

**LIFE AND CAREER SKILLS AMONG TVET STUDENTS IN
POLYTECHNICS IN MALAYSIA**

by

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Thesis submitted in fulfillment of the requirement

for the degree of

Doctor of Education (Educational Technology & Multimedia)

February 2016

ACKNOWLEDGEMENT

Alhamdulillah, I praise for the greatness of ALLAH s.w.t that never stop helping me through my journey. He is the Almighty that gives me this journey and grant me to walk through this journey with His bless and generosity.

First of all, I would like to express my greatest gratitude to my beloved supervisor Associate Professor Dr. Azidah bt Abu Ziden for her support, inspiration and knowledge sharing throughout my journey. She never gave up upon me and always positive in educating and providing opportunities for developing my personality as a real educator. I would never gone this far without her help and support. Her constructive comments have made me understand the way to write a better piece of intellectual writing until today. Thank you Allah for choosing her to be my supervisor. I will always respect her wholeheartedly.

I am very grateful to have known Associate Professor Dr. Nordin Abdul Razak, who is always passionate in teaching me statistics until I thoroughly understand the concept in choosing appropriate statistical approach in a specific research. Thank you again for your never ending support in helping me in many ways that only Allah can repay your kindness. I am very lucky to have known you throughout this journey. Not forgetting Dr. Rozniza Zaharudin for her time and constructive comments as a wonderful panel in helping making my writing clearer and precise. Thank you very much for your constructive comments. Thank you again for taking the responsibility to be my panel throughout this journey.

Thank you also to Ministry of Higher Education Malaysia and University Tun Hussein Onn Malaysia for supporting me getting my way to the highest level of education for me that I cannot imagine how big the support is. Thank you also to Department of Polytechnic Education Malaysia for giving the approval to conduct the study in polytechnics throughout Malaysia.

There is no word to express my love and gratitude to my beloved family especially to my husband, Mohd Ismail bin Abd Aziz, my parents, Haji Abdullah bin Abdul Rahman and HjH Ruhanah binti Abdul Ghani and my whole family for sharing my ups and downs through this journey. You are the best gift that Allah have given me. Thank you for not giving up on me and all your prayers for me, I really cannot repay them back my whole life.

Finally, without my dearest friends support, I would not be here too. Thank you to all my friends. Thank you for everything you have done to me.

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PTTA UTHM
PERPUSTAKAAN TUNKU TUN AMINAH

LIST OF ABBREVIATIONS

LCS	-	Life and Career Skills
F&A	-	Flexibility and Adaptability
I&SD	-	Initiative and Self-direction
S&CC	-	Social and Cross-cultural
P&A	-	Productivity and Accountability
R&L	-	Responsibility and Leadership
EE	-	Electrical Engineering Department
ME	-	Mechanical Engineering Department
CE	-	Civil Engineering Department
COMM	-	Department of Commerce
TH	-	Tourism and Hospitality Department

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KEMAHIRAN KEHIDUPAN DAN KERJAYA DALAM KALANGAN PELAJAR TVET DI POLITEKNIK DI MALAYSIA

ABSTRAK

Pengangguran merupakan salah satu masalah yang dihadapi oleh pelbagai negara. Jurang antara kemahiran yang diperlukan oleh majikan dan kemahiran yang dimiliki oleh graduan adalah salah satu faktor pengangguran. Majikan pada masa kini ingin mendapatkan pekerja yang memiliki kemahiran yang sesuai untuk diambil bekerja. Kemahiran Kehidupan dan Kerjaya adalah penting untuk pembelajaran dan kerjaya di abad ke-21. Kemahiran ini adalah penting bagi kerjaya di dalam Negara mahupun antarabangsa. Bagi konteks dalam negara, politeknik adalah salah satu institusi pendidikan teknikal, vokasional dan latihan (PTV) utama di Malaysia yang bertujuan untuk melahirkan tenaga kerja untuk memenuhi keperluan industri. Oleh itu, kajian ini bertujuan untuk mengkaji kemahiran kehidupan dan kerjaya di kalangan pelajar TVET di institusi politeknik di Malaysia. Kajian ini menggunakan pendekatan kajian kuantitatif. Data dikumpulkan dengan menggunakan satu set soal selidik yang dibangunkan berdasarkan objektif kajian dan kajian literature. Seramai 821 pelajar diploma daripada tiga jenis politeknik (Premier, Konvensional dan Metro) telah dipilih dengan menggunakan kaedah persampelan tidak berkadaran. Elemen kemahiran kehidupan dan kerjaya yang dikaji adalah kemahiran fleksibiliti dan kemahiran kebolehsuaian, kemahiran inisiatif dan kemahiran sendiri, kemahiran sosial dan silang budaya, kemahiran produktiviti dan akauntabiliti, dan kemahiran kepimpinan dan pertanggungjawaban. Data yang dikumpul dianalisis dengan menggunakan statistik deskriptif dan statistik inferensi yang melibatkan ujian-t dan ANOVA menggunakan IBM SPSS versi 21. Kajian ini juga membandingkan kemahiran kehidupan dan kerjaya

pelajar terhadap jenis politeknik, jantina pelajar dan program yang diikuti oleh pelajar di pelbagai jabatan. Dapatan kajian menunjukkan terdapat perbezaan yang signifikan antara jenis politeknik, jantina pelajar dan kursus yang diikuti oleh pelajar terhadap kemahiran kehidupan dan kerjaya.



LIFE AND CAREER SKILLS AMONG TVET STUDENTS IN POLYTECHNICS IN MALAYSIA

ABSTRACT

Unemployment is one of the problems faced by many countries. A gap between the skills required by employers and the skills possessed by graduates are one of the factors of unemployment. Employers nowadays seek for employees who possess appropriate skills to be employed. Life and career skills are essential to both learning and work in the 21st century. It is important both in the local and international careers. As in local context, polytechnics are one of the main technical and vocational education and training (TVET) institutions in Malaysia that aiming to produce workforce to meet industrial needs. Therefore, this study aims to investigate the life and career skills among TVET students in polytechnic institutions in Malaysia. This study uses quantitative survey approach. Data were collected using a set of questionnaire developed based on the research objectives and literature review. A total of 821 diploma students from three types of polytechnics (Premier, conventional and METrO) were selected using disproportionate sampling method. The elements of 21st century life and career skills investigated were namely flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability and leadership and responsibility. Data gathered were analysed using descriptive statistics and inferential statistics involving t-test and ANOVA using IBM SPSS version 21. This study also compared the students' life and career skills against types of polytechnics, students' gender and courses enrolled in different departments. Findings shows that there were significant difference between types of polytechnics, students' gender and different courses enrolled by the students on the life and career skills.

CHAPTER 1

INTRODUCTION

1.1 Introduction

The need for appropriate characteristics of human resources are one of the big issues in the uncertain and fast changing environment (Ministry of Higher Education Malaysia, 2012) especially in the rapid development of the country. Preparing skillful and competence workforce is important for the development of the country. This is the role of the higher education institutions and therefore in producing workforce for the future, higher educational institutions need to recognize these issues since they are the agent of providing human resource of the future (N. M. Triki, 2010).

To encounter the challenges especially, our future human resource are supposed to be nurtured with 21st century skills especially the life and career skills. Janet, Kimberly and Ken (2010) emphasized that students should be groomed for careers by incorporating 21st century skills and career as well as technical education into the entire system. Students should be exposed to academic skills or the employability and technical knowledge and skills that are equally valued in creative and innovative society. Therefore, several frameworks have been developed to incorporate elements of career and life skills as a very important element for 21st century skills. 21st century skills are defined as the set of skills students need to succeed in learning, work and life in this century, which comprise of a variety of skills, including learning and innovation skills, digital literacy skills and life and career skills (Trilling & Fadel, 2009).

Some of the 21st century skills frameworks are proposed by the Partnership for 21st century skills (P21), En Gauge, Assessment and Teaching of 21st Century Skills

(ATCS), National Educational Technology Standards (NETS), and the Organization for Economic Co-operation and Development (OECD). These frameworks provide common skills such as collaboration, communication, ICT literacy, creativity, critical thinking, problem solving and social or cultural competencies including citizenship. However, the framework proposed by the Partnership for 21st century provides a very detailed specification of the life and career skills and has been indicated as one of the important skills by Ministry of Higher Education in the National Graduate Employability Blueprint 2012-2017. Therefore, this study focused on the life and career skills proposed by the Partnership for 21st century skills (P21).

Life and career skills have several components such as flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility. The issue here is whether the students gain these skills during their studies in higher education institutions, especially in Technical and Vocational Education and Training (TVET) institution such as Malaysian polytechnic institutions.

In Malaysia, there are many levels of education, namely primary, secondary and also tertiary education. Polytechnic education is one of the tertiary education that highlight TVET to the community. Holding to the vision of the polytechnic education that is “to be Malaysian’s main provider of innovative human capital through transformational education and training for the global workforce by 2015” (Jabatan Pengajian Politeknik, 2013b), it shows that polytechnic play important role in preparing students with appropriate education towards providing future workforce for the country. Therefore, this study is aimed at investigating the 21st century life and career skills of TVET students in polytechnics and investigate the extent of life and career skills being implemented in the polytechnic education.

1.2 Background of the Study

The global economic growth and the rapid development of nations impacted the educational institutions of the world. As the development occurs, education systems too are moving towards 21st century skills development where there are increasing needs for educators and students to survive in this era. The 21st century skills are crucial to many educational fields and many countries had streamlined their educational systems towards 21st century skills. There are a number of reports and studies regarding 21st century skills emphasized on 21st century skills. These reports and studies emphasize the importance of 21st century skills that need to be nurtured in education in order to produce graduates who are ready to be workers of tomorrow (Bybee & Fuchs, 2006; Janet, Kimberly, & Ken, 2010).

In transforming Malaysian educational systems for the 21st century, Ministry of Education Malaysia plays the role in preparing educators, learners, schools, higher educational institution towards first class mentality which is the main aim of The National Higher Education Strategic Plan (NHESP) and the first class mentality workers is characterized as a of human capital that can meet the needs of individual, family, community, nation and the world (Ministry of Higher Education, 2012). Therefore, educational institutions should recognize the important aim of the Ministry of Education Malaysia in order to produce semi-skilled and highly skilled workforce. Technical and Vocational Education and Training (TVET) worldwide also has taken steps to produce a high quality skilled workforce for the future. This is not exceptional for the TVET in Malaysia and 21st century skills are being looked into for that particular reason (Aring, 2011; Bybee & Fuchs, 2006; Daniel & Hultin, 2002; Kechik, 2011; Nwogu, 2011; Ministry of Higher Education, 2012).

Worldwide reports regarding 21st century skills were looking at the issue of developing competent workforce for the future and they are pointing to education systems, particularly at the higher education institutions since they are the providers of the human capital. Higher education institution held important roles and responsibilities to prepare students to be workforce for the future especially in surviving the dynamic economic environment (N. M. Triki, 2010). As for TVET, to prepare for 21st century skills, all parties involved in the organization must look at the history behind technical and vocational education to create a better future for the direction of TVET in the 21st century.

There are many researches, studies and conferences related to transforming TVET for 21st century education being done worldwide. The topics raised revolved around the problems and issues faced by TVET institutions such as appropriate skills required to produce successful graduates, the transformation of education, suitable TVET programs, employability, and workforce to fit global market. Dason, Hamzah and Udin (2010) have reviewed the paths gone through by TVE in Malaysia. Some of the major problems faced by TVET in Malaysia, including lack of engagement with related industries, lack of educators who have experience in the industries, lack of funds and policy to support TVE, negative impression in TVE, and curriculum is not effective and flexible were the major problems being discussed

Theoretical knowledge alone is insufficient for individuals to be able to become competent or proficient in hands-on skills (Bridgstock, 2009; Winch, 2013). In general, the most practical work in real working environment is different from the theories learnt. Industries demand for skilled workers that can master not only theories alone, but importantly workers that can master practical work as well (Kayan, Hamzah, & Udin, 2010). In addition, instructors will be seen as a leader when they are able to

produce skilled employees for the relevant industries (Kayan et al., 2010). Thus it is the role of TVET institutions to develop the manpower needed by the industries.

Further studies concern with transforming TVET towards 21st century. The main concern is the challenges faced by students and teachers in the 21st century education. Hassan (2010) suggested that the great challenge to the TVET should be addressed is to ensure to achieve developed nation status in 2020. It can be seen that the foundation of vocational education in Malaysia has been built up to enable educators to plan and move towards the goal. However, the challenge in the coming years, especially in the economic crisis facing the country, vocational educator should have the competitive and sensitive to the changes occurring around it (Hassan, 2010). This shows that TVET are facing great challenge in moving towards 21st century because of the dynamic economic growth. To overcome these challenges, previous studies and reports regarding TVET also have appointed several appropriate 21st century skills that focused on strengthening TVET. The skills comprised of accountability and adaptability, communication skills, creativity and intellectual curiosity, critical thinking and systems thinking, information and media literacy skills, and interpersonal and collaborative skills, flexibility, lifelong learning, practical skills, and employability (Hassan, 2010; Maclean & Pavlova, 2011; Wang, 2012b).

Aring (2011) revealed major issues that being raised regarding youth development in TVET which first highlighted young peoples' biggest concern are access to jobs and physical security. Second, young people are afraid of being unemployed because of their lacking of skills that are valued in global and local economic which will lead to problems to economic growth, jobs and income. Third, perception of the term vocational in different language and culture, where vocational tends to have negative connotations. This issue also supported by Dason, Hamzah, &

Udin (2010) which also highlighted that some people show negative impression for TVET and to blue collar jobs. Fourth, collaboration between industries and education that little history of collaboration among employers or between employers and education in most developing countries. This is supported by Triki (2010). Finally, Aring (2011) suggested that which also supported by Dason et. al. (2010) highlighted that the curricular are often out of date, narrow, not effective and not flexible. Furthermore, skills standards that reflect the industrial sector's current and future skill needs was not available between industries and education sectors. These issues of workforce of today and in the past should not be taken easily since the economic growth and demands are ever changing (Judy & D'Amico, 1997; Ministry of Higher Education Malaysia, 2012).

As one way to address the issues mentioned earlier, Ministry of Higher Education has adopted a study done by (Mohamad & Hamzah, 2011) regarding the Generic Student Attributes (GSA). There are four attributes that students should have; Academic attributes, Personality Management attributes, Exploration attributes and finally Connectivity attributes. These four attributes have their own elements. The Academic attributed consist of four elements that are academic performance, good degree classification, college experiences and job knowledge on the discipline of study. The Personality Management attributes comprise of positive attitude, responsibility, adaptability, leadership, and altruism as the elements of the attribute. Imaginative, innovative and critical and creative thinking are the elements for the Exploration attributes. The Connectivity attributes is the final attributes that consist of four elements of attributes which are communication, technology integration, team-working and commercial awareness. The ministry has adopted the attributes as Employability Attributes Framework (EAF) in the National Graduate Employability

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