UNIVERSITI PUTRA MALAYSIA

EFFECTS OF SELF-DIRECTED LEARNING READINESS, RESILIENCE, AND COMPETENCIES ON LEARNING MOTIVATION OF POSTGRADUATE STUDENTS IN MALAYSIAN RESEARCH UNIVERSITIES

IZUMY DIHAFINY MOHAMMAD DIN

GSM 2015 21

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By

IZUMY DIHAFINY MOHAMMAD DIN

Thesis Submitted to Graduate School of Management, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Master of Science

December 2015

DEDICATION

This research is humbly dedicated to the valuable person in life:

To my beloved parents

Tn Haji Mohammad Din bin Lebai Hadi & Pn Hjh Zaiton binti Samsudin

for the endless love, support, and prayers

My sweet husband

En Mohd Shairi bin Suliman

for his loves and sacrifices

My charming kids

Luth Zafran & Lily Zarith

My siblings

Izham Hameiry, Izman Muhammadi, Izhar Hamidi, Izura Dihafina, & Izuma Dihafiza

My bestfriend forever

Norhidayah bt Mohd Yusof

&

My family in laws

Thank you for being a part of my journey and patiently stood by me throughout the journey and endured the ups and downs together with me.

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December 2015

Chair : **Dahlia Zawawi, PhD**
Faculty : **Graduate School of Management, UPM**

The purpose of this study was to examine the relationship between self-directed learning readiness and learning motivation with the mediating effects of resilience and competencies among postgraduate students in Malaysia. There were five objectives in this study: (i) to identify the relationship between self-directed learning readiness and resilience, (ii) to examine the relationship between self-directed learning readiness and learning motivation, (iii) to study the relationship between self-directed learning readiness and competencies, (iv) to assess the mediating effect of resilience in the relationship between self-directed learning readiness and learning motivation, and (v) to investigate the mediating effect of competencies in the relationship between self-directed learning readiness and learning motivation. A total of 600 questionnaires were distributed to postgraduate students from four Research Universities (RUs) in Malaysia namely Universiti Malaya, Universiti Putra Malaysia, Universiti Kebangsaan Malaysia, and Universiti Teknologi Malaysia. Respondents were selected using stratified sampling and simple random sampling. After the data collection completed, data was analysed through a few steps which include data screening, descriptive analysis, multivariate assumption test, reliability and validity test, and lastly hypothesis testing. To test the hypotheses of this study, simple regression, multiple regression, and mediation regression analysis were used. Results showed that from five main hypotheses, three hypotheses were supported and the other two hypotheses were not supported. It can be concluded from the findings that self-directed learning readiness has a significant and positive relationship between learning motivation, resilience, and competencies. However, there is no mediation of resilience and competencies were found in the relationship between self-directed learning readiness and learning motivation.

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Abstrak tesis yang dikemukakan kepada Senat Universiti Putra
Malaysia sebagai memenuhi keperluan untuk ijazah Sarjana Sains

**KESAN PEMBELAJARAN KENDIRI, RESILIENSI, DAN KOMPETENSI
TERHADAP MOTIVASI PEMBELAJARAN DI KALANGAN PELAJAR
SISWAZAH DALAM UNIVERSITI PENYELIDIKAN DI MALAYSIA**

Oleh

IZUMY DIHAFINY MOHAMMAD DIN

Disember 2015

Pengerusi   : Dahlia Zawawi, PhD
Fakulti   : Sekolah Pengajian Siswazah Pengurusan, UPM

Tujuan kajian ini adalah untuk mengkaji hubungan di antara kesediaan
pembelajaran kendiri dan motivasi pembelajaran dengan resiliensi dan
kompetensi sebagai kesan mediasi di kalangan pelajar siswazah di Malaysia.
Terdapat lima objektif kajian: (i) untuk mengkaji hubungan kesediaan
pembelajaran kendiri dan resiliensi, (ii) untuk menentukan hubungan kesediaan
pembelajaran kendiri dan motivasi pembelajaran, (iii) untuk mengkaji hubungan
kesediaan pembelajaran kendiri dan kompetensi, (iv) untuk mengkaji kesan
mediasi resiliensi di antara hubungan kesediaan pembelajaran kendiri dan
motivasi pembelajaran, dan (v) untuk mengkaji kesan mediasi kompetensi di
antara hubungan kesediaan pembelajaran kendiri dan motivasi pembelajaran.
Sejumlah 600 soal selidik telah diedarkan kepada pelajar siswazah dari empat
Universiti Penyelidikan di Malaysia iaitu Universiti Malaya, Universiti Putra
Malaysia, Universiti Kebangsaan Malaysia, dan Universiti Teknologi Malaysia.
Responden dipilih menggunakan persampelan berstrata dan persampelan
rawak mudah. Selepas pengumpulan data selesai, data dianalisis melalui
beberapa langkah termasuklah penyaringan data, analisis deskriptif, ujian
andaian multivariasi, kebolehpercayaan dan ujian kesahihan, dan akhirnya ujian
hipotesis. Untuk menguji hipotesis kajian ini, regresi mudah, regresi berganda,
dan analisis regresi mediasi telah digunakan. Keputusan menunjukkan bahawa
daripada lima hipotesis utama, empat hipotesis disokong dan satu lagi hipotesis
tidak disokong. Dapatan kajian menunjukkan bahawa kesediaan pembelajaran
kendiri mempunyai hubungan yang signifikan dan positif antara resiliensi,
motivasi pembelajaran, dan kompetensi. Selain itu, terdapat kesan mediasi
terhadap resiliensi dalam hubungan antara kesediaan pembelajaran kendiri dan
motivasi pembelajaran. Walaubagaimanapun, tidak wujud kesan mediasi
kompetensi dalam hubungan antara kesediaan pembelajaran kendiri dan
motivasi pembelajaran.

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"In the name of Allah, the Most Beneficent, the Most Merciful"

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Thank you.

APPROVAL

I certify that an Examination Committee met on 7 December 2015 to conduct the final examination of Izumy Dihafiny Mohammad Din on her thesis entitled "Effects Of Self-Directed Learning Readiness, Resilience and Competencies On Learning Motivation Of Postgraduate Students In Malaysian Research Universities" in accordance with the Universities and University College Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the degree of Master of Science.

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On behalf of,
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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirements for the degree of Master of Science. The members of the Supervisory Committee were as follows:

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On behalf of,
Graduate School of Management
Universiti Putra Malaysia

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DECLARATION

I hereby confirm that:

- this thesis is my original work;
- quotations, illustrations and citations have been duly referenced;
- this thesis has not been submitted previously or concurrently for any other degree at any other institutions;
- intellectual property from the thesis and copyright of thesis are fully-owned by Universiti Putra Malaysia (Research) Rules 2012;
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Signature: _____   Date: _____

Name and Matric No.: Izumy Dihafiny Mohammad Din / GM04643

Declaration by Supervisory Committee

This is to confirm that:

- the research conducted and the writing of this thesis was under our supervision;
- supervision reponsibilities as stated in Rule 41 in Rules 2003 (Revision 2012 – 2013) were adhered to.

Chairman of Supervisory Committee

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Member of Supervisory Committee

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LIST OF ABBREVIATIONS

APEX	Accelerated Programme for Excellence
HEI	Higher Education Institution
HRD	Human Resource Development
IIUM	International Islamic University Malaysia
MoHE	Ministry of Higher Education
PRO	Personal Responsibility Orientation
RU	Research University
SDT	Self-Determination Theory
UiTM	Universiti Teknologi Mara
UKM	Universiti Kebangsaan Malaysia
UM	Universiti Malaya
UMS	Universiti Malaysia Sabah
UNESCO	The United Nations Educational, Scientific and Cultural Organization
UNIMAS	Universiti Malaysia Sarawak
UPM	Universiti Putra Malaysia
UPNM	Universiti Pertahanan Nasional Malaysia
UPSI	Universiti Pendidikan Sultan Idris
USM	Universiti Sains Malaysia
UTM	Universiti Teknologi Malaysia
UUM	Universiti Utara Malaysia

CHAPTER 1

INTRODUCTION

1.1   Introduction

This chapter begins with the background of this study and an overview of higher education institutions in Malaysia. The next section identifies the problem statement and objectives and research questions of this study. The following section discusses the significance of this study from theoretical and practical perspectives and scope. The final section presents the definitions of terms and summary for the entire chapter.

1.2   Background of Study

Malaysia aims to be a developed country by focusing on knowledge economy to meet global competition around the world under the Vision 2020 initiative. The main focus of this knowledge economy is to create a workforce that is efficient, proactive and innovative, with learning as one of the ways to close the gap between the level of worker skills and current needs. Knowledge economy is important to ensure that Malaysia is able to achieve sustainable rapid economic growth and to sustain competitiveness through globalisation. Various measures and approaches have been taken by the government to ensure that the aspiration towards a developed country is achieved, including the implementation of national programmes and policies such as the New Economic Model (NEM), Government Transformation Plan (GTP), and Economic Transformation Programme (ETP).

The emphasis given by the government shows the significant role of the workforce in shaping economic growth in Malaysia. Knowledge economy emphasise on developing human capital that is based on knowledge to upgrade the level of academic qualifications, skills, as well as abilities among the workforce in Malaysia. Human capital is the key driver in supporting the transition towards a competitive knowledge economy (Eleventh Malaysia Plan 2016-2020, 2015). The development of human capital is to create a workforce that can endure this challenging economy with the relevant knowledge and skills.

Education, skill development and trainings are the central elements of human capital. Basic knowledge, trainings and skills are not sufficient as most of the jobs in this challenging economy also require a higher level of education (Hadi, 2012). The quality of education was raised to develop talent with both the

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knowledge and skills and access to all forms of higher education including technical programmes, undergraduate, and postgraduate programmes in this globally competitive and dynamic environment in order to achieve developed nation status (Eleventh Malaysia Plan 2016-2020, 2015).

Many developing countries including Malaysia are interested in producing more researchers with critical thinking skills in order to produce higher quality of human capital (Meerah, 2010). This intention can be seen through the increasing number of students entering the doctoral programme at the university level in many public universities in Malaysia which has grown significantly year by year. Due to that, postgraduate learning in Malaysia has experienced remarkable variations with improvements in higher education institutions (Kaur & Sidhu, 2009). Although the roles of technical and undergraduate programmes are undeniable, postgraduate programmes are also an important source of knowledgeable and skilled potential employees in this knowledge economy (United Nations Educational, 2008).

Generally, the purpose of postgraduate education is to provide an in-depth knowledge and understanding that includes philosophy in the area of pure sciences and social sciences (Hadi, 2012). Most postgraduate students are more mature and have greater experience in life and career as well as greater responsibilities (Ismail, Abiddin, & Hassan, 2011; Sandhu, Sidique, & Riaz, 2011). Thus, this study specifically focuses on postgraduate students as they are seen as viable sources towards the development of human capital in the industries and will contribute related knowledge and skills in various sectors.

In addition, most of the postgraduate programmes are research-based that stresses on high analytical thinking which is preferred in this competitive and challenging economy. The growth towards participation in postgraduate learning helps in developing innovation programmes and expanding the research and development (R&D) which are related to progress in the Malaysian economy. In fact, higher education institutions also play an important role in developing knowledgeable and highly skilled human capital by providing first class education especially in preparing quality postgraduate programmes. The next part briefly discusses the background of higher education institutions in Malaysia before identifying the problem statement in this study.

1.3   Higher Education Institutions in Malaysia

Higher education in Malaysia has progressed in various aspects since 2004 after the establishment of the Ministry of Higher Education. In general, there are two categories of institutions in Malaysia: public institutions and private institutions. Public institutions are further divided into three categories. The first is government public universities. Second is the polytechnic and third is the community college. Polytechnics provide academic and vocational programmes whereas community colleges provide association programmes with public universities in Malaysia (Ismail & Bakar, 2010). As there are quite a

number of public universities in Malaysia, measures have been taken to group the universities into three categories in order to encourage healthy competition among the universities. The categories are research-based universities, focus universities, and comprehensive universities. To date, there are 20 public higher education institutions (HEIs), 33 polytechnics and 91 community colleges (including branch campuses) in Malaysia (Malaysia Higher Education Blueprint, 2015).

In 2010, five public universities succeeded in being recognised as Research Universities (RU). RU is a list of universities in Malaysia focusing on learning and research. The vision of RU is to explore new ideas, conduct research with advanced procedures, and acknowledge scholars' contribution by actively participating in knowledge expansion. Among the features of RU are research-focused areas of study, inclusion of competitive, quality lecturers, and graduate and postgraduate ratio of 50:50. Based on the results of the Research University Audit conducted in 2010, four RUs, namely University of Malaya (UM), Universiti Sains Malaysia (USM), Universiti Kebangsaan Malaysia (UKM) and Universiti Putra Malaysia (UPM) are competent to maintain their accreditation. Effective from 21 July 2010, Universiti Teknologi Malaysia (UTM) also succeeded in being recognised as a new RU (The National Higher Education Action Plan Phase 2, 2011).

In contrast, comprehensive universities are the universities that provide learning programmes in various areas of learning. There are four universities classified under this category: Universiti Teknologi Mara (UiTM), International Islamic University Malaysia (IIUM), Universiti Malaysia Sabah (UMS) and Universiti Malaysia Sarawak (UNIMAS). Among the characteristics of comprehensive universities are competitive entry, the quality of lecturers, and graduate and postgraduate ratio of 70:30. Meanwhile, the last category which is focus universities consist of the remaining 11 universities that specialize in one area of study such as engineering, education, and management. Among the universities are Universiti Pendidikan Sultan Idris (UPSI), Universiti Utara Malaysia (UUM), and Universiti Pertahanan Nasional Malaysia (UPNM) (The National Higher Education Action Plan Phase 2, 2011).

Under the National Higher Education Strategic Plan, one of the high-profiled projects for the empowerment of higher learning on the world stage is the involvement of public universities in the APEX programme, known as the Accelerated Programme for Excellence (APEX) University. An APEX University acts as an impetus to trigger the entire higher education system to move towards excellence. Universities nominated for this programme turn into models by other universities in establishing the standard of performance and imitating the best approaches of the university. Universiti Sains Malaysia (USM) has been chosen as the one and only university in Malaysia to implement the APEX programme in 2008. The APEX University has the autonomy in making decisions on institutional governance, finance and generation of wealth, management of academics and student admissions, and human resources (The National Higher Education Action Plan Phase 2, 2011).

Other than public universities, private universities also contribute in shaping higher education institutions in Malaysia with 70 private universities, 34 private university colleges and 410 private colleges (Malaysia Higher Education Blueprint, 2015). According to the "Global Education Digest 2010" by The United Nations Educational, Scientific and Cultural Organization (UNESCO), Malaysia has become the preferred country to study especially by people from Sudan, Yemen, Maldives, and Somalia in 2009 (Higher Education Strategic Plan Phase 2, 2011).

Table 1.1: List of Public Universities Based on Category

Category	List of Universities
Research University	Universiti Malaya
	Universiti Sains Malaysia
	Universiti Kebangsaan Malaysia
	Universiti Putra Malaysia
	Universiti Teknologi Malaysia
Comprehensive University	Universiti Teknologi Mara
	Universiti Islam Antarabangsa Malaysia
	Universiti Malaysia Sabah
	Universiti Malaysia Sarawak
Focus University	Universiti Utara Malaysia
	Universiti Pendidikan Sultan Idris
	Universiti Tun Hussein Onn Malaysia
	Universiti Teknikal Malaysia Melaka
	Universiti Malaysia Perlis
	Universiti Malaysia Terengganu
	Universiti Malaysia Pahang
	Universiti Sains Islam Malaysia
	Universiti Darul Iman Malaysia
	Universiti Malaysia Kelantan
	Universiti Pertahanan Nasional Malaysia

(Source: Malaysia Higher Education Blueprint, 2015; the National Higher Education Action Plan Phase 2, 2011)

Seventy per cent of international students enrol in private higher education institutions in Malaysia on average. The enrolment of international students in Malaysia contributed nearly RM2.6 billion in 2010 to the country's economy. This is in line with the government's effort to make Malaysia the regional hub for higher education, as well as the main choice for international students and intellects by 2020 (The National Higher Education Action Plan Phase 2, 2011). Thus, higher education institutions are responsible in developing human capital among graduates as the future leaders in the industries and create a pool of workforce with relevant educational knowledge and skills to support and sustain in this flexible and intense competitive and challenging economy. The production of such a talent pool will ensure a labour force with the ability to perform and excel in various fields and allow Malaysia's workforce to be globally competitive.

1.4   Problem Statement

Since 2006, the Malaysian government has allocated a significant amount to sponsor individuals to further studies at the postgraduate level either in Malaysia or overseas. One of the programmes that have been set up to meet the aim is the MyBrain15 programme. This programme aims to help meet the target of 18,000 PhD holders by 2015 in Malaysia. By 2023, the target of this programme is 60,000 PhD holders in Malaysia (Tenth Malaysia Plan 2011-2015, 2010). The programme demonstrates government initiatives in human capital development by producing a knowledgeable workforce through postgraduate study.

However, among the main concerns experienced by higher education institutions is attrition and graduation level among postgraduate students (Al-naggar, Al-sarory, Al-naggar, & Al-muosli, 2012; Ismail & Abiddin, 2009; Mosaku & Ghafar, 2007). High rates of non-completion among postgraduate students are worrisome and students take a longer time to graduate (Ismail & Abiddin, 2009). Basically, the duration of the Master's programme for full-time basis is between one to three years whereas that of a PhD is between three to five years in public universities in Malaysia (Higher Education Malaysia, 2010).

From the data collected by School of Graduate Studies UPM in 2005, Ismail and Abiddin (2009) reported that Master's students graduate in an average of 2.69 years and PhD students with an average of 4.84 years. The data showed that the average graduation years among postgraduate students were at a moderate level and students took a longer time to complete their studies. This is in accordance with the research done by the Ministry of Higher Education (MoHE) that discovered 72.17% of their sponsored postgraduate students enrolled in 2006 and 2007 were unable to complete their studies in the time given based on the April 2011 record (MoHE Circular, 2011). The output of the sponsorship programme in terms of the number of students graduating within the target period (3-4 years) is not achieved.

The issue of non-completion and time taken to graduate in higher learning has concerned many researchers to study this issue. To date, most studies have concentrated on identifying the elements of successful supervisory relationships and many researchers in postgraduate study have indicated that research and the quality of supervision are important factors in the successful of postgraduate studies (e.g., Khozaei, Naidu, Khozaei, & Salleh, 2015; Rae, 2015; Ismail, Abiddin, Hassan, & Ro'is, 2014; Ismail, Abiddin, & Hassan, 2011; Krauss & Ismail, 2010; Manathunga & Goozée, 2007; Seagram, Gould, & Pyke, 1998). The emphasis given on supervision has neglected the role of students themselves towards their own learning. A study was conducted by the Ministry of Higher Education to identify factors that hinder postgraduate students in graduating on time and the findings from the study showed that the leading factors were: (a) students attitude during study; (b) research process; (c) academic process; and (d) health of students and family members (MoHE Circular, 2011).

Much of the research in this area has been limited to identifying the elements of successful supervisory relationships. However, few have examined the issue using an approach in understanding the experiences of students from their own subjective viewpoints (Krauss & Ismail, 2010). There are very limited researches done on students' attitude and motivation upon completion among postgraduate students especially in Malaysia. In fact, students' attitude and motivation in learning play an important role in determining their completion and success in studies (Norton, 2011; Svedberg, 2010; Ahern & Manathunga, 2004). Research has shown that motivation is associated with numerous learning outcomes such as curiosity, persistence, and learning performance (Vallerand, Pelletier, Blais, Briere, Senecal, & Vallieres, 1992).

Research shows that individuals with high self-directed learning have the ability to perform well in tasks. This ability includes activities that require great level of decision-making, innovation, and change (Beitler & Mitlacher, 2007). However, research on identifying the role of self-directed learning towards learners' motivation among postgraduate students is lacking. A review of literature indicated that there is little empirical study on how self-directed learning readiness motivates students particularly in postgraduate study settings. Moreover, postgraduate students are expected to finish their studies within the specified period of time which could further stress the students (Ismail et al., 2011).

Numerous studies have examined the emotional challenges of postgraduate research students in postgraduate study (Norton, 2011; Kaur & Sidhu, 2009) as well as enthusiasm, strength, support and commitment (Ismail et al., 2011). In fact, postgraduate students sometimes face circumstances and difficulties in personal issues, finances, family matters and cultural problems (Al-Naggar et al., 2012). Nonetheless, attention has been given in motivating the learners, but little attention has been given on enhancing their academic resilience and capacity to handle stress and obstacles (Martin, 2002).

In addition, research has shown that the students' readiness in undertaking postgraduate study will affect the time of completion and quality of research or thesis they produce (Meerah, 2010). Students who are not prepared for the postgraduate program may be lacking in terms of specific skills needed to undergo the postgraduate studies (Meerah, 2010). The literature also suggests that there is a lack of emphasis placed on the development of competencies especially in soft skills by many tertiary education providers (Lifelong Learning Blueprint, 2011). There are very few studies on postgraduate students' preparedness in research and there is a need to address the competencies of students in embarking on their studies (Meerah, 2010).

This is the reason this research is conducted which is to understand and provide solutions to the postgraduate students in overcoming the challenges and difficulties during their studies. The role of mediator could explain whether resilience and competencies will affect the relationship between self-directed learning readiness and learning motivation. Therefore, the current study will be

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conducted to identify the role of self-directed learning readiness, resilience, competencies, and learning motivation among postgraduate students.

1.5   Research Objectives

The main objective of this study is to examine the relationship between self-directed learning readiness and learning motivation among postgraduate students in Malaysian Research Universities. The specific objectives of the study are:

Objective 1:   To examine the relationship between self-directed learning readiness and learning motivation

Objective 2:   To examine the relationship between self-directed learning readiness and resilience

Objective 3:   To examine the relationship between self-directed learning readiness and competencies

Objective 4:   To assess the mediating effect of resilience on the relationship between self-directed learning readiness and learning motivation

Objective 5:   To assess the mediating effect of competencies in the relationship between self-directed learning readiness and learning motivation

1.6   Research Questions

Based on the objectives, the research questions in this study are:

Question 1:   Is there a significant relationship between self-directed learning readiness and learning motivation?

Question 2:   Is there a significant relationship between self-directed learning readiness and resilience?

Question 3:   Is there a significant relationship between self-directed learning readiness and competencies?

Question 4:   Is there a mediating effect of resilience on the relationship between self-directed learning readiness and learning motivation?

Question 5:   Is there a mediating effect of competencies on the relationship between self-directed learning readiness and learning motivation?

1.7   Significance of Study

This study has both theoretical and practical significance. This section explicitly discusses how the study provides a significant contribution to each of the two areas in postgraduate studies among students.

1.7.1   Theoretical

This study is relevant and significant for several reasons. First, the application of self-determination theory (SDT) is significant in this study as SDT has been widely discussed in the field of motivation in formal learning (Leal, Miranda, & Carmo, 2012). Self-determination theory postulates a set of basic and universal psychological needs, namely autonomy (a sense of control), competence (feeling competent with tasks and activities) and relatedness which are important in explaining the role of motivation.

Students who perceive themselves to be acting with a sense of autonomy, competence, and relatedness during the learning activity experience high-quality motivation, while those who have these three needs neglected or frustrated during instruction experience low-quality motivation (Reeve, 2012). This study is expected to provide a comprehensive understanding of this theory by integrating self-directed learning readiness and learning motivation among postgraduate students. In addition, the theory also serves as a foundation in developing a new framework consisting of the variables of self-directed learning readiness, learning motivation, resilience, and competencies.

Second, two variables, namely self-directed learning readiness and learning motivation are broadly discussed in the context of postgraduate studies in higher education. Students' attitude and learning motivation play an important role in determining their completion and success in studies (Norton, 2011; Svedberg, 2010; Ahern & Manathunga, 2004) as well as to maintain students' academic performance (Hamjah et al., 2011; Martin, 2002). Due to that, research has found self-directed learning readiness to be an important factor in effective learning (Mok et al., 2007) and has a major influence on learners' motivation to continue in their studies (Sze-yeng and Hussain, 2010). This is because self-directed learning requires the learners to take responsibility for planning, executing, and assessing their own learning experience (Brockett, 1985).

Experimental studies show that individuals with high self-directed learning skills tend to perform better in tasks that require high degrees of problem-solving ability, creativity, and change (Beitler & Mitlacher, 2007) which are crucial in postgraduate studies. By examining the motivational issues of postgraduate learners in the context of self-directed learning, this study is expected to provide an empirical base for understanding the motivational needs of learners through the self-directed learning process which could help the students to graduate on time.

Third, this study is also significant because it provides a framework for the exploration of mediators (resilience and competencies) in the relationship between self-directed learning readiness and learning motivation. By adding the mediator, we can inflate the strength of the relationship between the independent variable and dependent variable. The role of mediators which are resilience and competencies could explain the effects of self-directed learning readiness on learning motivation which contributes to a new relationship in self-directed learning. The next section describes the practical contributions of the study.

1.7.2   Practical

This study is significant as it examines students' learning readiness towards their learning experience in postgraduate studies. Continuing a postgraduate programme requires a transformation in students' life and the process is complex (Powers & Swick, 2012). Postgraduate students face pressures during the learning process and need to overcome difficulties in a new environment and academic setting. Research shows that postgraduate students' actual learning experiences can have a tremendous impact on postgraduate learning success and provides further insights and information on barriers faced by postgraduate students in Malaysia (Sandhu et al., 2011). Thus, a study concerning the issue of completion rates in postgraduate studies is hoped to assist the students in completing their studies within the time frame, and thereby to be prepared with potential problems that might affect the process of postgraduate studies (Zainal & Ismail, 2011).

Furthermore, this study is significant to higher education institutions in Malaysia as the enrolment of students in postgraduate study is growing year by year in today's emerging global higher education contexts (Statistics on Women, Family and Community Malaysia, 2014; National Education Statistic: Higher Education Sector, 2013). The new millennium challenges have urged higher education institutions to review the teaching processes and practices from different perspectives in order to meet the specific needs by postgraduate students. The issue of completion rate among postgraduate students would be a main concern for higher education institutions in improving their postgraduate academic programmes offered to the students. Thus, higher education institutions can take proactive steps to help the students with problems during the learning process and can provide essential support and facilities to their postgraduate students. By providing proper services and resources, the process of learning will be smooth and convenient which could help the students in completing their studies.

1.8   Scope of Study

The purpose of this study is to examine the relationship between self-directed learning readiness, learning motivation, resilience, and competencies among postgraduate students in Malaysian Research Universities. Research Universities (RUs) were selected because RUs are amongst the most

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respected universities in Malaysia that focus on learning and research. In addition, RUs are at the centre of the global knowledge economy (Altbach, 2013) that appears in world rankings and the most visible academic universities (Hazelkorn, 2011). A Research University is a research-based university which places a higher priority on postgraduate students with the vision of actively participating in discovering new ideas, experimenting with innovative methods, and taking intellectual initiatives to further discover and advance knowledge. The features of RU are research-focused areas of study, the inclusion of competitive, quality lecturers, and a graduate and postgraduate ratio of 50:50 (MoHE, 2011).

The current study targets only postgraduate students in Malaysia as studies on postgraduate students will empower the development of human capital in Malaysia in order to strengthen its knowledge-based economy and knowledge-based society. This is consistent with the government's aspiration to focus on knowledge-based economy through emphasis in human capital. Thus, the scope of the study is only on postgraduate students undergoing Master's and PhD programmes in Research Universities in Malaysia.

1.9 Definition of Key Terms

Definitions of terms commonly used in this study are as follows:

Self-directed learning: The most popular definition of SDL was proposed by Knowles (1975) which describes SDL as "a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies and evaluating learning outcomes" (Lai, 2011, p.18).

Thus, in this study self-directed learning is defined as an independent learning process in which the learner takes the initiative and has full responsibility in managing their learning activities which include setting of learning goals, identifying learning methods and any other relevant activities during the learning process (Sze-yeng & Hussain, 2010; Lounsbury, Levy, Park, Gibson, and Smith, 2009).

Self-directed learning readiness: The degree of readiness to which individuals perceive themselves to possess self-directed learning (Wiley (1983) as cited in Bin, Williams, Bo, & Pang, 2012).

Resilience: Resilience refers to one's ability to adapt to stressful situations or crises and the human capacity to deal with inevitable adversities of life (Loveland, Gibson, Lounsbury, & Huffstetler, 2005; Wagnild & Young, 1993).

Competencies: Competency is defined as a cluster of related knowledge, skills, abilities (KSA), and behaviour patterns that affect a major part of one's job (a role or responsibility), which can be improved through training and development (Lee, 2009). In this study, competencies refer to communication skills and critical thinking and problem-solving skills.

Learning Motivation: An individual's desire to learn based on internal factors (recognition and interest) or external factors (rewards) (Hamjah et al., 2011).

2.0   Summary

This chapter explains the background of study and an overview of higher education institutions in Malaysia followed by the presentation of the problem statement. Research objectives and research questions are identified next. This chapter ends with the explanation of the significance of the study in terms of theory and practice, the scope of study, and definition of terms that are applied in this study.

REFERENCES

Abdullah, H. (2009). Major Challenges to the Effective Management of Human Resource Training and Development Activities. *The Journal of International Social Research*, *2*(8), 11–21.

Abdullah, M. L. (2009). Identifying the Generic Skills Amongst Malaysian Undergraduate Students: An Analysis of Gender Differences. *Jurnal Teknologi*, *50(E)*(Jun), 11–20.

Ahern, K., & Manathunga, C. (2004). Clutch-Starting Stalled Research Students. *Innovative Higher Education*, *28*(4), 237–254.

Al-naggar, R. A., Al-sarory, M., Al-naggar, A. A., & Al-muosli, M. (2012). Doctorate international students ' satisfaction and stress on academic supervision in a Malaysian University : a qualitative approach. *Educational Research, 3*(3), 264-269.

Altbach, P. G. (2013). Advancing the national and global knowledge economy: the role of research universities in developing countries. *Studies in Higher Education, 38*(3), 316–330. doi:10.1080/03075079.2013.773222

Amin, H. M., Jaafar, J., Hood, Z., Saad, S., & Amin, H. M. (2013). Kemahiran Insaniah Pelajar Prasiswazah: Analisis Perbezaan Jantina. *Jurnal Teknologi*, *61*(1), 19–25.

Areepattamannil, S., & Freeman, J. G. (2008). Academic Achievement, Academic Self-Concept, and Academic Motivation of Immigrant Adolescents in the Greater Toronto Area Secondary Schools. *Journal of Advanced Academics*, *19*(4), 700–743. doi:10.4219/jaa-2008-831

Awang, Z. (2012). Research Methodology and Data Analysis. Second Edition: UITM Press: Selangor.

Bardan S. (2012). Workforce Developments and Needs: Employers Perspective, Asean Vocational Education and Training Forum, Kuala Lumpur, 26 April 2012.

Baron, R., & Kenny, D. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. J*ournal of Personality and Social Psychology*, 51(6), 1173–1182. Retrieved from http://psycnet.apa.org/psycinfo/1987-13085-001

Beitler, M. A., & Mitlacher, L. W. (2007). Information sharing, self-directed learning and its implications for workplace learning: A comparison of business student attitudes in Germany and the USA. *Journal of Workplace Learning*, *19*(8), 526–536. doi:10.1108/13665620710831191

Bidee, J., Vantilborgh, T., Pepermans, R., Huybrechts, G., Willems, J., Jegers, M., & Hofmans, J. (2013). Autonomous Motivation Stimulates Volunteers' Work Effort: A Self-Determination Theory Approach to Volunteerism. *International Journal of Voluntary and Nonprofit Organizations*, *24*(1), 32–47. doi:10.1007/s11266-012-9269-x

Bin, H., Williams, B. A., Bo, J., & Pang, D. (2012). Chinese baccalaureate nursing students ' readiness for self-directed learning. *Nurse Education Today*, *32*(4), 427–431. doi:10.1016/j.nedt.2011.03.005

Black K. (2008). Business Statistics for Contemporary Decision Making. Fifth Edition: John Wiley and Sons Inc.: USA.

Blueprint on Enculturation of Lifelong Learning for Malaysia 2011-2020. (2011).

Brien, K. E. O. (2004). *Self-Determination Theory and locus of control as antecedents of voluntary workplace behaviors*.

Brockett, R. G. (1985). The Relationship Between Self-Directed Learning Readiness and Life Satisfaction Among Older Adults. *Adult Education Quarterly*, *35*(4), 210–219. doi:10.1177/0001848185035004003

Brockett, R. G., & Hiemstra, R. (1991). *Self-direction in adult learning: Perspectives on theory, research, and practice.* London and New York: Routledge.

Candy, P. C. (1991). *Self-direction for lifelong learning*. San Francisco: Jossey-Bass.

Castillo, J., Caruana, C. J., & Wainwright, D. (2011). The changing concept of competence and categorisation of learning outcomes in Europe: Implications for the design of higher education radiography curricula at the European level. *Radiography, 17*(3), 230-234.

Chen, H., & Kao, C. (2012). Empirical validation of the importance of employees ' learning motivation for workplace e-learning in Taiwanese organisations. *Australasian Journal of Educational Technology*, *28*(4), 580–598.

Chen, K.-C., & Jang, S.-J. (2010). Motivation in online learning: Testing a model of self-determination theory. *Computers in Human Behavior*, *26*(4), 741–752. doi:10.1016/j.chb.2010.01.011

Chuprina, L. (2001). *The Relationship Between Self-Directed Learning Readiness And Cross-Cultural Adaptability In U.S. Expatriate Managers*. (Doctoral dissertation). Retrieved from ProQuest Information and Learning. (UMI Number: 3039951).

Dickinson, L. (1995). Autonomy and motivation A literature review. *System*, *23*(2), 165–174.

Education, M. of H. (2011). *The National Higher Education Action Plan Phase 2 (2011-2015)* (Vol. 63). doi:10.3399/bjgp13X674387

Eleventh Malaysia Plan 2016-2020. (2015). The Economic Planning Unit.Retrieved from http://rmk11.epu.gov.my/book/eng/Elevent-Malaysia-Plan/RMKe-11 Book.pd

Fisher, M., King, J., & Tague, G. (2001). Development of a self-directed learning readiness scale for nursing education. *Nurse Education Toda*y, (21), 516–525. doi:10.1054/nedt.2001.0589

Foen, S., & Confessore, G. J. (2011). Assessing the capacity for success in distance learning in Malaysia. *Procedia-Social and Behavioral Sciences, 15*, 1742–1750. doi:10.1016/j.sbspro.2011.03.362

Garavan, T. N., & McGuire, D. (2001). Competencies and workplace learning: some reflections on the rhetoric and the reality. *Journal of Workplace Learning*, *13*(4), 144 – 164.

Garrison, D. R. (1997). Self-Directed Learning: Toward a Comprehensive Model. *Adult Education Quarterly*, *48*(1), 18–33. doi:10.1177/074171369704800103

Guglielmino, L. M. (1977). Development Of The Self-Directed Learning Readiness Scale. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses.

Hadi, H. A. (2012). *Universiti Teknologi Mara Postgraduates' Thesis Accomplishment : Diagnosing Its Attributable*. (Master dissertation). Retrieved from Universiti Teknologi MARA.

Hair J.F., Black W.C., Babin B.J., & Anderson, R.E. (2010). Multivariate Data Analysis: A Global Perspectives. Seventh Edition: Pearson Prentice Hall: New Jersey.

Hall, C. W., Spruill, K. L., & Webster, R. E. (2002). Motivational And Attitudinal Factors In College Students With And Without Learning Disabilities. *Learning Disability Quarterly*, *25*(2), 79–86.

Hall, J. D. (2011). *Self-Directed Learning Characteristics of First- Generation , First-Year College Students Participating in a Summer Bridge Program*. (Doctoral dissertation). Retrieved from Graduate School Theses and Dissertations. http://scholarcommons.usf.edu/etd/3140

Hamjah, S. H., Ismail, Z., & Rasit, R. M. (2011). Methods of Increasing Learning Motivation among Students. *Procedia Social and Behavioral Sciences*, *18*, 138–147. doi:10.1016/j.sbspro.2011.05.021

Hartley, M. T. (2010). Increasing Resilience: Strategies for Reducing Dropout Rates for College Students with Psychiatric Disabilities. *American Journal of Psychiatric Rehabilitation*, 13(4), 295–315. doi:10.1080/15487768.2010.523372

Hashim, J. (2008). Competencies acquisition through self-directed learning among Malaysian managers. *Journal of Workplace Learning*, 20(4), 259–271. doi:10.1108/1366562081087

Hazelkorn, E. (2011). *Rankings and the reshaping of higher education: The battle for world-class excellence*. Basingstoke: Palgrave Macmillan.

Holt, L., & Brockett, R. G. (2012). Self direction and factors influencing technology use: Examining the relationships for the 21st century workplace. *Computers in Human Behavior*, *28*(6), 2075–2082. doi:10.1016/j.chb.2012.06.011

Hytti, U., Stenholm, P., Heinonen, J., & Seikkula-Leino, J. (2010). Perceived learning outcomes in entrepreneurship education: The impact of student motivation and team behaviour. *Education + Training*, *52*(8/9), 587–606. doi:10.1108/00400911011088935

Irene, L. P., Aris, B., & Tasir, Z. (2007). Satu Kajian Rintis Tentang Pengesanan Aras Kemahiran Generik Yang Telah Dikuasai Oleh Pelajar Universiti Dalam Pembelajaran Aktif. In 1st International Malaysian Educational Technology Convention (pp. 410–422).

Ismail, A., & Abiddin, N. Z. (2009). The Importance of Graduate Students Need on Supervisory Contribution in a Malaysian Public University. *The Social Sciences*, *4*, 355–365.

Ismail, A., Abiddin, N. Z., & Hassan, A. (2011). Improving the Development of Postgraduates' Research and Supervision. *International Education Studies*, *4*(1), 78–89.

Ismail, A., Abiddin, N. Z., Hassan, R., & Ro'is, I. (2014). The Profound of Students' Supervision Practice in Higher Education to Enhance Student Development. *Higher Education Studies*, *4*(4), 1–6. doi:10.5539/hes.v4n4p1

Ismail, S. & Bakar, N. B. A. (2010). Annual Reports Of Malaysian Public Universities: The Extent Of Compliance And Accountability. Proceedings of The Sixth Asia Pacific Interdisciplinary Research in Accounting

(APIRA) Conference. University of Sydney Australia. 12th and 13th July 2010.

Kan, A., & Osman, K. (2015). The Relationship between Self-Directed Learning Skills and Science Achievement among Qatari Students. *Creative Education*, 6, 790–797.

Karakas, F., & Manisaligil, A. (2012). Reorienting self-directed learning for the creative digital era. *European Journal of Training and Development*, *36*(7), 712–731. doi:10.1108/03090591211255557

Kaur, S., & Sidhu, G. K. (2009). A Qualitative Study of Postgraduate Students ' Learning Experiences in Malaysia. *International Education Studies*, *2*(3), 47–56.

Khozaei, F., Naidu, S., Khozaei, Z., & Salleh, N. A. (2015). An exploratory study of factors that affect the research progress of international PhD students from the Middle East. *Education + Training*, *57*(4), 448–460.

Kim, K. (2005). *Adult Learners' Motivation In Self-Directed E-Learning.* (Unpublished doctoral dissertation). Retrieved from Department of Instructional Systems Technology Indiana University.

Kong, H., Cheung, C., & Song, H. (2012). From hotel career management to employees' career satisfaction: The mediating effect of career competency. *International Journal of Hospitality Management*, *31*, 76–85. doi:10.1016/j.ijhm.2011.03.002

Krauss, S. E., & Ismail, I. A. (2010). PhD Students' Experiences of Thesis Supervision in Malaysia: Managing Relationships in the Midst of Institutional Change. *The Qualitative Report*, *15*(4), 802–822.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, *30*, 607-610.

Lai, H. (2011). The Influence of Adult Learners ' Self-Directed Learning Readiness and Network Literacy on Online Learning Effectiveness : A Study of Civil Servants in Taiwan. *Educational Technology & Society*, *14*(2), 98–106.

Leal, E. A., Miranda, G. J., & Carmo, C. R. S. (2012). Self-Determination Theory: An Analysis of Student Motivation in an Accounting Degree Program. In *Third Meeting of Teaching and Research in Management and Accounting* (pp. 162–173).

Lee, Y. (2009). Competencies Needed by Korean HRD Master ' s Graduates : A Comparison Between the ASTD WLP Competency Model and the

Korean Study. *Human Resource Development Quarterly*, *20*(1), 107–133. doi:10.1002/hrdq

Lema, J. D., & Agrusa, J. (2009). Relationship of WWW usage and employee learning in the casino industry. *International Journal of Hospitality Management*, *28*(1), 18–25. doi:10.1016/j.ijhm.2008.03.010

Lim, D. H. (2004). Cross Cultural Differences in Online Learning Motivation. *Educational Media International*, *41*(2), 163–175. doi:10.1080/09523980410001685784

Lounsbury, J. W., Levy, J. J., Park, S.-H., Gibson, L. W., & Smith, R. (2009). An investigation of the construct validity of the personality trait of self-directed learning. *Learning and Individual Differences, 19*, 411–418.

Loveland, J. M., Gibson, L. W., Lounsbury, J. W., & Huffstetler, B. C. (2005). Broad and Narrow Personality Traits in Relation to the Job Performance of Camp Counselors. *Child & Youth Care Forum*, *34*(3), 241–255. doi:10.1007/s10566-005-3471-6

Manathunga, C., & Goozée, J. (2007). Challenging the dual assumption of the "always/already" autonomous student and effective supervisor. *Teaching in Higher Education, 12*(3), 309–322. doi:10.1080/13562510701278658

Margalit, M., & Idan, O. (2004). Resilience and hope theory: An expanded paradigm for learning disabilities research. *Thalamus, 22*(1), 58-64.

Martensen, A., & Grønholdt, L. (2009). Quality in higher education: linking graduates' competencies and employers' needs. *International Journal of Quality and Service Sciences*, *1*(1), 67–77. doi:10.1108/17566690910945877

Martin, A. (2002). Motivation and academic resilience: Developing a model for student enhancement. *Australian Journal of Education*, *46*(1), 34–49.

Masunaga, H. (1998). Adult Learning Theory and Elderhostel. *Gerontology & Geriatrics Education*, *19*(2), 3–16.

Meerah, T. S. M. (2010). Readiness of preparing postgraduate students in pursuit of their doctoral programme. *Procedia-Social and Behavioral Sciences*, *9*, 184–188. doi:10.1016/j.sbspro.2010.12.133

Meneghel, I., Salanova, M., & Martinez, I. M. (2014). Feeling Good Makes Us Stronger : How Team Resilience Mediates the Effect of Positive Emotions on Team. *Journal of Happiness Studies*. doi:10.1007/s10902-014-9592-6

Ministry of Education Malaysia. (2015). Malaysia Education Blueprint 2015-2025 (Higher Education). Ministry of Education Malaysia. Retrieved from http://medcontent.metapress.com/index/A65RM03P4874243N.pdf

Ministry of Education Malaysia. (2013). National Education Statistic: Higher Education Sector 2013.

Ministry of Higher Education Circular, Bil 1 (2011).

Ministry of Women, Family, and Community Devleopment. (2014). Statistics on Women, Family and Community Malaysia 2014. Retrieved from www.kpwkm.gov.my

Mok, M. M.-C., Cheng, Y., Leung, S., Shan, P. W., Moore, P., & Kennedy, K. (2007). Self-Directed Learning As A Key Approach To Effectiveness Of Education : A Comparison Among Mainland China, International Handbook of School Effectiveness and Improvement, 839–858.

Monetti, D. M. (2002). A multiple regression analysis of self-regulated learning, epistemology, and student achievement. Dissertation Abstracts International, 62, 170.

Morgeson, F.P., Delaney-Klinger, K., Mayfield, M.S., Ferrara, P. and Campion, M.A. (2004) Self-Presentation Processes in Job Analysis: A field experiment investigating inflation in abilities, tasks, and competencies. *Journal of Applied Psychology, 89*, 674–686.

Mosaku, M. O., & Ghafar, M. N. (2007). Persistency in Malaysian Higher Education. Retrieved July 24, 2013, from eprints.utm.my/14942/.../Persistency in Malaysian Higher Education

Murray, P., & Donegan, K. (2003). Empirical linkages between firm competencies and organisational learning. *The Learning Organization*, *10*(1), 51–62. doi:10.1108/09696470310457496

Noels, K. A., Pelletier, L. G., Clément, R., & Vallerand, R. J. (2000). Why Are You Learning a Second Language? Motivational Orientations and Self-Determination Theory. *Language Learning*, *50*(1), 57–85.

Norton, J. (2011). "Getting to the End": Psychological Factors Influencing Research Higher Degree Completion. *Journal of the Australia and New Zealand Student Services Association*, (38), 1–9.

O'Brien, R. M. (2007). A Caution Regarding Rules of Thumb for Variance Inflation Factors. *Quality and Quantity*, *41*, 673–690. doi:10.1007/s11135-006-9018-6

Powers, J. D., & Swick, D. C. (2012). Straight talk from recent grads: Tips for successfully surviving your doctoral program. *Journal of Social Work Education*, *48*(2), 389–394. doi:10.5175/JSWE.2012.201000073

Quek, A.-H. (2005). Learning for the workplace: a case study in graduate employees' generic competencies. *Journal of Workplace Learning*, *17*(4), 231–242. doi:10.1108/13665620510597185

Rae, N. (2015). *A Systematic Review: Student and supervisor variables affecting completion of postgraduate research requirements*. (Unpublished Master dissertation). University Of The Western Cape.

Raemdonck, I. (2012). Predictors of self-directed learning for low-qualified employees: a multi-level analysis. *European Journal of Training and Development*, *36*(6), 572–591. doi:10.1108/03090591211245495

Rainsbury, E., Hodges, D., Burchell, N., & Lay, M. (2002). Ranking Workplace Competencies: Student and Graduate Perceptions. *Asia- Pacific Journal of Cooperative Education*, *3*(2), 8–18.

Rajan, K.M. (2010). Soft Skill Requirement For Employability In Mechanical Engineering Industry. J*ournal of Human Capital Development*, 3(2), 41–54.

Reeve, J. (2012). A Self-determination Theory Perspective on Student Engagement. In *Handbook of Research on Student Engage* (pp. 149–172). doi:10.1007/978-1-4614-2018-7

Reis, H. T., Sheldon, K. M., Gable, S. L., Roscoe, J., & Ryan, R. M. (2000). Daily Well-Being: The Role of Autonomy, Competence, and Relatedness. *Personality and Social Psychology Bulletin*, *26*(4), 419–435. doi:10.1177/0146167200266002

Robinson, M. G. (2003). *The Relationship Between Self-Directed Learning Readiness And Resilience Among Graduate Students*. (Doctoral dissertation). Retrieved from ProQuest Information and Learning Company. (UMI Number: 3119302).

Rowold, J., & Kauffeld, S. (2009). Effects of career-related continuous learning on competencies. *Personnel Review*, *38*(1), 90–101. doi:10.1108/00483480910920732

Ryan, R. (2009). *Self-determination Theory and Wellbeing*. Wellbeing in Developing Countries (WeD).

Sandhu, M. S., Sidique, S. F., & Riaz, S. (2011). Entrepreneurship barriers and entrepreneurial inclination among Malaysian postgraduate students.

International Journal of Entrepreneurial Behaviour & Research,*17*(4), 428–449. doi:10.1108/13552551111139656

Seagram, B. C., Gould, J., & Pyke, S. W. (1998). An Investigation Of Gender And Other Variables On Time To Completion Of Doctoral Degrees. *Research in Higher Education, 39*(3), 319–335.

Seel, N. (2012). *Encyclopedia of the Sciences of Learning*. (N. M. Seel, Ed.). Boston, MA: Springer US. doi:10.1007/978-1-4419-1428-6

Sekaran, U. (2000). Research Methods for Business: A Skill Building Approach. Third Edition: John Wiley and Sons Inc.: USA.

Shi, M., Wang, X., Bian, Y., & Wang, L. (2015). The Mediating Role Of Resilience In The Relationship Between Stress And Life Satisfaction Among Chinese Medical Students: A Cross-Sectional Study. *BMC Medical Education*, *15*(1), 16. doi:10.1186/s12909-015-02

Sidhu, G. K., & Kaur, S. (2011). Enhancing Global Competence in Higher Education: Malaysia' s Strategic Initiatives. In *Higher Education in the Asia-Pacific* (pp. 219–236). doi:10.1007/978-94-007-1500-4

Smedley, A. (2007). The self-directed learning readiness of first year bachelor of nursing students. *Journal of Research in Nursing*, *12*(4), 373–385. doi:10.1177/17449871070775

Sojo, V., & Guarino, L. (2011). Mediated Moderation or Moderated Mediation: Relationship between Length of Unemployment, Resilience, Coping and Health. T*he Spanish Journal of Psychology, 14*(1), 272–281. doi:10.5209/rev

Song, L., & Hill, J. R. (2007). A Conceptual Model for Understanding Self-Directed Learning in Online Environments. *Journal of Interactive Online Learning*, *6*(1), 27–42.

Spinath, B., & Spinath, F. M. (2005). Longitudinal analysis of the link between learning motivation and competence beliefs among elementary school children. *Learning and Instruction*, *15*(2), 87–102. doi:10.1016/j.learninstruc.2005.04.008

Stewart-Knox, B., E Duffy, M., Bunting, B., Parr, H., Vas de Almeida, M. D., & Gibney, M. (2012). Associations between obesity (BMI and waist circumference) and socio-demographic factors, physical activity, dietary habits, life events, resilience, mood, perceived stress and hopelessness in healthy older Europeans. *BMC Public Health*, *12*(424), 1–12. doi:10.1186/1471-2458-12-424

Stockdale, S. L. (2003). *Development of an Instrument to Measure Self-Directedness*. (Unpublished doctoral dissertation). Retrieved from University of Tennessee. http://trace.tennessee.edu/utk_graddiss/1619

Stockdale, S. L., & Brockett, R. G. (2011). Development of the PRO-SDLS: A Measure of Self-Direction in Learning Based on the Personal Responsibility Orientation Model. *Adult Education Quarterly*, *61*(2), 161–180. doi:10.1177/0741713610380447

Svedberg, M. K. (2010). *Self-directed learning and persistence in online asynchronous udergraduate programs*. (Unpublished doctoral dissertation). Retrieved from Virginia Polytechnic Institute and State University.

Sze-yeng, F., & Hussain, R. M. R. (2010). Self-directed learning in a socioconstructivist learning environment. *Procedia-Social and Behavioral Sciences*, *9*, 1913–1917. doi:10.1016/j.sbspro.2010.12.423

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics (5th ed.)*. Boston: Allyn & Bacon.

Tenth Malaysia Plan 2011-2015. (2010).The Economic Planning Unit.

The National Graduate Employability Blueprint 2012-2017. (2012). Ministry of Higher Education.

Trivellas, P., Kakkos, N., Blanas, N., & Santouridis, I. (2015). The Impact of Career Satisfaction on Job Performance in Accounting Firms. The Mediating Effect of General Competencies. *Procedia Economics and Finance, 33*, 468 – 476.

United Nations Educational, S. and C. O. (2008). *Trends and Issues in Postgraduate Education: Challenges for Research. UNESCO Forum on Higher Education, Research and Knowledge*. Dublin City University (DCU).

Vallerand, R. J. (2004). Intrinsic and Extrinsic Motivation in Sport. *Encyclopedia of Applied Psychology*, *2*, 427–435.

Vallerand, R. J., Pelletier, L. G., Blais, M. R., Briere, N. M., Senecal, C., & Vallieres, E. F. (1992). The Academic Motivation Scale: A Measure of Intrinsic, Extrinsic, and Amotivation in Education. *Educational and Psychological Measurement, 52*, 1003-1017.

Wagnild, G. M., & Young, H. M. (1993). *D*evelopment and psychometric evaluation of the Resilience Scale. *Journal of Nursing Measurement, 1(2), 165–78.* Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/7850498

Wang, Y., Peng, H., Huang, R., Hou, Y., & Wang, J. (2008). Characteristics of distance learners: Research on relationships of learning motivation, learning strategy, self-efficacy, attribution and learning results. *Open Learning:The Journal of Open, Distance and E-Learning*, *23*(1), 17–28.

Windle, G., Bennett, K. M., & Noyes, J. (2011). A methodological review of resilience measurement scales. *Health and Quality of Life Outcomes*, *9*(8), 1–18. doi:10.1186/1477-7525-9-8

Yang, G.-F., & Jiang, X.-Y. (2014). Self-directed learning readiness and nursing competency among undergraduate nursing students in Fujian province of China. *International Journal of Nursing Sciences*, *1*, 255–259. doi:10.1016/j.ijnss.2014.05.021

Zainal, N. A., & Ismail, A. (2011). Attrition and Completion Issues in Postgraduate Studies for Student Development. *International Review of Social Sciences and Humanities*, *1*(1), 15–29.

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