

MULTIPLE INTELLIGENCE IN EMPLOYABILITY AMONG
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
MANAGEMENT GRADUATES

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A thesis submitted in fulfilment of the
requirements for the award of the degree of
Master of Science (Human Resource Development)

Faculty of Management
Universiti Teknologi Malaysia

JULY 2014

Specially dedicated to *Mak*

I really miss you.

Al-Fatihah

ACKNOWLEDGEMENTS

“In the name of God, the Most Gracious and Most Merciful”

Alhamdulillah, thank to Allah the Almighty as I have managed to complete this academic exercise. In preparing for this study, I would like to express my deepest gratitude to the people who have contributed during this journey. First of all, I would like to thank my supervisor, Dr. Siti Rahmah Awang who always believe in me, and give me endless support and encouragement. With her guidance and assistance, I was able to complete this dissertation successfully.

Next, I would like to express my sincere appreciation to Associate Professor Dr. Md. Nor Hayati bin Tahir, Dean of Faculty Technology Management and Technopreneurship, Universiti Teknikal Malaysia Melaka and the university's administrative staff, who had given full cooperation in providing the data for the study. Without this data, my study would not be completed. Then, I would like to express my deepest gratitude to the Ministry of Education and Universiti Teknikal Malaysia Melaka for granting me the scholarship to study at Universiti Teknologi Malaysia. This scholarship has significantly assisted me in attaining my educational goals as well as advancing for career in future.

Last but not least, I am also grateful and thankful to my beloved family, Abah, Tok Ha, Angah, and my beloved husband and child, Aziq, Zahirah and Zafirah who have always been there and supported me in all means. Without them, I would not have the strength to stand tall today. Thank you very much.

ABSTRACT

In this study, graduates multiple intelligences profile are the main interest in order to enhance the opportunities of the management graduates for employability. In order to measure and classify the multiple intelligences of graduate, Two Step Cluster Analysis is applied. The cluster is based on their demographic background and Howard Gardner's nine intelligences which are musical, spatial/visual, verbal/linguistic, mathematics/logical, bodily-kinaesthetic, interpersonal, intrapersonal, naturalist and spiritual. A psychometric test which is Ability Test in Employment (ATIEm) has been used as the instrument to measure the level of nine intelligence types of management graduates for job placement purposes. This study was conducted at Faculty of Technology Management and Technopreneurship (FPTT), Universiti Teknikal Malaysia Melaka (UTeM). Therefore, 137 surveys were answered and these were considered to be legitimate data. The results represent the dominant intelligence of graduates which majority of the respondents obtains high score in spiritual $n=37(27\%)$, followed by mathematical/logical $n=24 (17.5\%)$ and interpersonal $n=23 (16.7\%)$. In addition, another result also shows high score for each level of intelligences which majority of graduate has high level in interpersonal skills $n=130 (94.8\%)$. The mediocre level $n=41 (29.92\%)$ and weak/none level $n=10 (7.3\%)$ are both in musical skills. The analysis from the Two Step Cluster presents four main clusters. The composition of clusters formed significant variables for Cluster 1: $n=49 (35.8\%)$ Malays, Islam, Musical and Verbal. Cluster 2: $n=56(40.9\%)$ Musical, Spatial and Verbal, Cluster 3: $n=11(8\%)$ Malays (Islam), Non Malays (Buddhism), Musical, Kinaesthetic, Spatial, Verbal, Intrapersonal, Naturalist and Spiritual. Cluster 4: $n=21 (15.3\%)$ Non Malays and intelligences are insignificant variable. Based on the Two Step Cluster analysis, a competency model which is Competency Model is constructed namely Cognitive Intelligences Cluster (Cluster 1), Social Intelligences Cluster (Cluster 2) and Foundation Intelligences Cluster (Cluster 3). Cluster 1 and 2 are likely to be employed because of the combination different of ability, the probability of graduate to be employed is enhanced and they are likely to assume higher position at the workplace.

ABSTRAK

Kajian ini dijalankan bagi mengenalpasti profil kecerdasan pelbagai graduan bagi meningkatkan peluang graduan pengurusan untuk mendapatkan pekerjaan. Untuk mengukur dan mengklasifikasikan kecerdasan graduan, Dua Langkah Kluster Analisis digunakan. Kluster ini adalah berdasarkan latar belakang demografi dan Sembilan Kecerdasan Howard Gardner iaitu muzik, ruang, lisan, matematik/logik, kinestetik, interpersonal, intrapersonal, naturalis dan rohani. Ujian psikometrik iaitu Ujian Keupayaan dalam Pekerjaan (ATIEm) digunakan sebagai instrumen untuk mengukur tahap sembilan jenis kecerdasan graduan pengurusan bagi tujuan penempatan pekerjaan. Kajian ini dijalankan di Fakulti Pengurusan Teknologi dan Teknousahawanan (FPTT) Universiti Teknikal Malaysia Melaka (UTeM). Sebanyak 137 soalselidik telah dijawab. Hasil dari kajian menunjukkan kecerdasan pelbagai yang dominan bagi graduan pengurusan adalah rohani $n=37$ (27%), diikuti dengan matematik/logik $n=24$ (17.5%) dan interpersonal $n=23$ (16.7%). Selain itu, hasil analisa menunjukkan kecerdasan pelbagai graduan pada tahap tinggi adalah kemahiran interpersonal $n=130$ (94.8%). Manakala bagi kedua-dua tahap iaitu tahap sederhana $n=41$ (29.92%) dan tahap lemah/tiada kemahiran $n=10$ (7.3%) adalah bagi kemahiran dalam muzik. Analisis yang diperolehi daripada Kluster Dua Langkah membentuk empat kluster utama. Komposisi kluster yang mengandungi pembolehubah signifikan bagi Kluster 1: $n=49$ (35.8 %), Melayu (Islam) Muzik dan Lisan. Kluster 2: $n=56$ (40.9 %) Muzik, Ruang dan Lisan. Kluster 3: $n=11$ (8%), Melayu (Islam), Bukan Melayu (Buddha), Muzik, Kinestetik, Ruang, Lisan, Intrapersonal, Naturalis dan Rohani. Kluster 4: $n=21$ (15.3 %) Bukan Melayu dan kecerdasan pelbagai adalah pembolehubah yang tiak ketara. Berdasarkan hasil analisis ini juga, Model Kompetensi berdasarkan kluster yang diperolehi telah di bina iaitu Kecerdasan Kognitif (Kluster 1), Kecerdasan Sosial (Kluster 2) dan Kecerdasan Asas (Kluster 3). Bagi Kluster 1 dan 2 peluang graduan diambil bekerja adalah tinggi berdasarkan kombinasi kecerdasan pelbagai yang berbeza dan diandaikan graduan mempunyai peluang yang lebih baik untuk menjawat jawatan yang lebih tinggi.

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LIST OF ACRONYMS

ATIE [®]	Ability Test in Epilepsy
ATIEm	Ability Test in Employment
BIC	Schwarz's Bayesian Criterion
BITM	Bachelor of Technology Management (Innovation Technology)
BTMM	Bachelor of Technology Management (High Technology Marketing)
BTEC	Bachelor of Technopreneurship
FPTT	Faculty of Technology Management and Technopreneurship
MI	Multiple Intelligences
MOE	Ministry of Education Malaysia
MOHE	Ministry of Higher Education
UTeM	Universiti Teknikal Malaysia Melaka

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CHAPTER 1

INTRODUCTION

This chapter is divided into several sections. They consist of background of study, statement of problem, research questions and objectives, scope of study, significance of study, research limitations, conceptual and operational definitions, research framework and a summary of this chapter.

1.1 Background of Study

According to Scurry and Blenkinsopp (2011), graduates refer to individuals who have completed a university or college degree, typically three or four years in duration, generally termed a Bachelor's degree. Approximately, 180,000 students graduate with diplomas and degrees from institutions of higher learning (Ministry of Higher Education, 2012) each year. The subject of graduate employability in recent years has become an issue of concern (Ministry of Higher Education, 2012). As for Yorke (2008) graduate employability is a set of achievements skills, understandings and personal attributes that enables graduates more likely to gain employment and be successful in their chosen occupations, in which benefits themselves, the workforce, the community and the economy.

Past research revealed that employers looked for certain skills, behaviours and attitudes in their potential employees. In Malaysia, employers are looking for graduates who are well-balanced, with good academic achievement and possess soft skills like communication skills, problem solving skills, interpersonal skills and the ability to be flexible (Juhdi, Yunus and Abu Samah, 2006). Besides, they are also

looking for employees that have personal qualities that include being responsible, having self-confidence, self-control, social skill, honest, having integrity, adaptable and flexible, having team spirit, being punctual and efficient, self-directed, possessing good work attitude, being well-groomed, cooperative, self-motivated and self-management. However, most of graduates are unaware of this current requirement. This is a loss especially when they want to further succeed in their job upon graduation (Shafie and Nayan, 2010).

Employability in this study refers to the possible career for graduates in term of job placement purposes and chances to be employed by an employer based on Gardner's nine intelligences which are musical, bodily-kinaesthetic, mathematics/logical, spatial, linguistic, interpersonal, intrapersonal, naturalist and spiritual. By identifying graduate's potential intelligence, it will match them well with suitable occupations that benefit themselves, the workforce, the community and the country's economy. Therefore, understanding multiple intelligences is an important aspect of educating graduates. These are the intelligences that employers expect their employees to have together with the specific technical skills required for the job they are applying for.

It has been 30 years since the conceptualisation of multiple intelligences by Howard Gardner in 1983. Howard Gardner's theory of multiple intelligences is a psychological and educational theory espousing nine types of intelligence exist in humans, each relating to a different sphere of human life and activity (Foong, Shariffudin and Mislán, 2012). In his ground breaking book, *Frames of Mind* (Gardner, 1983) defines seven intelligences namely linguistic intelligence, logical-mathematical intelligence, spatial intelligence, musical intelligence, bodily-kinaesthetic intelligence, interpersonal intelligence, and intrapersonal intelligence. Two more additional intelligences theorised in another Gardner's book *Intelligence Reframed* which are naturalist intelligence and spiritual intelligence (Gardner, 1999) and he argues that the concept of intelligence should be broadened.

According to the Theory of Multiple Intelligences, an individual is unique from one another in the specific profile of intelligences that he or she exhibits. In addition, Gardner implies that everyone has the capacity for all of the intelligences but develops each intelligence to varying levels (Gardner, 1991). The definition of Multiple Intelligence in this study is more focused on the intelligence profile of management graduates for job placement purposes based on Gardner's nine intelligences namely musical, bodily-kinaesthetic, mathematical/logical, spatial, linguistic, interpersonal, intrapersonal, naturalist and spiritual (Gardner, 1999). Besides, it would assist management graduates to identify their potential multiple intelligences and to enhance the chances of being employed. Logically, each job does not focus on a single responsibility but it requires many kinds of intelligences to accomplish given tasks. Thus, it is important to nurture and polish all of the intelligences of graduates in order to be successful especially at the workplace (Awang, Aripin, Rafia and Ahmad, 2011).

Theory of Multiple Intelligences enables graduates to recognize their unique intellect. Recognizing unique intellect will help to boost confidence, improve academic performance, strengthen intelligences, and examine recommended careers. Multiple intelligences have been used successfully by career development professionals and they are also used by academicians to improve academic performance. In addition, Multiple Intelligence provides valuable information about an individual's intelligence levels and reveals ways to increase learning and employment potential (Hatch and Gardner, 1993).

In this study, graduates multiple intelligences profile is the main focus in enhancing the opportunity for graduates' employability. In order to measure and classify the multiple intelligences of graduate, Two Step Cluster Analysis is applied. The cluster is based on their demographic background and Gardner's nine intelligences namely musical, spatial/visual, verbal/linguistic, mathematics/logical, bodily-kinaesthetic, interpersonal, intrapersonal, naturalist and spiritual.

A psychometric test which is the Ability Test in Employment (ATIEm) will be used as the instrument to measure the level of nine intelligence types of management graduates for job placement purposes. (Appendix A). ATIEm, is an extension of the Ability Test in Epilepsy (ATIE[®]2008). ATIE[®] 2008 was developed based on Howard Gardner's Multiple Intelligence Theory to measure the level of eight intelligence types of epileptic patients. The purpose of ATIE[®] is to identify multiple intelligences in People with Epilepsy (PWE), which quantitatively measures the level of intelligence of PWE and to improve the skills of PWE tangibly, in which increase their chances of securing suitable employment (Awang, 2008).

In the end of the study, ATIEm Competency Model will be developed based on the multiple intelligence characteristics of the derived clusters. With Two Step Cluster Analysis method being employed, this study seeks to place graduate into groups that are identifiable with their employment probabilities.

1.2 Problem Statement

It is necessary to highlight that the issue of graduate unemployment is not new in Malaysia. What is new and worrying, however, is the persistent nature of the unemployed graduate problem within last one decade in Malaysia (Ismail, 2011). According to the definition of the Malaysia Labour Force Survey, the unemployed include persons who are available for work but do not work during a reference period. They could either be actively looking for work or not during the said period (Labour Force Statistics, Malaysia, 2013). Graduate unemployment is a serious concern because of its long term political and social implications. It is commonly argued that the large number of unemployed graduates serve as breeding ground for discontent and political unrest. Furthermore, graduate unemployment is a waste of productive resources. It brings negative results and contribution to the economic growth in Malaysia. As the unemployed graduates of Malaysia increase gradually, it weakens the rate of human capital and labour force from skilled workers in Malaysia (Baharin, Ishak and Ismail, 2012).

The high number of graduate unemployment has attracted many researchers to investigate and study the problem (Bakar and Hanafi, 2007; Khir, 2006). Based on the research done, it showed that 24.6% Malaysian graduates were not able to find a job six months after graduation in 2010 (Sim, 2013). Many scholars argue that graduates leave universities without sufficient soft skills and understanding which are necessary to succeed in the working world (Singh and Singh, 2008; Khir, 2006).

During the past few years there have been a substantial number of studies conducted dealing with the employability skills that students must acquire in order to obtain and keep entry level jobs (Omar *et al.*, 2012; Shafie and Nayan, 2010; Singh and Singh, 2008). Most of these studies have analysed the perceptions of employees concerning the workplace skills they need in order to maintain entry level jobs. The lack of knowledge and skills amongst graduates has been described as one of the reasons why graduates struggle to find employment after graduating (Ismail, 2011). The research showed that having good grades did not guarantee employment for Malaysian graduates. The graduates must have a good command of English and other soft skills such as analytical thinking, intelligence, independence, leadership, communication and computer skills and work experience (Ismail, 2011). Thus, there was very little variation in CGPA between the employed and unemployed graduates. This explains why the overall academic performance does not affect the chance of becoming employed graduates. The general consensus among Malaysian employers indicates that Malaysian graduates are well trained in their areas of specialization but unfortunately they lack the soft skills (Nurita and Ainon, 2004).

According to Gaundare (2012), many experts are proposing that graduates should plan their career by realizing the required employability skills and intelligences they have. This can help graduates to build an affective career plan for themselves. Howard Gardner's Theory Multiple Intelligences is ideal for personalized learning initiatives, boosting confidence and strategies for graduate to leverage and strengthen every intelligence (Hobsons, 2006). Research on intelligence in Malaysia has also applied Gardner's Multiple Intelligences. Awang *et. al.*, (2011) research was carried out to identify the intelligence profile of epilepsy patients for job placement purposes using cluster analysis. The classification was based on

Gardner's eight intelligences which are musical, bodily-kinaesthetic, mathematics/logic, spatial, linguistic, interpersonal, intrapersonal and naturalist. The study also seeks to identify determinants of employability based on the identified clusters and classifications. Awang *et. al*, (2011) has explored the attitudes and perception of human resource personnel toward the epilepsy and unemployment of PWE and classified PWE's intelligence patterns and characteristics based on a developed intelligence scale namely Ability Test in Epilepsy (ATIE[®]).

Based on Graduate Tracer Study 2012 done by Ministry of Education (MOE) Malaysia, formerly known as Ministry of Higher Education (MOHE), the latest statistics of unemployed students according to the fields of study has been released. This study stated that there were 184,581 students graduated in 2011 and 44,391 or 24% of these graduates, mostly bachelor 's degree holders were unemployed. Arts and Social Sciences had the highest number of unemployment, contributing 44.5% or 19,784 from the total number of unemployed graduates. Trailing behind are graduates from Technical fields with 12,321 which account for 27.7% and Science graduates with 7,321 which account for 16.49% of the total (Ministry of Higher Education, 2012). This study is supported by other researchers such as Allen (1998) and Drewes (2002) who believe that social science graduates may initially be disadvantaged by the lack of technical content and inability to relate to their programs of study and occupations although they do as well as graduates of applied courses of study once established. In general, graduates in science and technology seem to have fewer problems in getting a job compared to those in humanities and social science (Kougioumoutzaki and Kalamatianou, 2008).

The social sciences are a group of academic disciplines that study human aspects. Thus, management include as interdisciplinary fields related to the social sciences. According to Drucker (1954) in his book "*The Practice of Management*", management is a multi-purpose organ that manages business and manages managers and manages workers and work.

This study is conducted at the Faculty of Technology Management and Technopreneurship (FPTT), Universiti Teknikal Malaysia Melaka (UTeM). FPTT offers three undergraduate programs namely Bachelor of Technology Management (Innovation Technology), Bachelor of Technology Management (High Technology Marketing) and Bachelor of Technopreneurship with interdisciplinary in social sciences field. Initially, FPTT offered undergraduate management programmes.

Kumar (2013) revealed that the employability of management graduates is on a decline, considering the fact that economy is growing at the lowest pace. In addition, the financial sector is also expressing slow growth rate (Baisya, 2012). This finding is consistent with Singh and Singh (2008) whereby most unemployed graduates are majoring in business studies or information technology. Therefore, the Faculty of Technology Management and Technopreneurship (FPTT) should be concerned with these findings. This is because the faculty produces graduates who are majoring in areas of business studies. Hence, there is a need for a study to be carried out on the employability of this faculty graduates. This is supported by UTeM researchers Hassan (2011) and Md. Saad, Rabani, Jano and Abd Majid (2013). A previous study conducted on UTeM graduates employability only focuses on the engineering and information and communication technology (ICT) graduates.

Up to date, there are literally no research conducted to classify graduates potential abilities either UTeM or in Malaysia. Hence, this study fills in the gap by focussing on multiple intelligences in employability among UTeM management graduates. Moreover, this study will assist UTeM to produce graduates who meet the needs of employers based on their multiple intelligences profile. This study is essential since there is no research done on UTeM graduates for employability. Shafie and Nayan (2010) shows that for 100 graduates, universities such as University Teknologi MARA (UiTM) has 77 employability, Universiti Sains Malaysia (USM) 74, Universiti Islam Antarabangsa (UIA) 71, other overseas franchise universities 65, Universiti Malaya (UM) 63, Universiti Putra Malaysia (UPM) 61, Universiti Kebangsaan Malaysia (UKM) 38, Universiti Teknologi Malaysia (UTM) 35, Universiti Malaysia Sarawak (UNIMAS) 34 and Universiti Tun Hussein Onn Malaysia (UTHM) 8 employability.

At the same time, faculty can identify the marketability of the graduates and ensure that they are employed up to six months after completing their studies. On the other hand, this study can create a database on multiple intelligences profile for graduates in order to unleashing their potential and intellectual abilities to approach employability. Finally, this study will improve the percentage rate of unemployment in Malaysia especially among the management graduates.

A method called Two Step Cluster analysis will be used in this study to identify determinants of employability based on identified clusters and classifications. The classification is based on the respondents' demographic background and Gardner's nine intelligences namely musical, spatial/visual, verbal/linguistic, mathematics/logical, bodily-kinaesthetic, interpersonal, intrapersonal, naturalist and spiritual. Eventually, management graduates intelligence patterns and characteristics will be identified. This employable characteristic can assist management graduates in determining the significant factors that they need to have to increase their employment rate. This also helps the employers in finding a suitable employee among the management graduates based on the types of the intelligence that they have. Provided, this study assists graduates to identify their multiple intelligences and the capability to acquire the potential, specific knowledge and generic skills in order to increase graduates competence for employability or job readiness.

1.3 Research Questions

- 1.3.1 What is the multiple intelligences profile of graduates in UTeM?
- 1.3.2 What is the level of intelligence the UTeM graduates possess based on intelligence profile and demographic background?
- 1.3.3 What are the classifications of the graduates based on their specific demographic and multiple intelligences?
- 1.3.4 What is the model developed based on the multiple intelligence characteristics of the derived clusters?

1.4 Research Objectives

- 1.4.1 To identify the multiple intelligences profile of management graduates in UTeM based on psychometric test namely Ability Test in Employment (ATIEm).
- 1.4.2 To examine the multiple intelligences of management graduates based on their intelligence profile and demographic background.
- 1.4.3 To form cluster groups of similar intelligences based on specific demographic and multiple intelligences characteristic using Two Step Cluster Analysis.
- 1.4.4 To construct a competency model (ATIEm Competency Model) based on the clusters obtained.

1.5 Scope of the Study

The main purpose of this study is to identify the multiple intelligences in employability of management graduates based on Multiple Intelligence Theory by Howard Gardner. The related data used in this study are management graduates from Faculty of Technology Management and Technopreneurship (FPTT), Universiti Teknikal Malaysia Melaka (UTeM). A method called Two Step Cluster Analysis will be used in this study to identify determinants of employability based on identified clusters and classifications. Eventually, management graduates intelligence patterns and characteristics will be developed.

1.6 Significance of the Study

1.6.1 Higher Education Institutions

Employability of graduates is a key task for higher education institutions. It is no longer sufficient for a graduate to have knowledge of an academic subject, they need to gain essential skills which will enhance their prospects of employment. Hence, Higher Education Institutions (HEI) must be responsive to these changes (Nordin, 2009). So, this study attempts to fill in this gap by classifying graduates potential abilities of UTeM management graduates. Moreover, this study will assist the university as well as the HEI to produce graduates who meet the needs of employers based on their multiple intelligences profile.

1.6.2 Management Graduates

The principal objective of this study is to assist management graduates in identifying their multiple intelligences and the capability to acquire the potential, specific knowledge and generic skills in order to increase graduates competence for employability or job readiness. Apart from this, the study would be able to help management graduates to gain job placement by focusing not only skills but on their potential multiple intelligences as well. In order to enhance competitive advantage, graduates need to identify their potential intelligence that will make them successful in suitable occupations which benefits themselves, the workforce, the community and economy.

1.6.3 Human Resource Management

This study would assist Human Resource Management to assign graduates for most appropriate task based on their multiple intelligences and abilities. Therefore, it is important for employers to have the right perspective in understanding multiple intelligences of graduates, in order to provide productive contributions to organizational objectives after commencing employment.

1.7 Research Limitations

This study has two limitations. They are:

- 1.7.1 The sample of respondents is only limited to the management graduates from Faculty of Technology Management and Technopreneurship (FPTT), Universiti Teknikal Malaysia Melaka (UTeM) due to limited resources, administrative cost and time constrain.
- 1.7.2 The reliability of the findings is subjected to the sincerity and truthfulness of the respondents answering the questionnaire. However, the questionnaire is still a useful as a standard or touchstone to measure a criterion, test indicator and guideline in determining the multiple intelligences of graduate in general.

1.8 Research Framework

The research framework is shown in Figure 1.1. It consists of three stages. The first stage discusses the introduction part of the research and literature review of intelligences. This research applies Howard Gardner's Theory of Multiple Intelligences (MI) which articulates nine types of intelligences and their relation to the future careers of the graduates.

The second stage deals with implementation of the study which consists of the classification of graduates multiple intelligences. In order to classify the intelligences, Two Step Cluster Analysis is applied. This method consists a few methods namely Schwarz's Bayesian Criterion (BIC). Chi Square and t-test. In this study, a psychometric test which is the Ability Test in Employment (ATIE_m) is used as an instrument to measure the existence of nine types of intelligence profiles of management graduates for job placement purposes. ATIE_m is the improvement of Ability Test in Epilepsy (ATIE[®], 2008) which has also been developed based on Howard Gardner's Multiple Intelligence Theory. Then, discussion on the results as

well as the employable characteristics and profile of graduate for employability are done. In the final stage, the conclusion of this study is presented.

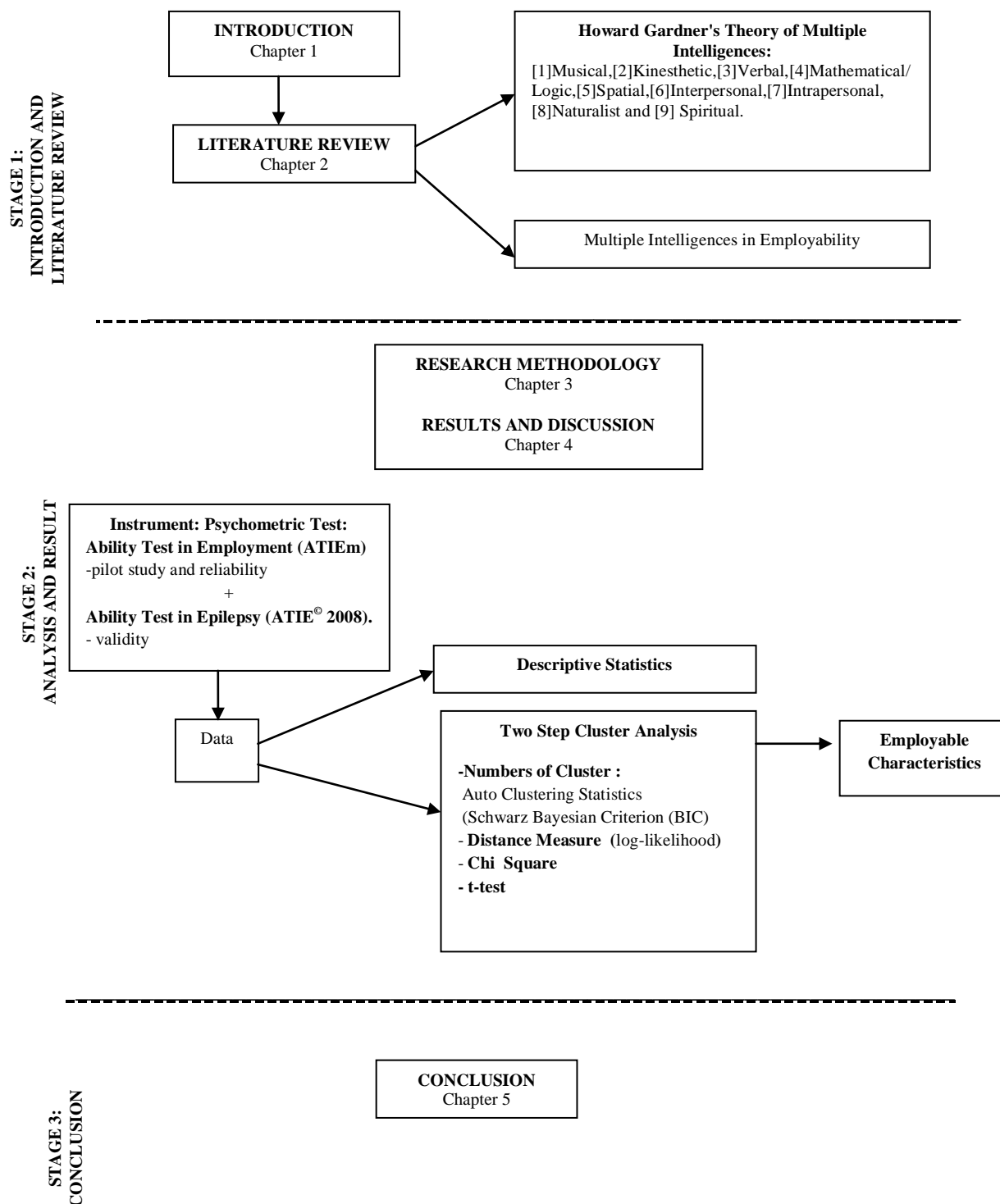


Figure 1.1: Research Framework

1.9 Conceptual and Operational Definition

1.9.1 Conceptual Definition

1.9.1 [a] Multiple Intelligence

It has been 30 years since the conceptualisation of Multiple Intelligences by Howard Gardner in 1983. Howard Gardner's theory of multiple intelligences is a psychological and educational theory espousing nine types of intelligence that exist in human, each relating to a different sphere of human life and activity (Foong *et. al*, 2012). In his ground breaking book, *Frames of Mind* (Gardner, 1983) defines seven intelligences namely (1) Linguistic Intelligence, (2) Logical-Mathematical Intelligence, (3) Spatial Intelligence, (4) Musical Intelligence, (5) Bodily-Kinaesthetic Intelligence, (6) Interpersonal Intelligence, and (7) Intrapersonal Intelligence with two more additional intelligences theorised in *Intelligence Reframed* which are (8) Naturalist Intelligence and (9) Spiritual Intelligence (Gardner, 1999).

1.9.1[b] Employability

The definition of employability varies from one study to another. Employability is reviewed as the ability of being marketable in the industry. In other words, employability is about being proficient in securing a job. Besides, employability is also about possessing the sets of attributes and skills that match those required by the industry (Ministry of Higher Education, 2012).

1.9.1 [c] Two Step Cluster Analysis

According to Norusis (2005), Two Step Clustering Analysis is a scalable cluster analysis algorithm designed and capable of handling both continuous and categorical variables. Two Step Cluster analysis will find the proper number of clusters automatically. The results gathered from running a simulation are consistently accurate and scalable in performance. The simulation also shows that the automatic procedure of finding the number of clusters works remarkably well and fast.

1.9.2 Operational Definition

1.9.2[a] Multiple Intelligence

The definition of Multiple Intelligence in this study is more focused on the intelligence profile of management graduates for job placement purposes based on Gardner's nine intelligences namely musical, bodily-kinaesthetic mathematical/logical, spatial, linguistic, interpersonal, intrapersonal, naturalist and spiritual (Gardner, 1999). Besides, it would assist management graduates to identify their potential multiple intelligences and help to enhance the chances of being employed. Logically, each job does not focus on a single responsibility but it requires many kinds of intelligences to accomplish given tasks. Thus, it is important to nurture and polish all of the intelligences among graduates in order for them to be successful especially at the workplace (Awang *et. al*, 2011).

1.9.2[b] Employability

Employability in this study refers to the possible career for management graduates in term of job placement purposes and chances to be employed by the employer based on Gardner's nine intelligences namely musical, bodily-kinaesthetic, mathematics/logical, spatial, linguistic, interpersonal, intrapersonal, naturalist and spiritual. In addition, at the end of this study, by identifying graduates potential intelligence, it will make them successful in suitable finding occupations which will eventually benefit themselves, the workforce, the community and economy.

1.9.3[c] Two Step Cluster Analysis

In order to identify the multiple intelligence profile of management graduate for job placement purposes, Two Step Cluster is applied. The classification is based on their demographic background and Gardner's nine intelligence namely musical, spatial/visual, verbal/linguistic, mathematics/logical, bodily-kinaesthetic, interpersonal, intrapersonal, naturalist and spiritual. The study at the end will form cluster groups of similar intelligences based on specific demographic and multiple intelligences characteristic using Two Step Cluster Analysis and construct a competency model (ATIEm Competency Model) based on the clusters obtained.

1.10 Summary

Discovering the potentials of graduates with intellectual abilities is a more sophisticated approach to employability. Individual's employability is strongly linked to his/her ability to recognise his/her own needs in terms of skills, competencies and attributes. Thus, each individual or graduates should develop his/her own graduate attributes and should be able to portray them. Having the right skills and having the ability to overcome his/her own shortcomings such as not having sufficient experience or skills are beneficial to any graduate and these are

impressive enough for potential employers. Employers value graduates for their intellectual ability and highly developed transferable skills. Indeed, employers want more than a degree holder because they want graduates who have developed a range of skills and qualities appropriate for the working world.

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