



# **LEARNING STYLES AND THINKING STYLES AS PREDICTORS OF ACCOUNTING STUDENTS' SOFT SKILLS AND THE MEDIATING ROLE OF ACADEMIC ACHIEVEMENT IN SELECTED UNIVERSITIES**



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**UNIVERSITI PENDIDIKAN SULTAN IDRIS**

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LEARNING STYLES AND THINKING STYLES AS PREDICTORS OF  
ACCOUNTING STUDENTS' SOFT SKILLS AND THE MEDIATING ROLE OF  
ACADEMIC ACHIEVEMENT IN SELECTED UNIVERSITIES

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DEGREE OF DOCTOR OF PHILOSOPHY (ACCOUNTING EDUCATION)

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## ABSTRACT

The aim of this study is to determine the effect of learning styles and thinking styles on soft skills of accounting students' and mediating role of academic achievement in selected universities. Sternberg's theory of mental self-government and Fleming's theory of VAK were applied and the Barsch Learning Styles Inventory and Sternberg Thinking Styles Inventory instrument was used to assess students' learning styles and thinking styles as well as Malaysian Soft Skills Scale instrument were used to measure graduates' soft skill attainment level. Sample for this study consists of 306 undergraduate accounting students chosen randomly from UM, UPM and UTAR and the data were analysed using SPSS software. A quantitative approach through questionnaire method was carried out to gather the data. An analysis of Mean, Standard Deviation, T-Test, One-Way Anova, Multiple Linear Regressions and Pearson's Correlation were performed. The research result indicated that there is positive correlation between learning styles and communication skill ( $r=0.540$ ,  $p<0.05$ ) and positive correlation between learning styles and critical thinking and problem-solving skill ( $r=0.518$ ,  $p<0.05$ ). Meanwhile, positive correlation between thinking styles and communication skill ( $r=0.613$ ,  $p<0.05$ ) and positive correlation between thinking styles and critical thinking and problem-solving skill ( $r=0.623$ ,  $p<0.05$ ). Students' VAK learning style significantly influences communication skill and critical thinking and problem-solving skill. Moreover, legislative, executive, internal and external thinking style significantly influences students' communication skill and insignificantly for judicial thinking style. Besides, legislative, internal and external thinking style significantly influence students' critical thinking and problem-solving skill and insignificantly for executive and judicial thinking style. In conclusion, proper learning and thinking styles adopted by educators may draw students' attention during their learning process and develop their soft skills. In implication, this study encourages Ministry of Higher Education to incorporate different types of soft skills into accounting curriculum.

## **GAYA PEMBELAJARAN DAN GAYA PEMIKIRAN SEBAGAI PERAMAL KEMAHIRAN INSANIAH PELAJAR PERAKAUNAN DAN PERANAN PENCAPAIAN AKADEMIK SEBAGAI MEDIATOR DI UNIVERSITI TERPILIH**

### **ABSTRAK**

Kajian ini dijalankan untuk mengenalpasti pengaruh gaya pembelajaran dan gaya pemikiran terhadap kemahiran insaniah pelajar perakaunan dan peranan pengantara pencapaian akademik di universiti terpilih. Teori Sternberg mengenai pemerintahan sendiri mental dan teori VAK Fleming telah dirujuk dan instrumen Barsh Learning Styles Inventory dan Sternberg Thinking Styles Inventory telah digunakan untuk mengukur gaya pembelajaran dan gaya pemikiran pelajar serta berpanduan instrumen Malaysian Soft Skills Scale untuk menilai tahap pencapaian kemahiran insaniah graduan. Seramai 306 pelajar perakaunan dari UM, UPM dan UTAR telah dipilih secara rawak dalam kajian ini dan data dianalisis menggunakan perisian SPSS. Pendekatan kuantitatif melalui kaedah soal selidik dilakukan untuk mengumpulkan data. Analisis Mean, Standard Deviation, T-Test, One-Way Anova, Multiple Linear Regressions dan Pearson's Correlation telah dijalankan untuk mencapai objektif kajian ini. Hasil kajian menunjukkan bahawa terdapat hubungan yang positif antara gaya pembelajaran dan kemahiran komunikasi ( $r=0,540$ ,  $p<0.05$ ) dan hubungan yang positif antara gaya pembelajaran serta pemikiran kritis dan kemahiran menyelesaikan masalah ( $r = 0,518$ ,  $p<0.05$ ). Sementara itu, hubungan yang positif antara gaya pemikiran dan kemahiran komunikasi ( $r=0,613$ ,  $p<0.05$ ) dan hubungan yang positif antara gaya pemikiran serta pemikiran kritis dan kemahiran menyelesaikan masalah ( $r=0,623$ ,  $p<0.05$ ). Gaya pembelajaran VAK pelajar secara ketara mempengaruhi kemahiran komunikasi serta pemikiran kritis dan kemahiran menyelesaikan masalah. Gaya pemikiran legislative, executive, internal dan external secara ketara mempengaruhi kemahiran komunikasi pelajar dan tidak ketara untuk gaya pemikiran judicial. Selain itu, gaya pemikiran legislative, internal dan external secara ketara mempengaruhi pemikiran kritis pelajar dan kemahiran menyelesaikan masalah serta tidak ketara untuk gaya pemikiran executive dan judicial. Kesimpulannya, gaya pembelajaran dan pemikiran yang diadaptasi oleh pendidik dapat menarik perhatian pelajar dalam membantu proses pembelajaran dan mengembangkan kemahiran insaniah mereka. Secara implikasinya, kajian ini menggalakkan Kementerian Pengajian Tinggi untuk menggabungkan pelbagai jenis kemahiran insaniah dalam kurikulum perakaunan.



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## LIST OF ABBREVIATIONS

A	Auditory
BLSI	Barsch Learning Style Inventory
CGPA	Cumulative Grade Point Average
CS	Communication Skills
CTPS	Critical Thinking and Problem-Solving
E <sub>1</sub>	Executive
E <sub>2</sub>	External
EM	Professional Ethics and Morals
ES	Entrepreneurship Skills
GPA	Grade Point Average
Ho	Null Hypothesis
I	Internal
J	Judicial
K	Kinesthetic
L	Legislative
LL	Lifelong Learning and Information Management Skills
LS	Learning Style
LS	Leadership Skills
MV	Mediating Variable
RO	Research Objective
RQ	Research Question







SS	Soft Skills
STSI	Sternberg Thinking Styles Inventory
V	Visual
TS	Thinking Style
TS	Teamwork Skills



## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of the Study

The Malaysian experienced a quick economic development, between the years 1991 to 1997. The steady 8.5% development in Gross Domestic Product (GDP) not only helped the nation to sustain a low rate of inflation, but also to steadily bring down its unemployment rate. The manufacturing industry for the duration of this period emerged as the major contribution towards low unemployment rates and job creation. While, financial crisis in year 1997, the economic structure changed from the manufacturing sectors industry to the service sectors industry. Service industry development was largely influenced by Multinational Companies (MNCs) proliferation. However, for the past three decades during these periods, the Malaysian economy has grown annually at a rate of 6.6%, but the unemployment rates have risen from 2.6% in year 1996 to 3.6% in year 2003 (Nazaria Baharudin, 2003). Analyst,



Wong (2010) found that among 80,000 to 100,000 jobless students in Malaysia were found in year 2009.

Accounting graduates from university are no longer a passport guarantee one's employment and a successful career. In the year 2015, a report from the Ministry of Education (MOE) confirmed that in six months of graduation, only 273,373 graduates of the 53% were employed. Another 18% decided on to continue their studies, whereas 24% were on unemployment. The mismatch between skill sets required by the employers and the training provided at universities were the reasons cited for the lack of employability of local graduates (The Star Online, 2017). Considering a report from Jobstreet.com (2009), among other causes why many companies unwilling to employ fresh graduate because they were unable to speak well in English (55.8%), attitude, negative character and personality (37.4%), over salary or benefit demand (33%), mismatch of skill (30.2%), weak problem-solving skills (25.9%), and inadequate in-depth knowledge (23.8%). The Ministry of Higher Education (MOHE) (2012) found one of the main grouses of the industry is the lack of soft skills among the graduates of today, in particular, communication skills, especially in terms of proficiency in the English language, problem-solving skills, interpersonal skills including the ability to lead and work in teams, as well as critical and creative thinking skills.

Nowadays, accounting graduates have to struggle in order to be successful in their career. In recent times, the challenges in getting employed are the freshest accounting graduates have been facing. Whereas, Malaysia targets becoming a top



earnings country by the year 2020, there is require at least 60,000 eligible accountants to achieve the target (The Economic Transformation Programme, 2014). The governing accounting body in Malaysia, the Malaysian Institute of Accountants (MIA), has identified that Malaysia has just around 31,000 qualified accountants registered with them, with just a few years away in 2020 (Johan Idris, 2015).

A statement by Seetha (2014) shows soft skills gaps are the major cause for the high unemployment statistics amongst Malaysian young graduates. Pineteh's (2012) study found educators shall work creatively incorporating traditional methods of learning and teaching through technology advances, therefore the process of learning and teaching will not be uninterested, as a result will help in improving the student's communication skills.

The National Graduate Employability Blueprint (2012-2017) confirmed Malaysian graduates must equip with specific skill set when applying for a job in local industries. Soft skills and hard skills are two categories of skill set. In order to represent soft skills, different writers presented a number of dimensions. They include a poor attitude towards work, poor problem-solving skills, low self-confidence and communication skills (Ministry of Education, 2012). White (2013) says capability to think creatively and critically, solve problems or write well among today's new graduates still poor and the majority of employers admit to it. The paradigm shift has forced the importance of soft skills even in the technical industries of this 21<sup>st</sup> century and has become serious (Seetha, 2014).



Ruhanita Maelah, Aini Aman, Zakiah Muhammadun Mohamed, and Rosiati Ramli (2012) highlighted the need for Malaysian accounting graduates to have sound technical skills as well as talented in soft skills to enlarge their marketability for employment. Communication skills, leadership skills, teamwork and self-management skills are three categories of soft skills which graduates was able to improve during the training. Learning about time management, using the computers, coping with stress, meeting due dates, and collecting information from various sources were the self-management components that the respondents ranked top seven. The communication components of the soft skills acquired by students in training were listening and oral communication. Students claimed that by working in groups they have been strongly developed skills, which are necessary in the work of financial consultants, auditors and professional accountants. In the list of skills developed by the students', creative thinking skills were ranked lowest (Ruhanita Maelah et al., 2012).

The accounting profession highly expected to be able to perform their daily jobs with a certain level of soft skills. Nowadays, businesses require accountants to have higher order thinking skills (HOTS) in order to make important business decision that are no longer about understanding the transaction and interpreting accounting standards or preparing full set financial statements. In lieu with business requirement, it's important to carry out a research to examine the soft skills among Malaysian accounting graduates' (Juhaida Ishak, 2012).





Malaysia's Ministry of Higher Education (MOHE) understood the fundamental importance of soft skills among students and stressed the need for institutions of higher education that try to expose students to soft skills during studies and conducted an online final year survey to determine their level of soft skills among tertiary students in Malaysia. The Malaysian Soft Skill Scale (My3s) online survey contains seven types of soft skills, namely communication skills, thinking and problem-solving skills, lifelong learning and information management skills, teamwork skills, ethics skills, entrepreneurship skills, leadership skills, and morality and professionalism skills (Ministry of Higher Education, 2012). The Minister of Higher Education (MOHE) declared that these seven key skills should be absorbed into undergraduate curriculum programs at public universities in Malaysia (Roselina Shakir, 2009).

Considering that the perceived importance of soft skills in society over the past decades has increased dramatically. It is necessary for everyone to acquire adequate skills, in addition to technical or academic knowledge. Educators have a special responsibility for soft skills because during the time of school and university they have a significant impact on the development of their students' soft skills. In addition, educators need to practice soft skills regularly with their students to raise awareness of the value of the soft skills and encourage students to develop their skills. A very efficient and effective way to do this is to include soft skills training in hard skills teaching. The lesson will be more attractive as a positive side effect, which in turn will increase the success rate of students (Schulz, 2008).



Consequently, learning style and thinking style are at an important level of ability in students' life. At some point, the thinking styles at their beginning and appropriate stage were overlooked by the educators. It is important before teaching the subject matter; the educators must focus their attention on students' preferred thinking styles (Parveen Sharma & Neetu, 2011). It was observed that most of the educators did not use a wide range of teaching techniques to match the learning style preference of each student. The educators also did not consciously design instructions appropriate to students' learning styles. This mismatch between the students' learning style preferences and the educators' instructional approach may highly influence students' attitudes and motivation (Akbarzadeh & Fatemipour, 2014). Gilakjani (2012) also reveals that there are benefits to the matching of teaching style and learning style, it appears that this alone does not guarantee greater learner achievement.

Students are normally confused and hopeless because they are lack of abilities. Educators need to analyst and take into account if they hope to reach those students' style of thinking (Sternberg, 1994). Parveen Sharma and Neetu (2011) in a statement, revealed student were rewarded and benefited, who have the same thinking style of the educators. The teaching technique used by the educators in the classroom often reveals their personal thinking style. Generally, all subjects can be taught with any style which is compatible. Since there is no restriction, students are free to choose own preferred style which is compatible with the learning activity and it is believed both educators and students are probably to exploit their preferred styles that may or may not suit.

Educators able to capitalize the opportunities for student learning by understand students' preferred styles. Styles like abilities do not exist from birth. With proper education, guidance equipped by parents and educators as well as the surrounding environment, the ability style will develop in children. Some students may have different preferred style in different circumstances. Recognizing preferred styles of students is must by the educators. The recognition of students' preferred learning and predominant thinking appropriate against understanding, learning and thinking styles which benefit them to use flexibly (Parveen Sharma & Neetu, 2011).

Hatami (2013) had identified strategic tools like the questionnaire, checklist, interview, observation, records, experimental approach, and survey approach which are able to measure individual preferred learning style. Students' learning and thinking styles should be identified and understand by the educators at the end of the process of the teaching. With the help of research tools, educators able to measure students' preferred styles in academic areas and able to develop intelligence and creativity in them. The research tools therefore play an important and major role in identifying the students' preferred learning style and predominant thinking styles.

This research attempts to examine whether student's learning and thinking styles will influence students' soft skills. From the past research, it can be summarized that soft skill plays a very important role in students' life and it improved through different learning and thinking styles adopted by the students. Before teaching a subject, it's educator's responsibility to identify students' favorite styles. The student



will utilize different learning style to receive the information and make use of different thinking styles to process the information that received. Every student has their own styles. If the students try to understand and properly handling these styles, it will develop their creativity and their skill to problem-solve.

A research has been conducted towards soft skills among accounting students' on how these two styles; learning and thinking model influence it. There are a few researches has been done on learning styles and thinking styles, examples of research are Nzesei 2015; Richmond & Conrad, 2012; Kuehn, 2016; and Parveen Sharma and Neetu, 2011. A dearth of literature exists, however, in a combination of learning styles and thinking style research. This paper is motivated by the confidence that accounting education today is plagued by many serious problems and if these problems are not addressed and overcome seriously, it will lead to the demise of accounting education.

## 1.2 Problem Statement

When accounting graduates enter the job market, most of them are unaware of the employability reality. They are either shocked or unprepared to adapt to the working environment or find it difficult to cope with their job responsibilities. This may due to different perceptions between employers and graduates (Ngoo, Tiong & Pok, 2015). In reality, graduates may excel in their soft skills while employers demand more on technical skills, and otherwise. Too high or too low emphasis on different skills not only created different expectations but also deepened the unnecessary gaps and

misunderstandings. Whether the skills acquired in schools meet the current market needs is still questionable. The perceived importance of different skills between employers and graduates are yet to be identified (Ngoo et al., 2015).

Anywhere in the world, accounting is highly regarded as one of the most challenging subjects in business programs. This is usually associated with low passing and high failure rates. Various studies around the world proved this phenomenon: 42% failure in cost accounting in one university in Brazil from 2008 until 2013 (Borges, Santos, Abbas, Marques & Tonin, 2014). There may be various factors that contribute to students' difficulties in learning accounting courses which need to be identified before can suggest ways to solve them. Educators must conduct specific research on particular issues of interest, due to students' different academic and socioeconomic background. Understanding students' preferred learning style and predominant thinking style is the main concern of this current study, which guide to develop strategies and syllabus that suits their needs. These help to strengthen the soft skills of the learners.

Most studies in literature education were conducted in the linguistic disciplinary (Smily Jesu Priya Victor Paulraj, Abdul Razak Ali, & Jayachandran Vetrayan, 2013). Mostly, English courses were used as a platform to examine students' preferred learning styles (Abdul Ghani Haji Abu, 2006). There are few examples of studies in language learning styles; English as a Second Language (ESL) (Reid, 1987), English as a second language learner (Alsama & Parilah, 2009) and

other studies of Chinese, Vietnamese and Spanish speakers (Reid, 1995). Other studies have focused on online courses (Vafa, 2004), mental and/or occupational health (French, Cosgriff, & Brown, 2007). All these studies make use of a country setting such as USA (Cooze, & Barbour, 2005), Gujrat (Abdus Sattar Abbasi, & Ghulam Mustafa Mir, 2012), Australia (Katz, 1988), Tibet (Hong, 2007) and Hong Kong (Auyeung, & Sands, 1996). The combination research on learning styles and thinking styles towards soft skills in Malaysian accounting student, however, is rare. Limitations in accounting courses encourage examining these studies.

In recent years and as a result of an approach to social and pedagogical reality, it has been identified that the training and development of soft skills in university students should be of central interest to higher education institutions since they are closely related to personal well-being, social adjustment, and adaptation to the work context (Raciti, 2015). However, very few studies have focused on evaluating the effect of soft skills training on university students and its relationship to job performance. Some exploratory studies were carried out by John (2009), Singer, Guzmán, and Donoso (2009), Fernández and Tapia (2012), Albarrán and González (2015) and Gómez, Manrique-Lozada and Gasca-Hurtado (2015) but further research is still required in the field. These studies focused on the impact of soft skills training programme on the soft skills development.

In the book of Barbara Kellerman, published by Harvard University (2012), graduates receive training in soft skills such as communication skills, teamwork,



adaptability, problem solving, listening skills, and creative thinking skills at work place when they started to work professionally. The majority of this training conducted for one day or two days long workshops or seminar and the results of these trainings are unrealistic predictions. A large amount of money and time have been spent on training soft skills to get workers to develop soft skills and become team players, successful presenters or problem solvers in the corporate world, but poor results have been achieved.

It is understood that, soft skills have been given importance and emphasize in universities and higher institutions of learning, but in reality, the employment sectors requirement still below the expectations (Sparks & Waits, 2011). Research had revealed in the United Kingdom, that underperforming manager have lack of soft skills and not equip to face working environment, where the organization has to spend more money to train them (Garwood, 2012). In a survey conducted by the Workforce Solutions Group at St. Louis Community College in the Unites States, more than 60% of employers believe that candidates lack of “communication and interpersonal skills”. As well, in just two years, there has an increase of about 10 percentage points. Besides, most employers admitted today’s new graduates aren’t thinking clearly and rationally, resolve problems or write cogently on task provided (White, 2013).

Unemployment among graduates occurred when supply of graduates and demand of graduates are not in the equilibrium. One of the factors that contribute to the unemployment problem among the Malaysian graduates is the quality of the





graduates. Employers are complaining that lots of graduates do not meet their requirements. Among the weaknesses of graduates are lack of soft skills and not performing well at work place (Rahmah Ismail, Ishak Yussof, & Sieng, 2011). The unemployment trend is seemingly more prevalent among graduates from Malaysian public universities (Latisha Asmaak Shafie & Surina Nayan, 2010). It has been supported by Datuk Shamsuddin Bardin, executive director of the Malaysian Employers Federation, agrees, “Graduates from private institutions are more employable because they meet in private sector demands better and have the right qualities, especially true when it comes to their ability to communicate. They are more expressive because that’s how they were trained” (The Star Malaysia, 2017).



Malaysian Government will reinforce of both human capital development and promoting the mentality together with the intellectual capacity to enable the country to be at par with other developed nations. To meet this growing demand, The Ministry of Higher Education of Malaysia has taken the initiatives and formally announced that the soft skills is to be introduced and incorporated in the undergraduate syllabus. In addition, there seems to be a much widespread condemnation of the industry that most employers found out that generally graduates are academically proficient; however, they are lacked of soft skills (Jumali Selamat, Khaidzir Ismail, Azizan Ahmad, Mohd Haither Hussin, & Salbiah Seliman, 2013). The National University of Malaysia to address the nation’s aspiration pertaining to the above matter has taken a responsible approach to develop the eight principles of a learning contract. The aim is to create





capable graduates equipped with the appropriate soft skills (Jumali Selamat et al., 2013).

As reported by Fairuzza Hairi, Mohamad Nazuir Ahmad Toe and Wahid Razzaly (2011), lacking of relevant soft skills competency among unemployment graduates of the local Malaysian universities shows a major percentage in a highly competitive job market. The graduates' produces by universities have a lack of competency with the employee requirements. As well, Pandian (2010), found that the lack of soft skills among graduates in Malaysian was clearly a major factor that limited the employment opportunities of graduates. For the last couple of decades, there has been an abundance of reports of inconsistencies between the output of universities and employers' requirements and cases of lack of skills for local university graduates such as communication skills, problem solving skills and interpersonal skills. According to Wong (2011), the number of jobless graduates in Malaysia (in 2009) was as many as 60,000. Number of unemployed graduates in 2018 was 162.0 thousand persons, increased 4.6 per cent from 2017 (154.9 thousand persons). A total of 56.9 per cent of unemployed graduates were female as compared to 43.1 per cent male (Graduates Statistics 2018, 2019).

The soft skills elements were incorporated into the accounting programs at the university subject from the time of 2006. However, there has never been a formal appraisal of the acquisition of these soft skills by students. Furthermore, the concerns and frustration of school principals recently regarding university graduates who lack essential soft skills merited the need for a systematic review of the curriculum of soft



skills (Syed Ismail Syed Mohamad, Fidlizan Muhammad, Mohd Yahya Mohd Hussin & Nurul Fadly Habidin, 2017).

Among accounting graduates lack of skills might be with the reality that what is being educated in universities was not similar to the need of the profession (Camp & Schnader, 2010). Furthermore, He, Craig and Wen's (2013) studies found a lack of critical thinking skills amongst accounting graduates due to failure of instructional approaches used in accounting education. This was reinforced by the research by Howieson (2003) found the traditional instructional approach which typically drew heavily on lecturing was not adequate to develop the skills needed in the workplace.

In the meantime, the Human Resource Practitioners found there is a gap between the importance of soft skills needed in the workplace and the graduates' soft skills competency performance (Fairuzza Hairi et al., 2011). One of the reasons for this problem is because limited cooperation between employers and university. Employers' requirements to produce a right competent mix of marketable graduates were unable to accomplish by the universities.

It has been found that Indonesian students had higher mean scores for all aspects of soft skills like group work, information technology management, thinking, communication, and leadership except for interpersonal skills compared to the Malaysian students. The system of Indonesia education does not use national test and certificate of high school for the university admission, but uses other tests for students' admission to higher education institutions (OECD/Asian Development

Bank, 2015). As a result, educators in Indonesia have more space to inculcate soft skills at the school level. In Malaysia, education systems are exam oriented and use the high school certificate, namely Malaysia Examination Certificate (SPM) for students' admission to higher education institutions. An exam-oriented system confines the opportunities to build up and raise soft skills at school level (Kim, 2017). Thus, the examinations and education system in Indonesia endow for space for the educators and students to develop their soft skills compared to Malaysian education system (Kiagus Muhammad Sobri, Farida Hanum, Hutkemri Zulnaidi, Abdul Razaq Ahmad & Alfitri, 2017).

There have two major weaknesses had been identified among graduates in Malaysia through the Malaysian Soft Skills Scale (My3S) program; i.e., poor communication skills and poor command in English (Shaharuddin, Noriah, Khaidzir, & Jumali, 2010). It makes a conflict among university's output and employers' expectations (Lim, Mansor Fadzil, Latifah Abdol Latif, Norlia, & Norziati Mansor, 2011). Scholars, such as Soo (2007) agreed that, this situation is due to a low adeptness of soft skills (or some other places, such as Australia prefer to use generic skills, or in France selected to use transferable skills), especially in group work condition and communication skills.

Hard to mastering more than one language because of poor communication skills amongst graduates will influence the ability in engaging the critical thinking discussion in the office (Shaharuddin et al., 2010). For that reason, the employers try



to condemn graduates' communication skills (Roselina Shakir, 2009) and leads to inadequacy of job opportunities among the graduates (Pandian, 2010). The wrong learning styles and thinking styles adopted by the students are the main reason for students insufficient of soft skills

Graduates considered unmarketable to lack of soft skills. In addition, lacking of learning generic competencies, i.e., soft skills expected to be in the high unemployment statistics among the undergraduates. Lack of generic competencies, such as teamwork, leadership, and good communication skills make employers less interested to employ the graduates (New Straits Times, 2004). Retrain the employees' soft skills considered very expensive to the employers (Hasbullah Shafie, Sharifah Mazlina Syed Khuzzan & Nur Affah Mohyin, 2014). According to Khaled (2010) in order to face up the challenging jobs, graduates are encouraged to obtain and improve their soft skills.

At the recent National Accounting Educators Symposium (NAES) hold by the Malaysian Institute of Accountants (MIA), the President of MIA, Datuk Mohd Nasir Ahmad has noted that "the universities are an important source of the professionals that we require in the future, but there is an urgent need to upkeep the skills of the profession" (Gomes, 2013). He also stated that the universities should minimize the gap between the skills required by the employers and the skills developed in the universities particularly on soft skills (Gomes, 2013). Such notation suggested that there is a gap between the soft skills requirement by the employers and provision of



soft skills from the universities. Laporan Hala Tuju 3 reported that many of the accounting graduates have poor soft skills and technical aspects which are: 1) communication skills, 2) the ability to interact, 3) the ability to apply technical knowledge, 4) the practice of proactivity, 5) the power of critical thinking and problem-solving skills, and 6) a high level of mastery of the subject (Ministry of Higher Education, 2015). Besides that, according to Suhaiza Ismail (2013), there is a paucity of empirical studies on the importance of soft skills for fresh accounting graduates upon joining the profession.

On other hand, there are far fewer studies examining whether learning style is a good predictor of students' academic performance in the accounting discipline. Studies which considered the influence of learner characteristics tend to examine them in isolation from other factors or used only one indicator for academic performance (such as exam scores or passing or failing the courses) (Tan & Laswad, 2015). Besides that, this paper also discusses about the undergraduate accounting students' learning styles and thinking styles and its relation with selected demographic factors. The impact of demographic factors has various influences towards the learning styles and thinking styles of students. Kirkpatrick's training evaluation model (1998) proposed that factors such as individual characteristics and motivation have influenced learning.

Since study in this area is lacking, there is a need to examine the preferred learning style and predominant thinking style differences between students from different institutions. Continuing issues in the educations or failure of the educators to



recognize a student's unique learning styles and thinking styles. As a result, there is a necessity to carry out an investigation on students' learning style and thinking style and its impact on students'.

### 1.3 Research Objectives

The following research objective is posed in the study.

RO1: To identify learning styles and thinking styles among accounting students in selected universities.

RO2: To determine the differences of learning styles and thinking styles based on demographic factors among accounting students in selected universities (gender, age, type of institution, academic achievement, place of living, planned career field and parents' education level).

RO3: To determine the relationship between learning styles, thinking styles and soft skills among accounting students in selected universities.

RO4: To determine the influence of learning styles, thinking styles on soft skills among accounting students in selected universities.

RO5: To determine the mediating effect of academic achievement (CGPA) in the relationship between learning styles and thinking styles with soft skills among accounting students in selected universities.



## 1.4 Research Questions

The following research question is posed in the study.

RQ1: What are the learning styles and thinking styles among accounting students in selected universities?

RQ2: What differences of learning styles and thinking styles based on demographic factors among accounting students in selected universities (gender, age, type of institution, academic achievement, place of living, planned career field and parents' education level)?

RQ3: Is there a relationship between learning styles, thinking styles and soft skills among accounting students in selected universities?

RQ4: Would students' learning styles and thinking styles influence student's soft skills among accounting students in selected universities?

RQ5: What is the mediating effect of academic achievement (CGPA) in the relationship between learning styles and thinking styles with soft skills among accounting students in selected universities?





## 1.5 Research Hypothesis

The study presents the following hypotheses.

**Ho1:** There is no significant differences exist in learning styles among accounting students in selected universities based on the student's demographic factors.

**Ho1(a):** There is no significant differences exist in learning styles among accounting students in selected universities based on gender.

**Ho1(b):** There is no significant differences exist in learning styles among accounting students in selected universities based on age.

**Ho1(c):** There is no significant differences exist in learning styles among accounting students in selected universities based on type of institution.

**Ho1(d):** There is no significant differences exist in learning styles among accounting students in selected universities based on academic achievement (CGPA).

**Ho1(e):** There is no significant differences exist in learning styles among accounting students in selected universities based on academic achievement (GPA).

**Ho1(f):** There is no significant differences exist in learning styles among accounting students in selected universities based on place of living.

**Ho1(g):** There is no significant differences exist in learning styles among accounting students in selected universities based on planned career field.

**Ho1(h):** There is no significant differences exist in learning styles among accounting students in selected universities based on father's educational level.

**Ho1(i):** There is no significant differences exist in learning styles among accounting students in selected universities based on mother's educational level.

**Ho2:** There is no significant differences exist in thinking styles among accounting students in selected universities based on the student's demographic variable.

**Ho2(a):** There is no significant differences exist in thinking styles among accounting students in selected universities based on gender.

**Ho2(b):** There is no significant differences exist in thinking styles among accounting students in selected universities based on age.



**Ho2(c):** There is no significant differences exist in thinking styles among accounting students in selected universities based on type of institution.

**Ho2(d):** There is no significant differences exist in thinking styles among accounting students in selected universities based on academic achievement (CGPA).

**Ho2(e):** There is no significant differences exist in thinking styles among accounting students in selected universities based on academic achievement (GPA).

**Ho2(f):** There is no significant differences exist in thinking styles among accounting students in selected universities based on place of living.

**Ho2(g):** There is no significant differences exist in thinking styles among accounting students in selected universities based on planned career field.

**Ho2(h):** There is no significant differences exist in thinking styles among accounting students in selected universities based on father's educational level.

**Ho2(i):** There is no significant differences exist in thinking styles among accounting students in selected universities based on mother's educational level.



**Ho3:** There is no significant relationship between learning styles and soft skills.

**Ho4:** There is no significant relationship between thinking styles and soft skills.

**Ho5:** There is no significant influence on students' soft skills based on their learning styles.

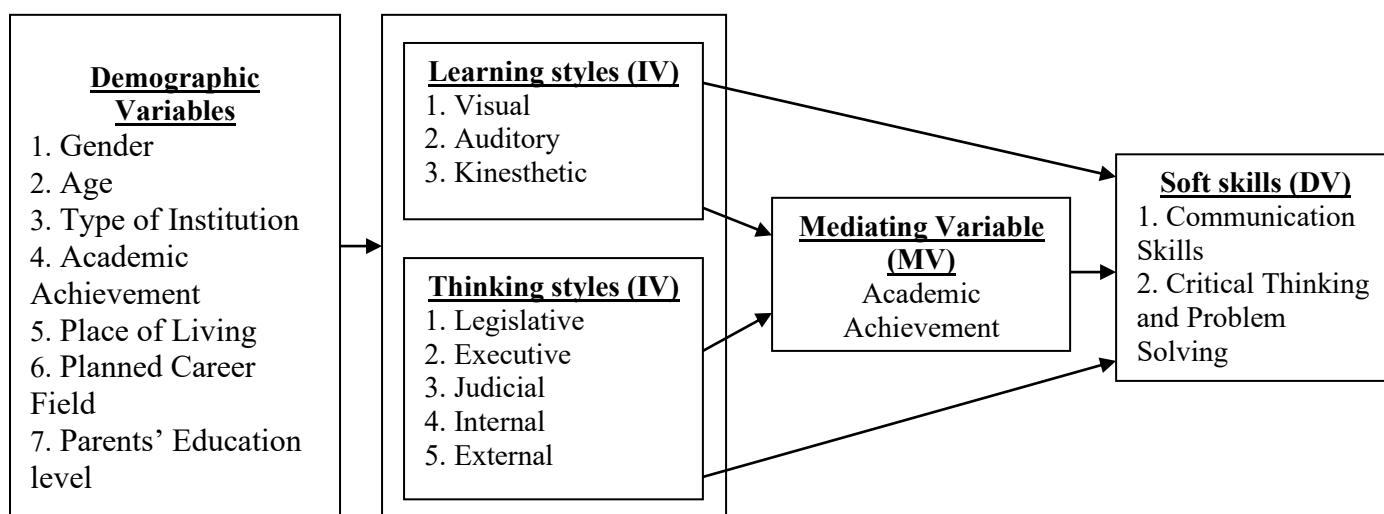
**Ho6:** There is no significant influence on students' soft skills based on their thinking styles.

**Ho7:** Academic achievement (CGPA) does not significantly mediate the relationship between learning styles and soft skills.

**Ho8:** Academic achievement (CGPA) does not significantly mediate the relationship between thinking styles and soft skills.



## 1.6 Conceptual Framework of Research



*Figure 1.1.* Conceptual Framework of the Study. Source: Barsch learning styles inventory (2000); Sternberg thinking styles inventory (1997) and Malaysian soft skills scale (My3S) instrument (n.d.)

Figure 1.1 shows the conceptual framework of this research, in which three learning styles VAK (consisting visual, auditory and kinesthetic) and five thinking styles (consisting legislative, executive, judicial, internal and external) are the independent variables (IV); whereas soft skills (communication skills and critical thinking and problem-solving skills) as the dependent variable (DV). In addition, academic achievement (CGPA) as a mediating variable used in the context of the present study. Moreover, as from previous research work it was found that gender, age, type of institution, academic achievement, place of living, planned career field and parents' education level can play important role in determining learning styles and thinking styles of accounting students. These demographic variables influencing learning styles and thinking styles preference of accounting students.

The conceptual framework of the present study presented based on Fleming's theory of learning styles and Sternberg's theory of thinking styles. These two independent variables (IV), namely, learning styles and thinking styles that could be equally influenced the aforementioned dependent variables (DV) (soft skills). As well, the variation in the DVs (soft skills) can be explained by all the three learning styles (IV) (visual, auditory and kinesthetic) and five thinking styles (IV) (legislative, executive, judicial, internal and external) in this study.

The present study was based on the initially developed theory of VAK [Visual (V), Auditory (A) and Kinesthetic (K)] by Neil Flemings (2001). Based on this theory of learning style, some researchers have built inventories of learning styles that can be implemented in the setup of research and classrooms, including Barsch, J. and that classifies learners based on their perceptions of the sensory. One family of models of learning style that has recently gained attention has been those that have stressed sensory modalities as a way of stimulating the learner, known as VAK (Coffield, Moseley, Hall, & Ecclestone, 2004). There are three modes in this model: Visual (V), Auditory (A) and Kinesthetic (K). Fleming (1995) mentioned that Neil D. Flemings VARK model (also VAK) was one of the most regularly used theories in the field of learning style.

At the moment, one of the most common ways of exchanging information in today's up-to-date culture is speech, and it is recognized as Auditory (A) in the VAK model by the ear's reaction to this information. Another group of learners may have a

preference for learning Visual (V) in a context that was not primarily well developed by high school teaching techniques (Galasinski, 2000). Finally, a group of learners in this model are the learners who prefer to experience their learning through the use of multiple senses, including hearing, touch, taste, smell, etc., described in the literature as kinesthetic (K) and as such want concrete, multi-sensory learning experiences (Fleming, 1995).

The theory of mental self-government by Sternberg (1988, 1997) seeks to combine different approaches to style. The theory's basic assumption is that people, like societies, govern themselves and their mental processes, and set up for this governance systems and organizations. Sternberg theoretically provides categories and characteristics of how people organize, direct, and manage their own thinking activities. The model proposed by Zhang and Sternberg (2005), the Theory of Mental Self-Government, is considered the most complete model. It introduced the term "intellectual styles" as an umbrella term for all existing style constructs. Using "forms of government" metaphorically, the theory addresses how mental self-government takes place (Zhang & Sternberg, 2005; Zhang, Sternberg, & Rayner, 2011).

Compared with previous models and theories of styles, the theory of mental self-government possesses three major strengths. First, the styles delineated in the theory fall along multiple dimensions rather than on just a single dimension. Second, unlike the traditional models and theories of styles, the styles in the theory of mental self-government are not "good" or "bad", but rather, they are time-, task-, and

situation-dependent. Third, unlike traditional style theorists who argued that styles are mostly fixed, Sternberg (1997) contended that thinking styles are socialized.

There are 13 thinking styles, according to Sternberg (1988, 1997), which can be classified into five dimensions: (a) functions (comprising judicial, executive, and legislative styles), (b) forms (comprising anarchic, oligarchic, monarchic, and hierarchical styles), (c) levels (include local and global styles), (d) scopes (comprising external and internal styles), and (e) learnings (comprising conservative and liberal styles).

Based on the mental self-government theory of this Sternberg, five modified thinking style tendencies are used in the current study: legislative, executive, judicial, internal, and external. According to Bernardo, Zhang and Callueng (2002), people with a legislative style prefer tasks that require innovative methods to be used and new approaches and solutions to be created. Those with an executive style are more involved within a set of guidelines with the proper implementation of tasks. Those with a judicial style are concerned with evaluating the process of working and the products of the activities of other people. Individuals with an internal style prefer tasks that require independent work from other individuals. Those with an external style, on the other hand, prefer activities that require interaction with others.

Individuals are different in their relative preferences for these styles according to the theory of mental self-government and can use more than one style as well as flexibly turn from one style to another as they adapt to changing task requirements.



The stylistic preferences are also seen as socializing and functioning of one's interactions within the socio-cultural environment (Bernardo, Zhang, & Callueng, 2002).

Research on thinking styles in an educational context yielded several findings. First of all, the thinking styles of students vary depending on their personal characteristics and learning environment. Second, educators' thinking styles, as expressed in teaching, differ depending on their personal characteristics, teaching experiences, and the environment of the school. Third, when students' thinking styles suit their educators' thinking styles, students tend to achieve better academic results. At last, the thinking styles of students lead to their academic achievement beyond what their abilities can describe, as measured by self-rating and performance assessments (Grigorenko & Sternberg, 1997; Sternberg & Grigorenko, 1995; Zhang & Sternberg, 1998)

In addition, in the present study, soft skills as the dependent variable (DV). Within the Malaysian context of higher education, the Ministry of Higher Education (2006) classified seven specific soft skill traits to be embedded and evaluated by higher education institutions (HEI) as follows: critical thinking and problem-solving skills (CTPS), communication skills (CS), teamwork skills (TS), lifelong learning and information management skills (LL), leadership skills (LS), ethics and professional moral (EM), and entrepreneurship skills (ES). Two types of soft skills used for this study are communication skills (CS) and critical thinking and problem-solving skills



(CTPS) adapted from the instrument of Malaysian soft skills scale (My3S) (n.d). Robles (2012) suggested that communication in today's workforce was the top two soft skills that workers required. Communication was very important or extremely important, indicated by all 57 (100%) of the executives. Cobanoglu, Dede, and Poorani (2006) have summed up that the most important are the communication skills (CS) and the second being critical thinking and problem-solving skills (CTPS).

The mediating variable (MV) is a hypothetical concept that attempts to explain the relationship between independent variable and dependent variable (Baron & Kenny, 1986). Academic achievement contributes as a mediating variable. In fact, mediation means a situation where it is possible to describe the influence of the independent variable on the dependent variable using a third mediator variable that is caused by the independent variable and is itself a cause of the dependent variable. That is to say, instead of learning styles and thinking styles that directly causing soft skills, learning styles and thinking styles is causing the mediator (academic achievement), and academic achievement is in turn causing soft skills. In this case, it is said that the causal relationship between independent and dependent variable is indirect.

## 1.7 Significance of the Study

This section identifies and describes the significance of the study. It also discusses the implications of the potential results based on the research questions and problem

statement, hypothesis, or the investigated phenomena. Further, it describes how the research fits within and will contribute to the current literature or body of research. Moreover, it describes the potential practical applications from the research. This section is of particular importance because it justifies the need for, and the relevance of the research.

This study gives a practical contribution to higher education institutions which include university and college to improve students' academic performance and university education standards. Moreover, this research helps them to save time and cost to conduct research on the topics related to learning styles, thinking styles and soft skills. This study also contributes to lecturers where teaching materials will be prepared which is found in the students' preferred learning styles and predominant thinking styles. Therefore, the students will be able learn in a process which is suitable for them. In addition, students are provided information to determine their own preferred learning styles and predominant thinking styles and thus they are able to learn with greater effectiveness and efficiency. In theory, the study will contribute to both learning style research and thinking style research.

Besides that, the Ministry of Education can design curriculum based on students' learning styles and thinking styles which would promote a good education system to attract more students to pursue their study in accounting education in Malaysia. Lastly, education sector will possess a better understanding in the aspect of learning styles and thinking styles and assist the students to reach higher academic performance. The contribution of this type of research found by the researcher



provides more information as it relates to the learning and thinking styles of the students and also adds more knowledge needed to support the use of experiential learning theory in the accounting curriculum.

This study has gathered complete demographic (gender, age, type of institution, academic achievement, place of living, planned career field, and parents' education level) information on the student sample. During the literature analysis, variables such as the place of living, the expected career field, the educational level of the parent and other demographic variables may have been useful to new researchers, but often such information is clearly not included in the past studies. This study provides such information. This information could be useful for users such as an organization, community, country, and the agency.

Determining students' learning styles in the classroom can make available educators with meaningful information to guide, accounting departments in planning and creating their curriculum to utilize the students' learning skills with the intent of raising the students' enrollment in higher institutions. If educators can identify and measure the learning skills of high-quality students who have fitting for accounting, educators can begin to influence these students early in their academic life to choose accounting as a profession.

Experimental learning theory is proposed as a possible alternative teaching strategy for student grade enhancement, where accounting educators question the







benefit of using it. This study will contribute to the body of experiential research that makes it difficult to take into account how students learn. Accounting educators needed to study and streamline the trend of high accounting courses failure rates and decreasing accounting majors' numbers.

It is proven that soft skills will guide to better performance in academic and career field. This is confirmed by De Villiers (2010) who believes that at all levels soft skills can be linked positively to strong performance. This study wishes that by assessing observation on types of soft skills perceived to be important for the accounting career, accounting educators can encourage students to acquire the soft skills in order to prepare them for their future career. Furthermore, it is important to review students' perception on types of soft skills they perceived important as changes in perceptions need to be made if it is found that their perception is not in-line with the perceptions of the practitioners. Students need to be aware of the skills that they are expected to have rather than what they themselves perceived. Moreover, this study may provide input to accounting educators on the extent of soft skills provision to accounting students and at the same time provide guidance to educators to help students in developing the required soft skills through appropriate learning and teaching approaches.

Data collected in this study provide educators useful information concerning learning styles and thinking styles of Malaysian accounting students. As well, students



can benefit because educators will be more cognizant of learning and teaching styles that might be utilized in teaching accounting.

## 1.8 Operational Definitions

Throughout this investigation, the following terms are applied. For an explanation of meaning are defined here.

### 1.8.1 Learning Styles

According to Felder (2010), “learning styles are preferences and tendencies students have for certain ways of taking in and processing information and responding to different instructional environments”. Fleming (2001) defines learning styles as “an individualism characteristic and preferred way of gathering, organizing and thinking about information. This definition stresses that learning styles provide a framework for dealing with individuality”. Keefe (1979) defined learning styles as, “cognitive, affective and psychological traits that are relatively stable indicators of how learners perceive, interact with and respond to the learning environment”. Learning styles therefore indicate how the mind actually functions, how it processes information, or is influenced by the perception of each person (Cekiso et al., 2015). In this study,

learning style defined as “how the student receives information best”. For example, maybe a student receives information via visual, auditory or kinesthetic.

### 1.8.2 Visual Learning Styles

Bazier (2015) defined students who prefer to watch rather than to talk refers to the visual learner. Reading might be interesting to them, in reality, of peaceful nature. Students’ transforms mental pictures into visual ones to memorize. Films, graphs, demonstrations, and charts were all in favor of this type of learner. Visual learners could therefore easily lose attention due to visual distractions. Visual learners found detail, enjoyed using color, probably had strong handwriting skills, as well as drawing or doodling. Visual learners remembered first impressions and faces and could sometimes distance themselves from verbal conversations. Lowdermilk (2016) found verbal learners prefer to present information through spoken word and written (Lowdermilk, 2016). In this study, visual learning style means that people need to see information to learn it, and this seeing takes many forms from spatial awareness, photographic memory, color, other visual information. Naturally, a classroom is a very good place for a visual learner to learn. Educators use chalkboard, pictures, graphs, maps, and many other visual items to entice a visual learner into knowledge.

### 1.8.3 Auditory Learning Style

Coffield, Mosdey, Hall and Ecclestone (2004) defined auditory learning style, “as a process by which individuals learn via listening to tapes, radios and lectures. They went further to say that auditory learners depend on hearing and speaking as their main way of learning”. Individuals who learn through hearing things were classified as auditory learners (Fleming, 1995). Auditory (A) learners, also called verbal learners, choose to learn by listening. They can enjoy interacting with the other people by talking to them. They might hate to read books. Therefore, they would listen more than see more in formal educational settings. They may be suitable for a small number of teaching approaches, such as communicative approach, audio-lingual approach, situational approach, and oral approach (Doyran, 2000). In this study, a person who learns through the listen, consider as auditory learning style. Auditory learners might enjoy communicating with others by talking to them. Auditory learners may hate to read books. So, auditory learners would listen more than see more in formal educational settings.

### 1.8.4 Kinesthetic Learning Style

Dreeben (2010) defined kinesthetic style as having “to do with the physical experience of touching, feeling, holding, doing, and practical hand-on experience. The learner prefers kinesthetic stimulation for learning to occur”. Kinesthetic learners described by Bazier (2015) could be stressed and liked to be in action most of the time.



Kinesthetic learners may tap a pencil or their foot while thinking of an idea. Kinesthetic learners like to mingle around and expose themselves in physical ways. Kinesthetic learners may experience difficult spelling because reading has not been a time of great love in the past. Kinesthetic learners had grown in recollecting what they had completed, compare to what they had said, seen, or heard. The kinesthetic learners solved problems by physically if possible, moving through them. Kinesthetic learners learned and remembered by doing, having good reflexes and timing. The physical handling of objects and tasks was enjoyed by Kinesthetic learners. In the current study, kinesthetic learners are those who learn better if they can involve the movement of their bodies during the study.



### 1.8.5 Thinking Styles

Qatami's study (as cited in Turki, 2012) defined "thinking is considered the mental process in which the learner develops through mental interaction processes between the individual and the experiences that he acquires to develop structures of knowledge and access to new assumptions". Sternberg (as cited in Chen, 2001) defined thinking styles as "modes of thought that individuals find comfortable and suitable for themselves". Azarmina (2012) found individual bears with unique thinking styles. Thinking styles help student to solve problems, support in making decisions, draw plans for the future, connect with other people in the world and also determine how to interpret the world around us. Meanwhile, without first knowing where students' stand



and how students' usually think, how can students' aim to develop their thinking skills? This type of self- knowledge and self-awareness is a stepping stone in students' life, which encourage them to become a responsible leader and healthier thinkers (Azarmina, 2012). In this study, thinking style defined "how the students process information best".

### 1.8.6 Legislative Styles

Legislative styles people tend to do thing or task on their own path they decide to do. Legislative thinkers also like creative and constructive planning-based activities (Sternberg, 1997). This kind of student, rather than being told, prefers to determine what to do and how to do it. For example, legislative oriented students like designing experiments, creative writing, coming up with theories about things, inventing new things, or creating original artistic compositions (Sternberg, Grigorenko, & Zhang, 2008). In my understanding, legislative people like to create, discover and design using own method. Example, designing new artworks, writing stories, poetry, or music and shows interest in doing science projects are concluded as legislative styles of people.

### 1.8.7 Executive Style

Executive Style people best to describe as implementers, where they were given instructions and guides on “what to do”, “how to do” and “what needs to be done”. Implement rules and laws are the nature of executive people (Sternberg, 1997). For example, the executive oriented student likes to follow directions in doing school assignments, building models or designing things according to instructions, be given problems to solve, write papers on assigned topics, or implement the orders of others (Sternberg, Grigorenko, & Zhang, 2008). In this study, executive thinkers like to follow instructions when implementing a task or finding a solution to a problem.

### 1.8.8 Judicial Style

Judicial style people like problems in which they can investigate and evaluate ideas and things, where, they also show interest in judging both content and structure (Sternberg, 1997). It has been identified that the judicially oriented student has a predilection for projects, tasks, and situations that require evaluation; contrast and comparison; analysis; and the judgement of strategies, existing ideas, projects, and the like. Sometimes with the basis minimal information, this individual tends to judge others. The judicially oriented student tends to like evaluate essays, commenting on other people’s ideas, writing critiques, and assessing others’ weaknesses and strengths



(Sternberg, Grigorenko, & Zhang, 2008). In this study, judicial thinkers like to criticize and evaluate people.

### 1.8.9 Internal Style

Internal style thinkers are likely to be introverted, at times unfriendly, less socially sensitive than other people, and task-oriented. These types of people prefer to work alone and deal with the world of things on an individual basis is pointed by Sternberg (1997). Internally oriented students like to study for tests on their own, someone who routinely refuses invitations to go to student parties because they feel uncomfortable interacting with others people, and someone who does not speak out in groups because internal style thinkers are reluctant to interact with others in the group (Sternberg, Grigorenko, & Zhang, 2008). Basically, internal thinker likes to work alone and independently.

### 1.8.10 External Style

External style people tend to be more outgoing, extroverted, people-oriented, interpersonally much more aware and socially more sensitive (Sternberg, 1997). In addition, certain individuals with an external style prefer activities that require contact with others (Sternberg, 1988, 1997). External oriented people who strongly prefer to





work in groups, those who hate to spend time alone and need to be with others constantly, and those who are good at learning with others but not alone (Sternberg, Grigorenko, & Zhang, 2008). The present study, external thinkers prefer to focus to work in groups.

### 1.8.11 Soft Skills

Soft skills are interpreted differently by developing various terms such as ‘generic competencies skills’, ‘transferable skills’, and ‘employability skills’, but that takes similar meaning (Hasbullah Shafie et al., 2014). Training Agency (1990) clearly defined soft skills as “transferable skills are the generic capabilities which allow people to succeed in a wide range of different tasks and jobs”. Sulaiman Md. Yassin, Fauziah Abu Hasan, Wan Abd Aziz Wan Mohd Amin, and Nur Amirah Amiruddin (2008) pointed out that generic skills are also referred as “soft skills, key skills, common skills, essential skills, employability skills, basic skills, competency skills, and transferable skills”. It can therefore be argued in this situation that generic skills are also a means of soft skills. Soft skills, according to Maniscalco (2010), refer to “cluster of qualities, habits, personality traits, attitudes and social graces that everyone possesses in varying degrees and are needed for everyday life as much as they are needed for work”. In this study, soft skills are personality traits and behaviors. Unlike technical skill or hard skill, soft skills are not about the knowledge possess but rather the behaviors display in different situations.

### 1.8.12 Communication Skills

The communication skill (CS) is defined as the “ability of lecturers to practice written and oral language efficiently and it also includes skills that allow the educators to obtain, as well as to deliver opinions with self-reliance”. Besides, educators are guessed to be active listeners, while at the same time demonstrating the necessary response (Tang, 2018). “Speaking, writing or using any other medium for exchanging of information refers to communication skills” (English Oxford Living Dictionaries, 2019). Good communication skills, in the workplace context refer to the “ability to transmit and receive information clearly, and include the ability to read the audience in order to avoid and resolve the conflicts” (Kermode, 2011). From this study, a communication skill can determine as the ability to use language and express information.

### 1.8.13 Critical Thinking and Problem-Solving Skills

Critical thinking and problem-solving skills (CTPS), according to Tang (2018), are defined as the “capacity to distinguish and describe problems, to create and implement resolutions, and to see the constructions among unconnected knowledge components”. Moreover, MoHE (2006) found critical thinking and problem solving (CTPS) refers for graduates “to think critically, logically, creatively and analytically”. By showing their “out-of-the box” thought, turns out their contributors against new ideas,

involvement in examining problems and arriving at judgements. In this study, critical thinking refers to an individual have integrated what they have observed and analyses of new knowledge into their current understanding which is also known as an active intellectual process. Also, in this study, problem solving skills refers to our ability to solve problems in an effective and timely manner without any impediments.

#### **1.8.14 Academic Achievement**

Academic achievement is defined as “successful completion, through effort, of the acquisition of academic content and skills mostly determined by the grades or scores that the student gets in a test” (Nzesei, 2015).

### **1.9 Scope and Limitations of the Study**

Even though this study had tried the best to minimize the limitation, there were unavoidable limitations in conducting this study. Those limitations are needed to be brought forward in order to alert future researchers. The limitations arise have been listed and explained below.

The result of the study discussed here are based on a sample population of 306 students conducted at three Malaysian universities. In this sample size, the constraint was largely due to the time available for data collection. Trying to recruit large final

year numbers, accounting students and additional universities to expand the sample may have provided valuable added data, but it would have difficulties in data gathering processes and in managing the testing. The limited sample size may influence the result and leads to incapability to achieve desired accurateness in this research.

This study depended mainly on a questionnaire's way as a major data collection method; an approach comes up with several drawbacks. This method is based on the honesty and mood of the students to answer the questionnaire. The quality of the answers from the students depends on the clarity of the items from the questionnaires. The survey questionnaire consisted of the students' demographic information form, Barsch learning styles inventory, Sternberg thinking styles inventory and followed by Malaysian Soft skills Scale (My3S) instrument, Nonetheless, it is a self-report, multiple-choice test, there were no rights or wrong answers to these questions, but it is usually limited to one answer choice for each question. The Barsch Learning Styles Inventory and Sternberg-Wagner Thinking Style Inventory is self-reporting instrument and, therefore, reflect the students' perceptions. The willingness and ability of the respondents to accurately complete the instruments become the study results.

Moreover, the respondents answered the survey questionnaire on a five-point Likert-type scale ranging from "1" = Strongly Disagree, "2" = Disagree, "3" = Neutral, "4" = Agree, and "5" = Strongly Agree. The length variation of the five-point

subscales of the Likert-type may have also served as a limitation. Finally, the time limit permitted by the university in the study has made it difficult to apply a longer questionnaire.

The sample is limited to only degree accounting students, not included diploma, master or PhD students. So, it cannot be generalized to accounting students' population. It was also the disparity in group size by semester, including male gender and number of students in class. Another limitation of the current study is not taken into account confounding factors such as semester, race, culture, family economic, etc. Moreover, other limitation of this study was the use of questionnaires that lack open-ended questions. Method of interviewing should be undertaken to improve understanding of the importance for future accountants in soft skills.

Based on convenience sampling, IPTA and IPTS students were included in this study, where the sample does not represent the population. The population was reflected in this study by selected IPTA and IPTS undergraduate students in Malaysia. One can expect, therefore, that the results of the study can be generalized to the IPTA and IPTS represented by the student participant in the study similar to undergraduate students at IPTA and IPTS.

Research will be based on the data collected from IPTA and IPTS. The students in the IPTA and IPTS will not be perfectly matched. Because the students in the IPTA and IPTS will not be perfectly matched, environmental factors specific to each IPTA and IPTS may shape students' learning styles. There may be differences

between the groups of students in the IPTA and IPTS simply because they are members of different groups. The idea is that preexisting groups are usually not assembled haphazardly: they come together precisely because they share similar values, attitudes, behavior, or social and health status.

Although the teaching and assessment styles of the faculty will undoubtedly affect their students' learning styles and thinking styles and course achievements, the students in the survey will be exposed to a variety of educators in different accounting departments. Therefore, there would be no reason to believe that IPTA and IPTS faculty members are not going to be representative of those at other IPTA and IPTS.

Since this study did not use a longitudinal approach, it was limited to examining quantitatively the pattern of relationship between learning styles and thinking styles among Malaysian accounting students. Apart from that, because this was a quantitative study, the findings may not provide detailed insights into the individual student's personality traits that affect developmental growth in learning.

## **1.10 Conclusion**

This chapter was provided as an introduction on delivering a study. It addressed the background of the study, problem statement, research objectives, research questions, hypothesis, conceptual framework, and the significance of the study, scope and limitations of the study and at last followed by operational definitions. Chapter two

provides a review of related literature for these studies. The previous research, instruments, models, theories and historical overview were addressed. The methods used for this study are described in chapter three. It includes the research design, variable measurement or instrument (Barsch Learning Styles Inventory, Sternberg Thinking Styles Inventory, Malaysian Soft Skills Scale (My3S) Instruments), data collections method, sampling design, data collections procedures, pilot testing, data analysis techniques and summary of data analysis. The objective of demographic characteristics, statistical procedures and the analytical procedures of participants were the conclusion of the studies in chapter four. Lastly, future research was included along with findings in the studies have been summarized in the chapter five.