutorial or/and lab or/and
	or/and Practical		practical?
		b.	Why do you think those types of tutorial or/and lab or/and practical are
			the best for you to learn?
3	Individual	a.	How do you do your individual assignments?
	Assignment	b.	Why do you think this is the best way for you to learn?
4	Group Assignment	a.	How do you do your group assignments?
		b.	Why do you think this is the best way for you to learn?
5	Tactic of Study	a.	How do you start you tactic/style study?
		b.	Why is this most effective tactic/style of study?
6	Lecturers	a.	How do you learn best to your lecturers?
		b.	Why these types of lecturers are the effective way for you to learn?

Table 5.Interview Questions For The Top Student

# d. Procedures

The study was reviewed and approved by the Research and Innovation Management Centre at Universiti Malaysia Sabah, Kota Kinabalu. There are six steps, as followed:

- **Step 1:** Seven lecturers from the faculty of Psychology and Education, UMS were contacted to retrieve their top-ranked undergraduate in their respective subjects. These seven top students were contacted through phone calls and messaging system (WhatsApp) to ask on their permission participated in this study.
- **Step 2:** Top students who wanted to participate in this study were set on an appointment time for an interview session.
- **Step 3:** Each interview was recorded and transcribed. Respondents' verbatim were transcript and transcribed in Microsoft Words.
- **Step 4**: The qualitative data analysed by program Atlas.Ti (Ver.7.5.7.), where initial coding took place.
- Step 5: It was followed by the six steps in Thematic Analysis (Braun & Clarke, 2006).
- **Step 6:** The final dimensions of the study's result were analysed.

## e. Human Protection

As part of the protection, the researcher is responsible and accountable to conduct the case study with special care and sensitivity (Yin, 2011, 2013). Case studies, as posited by the author, presents a more challenging situation than when using other researcher because this methodology involves interactions with specific human subjects through direct contacts such as interviews and potential use of personal records. In light of these confidentiality protections, the participant's identity would be kept confidential, and names would not be collected throughout the research. Hence, all participants were assigned a pseudonym in the form of numerals and were not asked of any demographic items.

# f. Data Collection

Data were collected mainly through interview with six top students. The interviews were done faceto-face on the faculty's premise. All interviews were voice recorded and transcribed. Each interview took, on average 20-35 minutes. The findings were validated through the process of investigator triangulation and member checking. All interviews were conducted in English language.

## g. Data Analysis

Data was analysed with Thematic Analysis (Clarke & Braun, 2006) using Atlas.ti (Ver 7.5.7.).Table 6. shown the final themes and subthemes from interview questions asked of the students.

	Theme	Su	btheme
1	Lectures	a.	Formal Lecture
		b.	Interactive lecture
		c.	Mediated lecture
		d.	Humor lecture.
2	Tutorial or/and Lab	a.	Question and answer session.
	or/and Practical	b.	Debates and discussions session (give opinion and suggestions)
		c.	Practice session (exercises, quizzes, games).
		d.	Using equipment or tool in gym.
3	Individual	a.	Sensing.
	Assignment		
4	Group Assignment	a.	Extraversion.
		b.	Feeling.
5	Tactic of Study	a.	Using study time and place.
		b.	Study tactics.
		c.	Making own study aids.
6	Lecturers	a.	Assertiveness.
		b.	Humour
		c.	Empathy.
		d.	Easy-going.

Table 6.Final Themes And Subthemes

# **Findings And Discussion**

Thematic analysis (Braun & Clarke, 2006) of the interviews revealed six main themes addressing a learning style of top students in Faculty Psychology and Education at Universiti Malaysia Sabah. The themes addressing followed:

# 1. Theme 1: Lectures.

The theme of "lectures" preferred as type of lectures approaching by lectures and instructional tools used by lecturer in lectures. It was split into four subthemes: (a) formal lecture, (b) interactive lecture, (c) mediated lecture, and (d) humor lecture. Meanwhile, the "instructional tools used by lecturer in lectures" was considered as pictures, humor, video and slides.

#### a) Subthemes 1: Formal Lecture

Lectures are an effective way to encourage students' learning. Almost respondents learnt best when they attend the formal lecture. The formal lecture is the most common teaching method that used in many universities classrooms. A lecturer explains and teaches in front of a group of students. Meanwhile, the students are expected to take personal notes in addition to the course text, slides or transparencies. In this study, the top students in Faculty Psychology and Education have also identified the formal lecture, which influence their learning style when the lecturer can deliver the information in various ways, such as fun, straight to the point, by adding the examples and use body languages.

> "... If the lecturer didn't explain, it's difficult for me to understand and catch it up. Because I like the lecturer lead and explained everything..." (TSP1) "...I prefer formal lecture by which lecturer talk and fun, while the student sit and

> takes their notes..." (TSP3) "...The formal lecture is ok for me to learn... the lecturer just go in the lecture and do their normal routine where as they gives information to me... the lecturer give

the example... at least one example..." (TSP4)

"...Lecturer gives lecture - short break - quiz. Meaning, lecturer explain the topic in the beginning. And then take a short break... the straight point lecture. It is good if the lecturer gives example directly...That's very interesting and fun." (TSP5)

According to Bradbury (2016), the lecture has been the traditional means of passing on knowledge. Indeed, the 50-min lecture still holds sway at many institutions. Diane, Elizabeth and Kelly (2010) also defines lecture as traditional pedagogical approach that involving the lecturer presenting information to an audience. However, its effectiveness is debated often. Researchers stated lecturers' experience that students do not pay attention throughout an entire lecture. The phenomenon of students' attention lapses in lecture segment is now rampant. It affected students drifting off, staring into space, checking their text messages, or doing homework for another course during the lecture. Based on previous research, some of the successful lecturer is able to hold students' attention by making their classes more interactive. As we know that every student have different learning style. In this study proved that top students in Faculty Psychology and Education learnt best in interactive lecture, mediated lecture, and humor lecture.

## *b)* Subthemes 2: Interactive Lecture.

Interactive lecturing involves a two-way interaction between the presenter and the participants. For others, it also refers to increased discussion among the participants. Interaction can also refer to a student's involvement with the material or the content of a lecture. Meaning, it does not necessarily that the audience has to do all of the talking. Based on this study, some of the top students in Faculty Psychology and Education preferred interactive lecture for their learning style. Interactive lecture can form student actively participate in lecture. They able ask questions to lecturer directly and the lecturer can give questions to the students in class. Besides that students can get live feedback from the lecturers. When interactive lecturing implies active involvement and participation by the audience so that students are no longer passive in the learning process.

"I think, active participation among the students is very important in lecture. Instead of passive learning by the student in lecture, such as sit down and listen to the lecture, it may bore me to come the lecture..." (TSP3)

In addition, the value of interactive lecturing rests on the premise that active participation and involvement is a prerequisite for learning beyond the recall of facts, and that students must be attentive and motivated in order for learning to occur.

"... For my effective learning style in lecture is interactive learning, where as student and lecturer can exchange information each other, question and answer instantly..." (TSP3)

"... Secondly, interactive lectures. It keeps me interested on that subject..." (TSP5) "... Lecturers give live feedback during the lectures... That is most effective for me..." (TSP7)

As we can see, educational research has shown that students who are actively involved in the learning activity will learn more than students who are passive recipients of knowledge (Butler, 1992; Feden, 1994; Kraft, 1985; Murray, 1991; Yvonne & Linda, 1999). McKeachie (2002) also suggested that student attention would drift during a passive lecture unless interactive strategies are used to hold student attention. In fact, interactive techniques allow lecturers to receive feedback at a number of levels, such as on student needs at the beginning, middle or end of a lecture, on how the information has been assimilated, and on future learning directions. On the other hand, students can get feedback on their own knowledge or performance. In many ways, interactive lectures keep the lecturer and student interested and awake as well.

"...It keeps me to stay awake in the lecture..." (TSP5) "... I won't feel sleepy and bored in the lecture. As you know, afternoon class some student easily gets sleepy because some of them wake up early morning and some of them stay until overnight to do their assignments..." (TSP7)

In summary, interactive lecturing encourages active participation on the part of the lecturer and the student. This method of teaching awakens student attention and allows for instant feedback on whether the lecture material has been understood.

*c)* Subthemes 3: digital technology mediated lecture

In this study found that some of top students in Faculty of Psychology and Education learn best at digital technology mediated lecture by using videos or picture. Digital technology mediated lecture is a system for promoting interaction in large classes. Using digital technology aided instruction in lecture is an important component of modern teaching reform in institutes of higher learning. With the aid of multimedia and network communication, lecturers are able to explain to students more intuitively, clearly, and attractively. Besides that, the lecturer also can attract student attention and maximize their learning process in a short period. One of the disadvantages of traditional lecturers is the limited attention time to spend with learners. Respondents reported that lecture full with word make they easily get bored and fall asleep.

> "... My style of learning is more to video, sound or/and picture, so that it's easy to understand it. For me, it's easy to understand than the word...easily got bored if lecture full with word and it makes everyone easily fall asleep." (TSP1) "... I prefer digital technology mediated lecture... if the lecturer just read from the slides in lecture, it is not effective for me.... Digital technology mediated lecture is to attract my attention to learn...This is the best and effective for me to learn..." (TSP6)

Alavi and Leidner (2001) defined the technology-mediated learning as "an environment in which the learner's interactions with learning materials, peers, and/or instructor are mediated through advanced information technology." According to Liang, Wang, Ma and Liu (2010), it can boosts up people's understanding and perception of abstract things, and brings students into a totally new situation rich of characters, sounds, graphs, figures and images. Technology mediated learning in classroom teaching, including inspiring a student's interest in his studies, developing

students' intelligence, improving classroom-teaching efficiency, and optimizing classroom-teaching structure.

### *d)* Subthemes 4: humor lecture

Lecturers have the most influence and power on the learners. They can form an appreciation for the subject, depending on the approach. It was well understood by the lecturer that the nature of the teaching performance is contingent upon where that performance is occurring. They can create a learning environment filled with hope, trust, respect, interest, positive attitudes, creativity, unpredictability and fun through the use of humor. All these aspects enhance the learning process and motivate and energize both the lecturer and the learners. Humor used as a pedagogical tool also helps the lecturer to maintain a lively and engaged relationship with the learner. Of those top students in Faculty Psychology and Education interviewed for this study, they learnt best and better when the lecturer used humor as a pedagogical tool in their lecture.

"... I also prefer humor style in lecture. Because humor in lecture can attract me to learn better..." (TSP7)

Bruner (2002) suggested that lecturer can assemble specifically humorous teaching can readily command the attention of students, and from there, better engage them with the material. The lecturer who makes use of humor positively promoted the learning will be more approachable and appealing to learners (Chabeli, 2008).

#### 2. Theme 2: Tutorial or/and Lab or/and Practical.

The tutorial system offers considerable opportunities to the students to meet their needs. It also offers opportunities for a great degree of variety in the curricular activities. A tutorial often translates into a 'mini-lecture'. The theme of "Tutorial or/and Lab or/and Practical" preferred as interactive activities in the classes. Tutorial works for several reasons constitute a method of teaching. At universities level, tutorial takes case of practical follow-up. Mostly the lecture classes deal with theory. In this study, it was subdivided into four subthemes: (a) question and answer session, (b) debates and discussions session (give opinion and suggestions), (c) practice session (exercises, quizzes, games), and (d) practical approach by using equipment or tool in gym. Top students in Faculty Psychology and Education reported that their learnt best when the tutorial system as following:

## *a)* Subthemes 1: question and answer session (Q & A session).

The tutorial method can organize as a question answering sessions. The purpose is to initiate interaction, involvement and discussion. Usually, the period of tutorial class is for forty minutes. When tutorial is held as question answer session, the lecturer makes the introduction of topic shortly, precise and unambiguous. In this study found that top students preferred in learning style when tutorial system as a question answering session. Question answering session is a situation in which a person or group of people asks questions and another person or group of people answers them. Students who attend tutorial and ask many questions believe that the tutorial class is more stimulating.

"... In my context, I just have tutorial, no lab or practical. I think... Q&A in tutorial would be the best way for me to learn. Q&A in tutorial also encouraged me and gives me more opportunity to ask lecturer about the thing I do not understand with the previous lectures..." (TSP3)

"... I would prefer the tutorial class that using interactive teaching style. For instance, the tutor gives activities, Q&A, debate case study to the student..." (TSP6)

"... For me tutorial is like the Q & A section. It is very effective for me to learn... I can ask what I don't understand during lectures section." (TSP7)

#### b) Subthemes 2: debate and discussions session (give opinion and suggestions).

Aside from Q&A session in tutorial class, almost the top students in Faculty Psychology and Education also learnt best at debate and discussion session in tutorial class. The tutorial method can be organised as a debate and discussion session. Debates can be conducted in a number of ways. For example, the class tutorial can be divided in two and the students on either side can be asked to support two different sides of the issue. Students can be asked to seat themselves according to their point of view. Besides that, students invited to defend their reasoning. Where these session had the whole class tutorial together exercising its mind on all the debate, discussion of the questions and answer through general discussion. The lecturer chooses the topic of debates, oral and organises discussion through very systematically structured questions. The student's answer, opinion or suggestion are presented and shared on the debates and discussions session. This debate and discussion can continue for about ten to fifteen minute.

"... I think discussion... in tutorial would be the best way for me to learn... It is because, discussion allowed me to interact with one another students and I can share my opinion with one another..." (TSP3)

"...The type of tutorial, I can learn best is the tutorial that let me give my own opinion, suggestions..." (TSP4)

"... Usually we will discuss the answer together, rather than giving the answer later. I prefer this way. I like those things so much and it's very effective for me to learn. It is because the tutorial only for an hour... I prefer tutor gives feedback to me..." (TSP5)

"... The tutor gives... debate case study to the student. So, student can solve it. Because this method can encourage... they start learn to think independently. This is very effective for me to learn..." (TSP6)

According to Yvonne and Linda (1999), cases can be used in different ways to bring relevance to the discussion. During the tutorial, students can be asked to analyze or discuss a case that is presented on paper. By using this method in tutorial class, students' attention is quickly aroused and the learner can receive immediate feedback on his or her knowledge. It also allows the students to summarize the information discussed, to develop a framework for the material covered, and to provide feedback on what was understood or learned (Joseph, 2007). In summary, peer led debates and discussions have the advantage of tutorial class support and interest of student learning.

*c)* Subthemes 3: practice session (exercises, quizzes, games).

Noted that tutorial class also known as practice oriented. According to the top of students in Faculty Psychology and education, they can learn best when the tutors used a practice session in tutorials. Tutors give activities to the student such as an exercise, quizzes or games during tutorial class. It makes the students very enthusiastic to learn and helps them understand and remember the subject better.

"... For tutorials, I like it if we have a quiz... When we have a quiz... it helps me to remember better after that. Also, this kind of games and exercises make me be very enthusiastic to learn..." (TSP2)

"... I learn best when the tutor gives me some exercise, guideline and timing to answer the exercise in the tutorial. Especially, when tutor gives a lot of exercises before the midterm and final exam..." (TSP5)

Students tend to lose attention in the tutorial class because of the inability to participate (Ng & Schubert, 1996). Participation can also be lost because the course material is seen to be boring. Tutorial class used to follow up work done in one or the other preceding periods or preceding days. Tutorial class as practice oriented. A practice means a form of review, which becomes necessary in

the teaching of all the subjects (Joseph, 2007). Topics are covered in classes for concentrated revision. Revision on the subject or topics can be done by using quizzes, games and exercising in the tutorials. Moodle (2014) supports a quiz feature that can adapt to the learning situation, giving hints before asking the learner to try again. Using quizzes, gamesand exercise at various intervals during the tutorial also allow for immediate feedback. A whole tutorial can be yoked to any task where the lecturer prepares ground for oral or written exercise. The revision is conceived as a very practical dimension of teaching.

# d) Subthemes 4: practical approach by using equipment or tool in gym.

According to Ahmad et al (2009), working on an experiment in the laboratory is the best way for such students to learn new material. Based on this study, one of top students learn best in lab and practical classes by using the equipment or tools in gym for learning. Some courses offered in UMS do not have the tutorial class, but some courses have lab and practical classes.

"... I go to the lab and practical too. But, the tutorial is not in my course. The lab and practical is the best way for me to learn... use the equipment for the gym in the lab. What's more, we can try everything that we can lead inside the lab of UMS without paying any fees compare to outside of UMS..." (TSP1)

Respondent also stated:

"... Practical and lab make me learn a new thing and also get a new experience. It's because we can easily to remember when we do something, rather than we sit in the class...". (TSP1)

Meaning, when physically attending a live lecture, the lecturer can make their enthusiasm for the subject, thus seizing the students' attention and inspiring them. The most consistent finding from a literature review is that the greatest variability in student attention arises from differences between lecturers and not from the teaching format itself. Certainly, even the most interesting material can be presented in a dull and dry fashion, and it is the job of the lecturer to enhance their teaching skills to provide not only rich content but also a satisfying lecture experience for the students (Bradbury, 2016). Therefore, there are two important aspects of lab and practical classes. Firstly, for many subjects by 'doing' is an important part of the knowledge and students' experience. Students can learn about the 'doing' part in practical class. Secondly, in practical classes, student can apply the theories in practical situations.

# 3. Theme 3: Individual Assignment.

All the top students in Faculty Psychology and Education at Universiti Malaysia Sabah had spoke about the individual assignment. They mentioned on how they do their individual assignment and emphasized the importance of their learning style on individual assignment and affect their academic performance. An assignment is a task assigned by lecturers to their students, usually as part of students' course. A individual writing assignment encompasses any writing task a lecturer asks of students that involves one or more of the following thought processes: analysis, evaluation, interpretation, narration, synthesis, reflection, clarification, summarization, creative expression, and application or demonstration of knowledge or learning. The theme of "individual assignment" preferred as the student's learning preferences associated with involving the Myers-Briggs Type Indicator (MBTI) by Jensen (1987) and Lawrence (1984). The researchers summarised the learning style with MBTI eight dimensions, as extraversion; introversion; sensing; intuition; thinking; feeling; judging; and perceiving. In this study found that respondents only preferred to three dimensions for individual assignment. It was contained into one subtheme: (a) sensing.

## a) Subthemes 1: Sensing

Sensing refers on how individual take in information. Student preferring sensing take in information through all five senses. Based on study, all top students in Faculty Psychology and Education at Universiti Malaysia Sabah mentioned they learn best by sensing strategies to do their individual assignment. They tend to do the individual assignment early that allowed them to achieve the high mark on the course. Respondent mentioned the individual assignment could support student academic performance when student cannot perform well on the final examination.

"... For me, the individual assignment is very important. Sometimes, I can't score in the final, which is why I must do the individual assignment early..." (TSP1) "... For individual assignment, I will do it early... For me, I will do it as soon as possible..." (TSP2)

Indeed, the determinants of academic performance of the students include, class participation, class assignments, homework assignments, tests, examinations, and participation in competitions or other events. Sensing learners are normally analytical and like to learn facts. Therefore, they prefer to solve problems with well-established methods. Sensing respondent would solve the problem immediately once got the problem.

"... And I don't have to wait others to do it. Usually, I used a lot of time to do my assignment, so I prefer to do it early...And also, I can focus to other assignments or group assignments that have been waited..." (TSP2)

In this study found that sensing respondents also preferred to do their individual assignment by finding a good article. It is very effective for their learning style. Usually, they would do screening, filtering, analyzing, highlighting and organizing the point, ideas and information from the article for their individual assignment.

"[...]. I will highlight the points and organize it..." (TSP3)

"...Find a good article is the best way for me to learn and it is very effective. Actually, I need to find some article and then I picked some good article. Usually, I need to read through it. After that, I will do screening those method, result, and discussion part. Analysis those parts are very effective for me to learn and I got a lot of information about it. That is how I learnt it. Because it is resourceful and more easily to do it. It helps me to learn..." (TSP4)

"...I need to prepare the ideas. I will do research on the topic and then I start to think on how to arrange the ideas and filter the good points for my assignment..." (TSP5)

Aside that, respondents also stated they have to understand the format of assignment and tried to minimise the depict errors. Sensing student learn best when they move from the concrete to the abstract in a step-by-step progression. They value knowledge that is practical and want to be precise and accurate in their own work.

"[...]. First of all, I have to understand the requirement of the assignment, such as the format of assignment and the points needed..." (TSP3)

"...I admitted, I am detail-oriented person, especially on my assignment... What I mean is I do pay attention on the errors such as the spelling, the format and grammatical when I did my assignment. [...]. Because, I don't want to lose marks just for careless mistakes... " (TSP5)

"...For me to get better score for individual assignment is I do not do it in rush to finish it. [...]. The most important things... I can learn something from the

assignment. My principal to do my assignment is finish it properly and do not rush when do it. So that I can learn something..." (TSP6) "Usually, I start from the internet. I will look some journal that related with the topic. Then I see how they do the journal and discuss with my course mate about how they do it." (TSP7)

According to Lawrence (1984), sensing student learn best doing tasks that call for observing specific, carefulness, thoroughness and soundness of understanding. Respondents also stated they will ask their lecturer, senior or friends if they do not understand.

"[...]. If I don't understand, I ask the lecturer." (TSP6) "[...]. I also ask my senior to teach me. I grab the chance to ask my lecturer about the things I don't understand..." (TSP7)

Therefore, implement the function of planning is the vital for the students to get and maintain good scores. Adequate planning is mainly referred to planning one's work efficiently. One should form a study plan, for a week or a month. Besides respondent does individual assignment early, they also reported that comprehends the format of assignment and finding a good resource also contributed to their individual assignments marks.

#### 4. Theme 4: Group Assignment.

All respondent spoke about group assignment in his or her learning style. Aside of individual assignment, group assignment also contributed students academic performance. All the respondents spoke that group assignment is one of way for them to achieve high rank in learning as a top student at their faculty. The theme of "group assignment" also preferred as the student'slearning preferences associated with involving the Myers-Briggs Type Indicator (MBTI) by Jensen (1987) and Lawrence (1984). The researchers summarised the learning style with MBTI eight dimensions, as extraversion; introversion; sensing; intuition; thinking; feeling; judging; and perceiving. In this study found that respondents only preferred to two dimensions for group assignment. It was: (a) Extraversion and (b) Feeling.

#### *a)* Subthemes 1: Extraversion.

Group assignment is the essential in learning. Extraversion student learn best in situation filled with movement, action and talk. Usually they prefer talking, discussion, psychomotor activity and working with a group. In this study found that all tops students are extraversion in learning while working on their group tasks.

"When group assignment... the group mates that really...can give commitment and teamwork..." (TSP1)

"...I will try to initiate or be the first one to lead in the group. We will discuss on what we suppose to do, what topic we going to do..." (TSP2)

"I also do have group assignment. [...]. The group assignment collaborations between group members are the important things. Firstly, I will discuss with group member about the ideas, how to do it [...]. I'll become a group leader..." (TSP3)

"[...]. I need a good member in-group assignment. A good member in-group assignment is very effective and best way for learning. It is because I can discuss. [...]. We can do discussion and exchange more information." (TSP4)

"Well, group assignment. [...]. I try my best to do discussion with my group members. Because, discuss with member is the best way to get opinion and answer for learning..." (TSP5)

"[...]. We were cooperating, collaborating and communicate easily. [...]. Because it's easy to communicate to group members and if there is a good or bad comment, we can say it..." (TSP6)

"Firstly, teamwork with group members is effective way. Most of the time, I will be the leader when doing group assignment. I am glad to take a role of leader in the group..." (TSP7)

According to McRorie et al. (2009), during conversation, extroverts tend to position themselves closer to others, and direct facial posture and eye contact is more likely to be maintained.John and Srivastava(1999) stated that extroversion includes at least five distinguishable components: Activity level (active, energetic), Dominance (assertive, forceful, bossy), Sociability (outgoing, sociable, talkative), Expressiveness (adventurous, outspoken and show-off) and Positive emotionality (enthusiastic). In summary, extroverts are usually often take leadership roles. As we can see respondents like cooperating with other people, group activities and have highly developed interpersonal intelligence.

b) Subthemes 2: Feeling.

The learners with feeling preference are subjective and driven by emotions. According to Lawrence (1984), feeling preference is learning through personal relationship and personal rapport with instructor. Perception student tend to view learning as a freewheeling, flexible quest (Jensen, 1987). A feeling person will make decisions based more on personal values, relationships and feelings of others (Sharp, 2004).Student preferring feeling make decisions based on emotions. Respondents reported that they learned better on group assignment when they flexible, happy, guide, help, know and understand each other.

"... Beside that they can guide me and we can help each other..." (TSP4)

"[...] To be truthful, I have a group member who just does his or her assignment in sloppy work. Ire-do her or his work. [...]. I top up the points to make sure everyone gets high score." (TSP5)

"[...]. Because I would want everyone to work happily together. So, when the group atmosphere is good. Everyone wants work together. [...] Know and understand each other. This is better and faster to done our group assignment..." (TSP6)

"[...]. Some of them didn't do their part. So, I and other member have to do it together to cover their part..." (TSP7)

# 5. Theme 5: Tactic of Study

When asked to describe a tactic of study, many of the interviewed respondents mentioned their have a same tactic of study for midterms and final examination:

"Actually, there are no different between that. I used the same formula of my learning style... [...]." (TSP2) "I use same tactic for midterm and final exam. [...]". (TSP3) "I use same method of learning for midterm and final. [...]" (TSP4) "Ah. It is pretty much same. [...]" (TSP5) "I used the same tactic study for midterm and final. Before I study, I make sure myself in a good health. [...]" (TSP6) "I will say I used the same tactic in learning. [...]" (TSP7)

One respondent has a different tactic of study for midterms and final examination:

"[...]. Yeah. My learning styles for the midterm and final are totally different, even though I can study with or without my friend. But I prefer study during midterm with myself. And in the final, I'll study with my friends." (TSP1)

For high Academic Performance, respondents basically improve their tactic of study. The theme of "tactic of study" preferred as the student's study habits. It tell a person that how much he will learn and how far he wants to go, and how much he wants to earn. These all could be decided

with the help of one's study habits, throughout the life. Student's grades related to their study habits. That is, students with poor study habits may obtain lower grades than those students with better study habits. The theme of tactic of study was considered into three subthemes: (a)using study time and place, (b)individual capabilities, and (c) making own study aids.

# a) Subthemes 1: Using Study Time and Place.

Tactic of study is buying out a dedicated scheduled and un-interrupted time to apply one's self to the task of learning. Respondents improved they learning when they used proper time to study per day and revise the lecture notes daily:

"[...]. Usually, my time of study is after I done my class. If I finished my class, I went to the library until evening. [...]. Even sometime I missed my routine, which is go to the library after my class done. After I got my dinner, I still tried to catch up my routine schedule of study at library." (TSP1)

"[...]. I will do my timetable's study. [...]. It depends on how long I took time to revise for one lecture. Sometime, I manage to do revised for two to three lectures in a day. [...]." (TSP2)

"[...]. I prefer study at night. [...]. Since, all my lectures are in a morning, so I only have free time on at the night. Roughly, I will start from 7pm at the night until 11pm plus. [...]." (TSP3)

"Sometime, I will study at library too but most of the time I study at my own room. I prefer study alone at night. [...] I felt it more effective for me. I am overnight person. So, I start study at night like around six evening and I will stop before four morning. [...]. That is why I like to set a time for study". (TSP5)

"I start study early. In every new semester, I already start to study. I will go to the library and borrow some books. [...]. I study at my room." (TSP6)

Some respondents also stated they study one day or half day before the exam time:

"... I will study a day or at least half day before exam time. [...]. This is how I learn. I don't need time management and I didn't do schedule for study. I just go with the flow." (TSP4)

"...Actually I study... one day before the date. [...]. When I study, I don't sleep at night. I will sleep in the morning to afternoon. Then I will wake up at twelve midnight just to study... I will stay up until the exam time. [...]. Usually I study at living room because living room is very quite during twelve midnight." (TSP7)

In summary, respondent giving proper time to studies is an essential variable for the development of student's learning style. They start to study after they finish morning or/and evening classes. Majority of respondents stayed up overnight.

b) Subthemes 2: Study Tactics.

Individual capabilities learning preferred on how respondent engage influence their studying skills and subsequent academic performance. Respondent reported that they prefer spacing out their study in short periods for effective learning.

"[...]. I spent two hours study and then I will rest for 30 minutes. Then continue study two hours and take a break 30 minutes. This is very effective for me to learn. Because brain works the best for two hours." (TSP3). "[...]. So in my case, I need to relax a bit and it makes me easy to memorise the point." (TSP4).

Respondent also need leisure time after they do their study:

"I will aside the club's meeting and completed the task work. I felt happy when it settled down. [...]. I finished my class, I went to the library until evening. After that I'll go to complex to do some exercise." (TSP1).

Respondent also prefer study with peace view and silence environment. It helps respondents to stay focus. Instead of simply approaching a subject just to learn it and complete it on time in a closed setting, view of environment also effected on respondents learning.

"[...]. Naturally, my room is quiet environment already and it very effective for me to study." (TSP3). "[...]. I like to study in quiet atmosphere..." (TSP6) "When I study, I need a quiet place and I don't listen to the music. Yes, It effectives for me to learn." (TSP7).

There is a general sense in which one appreciates the link between good habits of reading and the academic performance of students generally. Based on this study, respondents mentioned that they do extra reading on varies resource. Meaning, respondents are not only depending on the lecture notes but also they used an extra resource to top up their knowledge. It also boosts respondents understanding and memories.

> Find a good article is the best way for me to learn and it is very effective. [...]. I need to read through it. [...]. Very effective for me to learn and I got a lot of information about it. (TSP4) "I will go to the library and borrow some books that related with my course. After

> I get the lecturer notes, I also do extra reading for top up my knowledge." (TSP6). "[...] I will memorise and understand the chapters in one day. [...]. I read and study through Facebook or Internet source that related to the topic." (TSP7)

According to Palani (2012), reading habit is an essential and important aspect for creating a literate society in this world. It shapes the personality of individuals and it helps them to develop proper thinking methods, and creates new ideas. However, the developments in the Mass Media had continued to influence interest in reading books, magazines and journals, among others. Issa et al. (2012) recommended that everyday reading activities in which students engage influence their studying skills and subsequent academic performance.

## c) Subthemes 3: Making Own Study Aids.

Respondents also prefer learning by doing. They try to learn a subject by doing it as hands on learning lets they understand it better than learning theory. They used hands to create a range of study aids, it helps them to grasp it and retain it in memory for long. Respondents mentioned making own study aids helps them to remember the points and boosting their understanding on the course or subject.

"I will do a lot of things such as colouring, shaping et cetera on my own notebooks. Yeah, I write my own notebooks and use a lot of colours and a lot of shapes. It helps me to remember when I re-write the slide, colouring and drawing. If I just read from the slides, I just don't have a feeling to study. So that I have to write down back." (TSP2)

"[...]. I will take notes, make notes, and write notes. [...]." (TSP3)

"[...]. Usually, I do some notes, memorizes the point and the example. It makes me easy to memorise the point." (TSP4)

"I would re-write everything on the blank space. It is because I don't like my notes look clean. Yes, I like it messy writing everything on the notes helps me easily to understand and memorise it." (TSP5)

According to Erum and Zahoor (2011), students who create their own study aids are spending time making them, whereas those who use others' study aids or not. It may also be that the process of creating study aids helps the learner gain more meaningful knowledge through the process of synthesizing disparate pieces of information into new knowledge, as has been shown with note taking.

# 6. Theme 6: Lecturers.

All the students spoke about the personality of a good lecturer that they can learn best in learning. The researchers analyzed the result showed that most top students in Faculty Psychology and Education at UMS emphasized personal characteristics that might qualitatively improve the lesson. Specifically, students cherished a lecturer's ability to encourage a casual yet disciplined classroom environment, for example by including humorous elements. The theme of "lecturers" preferred as the lecturer's personal characteristic in teaching. It was contained into four subthemes: (a) assertiveness, (b) humour, (c) empathy, and (d) easy going.

a) Subthemes 1:assertiveness

Even though students wished to get along with their lecturers 'like friends', they nonetheless expected lecturers to retain their authority. According to some of the interviewed top students in Faculty Psychology and Education, a lecturer should lead and control the class in a caring and fair, yet firm manner:

"... I like that kind of lecturer who is not strict. I mean when they (lecturer) speak up is very firm and clear, such as what we have to do, what are we suppose to do and et cetera... Therefore, I want the lecturer take me to the clear-cut instructions..." (TSP2) "... I like the one (lecturer) that try to... lead some rules at the same time... and give some pre-precise brief of lectures..." (TSP5)

According to these top students, a lecturer might be strict as long as he or she can give a good explanation, example and funny.

"... Lecturer can explain everything ... explain it in detail..." (TSP1) "... For me, the entire lecturers are good. The best way for me to learn is the lecturer who... can give a good explanation, examples, funny and strict..." (TSP6)

## b) Subthemes 2: humour

Aside from maintaining discipline through overt assertiveness, many of the interviewed top students in Faculty Psychology and Education, mentioned that humor was a valuable personal quality of the lecturer:

"... The funny type is most easy for me to learn. Because it more easy for me to learn and I won't get bored in the classroom. I can pay more attentions and I can listen to the lecturers..." (TSP4)

"...I like the one that... fun..." (TSP5)

"... They (lecturer) can... funny and strict... my principal in learning is I need to take any initiative and motivated to learn..." (TSP6)

"... I prefer humorous lecturers. Because if the lecturer like teaching in very old school, it is very boring... Humorous lecturers are quite effective for me to learn." (TSP7)

Accordingly, Diana, Lisa, Sven, Sabrina, Elisa and Nicola (2016), humor helps develop the capacity for teamwork and the ability to cooperate and deal with conflict, which, in turn, leads to better communication and cooperation between teachers (lecturers) and students. As such, the use of humor in everyday classroom interactions can help the teacher communicate with his or her

students on an interpersonal level addressing their being-dimensions. Indeed, the literature on the utility of humour in teaching seems unequivocal. Laughter in the classroom acts to relieve stress and anxiety (Shibinski & Martin 2010), helps students retain information (Garner, 2006) and improves teacher-pupil relationships (Nesi, 2012) and students' enjoyment of the subject (Torok et al., 2004). Of specific importance here, the use of humour in the lecture theatre focuses student attention (Ulloth 2002) and helps students engage with the subject matter (Glenn, 2002). Humour, it seems, is a perfect vehicle for edutainment.

## c) Subthemes 3: empathy

Empathy is another important characteristic of a good lecturer. In this study, some top students preferred to be understood and accepted as individuals by their tutors. Lecturer empathy is the fundamental teaching skill for the promotion of positive learning atmosphere to students. Lecturer empathy is the ability of a lecturer to show concern and tune into the perspective of a student.

"...Lecturer that understand the student well. I mean he or she knows student needs, student-learning behaviour, and they understand their student very well. Ah. I think if the lecturer understands the student very well, the relationship between the lecturer and the student is good. So, yeah. I will not feel that scared to the lecturer. I feel more confortable to learn with the lecturer..." (TSP3) "...I like the one that try to understand the student... Because, when the lecturer try to understand their student... It helps me..." (TSP5)

In any educational field, the role of lecturer empathy cannot be ignored. If lecturers become empathic to their students, it will result into students who will feel more connected to lecturer, and when lecturer takes the perspective of students, it inspires the lecturer to make the learning more relevant to the students (Bostic, 2008). Indeed, increasing lecturer's ability to be empathic leads towards understanding and responding their students' needs appropriately (Barr, 2011).

## d) Subthemes 4: easy-going

With an easy going lecturer can put students at ease and feel motivated, increasing student moral and less stress. Drowning in the happy class, students are likely to have more efficient remember abilities and active thinking. Some top students preferred the type of easy-going and not strict lecturer.

"... I like that kind of lecturer who is not strict..." (TSP2) "... I like the one that... easy going... It helps me. The lecturer makes thing easier for me to study. At the same time it motivated and increase my moral." (TSP5)

## Conclusion

The aim of the present study was tofind out and specify learning and studying style top student that allowed them to achieve the high rank in their program. Beside that, the universities could help the other students to improve the academic performance in the upcoming semesters. Overall of finding this study has a six themes whereas lecture, tutorial/lab/practical, individual assignment, group assignment, tactic of study and lecturers. It implied to the effectiveness of learning styles' tops students in Faculty of Psychology and Educations at Universiti Malaysia Sabah.

When students physically attending a live lecture, the lecturer can make their enthusiasm for the subject, thus seizing the students' attention and inspiring them. However, in this study found that students learnt best when the lecture in a various way. The themes of lecture proved that students prefer attending into (1) formal lecture. (2) Interactive lecture, (3), digital technology lecture, and (4) humor lecture. Since most of the literature emphasizes the importance of faculty student out of classroom interaction (Astin, 1993; Milem & Burger, 1997; Pascarella, 1980; Pascarella & Terenzini, 2005). In this study found tutorial or/and lab or/and practical classes also effected on they learning style. It was considered into four types of effective tutorial or/and lab or/and practical classes: (1) Question and Answer Session, (2) Debar and Discussion (give opinion and suggestion), (3) Practice session (exercises, quizzes and games), and (4) Practical by using equipment or tool.

In the light of these results we can say that assignment is more important construct for student academic performance at university level. Assignments are to improve the learning skills of students. Because if the students use their brains it is more chances they can learn more. It is a proven scientific fact that academic assignments enhance the creativity in students as they learn a lot more when they practice or read something on their own.in this study, assignments was split into two main themes: (1) individual assignment and (2) group assignment. This study found that the theme of individual assignment as students preferred on sensing. Meanwhile, theme of group assignment, it was considered into two learning style: (1) extraversion and (2) feeling. Based on this study, it is very effective learning style for top students in Faculty of Psychology and Education at Universiti Malaysia Sabah.

Last but not least, in this study found that student tactic learning. It prefer to student study habit and learning skills. The theme of tactic of study was split into three subthemes: (1) using study time and place, (2) study tactics, and (3) making own study aids. According to Erumand Zahoor (2011), study skills and learning approaches include, for example, time management, using information resources, taking class notes, communicating with teachers, preparing for and taking examination, and several other learning strategies. The research shows a significant correlation between such learning behavior and approaches and academic achievement in higher education (Soares, et al., 2009).

A last theme in this study is lecturer. Therefore, when it comes to lecturer's personal characteristics, the following four subthemes were identified to indicate a "good" lecturer: (1) assertiveness, (2) humor, (3) empathy, and (4) easy-going. Students' narratives about teachers' assertiveness supported previous research, which found that students valued a respectful and a clearly structured learning environment (Klem & Connell, 2009). Furthermore, the present results confirm studies which found a positive association between teachers' perceived humor and students' learning (Garner, 2006; Wanzer &Frymer, 1999). In line with Raufelder's finding (2007), the current results provide evidence that students expect a good teacher to show empathy for their individual needs. Due to their advanced developmental state, it is the adult (teacher) who needs to show empathy for the child (student), and not vice versa. Both sympathy and empathy can be useful for overcoming the rigid institutional context of school, which is characterized by an imbalance of role- and being-dimensions (Cooper, 2004; Raufelder, 2007; Raufelder, Bukowski et al., 2013).

# Implications

This qualitative study was purposefully designed to find out the learning style among top student at Faculty of Psychology and Education in UMS than a quantitative approach would allow. Our findings provide important evidence that top students have their own learning style and studying tactics for better academic performance. We advice future researchers might identify the extent to which the majority of undergraduates' learning styles change between their freshman and senior years. The findings show that learning and studying tactic of top students can make as a module of intervention for future researchers. We hoped that the finding can applied to assist the student poor academic performance improved their results in the future. Since the current study is focusing on the top students at Faculty of Psychology and Education in UMS, we advise future researchers might extent it to the all-top students at whole faculties in UMS.

#### Reference

- 4. \_\_\_. (2014). Moodle Learning Management System [Online]. Available: <u>http://www.moodle.org</u>.
- 5. Ahmad, F., Mohd Shah, P, Mulaic, A. (2009) Perceptual Learning Styles of ESL Students. *European Journal of Social Sciences*. Vol. 7, No. 3.
- 6. Allinson, C., & Hayes, J. (1996). The cognitive style index. *Journal of Management Studies*, 33, 119–135.
- 7. Association for Psychological Type. (2000). What is the Myers-Briggs Type Indicator?.
- 8. Astin, A.W. (1993). *What matters in college: Four critical years revisited*. San Francisco, CA: Jossey Bass.
- 9. Bostic, T. B. (2008). Teacher Empathy and Its Relationship to the Standardized Test Scores of Diverse Secondary Students.
- 10. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77–101.
- 11. Barr, J. J. (2011). The relationship between teachers' empathy and perceptions of school culture. *Educational Studies*, 37(3), 365-369.
- 12. Coffield F., Moseley D., Hall E., and Ecclestone K. (2004). *Should We Be Using Learning Styles? What Research Has to Say to Practice?* London: Learning and Skills Research Centre/University of Newcastle upon Tyne.
- 13. Diane M. Bunce, Elizabeth A. Flens, and Kelly Y. Neiles (2010). How Long Can Students Pay Attention in Class? A Study of Student Attention Decline Using Clickers. *Journal of Chemical Education*. Vol. 8. No. 12: 1438-1443.
- 14. Dunn, R., & Dunn, K. (1978). *Teaching students through their individual learning styles: A practical Approach*. Virginia, Reston Publishing.
- 15. Dunn, R., & Dunn, K. (1978). *Teaching students through their individual learning styles*. Reston, VA: Reston.
- 16. Dunn, R., & Dunn, K. (1992a). Teaching elementary student through their individual learning styles. Boston: Allyn & Bacon.
- 17. Dunn, R., & Dunn, K. (1992b). Teaching secondary students through their individual learning styles. Boston: Allyn & Bacon.
- 18. Dunn, R., Dunn, K., & Price, G. E. (1984). Learning style inventory. Lawrence, KS: Price Systems
- 19. Erum Shahzadi and Zahoor Ahmad. (2011). A Study On Academic Performance Of University Students. *International Conference on Recent Advances in Statistics Lahore, Pakistan. 8: 255-268.*
- 20. Felder R. M. & Silverman L. K. (1988). Learning and teaching styles in engineering education, *Eng. Educ.* 78(7): 674 681.
- 21. Felder R. M. (1993). Reaching the second tier: Learning and teaching styles in college science education, *Journal College Science*. 23(5): 286 290.
- 22. Felder, R. M. (1996). Matters of Style. AEEE Prism. 18-23.
- 23. Felder, R. M. & Spurlin, J. (2005). Applications, Reliability and Validity of the Index of Learning Styles. *International Journal Engineering*. 21(1): 103-112.
- 24. Garner, R (2006). Humor in pedagogy: How ha-ha can lead to aha! *College Teaching*, vol. 54, pp. 177-179.
- 25. Glenn, R (2002). Brain research: Practical applications for the classroom. *Teaching for Excellence*, vol. 21 no. 6, pp. 1-2.
- 26. Gordon Tait, Jo Lampert, Nan Bahr, Pepita Bennett. (2015). Laughing with the lecturer: the use of humour in shaping university teaching. *Journal of University Teaching & Learning Practice*. Vol.12(3): 1-15.
- 27. Honey, P., & Mumford, A. (1992). *The manual of learning styles*. Maidenhead, England: Peter Honey Publications.
- 28. Honey, P. & Mumford, A. (1986). The Manual of Learning Styles. Maidenhead: Peter Honey.

- 29. Issa, A.O., M.B. Aliyu, R.B. Akangbe and A.F. Adedeji, (2012). Reading interest and habits of the federal polytechnic students. *International Journal of Learning & Development*, 2(1): 470-486
- 30. Jensen, G. (1987). Learning styles. In J. A. Provost & S. Anchors (Eds.), *Application of the MBTI in Higher Education* (pp. 181-206). Palo Alto, CA: Consulting Psychologists Press.
- 31. John, O.P. and Srivastava S. (1999) The Big Five Trait Taxonomy: History, Measurement, and Theoretical Perspectives. *Handbook of Personality: Theory and Research*. Ed. John O.P. and Lawrence, A.P., New York, London: The Guildford Press, pp. 102 – 132.
- 32. Kolb, D. A. (1976a). Learning Style Inventory. Boston, MA: Hay Group, Hay Resources Direct.
- 33. Kolb, D. A. (1976b). *Learning Style Inventory:* Technical Manual Boston, MA: Hay Group, Hay Resources Direct.
- 34. Kolb, D. A. (1999a). *Learning Style Inventory, Version 3*. Boston, MA: Hay Group, Hay Resources Direct. 116 Huntington Avenue, Boston, MA 02116, haytrg@haygroup.com.
- 35. Kolb, D. A. (1999b). *Learning Style Inventory, Version 3*: Technical specifications. Boston, MA: Hay Group, Hay Resources Direct. 116 Huntington Avenue, Boston, MA 02116, trg\_mcber@haygroup.com.
- 36. Kolb, A., and Kolb, D. A. (1999). *Bibliography of research on experiential learning theory and the Learning Style Inventory. Department of Organizational Behavior*, Weatherhead School of Management, Case Western Reserve University, Cleveland, OH.
- 37. Kolb, D. A. (1984). *Experiential Learning: Experience As The Source of Learning and Development*. New Jersey: Prentice Hall, Inc, Engle wood Cliffs.
- 38. Lawrence, G. (1984). A Synthesis of Learning Style Research Involving the MBTI. *Journal of Psychological Type*. 8: 2-15.
- 39. Mariati Mohd. Salleh, Ahmad Naim Ahmad Yahaya, Azman Yusof, & Herdayuwati Hussin. (2015). Factors Affecting Undergraduates' Academic Competence: A Case Study of Unikl MICET. *International Academic Research Journal of Social Science*. 1(2): 290-294.
- 40. Maryam Alavi, Dorothy E. Leidner, (2001). Research Commentary: Technology-Mediated Learning—A Call for Greater Depth and Breadth of Research. *Information Systems Research*. 12(1): 1-10.
- 41. M Chabeli. (2008). Humor: A pedagogical tool to promote learning. Curationis. 31(3): 51-59.
- 42. Mahwish Rabia, Naima Mubarak, Hira Tallat And Wajiha Nasir. (2017). A Study On Study Habits And Academic Performance Of Students. *International Journal Of Asian Social Science*. 7(10): 891-897.
- 43. McCarthy, B. (1997). A Tale of Four Learners: 4MAT's Learning Styles. *Educational Leadership*. March 01, 1997.
- 44. McKeachie, W. J. (2002). McKeachie's Teaching Tips, 11th ed.; Houghton Mifflin: New York.
- 45. McRorie, M. et al. (2009) A Model of Personality and Emotional Traits. Zs. Ruttkay et al. (Eds). *Springer-Verlag Berlin Heidelberg*, pp. 27 33.
- 46. Milem, J.F. and Berger, J.B. (1997). A modified model of college student persistence: Exploring the relationship between Astin.s theory of involvement and Tinto.s theory of student departure. *Journal of College Student Development*, 38 (4), 387-399.
- 47. Murat Goklap. (2013). The Effect of Students' Learning Styles to Their Academic Success. *Scientific Research.* 4(10). 627-632.
- 48. Nesi, H (2012). Laughter in university lectures. *Journal of English for Academic Purposes*, vol. 11, pp. 79-89.
- 49. Palani, K.K., (2012). Promising reading habits and creating literate social. *International Reference Research Journal*, 3(2): 90.
- 50. Pascarella, E.T. (1980). Student-faculty informal contact and college outcomes. *Review of Educational Research*, 50 (4), 545-595.
- 51. Pascarella, E.T. (1980). Student-Faculty Informal Contact and College Outcomes. *Review of Educational Research*, 50, 545-95.

- 52. Pascarella, E.T. and Terenzini, P.T. (2005). *How college affects students: A third decade of research*. San Francisco, CA: Jossey-Bass.
- 53. R. K. Yin, (2013). Case Study Research: Design and Methods, 5th Edition. SAGE Publications.
- 54. Riding, R., & Rayner, S. (1998). Cognitive styles and learning strategies: Understanding style differences in learning behaviour. London, England: David Fulton Publishers Ltd.
- 55. Sharp, A. (2004). Language Learning and Awareness of Personality Types in Chinese Setting. *Asian EFL Journal.* pp. 1-13.
- 56. Shibinski, K & Martin, M (2010). The role of humour in enhansing the classroom climate. *Human Kinetics*, vol. 15, no. 5, pp. 27-29.
- 57. Soares, A.P., Guisande, M.A., Almeida, L.S. and Paramo, M.F. (2009). Academic Achievement in first-year Portuguese College Students: The role of Academic Preparation and Learning Strategies. *International Journal of Psychology*, 44(3), 204-212.
- 58. Torok, S, McMorris, R & Lin Wen-Chi (2004). Is humour an appreciated teaching tool? *College Teaching*, vol. 52, no. 1, pp. 14-20.
- 59. Ulloth, J (2002). The benefits of humor in nursing education. *Journal of Nursing Education*, vol. 41, no. 11, pp. 476-481.
- 60. Yin, R.K. (2011). *Qualitative Research from Start to Finish*. New York, NY: The Guildford Press.

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