UNIVERSITI SAINS MALAYSIA

UNIVERSITY RESEARCH GRANT
FINAL REPORT
Geran Penyelidikan Universiti
Laporan Akhir

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A.	**PARTICULARS OF RESEARCH** / *MAKLUMAT PENYELIDIKAN:*
(i)	**Title of Research:** *Tajuk Penyelidikan:* **Value of graduates from distance learning programmes in the employment market**
(ii)	**Account Number:** *Nombor Akaun:* **1001/PJJAUH/816044**
B.	**PERSONAL PARTICULARS OF RESEARCHER** / *MAKLUMAT PENYELIDIK:*
(i)	**Name of Research Leader:** *Nama Ketua Penyelidik:* **Assoc Prof Dr Saw Kim Guan**
	Name of Co-Researcher *Nama Penyelidik Bersama:* **Assoc Prof Mohd Nain Hj Awang** **Dr Yen Siew Hwa** **Dr Nailul Murah Mohd Nor** **Dr Wan Asna Wan Mohd Nor** **Ms Puvaneswary Murugaiah** **Ms Surjani Soetardjo**
(ii)	**School/Institute/Centre/Unit :** *Pusat Pengajian /Institut/Pusat/Unit :* **School of Distance Education**

C. Research Platform (Please tick (/) the appropriate box):
Pelantar Penyelidikan (Sila tanda (/) kotak berkenaan):

☐	**A. Life Sciences** *Sains Hayat*
☐	**B. Fundamental** *Fundamental*
☐	**C. Engineering & Technology** *Kejuruteraan & Teknologi*
☐	**D. Social Transformation** *Transformasi Sosial*
/	**E. Information & Communications Technology (ICT)** *Teknologi Maklumat & Komunikasi*
☐	**F. Clinical Sciences** *Sains Klinikal*
☐	**G. Biomedical & Health Sciences** *Bioperubatan Sains Kesihatan*

D. Duration of this research :
Tempoh masa penyelidikan ini :

***Duration : 3.5 years**
Tempoh :

From : Oct 2007 To : March.2011
Dari: Ke :

E. ABSTRACT OF RESEARCH

This research study investigates the perceptions of recent graduates of Universiti Sains Malaysia, a public dual-mode university in Malaysia, on their employability. The study explores the constructs which relate to the internal dimension of self-perceived employability. A mixed methods approach is used in this study where a semi-structured interview and a scale to measure self-perceived employability among distance education graduates at the entry and exit points of their programme. Statistical analysis suggests that perceptions at the entry and exit points are significantly different. The quantitative and qualitative findings indicate that the positive change in the attributes is seen as a result of undertaking a distance education programme. A surprising finding is that transactional distance is not seen as a hindrance but rather as an attribute in causing a formative effect on the ability and skills of the respondents. Our study also suggests that while tertiary distance education does provide social and job mobility, traditional organisational attachment is preferred to a borderless career by respondents who are mainly civill servants.

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F.

SUMMARY OF RESEARCH FINDINGS

Ringkasan dapatan Projek Penyelidikan

An instrument to examine the expectations and self-perceptions of employability of graduates from distance education programmes was developed . The instrument consists of a 12 item questionnaire with a five-point Likert scale and a semi-structured interview to supplement the quantitative findings. Perceptions at the entry and exit points of programme were measured. Both sets of means from the questionnaire were high indicating that the respondents generally have high perceptions regarding their ability to stay meaningfully employed and progress in their careers. The means were higher for the period after graduating from the programme indicating that the respondents felt that their employability was higher after obtaining their degree. Cronbach alpha valued of 0.88 and 0.87 for the responses before enrolment and after graduation respectively suggested that the reliability of the questionnaire was acceptable. A dependent t test also suggests that perceptions at the entry and exit points of their programme to be significantly different. This confirms findings from previous studies that employability could change as a result of the impact of education on individual characteristics, skills and abilities, and is never a static measure.

The qualitative analysis yields a surprising finding. Transactional distance, which some see as a disadvantage of distance learning, was not deemed to be so. On the contrary respondents pointed out that transactional distance helps them build their confidence and management skills. Rather than depending heaviliy on the institution for support, they leanned to find materials that are useful in their course, manage their time as well as explore opportunities. The qualitative analysis also reveals that most of the respondents did not explore career possibilities beyond their familiar settings and hardly indicated the importance of graduate outcomes that encompass globalisation, cross-cultural and international perspectives. Career success for the respondents who are mostly civil servants seems to be more organisationally driven than expected. Contrary to current international trend in employability, a borderless career among our respondents is not preferred. A separate instrument to examine the perceptions of employers on the employability of distance education graduates was also developed. This instrument consists of a 15 item questionnaire with a five-point Likert scale. Perceptions of employers were positive.

COMPREHENSIVE TECHNICAL REPORT

Laporan Teknikal Lengkap

Applicants are required to prepare a comprehensive technical report explaining the project.
(This report must be attached separately)
Sila sediakan laporan teknikal lengkap yang menerangkan keseluruhan projek ini.
[Laporan ini mesti dikepilkan]

List the key words that reflect your research:

Senaraikan kata kunci yang mencerminkan penyelidikan anda:

English	Bahasa Malaysia
Self-perceived employability	Persepsi kebolehupahan kendiri
Distance education	Pendidikan jarak jauh
Internal dimension of employability	Dimensi dalaman kebolehupahan

H. a) **Results/Benefits of this research**
Hasil Penyelidikan

No. *Bil:*	Category/Number: *Kategori/ Bilangan:*	Promised	Achieved
1.	**Research Publications (Specify target journals)** *Penerbitan Penyelidikan (Nyatakan sasaran jurnal)*		**3**
2.	**Human Capital Development**		
	a. Ph. D Students		
	b. Masters Students		
	c. Undergraduates (Final Year Project)		
	d. Research Officers		**2**
	e. Research Assisstants		**1**
	f. Other: Please specify		
3.	**Patents** *Paten*		
4.	**Specific / Potential Applications** *Spesifik/Potensi aplikasin*		**3**
5.	**Networking & Linkages** *Jaringan & Jalinan*		**2**
6.	**Possible External Research Grants to be Acquired** *Jangkaan Geran Penyelidikan Luar Diperoleh*		

- Kindly provide copies/evidence for Category 1 to 6.

b) **Equipment used for this research.**
Peralatan yang telah digunakan dalam penyelidikan ini.

Items *Perkara*	Approved Equipment	Approved Requested Equipment	Location
Specialized Equipment Peralatan khusus		1. Laptop 2. NVIVO software	School of Distance Education
Facility Kemudahan			
Infrastructure Infrastruktur			

- Please attach appendix if necessary.

I. **BUDGET** / *BAJET*

Total Approved Budget	: RM 90 000
Total Additional Budget	: RM 57 726.84
Grand Total of Approved Budget	: RM 147 726.54

Yearly Budget Distributed

Year 1	: RM 54 600
Year 2	: RM 35 400
Year 3	:

Additional Budget Approved

Year 1	: RM
Year 2	: RM
Year 3	: RM RM 57 726.84

Total Expenditure	: RM 138 390.79
Balance	: RM 9336.05

- **Please attach final account statement from Treasury**

Signature of Researcher
Tandatangan Penyelidik

9/6/11
Date
Tarikh

P.M. Dr. Saw Kim Guan
Ketua Projek
Pusat Pengajian Pendidikan Jarak Jauh
Universiti Sains Malaysia

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H.	**COMMENTS OF PTJ'S RESEARCH COMMITTEE** *KOMEN JAWATANKUASA PENYELIDIKAN PERINGKAT PTJ*

General Comments:
Ulasan Umum:

.....

.....

.....

.....

.....

Signature and Stamp of Chairperson of PTJ's Evaluation Committee
Tandatangan dan Cop Pengerusi Jawatankuasa Penilaian PTJ

Date : .....
Tarikh :.....

Signature and Stamp of Dean/ Director of PTJ
Tandatangan dan Cop Dekan/ Pengarah PTJ

Date : .....
Tarikh :.....

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Purchase Requisition ▸ Purchase Order ▸ Suppliers ▸ Maintenance ▸ Financials ▸ Coda Info ▸ Reports ▸ Admin ▸

UserCode: ASMAHANI / USMPGLIVE / PJJAUH **Program Code: Votebook9100** **Current Program : Votebook (Header)**

Current Date : 31/05/2011 11:10:22 AM **Version: 13.92, Last Updated at 14/04/2011** **DB: 13.02, 09/27/2010 VB: 13.01, 03/14/2011** **Switch Language : English / Malay**

Wildcard : eg. Like 100%, Like 10%1, Like %1

Element 1: 1001 Element 2: % Element 4: PJJAUH

Element 5: 816044 Year: 2011

Detail	Excel	Budget Rule	Budget Control	Account Description	Budget Account Code	Roll over	Budget	Cash Received	Advanced	Commit	Actual	Available	Percentage
Detail	Excel	489	T	Projek Kumpulan Wang Uni Penyelidikan	1001.111.0.PJJAUH.816044	4,582.39	0.00	0.00	0.00	0.00	0.00	4,582.39	0.00%
Detail	Excel	489	T	Projek Kumpulan Wang Uni Penyelidikan	1001.114.0.PJJAUH.816044	3,000.00	0.00	0.00	0.00	0.00	0.00	3,000.00	0.00%
Detail	Excel	489	T	Projek Kumpulan Wang Uni Penyelidikan	1001.115.0.PJJAUH.816044	0.00	0.00	0.00	0.00	0.00	640.27	-640.27	0.00%
		489	T	SubTotal		7,582.39	0.00	0.00	0.00	0.00	640.27	6,942.12	0.00%
Detail	Excel	490	T	Projek Kumpulan Wang Uni Penyelidikan	1001.221.0.PJJAUH.816044	18,801.26	0.00	0.00	0.00	0.00	1,213.30	17,587.96	0.00%
Detail	Excel	490	T	Projek Kumpulan Wang Uni Penyelidikan	1001.223.0.PJJAUH.816044	2,940.94	0.00	0.00	0.00	0.00	0.00	2,940.94	0.00%
Detail	Excel	490	T	Projek Kumpulan Wang Uni Penyelidikan	1001.227.0.PJJAUH.816044	4,841.20	0.00	0.00	0.00	0.00	2,533.00	2,308.20	0.00%
Detail	Excel	490	T	Projek Kumpulan Wang Uni Penyelidikan	1001.228.0.PJJAUH.816044	500.00	0.00	0.00	0.00	0.00	0.00	500.00	0.00%
Detail	Excel	490	T	Projek Kumpulan Wang Uni Penyelidikan	1001.229.0.PJJAUH.816044	11,514.20	0.00	0.00	0.00	6,053.00	28.80	5,432.40	0.00%
		490	T	SubTotal		38,597.60	0.00	0.00	0.00	6,053.00	3,775.10	28,769.50	0.00%
Detail	Excel	491	T	Projek Kumpulan Wang Uni Penyelidikan	1001.335.0.PJJAUH.816044	-26,179.00	0.00	0.00	0.00	0.00	0.00	-26,179.00	0.00%
		491	T	SubTotal		-26,179.00	0.00	0.00	0.00	0.00	0.00	-26,179.00	0.00%
Detail	Excel	493	T	Projek Kumpulan Wang Uni Penyelidikan	1001.552.0.PJJAUH.816044	-196.57	0.00	0.00	0.00	0.00	0.00	-196.57	0.00%
		493	T	SubTotal		-196.57	0.00	0.00	0.00	0.00	0.00	-196.57	0.00%
		9999		GrandTotal		19,804.42	0.00	0.00	0.00	6,053.00	4,415.37	9,336.05	0.00%

Universiti Sains Malaysia RU Research Grant Technical Report

Title of Research Project:

Value of graduates from distance learning programmes in the employment market

Principle researcher:
Assoc Prof Dr Saw Kim Guan

Co-researchers:
1. Assoc Prof Mohd Nain Hj Awang
2. Dr Nailul Morad Mohd Nor
3. Ms Puvaneswary a/p Murugaiah
4. Ms Suryani Soetardjo
5. Dr Wan Asna Wan Mohd Nor
6. Dr Yen Siew Hwa

Research Assistant (Part time):
Mr Soo Kok Leong (2008 - 2009)

Research Officer (Part time):
Ms Teoh Siew Chin (2009 – Sept 2010)

Research Officer (Part-time):
Tneh Sau Siong (Oct 2010)

This work is funded by research grant RU 1001/PJJAUH/816044.

Summary of outputs

1. **Publications:**

   (a) *Distance education degree programs for the Malaysian working adults: Acceptability and negotiability perspectives,* Human Capital Development for Progress ITI 7th International Conference on Information and Communications Technology, IEEE/IET Electronic Library Article 5405929 pp 33 – 35 (3 pages), reviewed article. Print ISBN 978-1-4244-6018-2, 2009. Abstracting/indexing in Scopus and INSPEC;

   (b) *The value of graduates from distance learning programmes in the employment market: A preliminary study of the graduates from East Coast Peninsular Malaysia*, Proceedings of the 2nd International conference on educational economics, National and Kapodistrian University of Athens, Greece, 27 – 30th August, 2008, Paper 88;

   (c) *Self-perceived employability: A case study of distance education graduates from Universiti Sains Malaysia*, Research Monograph, ISBN 978-967-394-027-1, Pusat Pengajian Jarak Jauh, Universiti Sains Malaysia Publisher, 2011.

2. **International Conference Presentations:**

   (a) Oral Presentation - 2nd International conference on educational economics, National and Kapodistrian University of Athens, Greece, 27 – 30th August, 2008;

   (b) Oral Presentation - 7th Annual International Conference on Information & Communications Technologies, ITI Headquarters, Cairo, Egypt, 14-17th December 2009.

3. **Training:**

   (a) 1 part-time research assistant

   (b) 2 part-time research officers

4. **NVIVO workshop:** (a) hands-on training for School of Distance Education staff and postgraduate students, 30th Sept., 2009;

   (b) hands-on training and discussion of project for team members at Hotel Evergreen Laurel, Penang, from 26 – 28 October 2009.

   (c) final workshop to analyse all the NVIVO results, Hotel Gurney, Penang, 26 – 28 Feb. 2010.

5. **Networking and linkages:**

   (a) MOU in final stages with the Government of Aceh for providing training in distance education for their staff;

   (b) Invitation to visit the Open University of Japan. Initial contacts were made with the International Section of OUJ but had to be cancelled due to the recent natural disaster in Japan.

6. **Specific applications:**
   (a) 12-item questionnaire to measure employability from the perspective of the graduates of distance education programme;
   (b) Interview protocol to measure employability from the perspective of the graduates of distance education programme;
   (c) 15-item questionnaire to measure employability of distance education graduates from the perspective of employers.

1. Introduction

This research project aims to investigate the value of graduates from distance learning programmes in the employment market. In this project we focus on the graduates from the various programmes from Universiti Sains Malaysia, the pioneer public university to offer degree courses via distance learning to working adults. As the student population consists mainly of Malay civil servants we are thus able to study the perceptions from a fairly homogeneous group of civil servants with tenured employment. With the choice of maintaining previous employment or moving on to another job, a study on the employability of these graduates could lead to interesting insights into the current debate on whether linear careers are being superseded by more flexible and adaptive careers. Traditional organisational attachment is perceived by some as decreasingly desirable when compared to a more individual model of work and career (Rothwell and Arnold, 2007; Arthur and Rousseau, 1996; Pieperl and Baruch, 1997).

While employability is often defined in terms of having skills and abilities necessary to find employment, remain in employment or obtain new employment (Rothwell and Arnold, 2007), Clarke (2008) has rightly pointed out that skills and abilities alone do not necessarily guarantee employment. It seems that in addition to skills and abilities, attitudes and behaviours are a critical determinant of individual employability. Employability is currently considered by some as a psycho-social construct or a host of person-centred constructs and is primarily an individual responsibility (Fugate et al., 2004; Illes et al., 1996, Clarke, 2008). Thus in this research

our constructs will focus on the internal dimension of self-perceived employability which relates to skills, ambition and self-confidence and includes beliefs of self-efficacy. An earlier study by Saw et al. (1999) found that unlike other groups of adult distance learners in other countries who may have purely academic goals, students who engaged in tertiary distance education programmes in Malaysia had social mobility in mind. Nevertheless they went through an educational transition where the process of learning (or relearning) skills and unlearning of wrong skills became the main preoccupation.

We explore the constructs that make up self-employability for graduates from USM distance education programmes and compare the perceptions before enrolling for and after graduating from the degree programmes. The comparison of employability perceived at different points of time is necessary since employability is not a static measure but a process that is dependent on the impact (if any) of individual characteristics, skills, abilities or behaviours (Forrier and Sels, 2003).

2. The study

Within the context of self-perceived employability the present study investigated how distance education graduates perceived their own employability before they embarked on a distance learning degree programme and after successful completion of the programme. Specifically the research questions were

1. What are the perceptions of recent graduates of the distance learning programmes at the School of Distance Education at USM regarding their employability prior to enrolling for a distance learning degree programme and after graduation?

2. Is there a significant difference between these perceptions before enrolment and after graduation?

With the choice of maintaining previous employment or moving on to another job, graduates of these programmes could provide interesting insights into the current debate on whether linear careers are being superseded by more flexible and adaptive careers. To explore all the above elements, both quantitative and qualitative data were solicited.

3. Sampling of respondents

The sample population consisted of recent (not more than 10 years) graduates from the Science, Social Sciences, Arts, Management and Education degree programmes offered by the School of Distance Education. The respondents were randomly selected from a list of recent graduates from all over Malaysia. Initial contacts were made via e-mails and telephone calls to determine a suitable date and venue for the researchers to meet them. The anonymity of the respondents was preserved as they were not required to state their name but only their race, age range, gender, current and previous occupations and degree programmes attended. A total of 110 graduates took part in the study. However due to incomplete responses in the questionnaires we only considered the input of 104 respondents. Out of this number, 90 respondents agreed to be interviewed after answering the questionnaire.

4. Methodology

The study adopted a mixed methods approach which used two basic instruments, namely, a questionnaire and an interview. The instrument for the quantitative part was a

questionnaire with statements incorporating employability standards. The development of this questionnaire that contains 12 items was mainly guided by that used by Smith and Katz (2005) in their work on perceived inclusion of such standards in the Family and Consumer Sciences Curriculum. We included five of the seven categories used by Smith and Katz (2005). The five categories were basic skills, thinking skills, personal skills, interpersonal skills and career development, all of which constituted different kinds of essential skills indicating employability standards (Smith and Katz, 2005; Rothwell et al., 2008; Heinemann, 1996; Knight and Yorke, 2002). To check for content and face validity of the questionnaire we consulted an independent panel of experts.

We first administered the questionnaire to 10 respondents randomly selected from the pool of recent (not more than 10 years) graduates of the school to check the clarity of the items. These respondents were not included in the main study. We found that shorter statements were better understood while long statements, similar to those used by Smith and Katz (2005), seemed confusing to the respondents. We also realised that, probably due to time constraints, questionnaires with numerous items were not so well received by the respondents.

The questionnaire was consolidated after taking into consideration the modifications recommended by the panel as well as the short-comings revealed by the first administration. The final questionnaire consisted of 12 statements with two five-point Likert scales. The first Likert scale measured the respondents' perceptions of their employability standards before enrolling for the programmes while the second scale measured their perceptions after graduation. The 12 statements were as follows:

1. *I am satisfied with my academic qualifications and skills.*

2. *I am able to understand instructions and information quickly and accurately.*

3. *I can communicate ideas, thoughts in a clear, concise and courteous manner.*

4. *I am able to find new ideas.*

5. *I can make good decisions based on rational thinking and facts.*

6. *People trust my ability to do a good job.*

7. *My knowledge and skills are suitable for my job.*

8. *I can adapt to a new working environment or a new task easily.*

9. *I feel confident if I have to develop a new career.*

10. *I receive the right pay/income for the work I am doing.*

11. *I have a good chance to get a better income or promotion.*

12. *I can qualify for the kind of jobs I really want.*

A preliminary analysis of the 110 questionnaires revealed that six of the questionnaires were incomplete and therefore had to be excluded from the analysis. Based on the data from 104 respondents, a reliability test was conducted. Cronbach alpha values of 0.88 and 0.87, for the responses before enrolment and after graduation respectively, suggested that the reliability of the questionnaire was acceptable.

Descriptive data analysis was then performed by cross tabulating the respondents' demographic variables. Further analysis was presented with means and standard deviations of the responses to the items. This was followed by inferential statistical analysis to compare the respondents' perceptions before enrolment and after graduation.

For this purpose a dependent *t* test, treating the perceptions of their employability standards before enrolment and the perceptions after graduation as matched variables was used. However, prior to using the *t* test, the Kolmogorov-Smirnov (KS) test of normality was performed on the two sets of scores. The results indicated that the scores before enrolment and after completion of the distance education programmes were normally distributed. Significance levels were reported at the 0.05 level.

For the qualitative part an open-ended interview with 10 questions was used to help the respondents reflect upon whether and how the distance programmes had contributed to their career advancements. This was to triangulate and supplement findings from the quantitative data for the first research question. The interview protocol was designed to include but not limited to the acceptability and negotiability perspectives as defined by Sharp and Sosdian (1979). Aspects such as plans after graduation, job security, job responsibilities as well as treatment by colleagues and superiors were included. After the set of questions was checked by a panel of experts in distance education for content validity, it was pilot tested with the same 10 graduates mentioned earlier. Words or phrases that appeared ambiguous were replaced or deleted after the pilot test. The interview protocol is found in Appendix A.

On the average the actual interviews took 20-30 minutes each. A total number of 90 respondents were individually interviewed. The recordings of the interviews were transcribed for analysis. NVivo 8®, a text-analysis software, was used to facilitate the analysis of data. Tree nodes were created for the responses to each of the 10 questions and nodes with high frequencies were considered to be characteristic of the sample population.

5. Respondents' demographics

Out of the total of 104 respondents, 88 of these recent graduates were between 35 and 50 years old while 15 of them were between 25 and 34 years old. Only one respondent was more than 50 years old. All the respondents had some form of working experience before enrolling for the distance learning programmes. The other variables are cross tabulated and presented in the following two tables.

Table 1 Distribution of respondents according to gender and race

	Malays/ Indigenous people	Chinese	Indians	Others	Total
Males	58	6	4	1	69
Females	32	3	0	0	35
Total	90	9	4	1	104

Table 1 shows male respondents constitute about two-thirds of the total number. The majority of the respondents were Malays who form the largest group of students registering for the programmes offered by the School of Distance Education at USM. There were also a few respondents from the indigenous tribes of Sarawak and Sabah, two states in East Malaysia. The representation of races in this study does not reflect the composition of races in multiethnic Malaysia. The approximately 28 million people in the country are made up of about 50% Malays, 24% Chinese, 7% Indians, 11% indigenous people and 8% from minority groups.

All the respondents have been variously employed in a wide range of jobs. The views of this group of graduates are presented in the following section according to the research questions of the study. Quantitative data are supplemented by interview data where appropriate.

4. Discussion of findings

Research Question 1: What are the perceptions of recent graduates of the distance learning programmes at the School of Distance Education at USM regarding their employability prior to enrolling for a distance learning degree programme and after graduation?

Table 2 shows the means and standard deviations of each item measuring the respondents' perceptions of their employability at two important periods of their lives.

Table 2 Respondents' perceptions before enrolment and after graduation

No.	Statement	Before enrolment		After graduation	
		Mean	s.d.	Mean	s.d.
1	I am satisfied with my academic qualification and skills.	2.6827	1.0544	4.4135	0.7454
2	I am able to understand instructions and information quickly and accurately.	3.6154	0.7671	4.4327	0.6501
3	I can communicate ideas, thoughts in a clear, concise and courteous manner.	3.3942	0.8749	4.5481	0.6213
4	I am able to find new ideas.	3.4423	0.7737	4.5481	0.6518
5	I can make good decisions based on rational thinking and facts.	3.4808	0.7756	4.5962	0.5833
6	People trust my ability to do a good job.	3.4615	0.8805	4.5192	0.6824
7	My knowledge and skills are suitable for my job.	3.5673	0.9112	4.3846	0.8737
8	I can adapt to a new working environment or a new task easily.	3.6442	0.8234	4.6154	0.5797
9	I feel confident if I have to develop a new career.	3.3269	0.9598	4.5673	0.6350
10	I receive the right pay/income for the work I am doing.	3.2019	1.0828	4.0288	1.0092
11	I have a good chance to get a better income or promotion.	3.0481	1.0370	4.4423	0.7482
12	I can qualify for the kind of jobs I really want.	3.2308	0.9056	4.5288	0.6225

As seen above, both sets of means are high indicating that the respondents generally have high perceptions regarding their ability to stay meaningfully employed and progress in their careers. However, for all the items, the means are higher for the period after graduating from a degree programme undertaken at the School of Distance Education at USM. This indicates that the respondents probably felt that their employability was higher after obtaining their degree.

With reference to specific items in the table, the respondents considered the distance learning programmes to have equipped them with higher qualifications and skills which were their bargaining points in seeking better employment and pay. Opportunities for promotions, higher incomes as well as preferred jobs were perceived to be higher at the exit point of the programmes. The respondents generally received the right pay for their jobs after graduation, suggesting that they had been appropriately rewarded. While a significant number of respondents perceived that their degree could bring financial gains only 13 respondents revealed in the interviews that they were promoted as soon as they obtained their degree. It was found that together with career-related objectives, the satisfaction of obtaining a degree with its conferral of self-esteem and respect from others ranked highly among distance education graduates.

As expressed in the interviews, a good number of respondents did not change their jobs despite having obtained a new and higher qualification. Most of the respondents remained in their jobs with some receiving a promotion. One of them said, "There are opportunities, in fact, many opportunities, to apply for the position of a science officer but I remain in (my) old job...I have not even once applied for a new job but I am happy in my job...although I did not apply for a new job with a better salary, I

was promoted from the ordinary salary scheme to the senior salary scheme, from scheme 29 to 32." (Kota Bahru 01)

Among those who did not change jobs, seven respondents indicated that they had developed a liking for their job. They felt 'called' to continue serving in their old job. As a respondent put it, "Oh, no plans (to change jobs)...I have no plans to apply to teach in a secondary school. I see myself spending my life teaching in this primary school..." (Kuantan 01).

Another finding is that financial reward for government servants who have obtained a higher degree during their service varied among the different sectors within the civil service. Those in the teaching profession noted that promotions were slow in coming although they were eligible to apply for higher positions. Outside the teaching profession prospects were better, as indicated by two cases below,

> "I can get a jump (in salary and position) but it looks like (I) have to wait for a few years. I have been waiting for almost 2 years..." (Kuala Lumpur 14).
>
> "...I am fortunate that I was promoted around 2005-2006 (less than one year after graduation) from a medical lab technician to senior technician with a higher salary...My salary increased by 25%. I was then promoted again to the post of a science officer with a much higher salary." (Kota Bahru 07)

According to Table 2, the respondents were also more confident in developing a new career. In terms of personal skills, they felt that their studies had enabled them to understand instructions and information better. They also felt that they were better able to communicate ideas, seek new information and make good decisions based on rational thinking and facts. Moreover, they believed that they could adapt to a new task or work

environment. The newly acquired skills and knowledge led to more work and job responsibilities as well as the ability to adapt to new tasks. As a respondent put it, "Yes, it (the degree) is a factor in causing us to have more job responsibilities. The degree that we got...we could use it, or rather the knowledge or skills that we got can be applied in our job." (Alor Setar 53)

Although most of the respondents were civil servants they felt that their jobs were more secure with the knowledge and skills that they had acquired. As an enforcement officer said, "There is no difference in job security since we are in the civil service. However, we feel more secure because we can now apply our knowledge into our job and thus we are now more confident in carrying out our duties. Others can see that we are confident in carrying out our duties. All this imparts a sense of job security in me." (Kuching 07).

The respondents also perceived that they had more respect and trust from their superiors and colleagues after they had successfully completed their studies. A police officer who went through a distance learning programme said, "I now have more job responsibilities than when I was serving in Kubang Pasu (name of a district). I believe the reason is due to the trust from my superiors. In my capacity as an investigating (police) officer, I can be selected by anyone above my rank, including the top police officer of the country or his deputy, for a particular case. They would choose an investigating officer. I don't know what the criteria are but it will certainly be from among those they trust. So I need to perform my responsibility to the best of my abilities." (Alor Setar 54)

Overall perceptions regarding distance learning programmes were positive. It was evident that most respondents possessed a malleable self-belief as they indicated the

possibility of further development and were willing to engage in difficult tasks. However, it is felt that the positive perceptions belonged largely to workers serving within the rigid structure of the civil service. Distance learning degree programmes seemed popular among civil servants, providing them opportunities for advancement in the same sector. In the interviews most of these graduates did not explore career possibilities beyond their familiar settings and hardly indicated the importance of graduate outcomes that encompass globalisation, cross-cultural and international perspectives.

So far the discussion is on the positive perceptions of the respondents with regard to their employability after graduating from distance learning courses. From a statistical point of view, it is important to determine whether perceptions before enrolling for the courses were significantly different from those after graduation. This brings us to the next research question.

Research Question 2: Is there a significant difference between these perceptions before enrolment and after graduation?

The null hypothesis of the study is that there is no significant difference in the respondents' perceptions before and after undergoing the distance learning programmes. To test this hypothesis a dependent *t* test was performed comparing the mean scores of all the 12 statements at entry and exit points. Table 3 shows the overall means and standard deviations of the respondents' perceptions at entry and exit points while Table 4 displays the *t* statistics for the paired differences.

Table 3 Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Before enrolment	3.3413	1248	.9429	.0267
After graduation	4.4688	1248	.7235	.0205

As shown in Table 3, the overall mean is higher for the period after graduation (M=4.47, SD=0.72) than before enrolment (M=3.34, SD=0.94). Table 4 shows that at the confidence level of 0.05, the difference is statistically significant $t(1247)= -36.14$, $p= .000$. The null hypothesis is thus rejected.

Table 4 Paired Samples Test

	Paired Differences					t	df	Sig.(2-tailed)
	Mean	SD	Std. Error Mean	95% confidence int of the difference				
				Lower	Upper			
Pair 1 Before enrolment - After graduation	-1.1274	1.1021	.0312	-1.1886	-1.0662	-36.137	1247	.000

The finding that perceptions regarding employability after graduation were significantly higher than perceptions before enrolment reinforced the fact that distance learning programmes did seem to have produced a positive effect on employability. After undergoing the degree programme the respondents perceived themselves to be more equipped with skills to succeed at the workplace and were more confident about progressing in their career or opting for a new career. The finding also showed that

employability could change as a result of the impact of education on individual characteristics, skills or abilities, and is never a static measure.

Having obtained the perceptions of employability of the graduates we continued with the perceptions of employers on the value of graduates from distance learning programmes. The perceptions from employers were not originally intended for this research but since the findings could be useful, we designed a 15-item questionnaire with a 5-point Likert scale with anchors strongly disagree (1) to strongly agree (5). The questionnaire can be found in Appendix B. There were a total of 76 respondents from all over Malaysia including Sabah and Sarawak. Our finding shows that employers possess a positive attitude towards graduates from distance education programmes. Further work on this aspect will be attempted in future.

5. Conclusion

The USM distance programme shows that distance education has the potential for enhancing multiple individual attributes, skills, abilities, ambitions and self-confidence which relate to the internal dimension of self-perceived employability. It is able to provide social mobility as well as job mobility and does have pedagogical merits as evident from the significant difference in the graduates' perceptions at the entry and exit points of their programme. Together with career-related objectives, the satisfaction of obtaining a degree with its conferral of self-esteem and respect from others ranked highly among these distance education graduates. While graduates from such programmes may be generally positive regarding their employability they hardly explore possibilities outside their own domain of work, focusing mainly on an organisational career rather

than a borderless one. Our findings thus contribute to a reliable conceptualisation of self-perceived individual employability among distance education graduates.

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Appendix A

Interview Protocol

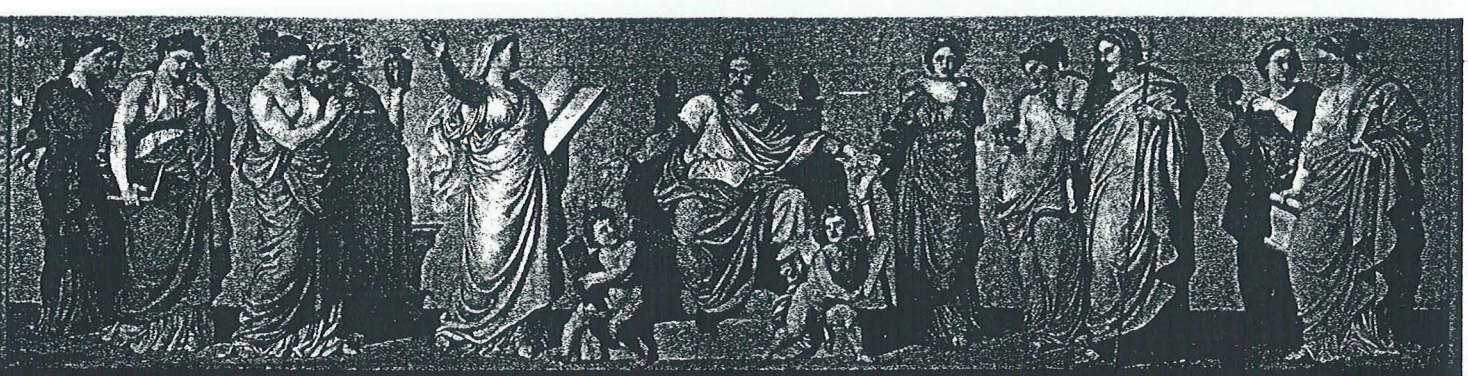
1. *What was your most important objective when you decided to enrol for the degree programme by distance learning?*
2. *How did you feel immediately after completing your degree by distance learning?*
3. *How do you perceive your degree compared with other qualifications?*
4. *What was your plan after you graduated?*
5. *Did you change your job after you had obtained your degree? (If yes, to what extent did your degree contribute to your job change?)*
6. *Did you get a promotion or better pay after you had graduated? (If yes, to what extent did your degree contribute to this promotion?)*
7. *Do you now have more job responsibilities? (If yes, to what extent did your degree contribute to you having more job responsibilities?)*
8. *Do you think now your job is more secure with a degree?*
9. *How did your boss/colleagues/partners treat you after you had obtained your degree?*
10. *How did the skills that you had learned help you get started in your own business (or other ventures) without depending on others for a job?(If you were to start your own business (or other ventures) how would the skills that you had learned help you?)*

Appendix B

Please tick (/) the appropriate box:
Sila tanda (/) dalam ruang kotak yang sesuai:
1 – strongly disagree, 2 – disagree, 3 – neutral, 4 – agree, 5 – strongly agree
1 – sangat tidak setuju, 2 – tidak setuju, 3 – berkecuali, 4 – setuju, 5 – sangat setuju

No	Statement	1	2	3	4	
1.	I am satisfied with the qualification and skills of employees from distance learning programmes. *Saya berpuas hati dengan paras pelajaran dan kemahiran pekerja-pekerja yang berijazah melalui program pendidikan jarak jauh.*					
2.	I find that employees from distance learning programmes can understand instructions and information quickly and accurately. *Saya mendapati bahawa pekerja-pekerja berijazah melalui program pendidikan jarak jauh boleh memahami arahan dan maklumat dengan cepat dan tepat.*					
3.	Distance-learning degree holders can communicate ideas, thoughts in a clear, concise and courteous manner. *Pemegang ijazah pendidikan jarak jauh boleh berkomunikasi tentang ide, pendapat atau fikiran dengan jelas, tepat dan bersopan.*					
4.	Distance-learning degree holders are able to find new ideas. *Pemegang ijazah pendidikan jarak jauh boleh mencari ide baru.*					
5.	Distance-learning degree holders can make decisions based on rational thinking and facts. *Pemegang ijazah pendidikan jarak jauh boleh membuat keputusan berdasarkan pemikiran yang rasional dan fakta.*					
6.	I trust the ability of distance-learning programme employees to accomplish a given task or job. *Saya mempercayai bahawa pekerja-pekerja berijazah melalui pendidikan jarak jauh boleh menyempurnakan tugasan/kerja yang diberi.*					
7.	Distance-learning degree holders have the knowledge and skills that I am looking for. *Pemegang ijazah pendidikan jarak jauh mempunyai pengetahuan dan kemahiran yang dicari/diperlukan.*					
8.	Distance-learning degree holders can adapt to a new working environment or a new task easily. *Pemegang ijazah pendidikan jarak jauh boleh menyesuaikan diri dengan suasana pekerjaan baru dengan mudahnya..*					
9.	Distance-learning degree holders can adapt to a new task easily. *Pemegang ijazah pendidikan jarak jauh boleh menyesuaikan diri dengan tugas baru dengan mudahnya.*					
10.	Distance-learning degree holders deserve the pay/income for the work they are doing. *Pemegang ijazah pendidikan jarak jauh menerima gaji/pendapatan yang seperti berpatutan..*					

11.	Employees from distance-learning programme have an equal chance to get a better income. *Pekerja-pekerja berijazah melalui pendidikan jarak jauh mempunyai peluang yang sama memperoleh pendapatan yang lebih.*					
12.	Employees from distance-learning programme have an equal chance to get promotion. *Pekerja-pekerja berijazah melalui pendidikan jarak jauh mempunyai peluang yang sama memperoleh kenaikan pangkat.*					
13.	Distance-learning degree holders do not have the knowledge and skills that I/we are looking for. *Pemegang ijazah pendidikan jarak jauh tidak mempunyai pengetahuan dan kemahiran yang diperlukan oleh institusi/organisasi.*					
14.	I find distance-learning degree holders cannot make decisions because they do not have the specific knowledge. *Saya mendapati bahawa pemegang ijazah pendidikan jarak jauh tidak boleh membuat keputusan kerana tidak memiliki pengetahuan khusus yang diperlukan.*					
15.	Employees from distance-learning programme cannot accomplish a given task or job. *Pekerja-pekerja berijazah melalui pendidikan jarak jauh tidak boleh menyempurnakan tugasan/kerja yang diberi.*					



CONFERENCE SUB-TOPICS

- Education and labour market
- Educational market and public policy
- Financial management in the educational system
- Performance management and remuneration in institutions of education
- Human Capital, Education, Social Mobility and Equity
- Economics of Knowledge, Research, Technology and Innovation in the information society
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Auditorium No 09

30/08/2008 Parallel session Subtopic 6: Economics of Knowledge, Research, Technology and Innovation in the information society			
11.30-13.30	**Jen-Gaw Lee, Hsin-yu Shan**	Large-scale E-learning program management – learning from a water environment education program in Taiwan.	**Auditorium No 09** Session Chair and discussant: Y. Smirlis
	Shyi-Ching Lin, Mao-Kueng Kuo, Chih-Min Yao, Jen-Gaw Lee, Jyh-Horng Wu	Using resources effectively by collaborative teaching - Taiwan experience.	
	Maresa Sprietsma	Computers as pedagogical tools in Brazil: a pseudo-panel analysis.	
	K. G. Saw, M. N. Awang, Nailul M. Mohd. Nor, O. Majid, P. Murugaiah, S. Suryani, W. Asna W. Md Nor, S. H. Yen	Value of graduates from distance learning programmes in the employment market.	
13.30-14.45	**Lunch Break**		
14.45-16.45	**Georgios N. Angelou, Anastasios A. Economides**	E-learning investments evaluation: a multicriteria model.	
	Yannis Smirlis, Marilou Ioakimidis	Evaluating alternative instructional designs for blended learning programs.	**Auditorium No 09** Session Chair and discussant: M. Ioakimidis
	Kalagiakos Panagiotis, Kougioumtzis Kostas	Pervasive computing in the Economics of Education.	
	Yannis Smirlis, Dimitris Tsimaras	Modeling the cost of blended distance learning training programs for the public sector.	
16.45-17.00	**Coffee Break**		

OIKONOMIDOU Auditorium

30/08/2008: Plenary Session			
17.00-17.30	**Prof. Lena Tsipouri** Head of the Department of International Economics and Development, Faculty of Economics, National and Kapodistrian University of Athens	Lessons learned and the way forward.	**OIKONOMIDOU Auditorium**

Paper 88

Subtopic 6:

Economics of Knowledge, Research, Technology and Innovation in the Information Society

VALUE OF GRADUATES FROM DISTANCE LEARNING PROGRAMMES IN THE EMPLOYMENT MARKET: A PRELIMINARY STUDY OF THE EAST COAST PENINSULAR MALAYSIA GRADUATES

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Abstract

Tertiary distance education has been concerned with providing mass higher education to working adults who have missed the opportunity for various reasons. With the advent of advanced technology, tertiary distance education practices have evolved from the so-called Fordist strategy providing standard instructional packages and surviving on mass consumption of higher education to providing a learning experience almost as real as that found in a face-to-face conventional learning environment. It is hoped that sustainable and cost-effective multiple links in distance teaching are able to meet the changing demands of the labour market and social expectations. There is thus a need for evidence that distance learning programmes are producing suitable human capital for economic growth and are not merely 'diploma mills'.

This paper examines the acceptability and negotiability outcomes of distance learning programmes as perceived by the graduates themselves who are recent graduates from the School of Distance Education Universiti Sains Malaysia. The School of Distance Education, Universiti Sains Malaysia offers distance learning programmes where content and examination requirements are similar to the conventional face-to-face programmes. Unlike the concept of an open university, student enrolment to its programmes is controlled. The research instrument in this study is an interview with questions formulated to execute a flexible structure and to stimulate the interviewees to reflect on their situations and to elaborate on the acceptability as well as the market value of the programmes that they have gone through. Aspects such as personal satisfaction, further education, job changes, job expectations, relevant skills and abilities, career-related opportunities and social mobility are discussed.

Introduction

Distance education in Malaysia has changed significantly over the past thirty years from a few degree courses offered by Universiti Sains Malaysia (USM) as the sole tertiary distance education provider in the country to the present scenario where various programmes of this nature are being offered by both public and private universities. When USM introduced distance education in 1971, only the Arts programme with courses in the Humanities and Social Sciences was offered. The intake for this programme was only 71 students. The Science programme was later introduced in 1973, with courses in Physics and Mathematics, while Biology and Chemistry were offered from 1974. During that period, students in these programmes received self-instructional packages and depended on little real time support from their teachers. Students had to travel to regional centres where tutorials were conducted on weekends by part-time tutors. Audio graphic teletutorials were later introduced and utilised for course delivery and teaching-learning activities as well as to help reduce the sense of 'distance' between students and teachers. The division of labour was obvious in the implementation of these distance learning programmes, which included segmented processes of curriculum planning, instructional designing as well as student support and evaluation. Although the scale of production of the self-instructional packages was much smaller than that in the Fordist approach, distance education in Malaysia in the early stage can arguably be described as Fordist.

Presently the four undergraduate programmes that are available are the Science, Social Science, Arts and Management programmes. The contents and examination requirements are similar to the conventional face-to-face programmes. Unlike the concept of an open university, applicants need to have a minimum qualification and student enrolment to its programmes is controlled. The distance learners receive modules, study notes as well as supplementary audio-visual materials. Collaborative learning is encouraged at the regional centres located in the main towns throughout the country. The libraries in the regional centres are equipped with selected books and materials which may be borrowed out. In addition, students are required to attend the Intensive Course at the main campus

for about a month. The Intensive Course provides the students with an opportunity for face-to-face interactions with the lecturers.

The School of Distance Education in Universiti Sains Malaysia has been utilising the video conferencing learning environment (VCLE) as the main delivery mechanism for its degree programmes since 1996. The VCLE is an improvement from the earlier audio graphics teletutorial system as it allows real time interaction between teacher and student(s) as well as student and student with the possibility of presenting teaching materials using software such as Microsoft PowerPoint, simulation packages or video clips. An LCD projector and an electronic board are interconnected with the computer for this purpose. Cameras are used to record the teacher in real time as well as to capture the images of any documents or 3-D objects that the teacher may refer to during the video conferencing session. The VCLE system interconnects the main studio at the Minden campus in the state of Penang to the other video conferencing sites at the regional centres. Very recently students are able to follow the video conferencing session via the Internet and need not travel to the regional centres. The development of the delivery and support systems used in the distance learning programmes in Universiti Sains Malaysia and the students' perceptions of the effectiveness of these systems as well as their own study skills have been reported elsewhere (K.G. Saw et. al., 2008; K.G. Saw et al., 1999a). Since its inception in 1971, the School of Distance Education has produced more than 11 000 graduates.

The relatively high number of students who have graduated from the Universiti Sains Malaysia distance learning programmes implied that these programmes are popular. In view of this a study on the graduates' perceptions of the value of their degrees in the employment market in Malaysia would give an insight on whether these programmes have withstood the changing demands of the employment market and social expectations. Reports of this nature are rare, and our study is perhaps the first attempt in Malaysia. It would also be interesting to know whether these programmes are broadened enough to prepare students for a wide range of occupations and whether high adjustment costs have

been incurred to enable those who have graduated from such programmes to be productive in their employment.

Methodology

This paper describes a preliminary study to investigate the value of distance learning programmes in the employment market from the perspective of the graduates from the degree programmes offered by the School of Distance Education, Universiti Sains Malaysia (USM). The group of 15 graduates interviewed in this study was from the East Coast of Peninsular Malaysia, namely the states of Kelantan and Trengganu, which are sometimes fondly known as the Malay heartland. The respondents, both males and females, were from various degree programmes. All the respondents had full-time jobs at the time they were interviewed. Nine of them were school teachers while the rest were science officers and technologists.

The research instrument in this study is an interview with questions formulated to execute a flexible structure and to stimulate the respondents to reflect upon their situations and to elaborate their perceptions on the value of the distance learning programmes that they had gone through in the employment market. The main focus of the study is the acceptability and negotiability of the degrees as perceived by the respondents themselves. Sharp and Sosdian (1979) have defined acceptability mainly as acceptance by educational institutions at the next higher level while negotiability refers to the degree's usefulness in the world of work, and includes, for instance, access to jobs, promotions as well as licenses. We have developed the concept of acceptability to include personal satisfaction, sense of personal fulfillment and that of the family's, sense of the worthiness of the degree compared to other similar qualifications as well as a credential for further studies. In this study, the indicators to measure negotiability were similar to those used by Sharp and Sosdian (1979), which include obtaining a different job, a promotion or increase in pay or income, an increase in job responsibilities, an increased sense of job security and an increase in respect or status from the employer and colleagues. Content validity of the interview schedule was done by a panel of experts in distance education. Pilot testing was

subsequently done and words or phrases that appeared ambiguous were replaced or deleted. The respondents for the pilot testing were recent graduates from various professions. Among them were an engineer working in a multinational company, a male model and a school teacher. The actual interviews ranged from 20 minutes to slightly more than half an hour. The data in this study were analysed by means of content analysis where qualitative information was examined and common or recurring themes were extracted.

Findings

As far as acceptability was concerned, it was found that all the graduates expressed that they experienced personal satisfaction that they had pursued and completed a tertiary level of education. They were proud of the efforts that they put in through the years study. By far the most important objective for these graduates was the tertiary qualification that they had obtained as a result of their formal studies. The second most important objective was upgrading and increasing one's knowledge while the third was the opportunity for career advancement in terms of getting better pay or promotion. Other less important objectives include:

(a) motivating their children to study
(b) love for the subject matter itself
(c) to be at par with other better qualified colleagues

The respondents felt that their degree was hard earned and thus was as valuable as those obtained by the face-to-face traditional method. They also perceived that their employers, colleagues and family accept their qualification as equal to the rest. A few were inclined to think that the degrees from distance learning programmes were superior as they had to study while having other commitments such as work and family whereas those who obtained their degrees from face-to-face method had more time and support from the institution. Moreover they felt that they had to be independent in sourcing for additional study materials.

"....*We have different problems compared to the full time students. We have to work and we have other responsibilities and thus we need to divide our time wisely. I am doubly proud of my degree obtained through distance learning because I have to work and study at the same time. We have a lot of work and commitments, including responsibility as a husband and responsibility to the community at large...I am really proud and happy.. Full time students have a lot of support...I am alone and if I have problems I have to solve them myself. That's why I am very proud of my degree.*"(Male teacher, Trengganu).

When asked about their plans after they had obtained their degrees, only about half indicated that they would like to continue their studies and obtain a higher degree. A few of them seemed determined to implement their study plans and had some form of early contact with their potential supervisors but the rest indicated that they could only start their Master's degree if they could find time. The respondents did not foresee any difficulties with their degree as a credential for further education. The rest of the respondents who did not indicate any desire to further their studies stated that they hoped their degree would serve as a pre-requisite for a better job or a promotion in future.

None of the respondents who were teachers changed their jobs. Two of them stated that they were satisfied with their teaching positions. The respondents noted that promotions were slow in coming although they had already obtained their degrees and were eligible to apply for higher positions in the teaching profession. Only one respondent was promoted, after waiting for about 10 years. However, those who were not in the teaching profession experienced better prospects. Four former technologists managed to secure new jobs as science officers while one was in the process. The respondents noted that they could change jobs pretty fast. One respondent was surprised she could get a better job only 4 months after graduation. Only one respondent remained as a technologist but he was promoted to a better salary scale.

"...*There are opportunities, in fact many opportunities, to apply for the position of a science officer but I remain in old job. Many of my colleagues including those who were taking the distance learning programmes had applied for and successfully got their new*

jobs as science officers. I know many of them who were technologists but are now working as science officers. I have not even once applied for a new job but I am happy in my job....although I did not apply for a new job with a better salary, I was promoted from the ordinary salary scheme to the senior salary scheme...from scheme 29 to 32." (Male technologist, Kelantan).

In terms of job responsibilities, about half of the respondents stated they were given more work and responsibilities after they had graduated. In these cases, the respondents were given administrative tasks such as managing a laboratory, planning staff development activities or heading a small unit or department. The respondents appeared to be able to adapt well to their new tasks without the need for additional training. A few respondents noted that they were asked to assist in the administration of their department but did not specify the tasks involved. Eight of the respondents however felt that their work and responsibilities did not increase although they had obtained a higher qualification.

Although all the respondents were civil servants and enjoyed a permanent position with retirement benefits, they expressed different understanding of job security after obtaining a degree. While all agreed that the possession of a degree did not increase job security in their situation, some of the respondents felt that their job security was enhanced by the increase in pay and in the confidence that came along with a degree qualification or status. One respondent however added that the ultimate job security comes from the good annual appraisal by the head of department rather than obtaining a degree.

"*...job security really does not depend on a degree. It depends on our discipline and our determination to obey regulations. We may have a degree for a higher position but the security of the job depends on a good appraisal from the head of department. We may have a very good degree but it may not help at all. Whether we could work until we are eligible for our pension depends on our discipline and our actions to stay away from truancy or drugs or going against the head of department, being late for work, etc. .*" (Male teacher, Kelantan).

The majority of the respondents noted that they were treated differently by their heads of department and colleagues after they had obtained their degree. They also noted that they had more respect and were invited to give professional advice and to assist in solving problems. It is interesting to note that an increase in respect and status from colleagues is not evident in a study done on the Fernuniversitat graduates in Germany by Bartels and Rathore (1989) recently. In their study, the colleagues of the Fernuniversitat graduates had a more negative opinion than was the case for the employers.

One respondent commented that his achievement had actually encouraged his colleagues to pursue a similar programme. However, a few respondents did not notice any difference in the treatment that they received.

"*....my head of department looks highly upon me because I could do the tasks given to me, especially after I have obtained my degree.*" (Male teacher, Kelantan).

"*...For a teacher, I think the treatment is about the same. I feel that it is the same and especially so since I am teaching in the secondary school. The teachers there are all graduates.*" (Female teacher, Kelantan).

When the respondents were asked to reflect on whether the skills that they had learned during their study could help them get started in their own business or any venture without depending on others for a job, the majority felt that it was not the subject matter that was crucial but skills such as communication, the ability to source for information, problem solving and experience in planning and budgeting were essential. They felt that only a certain extent of the subject knowledge that they had obtained could be useful in such situations.

Conclusion

This study points clearly to the value of the degree obtained from distance learning programmes in the employment market. The distance learning programmes are perceived as equivalent in value to those traditional face-to-face programmes by the graduates

themselves as well as by their employers and colleagues, which is evident from the way these graduates were treated. The findings of this survey also imply that together with career-related objectives, the satisfaction of obtaining the degree with its conferral of self-esteem and respect from others ranks highly in the perception of value from distance learning programmes. Only about half of the respondents would use the degree as an educational credential while the rest hope that they would be able to use it as a stepping stone to a better position or promotion in future. In terms of negotiability, the degree has brought benefits and advantages albeit in different ways. An increase in respect and status follows after the completion of the degree and this is translated into increased responsibilities and leadership positions. There is no evidence that high adjustment costs have been incurred on the part of the employer to increase the productivity of the respondents. As expected the respondents do not experience equal financial benefits that come in the form of a job change or a promotion. Nevertheless some of the respondents feel that their job security is enhanced by the increase in pay and in the confidence that comes along with a degree qualification or status. Since the respondents of our study are from only three professions (namely science officers, technologists and school teachers) we are cautious to conclude that the distance learning programmes are broad enough to prepare students for a wide range of occupations. However, it can be concluded that the students perform fairly well in their occupation after completing their chosen field of study. The findings also show that while the distance learning programmes do provide soft skills that are essential for venturing into business or other self-supporting options, the subject matter taught in these programmes is perceived to be insufficient to be of substantial help.

While the findings of this preliminary study do give us an insight into the value of distance learning programmes in Malaysia, they are limited to the perceptions of respondents from the public sector. The findings do not include the perceptions and the experiences of those who are working in the private sector or those who have chosen to go into other types of venture such as business or politics. An in-depth study involving respondents from both the public and private sectors from Malaysia will be reported in the near future.

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Distance Education Degree Programs for the Malaysian Working Adults: Acceptability and Negotiability Perspectives

Nailul M. Mohd. Nor, K. G. Saw, M. N. Awang, S. H. Yen, S. Suryani, W. Asna W. Md Nor, P. Murugaiah[1]

Abstract— **The objective of this study was to determine the acceptability and negotiability of the distance education degree programs from the School of Distance Education (SDE), Universiti Sains Malaysia for the working adults in Malaysia. Since its establishment, SDE has been involved in building up human capital development in Malaysia by providing higher education through distance mode to the Malaysian public. Qualitative approach was used in order to seek greater understanding through discussion and sharing of experiences. Two specific issues namely, acceptability and negotiability were addressed. Thirteen participants from the states of Sabah and Sarawak which are located in East Malaysia were interviewed. Indicators of acceptability and negotiability as used in this study found that degrees awarded are highly regarded by society and employers. Graduates are able to get job promotions, assign to greater responsibilities and high sense of job security.**

Index Terms— **Acceptability, Distance Education, Human Capital Development, Negotiability**

I. INTRODUCTION

Distance education programs, especially in the form of correspondence study have been around for more than a century and benefited millions of students world over. In Malaysia, Universiti Sains Malaysia (USM) through the School of Distance Education (SDE) was the pioneer in producing graduates through distance mode.

The main characteristic of distance education is the separation of the learner and the instructor. With the advancement in the communication technologies, the separation of teachers and students in time has been greatly reduced. The most important advantage offered by distance education is accessibility. Place and time will no longer become barriers to education especially to the working adults. The flexibility of distance education in terms of time and place allow adults to study without leaving their work places or homes.

The need for further education beyond high school has become more and more pressing over the years, particularly for adults. The fast changing global economy and technology have caused tremendous effects on employment, education and social patterns in Malaysia and other countries.

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One of the SDE's objectives is to enable working adults to pursue higher education and has managed to attract Malaysian adults to enroll in its degree programs since its establishment. Currently, SDE offers academic programs at undergraduate and graduate level. For undergraduate level, degree programs which are offered by the SDE are Bachelor of arts, management, science and social science. Graduate studies are also offered in those four areas.

SDE utilizes a combination of media for the teaching and learning activities such as printed materials, video conference (this facility is not available in the state of Sabah and Sarawak), face-to-face and internet. In delivering study materials to students, printed materials in the modular form still remain an important medium.

Since the establishment of SDE which used to be known as an off-campus unit in 1971, many studies have been done on SDE's students learning, students' participation, effectiveness of the delivery systems and students' support services. However studies on performance of its graduates, acceptability, negotiability and marketability of the degrees from SDE are still lacking.

II. OBJECTIVE OF THE STUDY

The objective of this study was to determine the acceptability and negotiability of the distance education degree programs from SDE to the working adults in Malaysia.

III. METHODOLOGY

Qualitative approach was used in order to seek greater understanding through discussion and sharing of experiences. This study addressed two specific issues namely, acceptability and negotiability (Sharp and Sosdian, 1979) of the degrees awarded through distance mode as experienced and perceived by the graduates of the SDE.

This report was based on the interviewed conducted on 13 participants from the states of Sabah and Sarawak which are located in East Malaysia. Six participants from Sabah and seven from Sarawak were interviewed. These two locations are unique as they represent areas that are geographically far from SDE and have less developed infrastructure facilities.

The participants in the study were recent graduates from SDE between 2004 and 2007. As such their addresses and contact numbers were still easily available to the researchers.

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Purposive sampling was used to identify the willing participants.

Data were collected through open-ended interviews which were deemed appropriate for this study to produce a rich and substantial understanding of a complex phenomenon (Attinasi, 1986 cited from Pang and Appleton, 2004). Question guide was used to initiate and redirect conversation towards the two issues. However, participants were allowed to express freely their opinions and ideas beyond the acceptability and negotiability issues of the degree they obtained from the SDE.

Interviews were conducted mainly in Malay language and when necessary English was also used. The recordings of the interviews were transcribed and the transcriptions analyzed to identify common themes.

IV. FINDINGS AND DISCUSSION

In this study, the central themes were acceptability and negotiability of the degrees as perceived by the participants. According to Sharp and Sosdian (1979) acceptability mainly as acceptance by educational institutions at the next higher level while negotiability refers to the degree's usefulness in the world of work, and includes, for instance, access to jobs, promotions as well as licenses. Some modifications to the concept of acceptability were made to include personal satisfaction, sense of personal fulfillment and that of the family's, sense of the worthiness of the degree compared to other similar qualifications as well as a credential for further studies. No modification was made to negotiability concept. Indicators were similar to those used by Sharp and Sosdian (1979), which include obtaining a different job, a promotion or increase in pay or income, more job responsibilities, an increased sense of job security and greater respect or status from the employer and colleagues.

For acceptability concept, majority of the participants interviewed indicated a sense of accomplishment and personal satisfaction when they had completed their study. They were also very proud of their degree. They admitted that they had gained new knowledge, perspectives and more self-confidence. Personal growth and development were also considered as an important reason for studying at SDE.

"*... and then when I started study, I was already 46. What I got was satisfaction there.*" (KC-3)

"I feel very proud ... having a degree is an achievement as I missed this opportunity before..." (KC-1)

The reason why I joined the distance learning program was to seek knowledge. Knowledge is more important, with knowledge we can compete with others in our workplace. To have wide knowledge was the priority. Career advancement was secondary to me and of course it was my dream to have a degree. (KC-6)

Another aspect of acceptability that was related by the participants includes eligibility to continue at higher level such as master degree. An executive said that he will continue to study further.

"...to up grade myself. And never be satisfied...I'm now pursuing Master in Business Administration (MBA)." (KK-2)

"I'm now applying to continue my study (master level) at a university nearer to my hometown. I hope I can study up to Ph.D level." (KC-6)

For negotiability, several participants were able to get job promotion and three participants were called for promotion interviews. One participant had just applied for a new post and waiting for an interview. Even with the same post they were given greater responsibilities.

A few participants mentioned about greater respect or recognition from colleagues and employers. A chief enforcement officer observed:

" *... when we have a degree our status is a little higher. They (colleagues) now respect me because of my academic qualification. We are now equal or on the same level...but I'm still in my previous position.*" (KC-7)

An officer shared his job duties:

"I have more responsibilities now as I've been recognised as a degree holder. I can lead my colleagues and do counselling works at department level. I was asked to conduct seminars and courses for others. Those are extra duties because of my degree" (KC-6)

Pertaining to job security after having a degree, participants were more confident. According to them, their job performance had improved and they are able to give more contribution to the organisation. Another factor to this sense of security was being in government service as in the case of a few participants.

"I feel I'm secured. Department head trusts me and has confidence in me. I do follow all instructions by my superiors and also carry out several initiatives." (KC-6)

The feeling of satisfaction and proud is understandable if we knew of what they had gone through. Some of them had a very hard time to adapt as distance learners especially during their first year. Studying through distance mode needs different approach and considerable amount of sacrifices on the part of adult learners. The academic and financial difficulties faced by them sometimes could be a real burden and cause an emotional stress.

Students from Sabah and Sarawak had to spend more money and time than students from West Malaysia. For instance, to cover the travelling cost to attend the compulsory annual intensive course at SDE in Penang. Dass (2001) found out among the major problems faced by the distance learners were related to time management, study, academic financial difficulties and sense of isolation. They were able to succeed despite all these obstacles with sheer determination and grit in obtaining the degree.

Students from these two states relied heavily on the printed learning materials given by the SDE. They had to be self directed learners and established their own networking to overcome loneliness. Due to the exorbitant cost, SDE could

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not provide live audio or video conferencing facilities for tutorial and discussion with instructors for students in Sabah and Sarawak. These facilities were available only at the regional centers in West Malaysia. SDE would tape the video conference sessions and send the CD copies to students and this would take several days to reach them. Since the year 2006, SDE was equipped with broadband connection which allows SDE's students from anywhere in Malaysia (in fact anywhere in the world) to follow live video streaming via the internet.

Some of the findings in this study are very much similar to other previous studies with regard to why adults continue to study. The reasons were found to be many and complex. Sewall (1984) revealed several reasons why adults choose to pursue a degree: (1) to develop a new career; (2) just to learn; (3) to have satisfaction of having a degree; (4) to achieve independence and a sense of identity; and (5) to gain career advancement. Participants in this study have shown that adults can study through distance mode and able to fulfill their dreams.

V. CONCLUSION

This study demonstrates that Malaysian working adults have benefitted from distance education degree programs intellectually and materially. Acceptability and negotiability of the degrees through distance mode were clearly visible based on the experiences and perceptions of the participants. A few aspects of acceptability and negotiability that were highlighted - degrees from School of Distance Education, Universiti Sains Malaysia are accepted by other higher learning institutions, respected by society and employers. Graduates are able to get job promotions, greater responsibilities and job security.

The findings of this study might be seen as one of the steps in understanding the role of distance education in higher education and the needs of human capital development in Malaysia. In future, studies that include employers as participants should be conducted to determine the extent of acceptability and negotiability of distance education degree programs.

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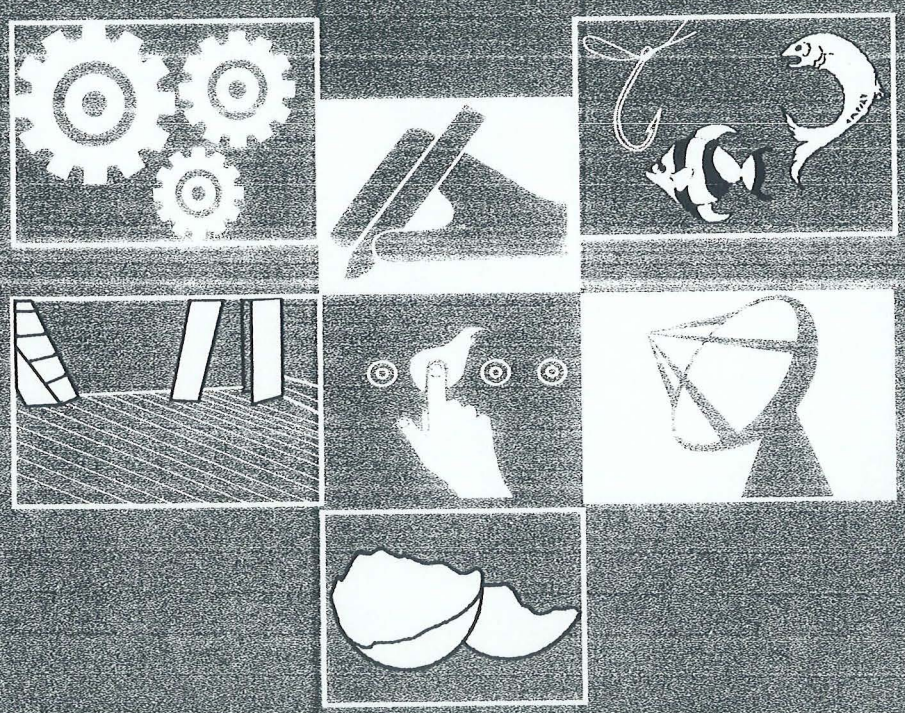
Research Monograph

SELF-PERCEIVED EMPLOYABILITY

A CASE STUDY OF DISTANCE EDUCATION GRADUATES FROM UNIVERSITI SAINS MALAYSIA



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PREFACE

Employability among graduates from distance education programmes has always been a concern. With increasing demand for tertiary education, distance education programmes are becoming popular among students who are unable to enrol for conventional face-to-face courses for various reasons. The main difference between distance education and conventional face-to-face teaching is the quasi-permanent separation of teacher and student throughout the learning process. This physical separation, which is also known as transactional distance, is believed to cause a psychological and communications gap that may affect the learning process. While distance education programmes have adopted many aspects of modern technology such as video conferencing to lessen the transactional distance they are sometimes perceived to lack parity of esteem when compared to conventional programmes. However, distance education is not without merits, and recent research has indicated that degrees obtained through distance learning were highly regarded as a valid credential in institutions of higher education as well as in many employment settings. In Malaysia, distance education programmes seem to be popular with more than 80 000 students enrolled in various universities. A recent research suggested that unlike distance learners in other countries, Malaysian distance learners had social mobility in mind when they enrolled for their programme. In view of this a study on self-perceived employability of graduates from distance education programmes would give policy makers and researchers valuable insights into what constitutes a successful distance education programme from the perspectives of the distance learners.

This monograph briefly traces the development of the Universiti Sains Malaysia distance education programme and looks at recent research in employability. It explores constructs relating to the internal dimension of self-perceived employability and investigates the self-perceived employability of recent graduates from Universiti Sains Malaysia at the entry and exit points of their programme. Our study that uses a mixed methods approach consisting of a questionnaire and an interview suggests that distance education programmes can indeed provide social mobility and do have pedagogical merits. Our study also investigates whether traditional organisational attachment is perceived as increasingly undesirable for graduates from distance education programmes. It would be interesting to know whether they are considering a more individual model of work and borderless career.

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BORANG KG 1-3

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4. Jenis Projek/Geran	: Universiti Penyelidikan		
5. Gaji	: RM 74.84 Sehari	9. Tarikh Kuatkuasa	: 2 Ogos 2010
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7. No. Ahli KWSP	: 14233316	11. Nama Bank	: CIMB Bank
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IMBUHAN TETAP	AMAUN	BAYARAN BANTUAN	AMAUN
1. Khidmat Awam	RM 12 Sehari	1. Sara Hidup	RM 12 Sehari

CATATAN
Sila abaikan surat pemeriksaan doktor, tidak perlu lakukan pemeriksaan kesihatan.

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1. Pembayaran Emolumen ini adalah tertakluk kepada status akaun/ kewangan terkini projek.
2. Kenyataan Gaji (KG) ini adalah betul jika tiada maklumbalas diterima daripada staf dalam tempoh 5 hari dari tarikh KG ini.
3. Kemudahan perubatan untuk **diri sendiri sahaja** (*tanpa perubatan pergigian*)
   a) **Pelantikan melebihi 3 bulan - Hospital Kerajaan & Pusat Sejahtera Kampus Induk/Pusat Sejahtera IPPT/HUSM**
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PERAKUAN
Segala maklumat di atas telah diperakukan benar, disemak dan disahkan oleh **PROF MADYA SAW KIM GUAN** Ketua Projek/Geran ini pada **24 September 2010**. Ketua Projek/Geran boleh turut disabitkan di bawah Akta 605 sekiranya terdapat sebarang maklumat yang kurang/tidak tepat.
Tarikh perakuan penerimaan oleh **TNEH SAU SIONG** pada **24 September 2010**.

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Ketua Penolong Pendaftar

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ENCIK TNEH SAU SIONG
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UNIVERSITI SAINS MALAYSIA

PUSAT PENGAJIAN PENDIDIKAN JARAK JAUH
SCHOOL OF DISTANCE EDUCATION

Pusat Pengajian Pendidikan Jarak Jauh
13 MAY 2011
USM
11800 Minden

DITERIMA
10 MAY 2011
PNC
UNIVERSITI SAINS MALAYSIA

9 Mei 2011

Y. Bhg. Prof Tan Sri Dzulkifli Abdul Razak
Naib Canselor
Universiti Sains Malaysia

Membuka Akaun Bengkel Latihan Antarabangsa Untuk Kakitangan Kerajaan Aceh

Dengan hormatnya dimaklumkan Pusat Pengajian Pendidikan Jarak Jauh, USM akan menganjurkan bengkel latihan untuk kakitangan akademik Kerajaan Aceh. Semua kos perbelanjaan untuk bengkel ini akan dibiayai oleh pihak Kerajaan Acheh.

2. Bengkel latihan pertama ini meliputi bidang pendidikan jarak jauh akan diadakan di kampus Minden dan dijangka bermula pada bulan Julai 2011.

3. Sehubungan itu, pihak PPPJJ ingin memohon kelulusan Y. Bhg. Tan Sri untuk membuka akaun baru untuk tujuan penyelenggaraan bengkel tersebut.

Di atas pertimbangan dan kelulusan Y. Bhg Tan Sri saya dahului dengan ucapan ribuan terima kasih.

Sekian.

"BERKHIDMAT UNTUK NEGARA"
'Memastikan Kelestarian Hari Esok'

[PROFESOR MADYA HABIBAH HJ. LATEH]
Dekan
Pusat Pengajian Pendidikan Jarak Jauh

PROF. TAN SRI DATO' DZULKIFLI ABDUL RAZAK
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Visit to Japan in Sept
Open University of Japan

>From: 神 研二郎 <ken-jin@ouj.ac.jp>
>Subject: Re:Visit to Open University of Japan
>To: "Saw Kim Guan" <kgsaw@usm.my>
>Cc: "kgsaw@yahoo.com" <kgsaw@yahoo.com>
>Date: Tuesday, March 8, 2011, 7:01 AM
>
>
>Dear Saw,
>
>Sorry for the waiting. I just now have talked to our president about your wish.
>
>President Ishi told me that OUJ would like to welcome you, basically. There
>are however, some condition for that.
>
>We would like to have you only a half day in April, owing to busy schedule of
>OUJ and our staffs. Is it ok for you? The date should be negotiated form now,
>so please give me your dandidate dates in April.
>
>OUJ is responsible only for the part of your visit to our campus. Other
>procedures such as visa application and accommodation should be arranged for
>yourself.
>
>Thank you & good afternoon
>Ken Jin
>
>
>
>--Saw Kim Guan<kgsaw@usm.my> wrote:
>>Dear Dr Ken Jin,
>>
>>Greetings from Universiti Sains Malaysia, Penang! How was your conference? We
>hope that it was a success.
>>
>>We hope it would not inconvenience you to know whether it is possible for us
>to visit OUJ as discussed in our previous mails. We also welcome suggestions
>from OUJ so that our trip would be beneficial to OUJ too. We can also send an
>official letter from Universiti Sains Malaysia to you if required. We would
>like to visit OUJ in March or April but if it is not possible for us to visit
>you at all, please inform us too so that we can make other arrangements.
>>
>>Thank you.
>>
>>Regards,
>>Assoc Prof Dr Saw Kim Guan,
>>Physics Programme Chair,
>>School of Distance Education,

>>Universiti Sains Malaysia,
>>Minden, 11800 Penang,
>>Malaysia.
>>
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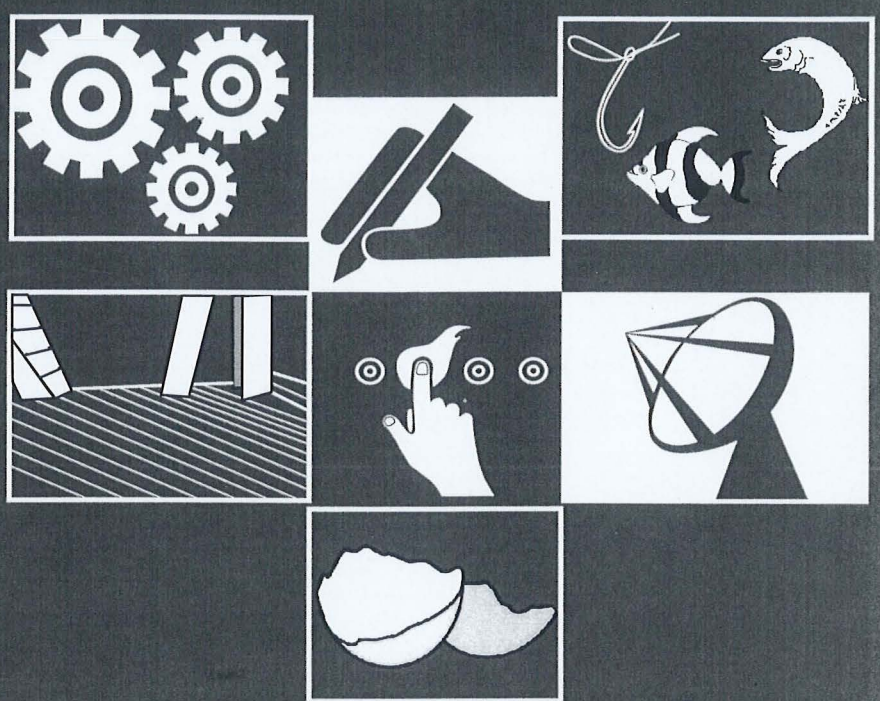
Research Monograph

SELF-PERCEIVED EMPLOYABILITY

A CASE STUDY OF DISTANCE EDUCATION GRADUATES FROM UNIVERSITI SAINS MALAYSIA



SAW KIM GUAN
MOHD NAIN HJ AWANG
NAILUL MORAD MOHD NOR
PUVANESWARY A/P MURUGAIAH
SURJANI SOETARDJO
WAN ASNA WAN MOHD NOR
YEN SIEW HWA

Research Monograph

SELF-PERCEIVED EMPLOYABILITY: A CASE STUDY OF DISTANCE EDUCATION GRADUATES FROM UNIVERSITI SAINS MALAYSIA

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Universiti Sains Malaysia

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ABSTRACT

This monograph is about a study that investigates the perceptions of recent graduates of Universiti Sains Malaysia, a public university in Malaysia, on their employability before and after undergoing a tertiary distance education programme. The study explores the constructs which relate to the internal dimension of self-perceived employability. These constructs are measured using a questionnaire with a five-point Likert scale. An interview is also used to obtain qualitative data to supplement the quantitative findings. A dependent t-test suggests perceptions at the entry and exit points of their programme to be significantly different. Implications of the graduates' perceived employability are discussed.

PREFACE

Employability among graduates from distance education programmes has always been a concern. With increasing demand for tertiary education, distance education programmes are becoming popular among students who are unable to enrol for conventional face-to-face courses for various reasons. The main difference between distance education and conventional face-to-face teaching is the quasi-permanent separation of teacher and student throughout the learning process. This physical separation, which is also known as transactional distance, is believed to cause a psychological and communications gap that may affect the learning process. While distance education programmes have adopted many aspects of modern technology such as video conferencing to lessen the transactional distance they are sometimes perceived to lack parity of esteem when compared to conventional programmes. However, distance education is not without merits, and recent research has indicated that degrees obtained through distance learning were highly regarded as a valid credential in institutions of higher education as well as in many employment settings. In Malaysia, distance education programmes seem to be popular with more than 80 000 students enrolled in various universities. A recent research suggested that unlike distance learners in other countries, Malaysian distance learners had social mobility in mind when they enrolled for their programme. In view of this a study on self-perceived employability of graduates from distance education programmes would give policy makers and researchers valuable insights into what constitutes a successful distance education programme from the perspectives of the distance learners.

This monograph briefly traces the development of the Universiti Sains Malaysia distance education programme and looks at recent research in employability. It explores constructs relating to the internal dimension of self-perceived employability and investigates the self-perceived employability of recent graduates from Universiti Sains Malaysia at the entry and exit points of their programme. Our study that uses a mixed methods approach consisting of a questionnaire and an interview suggests that distance education programmes can indeed provide social mobility and do have pedagogical merits. Our study also investigates whether traditional organisational attachment is perceived as increasingly undesirable for graduates from distance education programmes. It would be interesting to know whether they are considering a more individual model of work and borderless career.

K.G. Saw (2011)
Universiti Sains Malaysia
Penang

CHAPTER 1

THE DEVELOPMENT OF DISTANCE EDUCATION PROGRAMME IN UNIVERSITI SAINS MALAYSIA

The development of tertiary distance education in Malaysia is unique in the sense that one of its initial objectives was social engineering rather than educating a large sector of society using practices that are often associated with the industrialisation theory of distance education. Degree programmes by distance learning were started by Universiti Sains Malaysia (USM), a public university, in 1971. As USM was offering conventional degree programmes to full-time students, the establishment of the Off-Campus Studies Unit for part-time distance learners essentially transformed it into the first dual mode university in Malaysia. The objectives of setting up the degree programmes were (Dhanarajan, 1986, p. 568):

(i) to help those adults who had missed the opportunity for obtaining a higher education and thus qualify for a degree;

(ii) to narrow the gap of educational objectives among the various ethnic groups in the country;

(iii) to take education to economically deprived and geographically isolated areas;

(iv) to increase the nation's high level manpower;

(v) to improve the performance of those already employed by updating their knowledge and skills.

With social aspirations in view, the distance education programmes were not intended to run based on the economies of scale, and student intake was thus largely guided by its objectives of providing adults who had missed the opportunity for obtaining a higher education to qualify for a degree as well as to give priority to the indigenous people in the country (Idrus, 1993; Cheah, 2004; Danarajah, 1986).

As a dual mode university, entry requirements were the same as those who were enrolled for the conventional programmes. One of the academic requirements was that prospective students should have the equivalent of the Higher School Certificate or GCE 'A' Level passes. They had to obtain at least a grade 'E' in two subjects. A credit in the national language was also mandatory. In addition students had to be at least 21 years of age (Cheah, 2004). Thus USM tertiary distance education programmes were not considered as 'open' education. In line with its stated objectives the student population consisted of mainly Malay civil servants. While distance education programmes in some other countries were Fordist with a large student population and the mass production of learning materials, USM maintained a relatively smaller intake of students to concentrate its resources and to ensure that the degree programmes offered via distance learning were equivalent to those offered to conventional face-to-face students. This implied that exit conditions were similar. It was hoped that these conditions would enable the distance learners to acquire the same level of knowledge and skills as conventional face-to-face students. The annual intake increased modestly to around 800 students in the mid 1980's. It has been increased to approximately 2000 students in recent years. Distance learners had to

meet similar examination requirements and underwent the same curriculum as full-time students. Compared to some distance education institutions with student populations of more than 50, 000, USM had a significantly lower number of students. In spite of the relatively smaller number of students, features such as the division of labour in teaching, writing, instructional designing, graphic designing, printing and delivery of learning materials were evident. Printed materials in the form of course modules were the main study materials delivered to the students via conventional post. Student support was initially in the form of telephone conversation as well as telegraphic conferencing (which was introduced a few years later) at the regional centres. The number of courses offered gradually increased as the Off-Campus Studies Unit was upgraded to the status of a centre with its own core of full-time academic staff and an academic board. The centre known as Centre for Off-Campus Studies later became the School of Distance Education. Currently the school offers more than 128 courses across its Arts, Science, Social Science and Management programmes. A student normally takes between 4 to 12 years to graduate.

At present classes are conducted in the video conferencing learning environment (VCLE) for real-time interaction between teacher and student(s) as well as student(s) and student(s). The VCLE is also capable of presenting teaching materials that use computer software, simulation packages or video clips. A camera is installed to record the teacher in real-time while another camera is used to capture the images of any documents or 3-D objects shown by the teacher. The teacher has control over the cameras and he can decide whether to enable the

students to see him in real-time or to see the images of the teaching materials, 3-D objects or images from software packages. Thus there are essentially two display modes. The video display mode enables the teacher and the students to interact with one another with the help of the voice-triggered monitor. In this mode, one monitor will display the image of the teacher while another monitor is voice-triggered and displays the students at a particular regional centre. In the graphics display mode, one monitor is used to display documents, 3-D objects or images while another monitor displays the images of either the teacher or the students at a particular regional centre. The VCLE system, which has been in use since 1996, interconnects the main studio at the Minden campus in the state of Penang to the other video conferencing sites at the regional centres in West Malaysia. The regional centres in East Malaysia were, however, not connected to the VCLE system due to the high costs involved. The VCLE facility which is available at the regional centres in West Malaysia has been found to encourage interactions between student(s) and student(s) as well as teacher and student(s) in certain situations (Saw et al., 2008). The video conferencing sessions are now available via the Internet. Students who are unable to go to the regional centres for the video conferencing sessions could now follow the sessions via the Internet. This is particularly very useful to students residing in East Malaysia who had not been able to follow the video conferencing sessions in their regional centres.

In recent years the learning management system (LMS) was added to the delivery system in stages to complement the VCLE, providing a place for activities to occur in a cultural context with

different levels of interaction, values, shared beliefs, knowledge and skills. The LMS helps teachers and students to focus on course content and related issues and interact with one another through uploaded materials, postings in discussion forums, links to personal or relevant websites as well as real time interaction via chat rooms. Besides the VCLE and the LMS, the main sources of academic support for the distance learners include selected textbooks, self-instructional printed materials as well as multimedia packages. Other forms of student support services set up to help students cope with transactional distance were a special unit was formed in the main library of USM and a counselling service. The former was set up so that the students could borrow books and obtain journal articles without having to come to the main campus in Penang while the counselling service was available for weak students or students who wanted to seek certain information. Besides acting as video conferencing sites, regional centres that were established throughout the country were also used for various activities such as continuous examinations and as resource centres with selected textbooks, reference materials, past examination papers as well as multimedia packages. At one stage tutorial sessions were held at these centres where students could meet with qualified tutors.

Since the first batch of graduates in the 70s, many Malaysians have received their degree qualifications from the School of Distance Education at USM. From 1971 to the mid 1990's USM was the sole tertiary distance education provider in Malaysia. Although there were five public universities in that period, only USM was given the responsibility to conduct degree programmes by distance. However,

towards the end of the 1990's, following a directive from the Education Ministry, other public universities such as Universiti Malaya, Universiti Pertanian Malaysia, Universiti Malaysia Sarawak and Universiti Utara Malaysia began introducing degree programmes in Arts, Information Technology, Business Management, Business Administration, Malay Studies, Economics, Accountancy, Engineering as well as in Computer Science. Cheah (2004) noted that some of these programmes such as Engineering and Computer Science were later discontinued. The admission criteria in these other dual-mode universities were also set by the respective faculties. In most cases the criteria were those for the conventional programmes. Recently, private institutions have also contributed to the development of tertiary distance education in Malaysia. Among these was a corporation known as Multimedia Technology Enhancement and Operations (METEOR). METEOR, which is essentially a private company set up by 11 government funded public universities, successfully established an open university known as Malaysia Open University in 2000 where one of its objectives was the democratisation of tertiary distance education (Cheah, 2004). While USM is no longer the sole institution in providing distance education, it is still in the forefront in terms of the number of programmes being offered, research and its student support system.

CHAPTER 2

RECENT RESEARCH IN EMPLOYABILITY

It may be surprising to some that there is no singular definition of employability despite the fact that employability issues have been debated and published as early as the 1950's. Although employability is presently a hot topic in education, management and organisational research and literature due to the rapidly changing labour market as well as the expansion of higher education, there is no clear consensus about its definition. Most of these employability issues during the early period from the 1950's and 1960's were connected to promoting full employment and government intervention in stimulating entry into the labour market (Forrier and Sels, 2003). In tracing a brief history of employability issues, Forrier and Sels (2003) noted that the early period was a period of relative prosperity with a tight labour market. However, with increasing unemployment in the later years, the focus in the literature of employability was shifted to aspects of possessing knowledge and skills although the main aim was still to achieve full employment. In the 1980's employability was seen as a human resource instrument to achieve flexibility within organisations and to optimise staff deployment.

Forrier and Sels (2003) had rightly noted that employability is now an important consideration for the whole society and not only for the unemployed or the deprived. It is thus equally important to stimulate entry into the labour market as well as to ensure career

possibilities within and beyond the borders of organisations. The individual, and not government bodies or the employer, is presently perceived as 'the main actor' where he or she is expected to play a proactive role. With the individual playing a proactive role, current research on employability focuses on the issues of internal and external employability. Internal employability refers to an individual's ability and willingness to remain employed with his current employer or organisation while external employability refers to the ability and willingness to switch to a similar or another job in another organisation. Thus the employability of an individual may apply to the internal labour market within the organisation or to the external labour market or to both. Another definition of employability was given by Hiltrop (1995) who suggested that employability was related to the 'new psychological contract' between employers and employees where the latter were expected to take responsibility for their own career. Forrier and Sels (2003) pointed out that even though certain definitions had adopted the same focus, they often distinguished different dimensions.

These dimensions were as follows:

1. Individual characteristics

   Employability is measured on the basis of a number of characteristics of individuals, mostly on their ability to find and keep a job as well as their attitudes.

2. Context

   The individual and other parties including the employer's demand are considered in the study of internal employability.

3. Effect

   A recent study by Hillage and Pollard (1998) suggests that employability can also be measured by its effects. In addition to the quality of the job, factors such as its link with the degree of the individual and the possibilities for growth are also considered.

4. Activities

   The focus here is on employability enhancing activities. The extent to which individuals take part in activities such as training and task enrichment as well as their attitudes and behaviour towards enhancing their employability is considered.

Fugate et al. (2004) suggested that the construct of employability focused largely on person-centred factors, which were career identity, personal adaptability and social and human capital. An individual's career identity is one's self-definition in the career context, describing "who I am" or "who I want to be" and thus status within the individual's environment is necessary. By addressing these in the work domain, career identities delineate possibilities for the self at work, providing personal goals or aspirations (Markus, 1983). Individuals who want to be successful in their position in an organisation would strive to acquire not only the knowledge required but also a further degree or a higher qualification. Thus the construct of career identity provides a strong cognitive and affective domain. Employable people also possess individual attributes necessary for adaptation and would consider alternatives consistent with their important career identities and are predisposed to personal change (Ashforth and Fugate, 2001). An activity

that has been associated with career success is continuous learning. Attitudes, motivations and dispositions regarding learning are important to an individual's personal adaptability and employability (Fugate et al., 2004). Another concept that is fundamental to personal adaptability according to Fugate et al. (2004) is openness. People with openness to change or new experiences are supportive of continuous learning and are able to identify and realise career opportunities and thus become more employable.

The proposition that employability is largely built on personal attributes that include knowledge and skills, capacity for learning as well as resilience (Hillage and Pollard, 1998; Bagshaw, 1996; Iles, 1997) seems to be widely accepted. Some researchers like Rothwell and Arnold (2007), however, included within-organisation factors such as the current and predicted state(s) of internal labour market as well as external factors in addition to attributes. Working on the understanding that employability concerns the extent to which people possess the skills and other attributes to find and stay in work of the kind they want, Rothwell and Arnold (2007) developed 11 items that were collectively intended to reflect internal and external employability (i.e. within and outside the respondent's organisation) based on an individual's personal and occupational attributes. The 11 items were as follows (Rothwell and Arnold, 2007, p. 40):

(1) Even if there was downsizing in this organisation I am confident that I would be retained.
(2) My personal networks in this organisation help me in my career.

(3) I am aware of the opportunities arising in this organisation even if they are different to what I do now.

(4) The skills I have gained in my present job are transferable to other occupations outside this organisation.

(5) I could easily retrain to make myself more employable elsewhere.

(6) I have a good knowledge of opportunities for me outside of this organisation even if they are quite different to what I do now.

(7) Among the people who do the same job as me, I am well respected in this organisation.

(8) If I needed to, I could easily get another job like mine in a similar organisation.

(9) I could easily get a similar job to mine in almost any organisation.

(10) Anyone with my level of skills and knowledge, and similar job and organisational experience, will be highly sought after by employers.

(11) I could get a job, anywhere, as long as my skills and experience were reasonably relevant.

The first three items and item (7) refer to internal employability while the rest of the items refer to external employability. Respondents (who were human resources professionals) were asked to respond to each of these 11 items on a five-point Likert scale, with anchors strongly disagree (1) to strongly agree (5). The items were developed using a matrix where factors from internal labour markets, external labour markets, personal attributes and occupational attributes. The items reflected aspects of employability identified in previous work that included skills and behaviours that could contribute to effective

performance, resilience or ability to respond effectively to changing circumstances, networking as well as labour-market knowledge.

A recent study by Rothwell et al. (2008) described the development of a research instrument to examine the expectations and self-perceptions of employability of business undergraduates in British universities. In this recent study, employability was defined as the perceived ability to attain sustainable employment appropriate to one's qualification level. The internal and external dimensions of employability were identified. The former was related to skills and self-confidence and was closely related to beliefs of personal efficacy while the latter was concerned with the perceptions of the strength of the university brand, the state of the external labour market and the demand for the degree subject. In this work by Rothwell et al. (2008) there was a shift from the normal understanding of what constitutes internal employability since the respondents were not in employment at the time of the study. Internal employability was thus related to the respondents' perception of their own attributes, skills, abilities, engagement with study, ambition as well as self-confidence.

The eight pairs of statements listed by Rothwell et al. (2008, p. 10) are as below:

(1) (a) I achieve high grades in relation to my studies.

(1) (b) I regard my academic work as top priority.

(2) (a) Employers are eager to employ graduates from my university.

(2) (b) The status of this university is a significant asset to me in job seeking.

(3) (a) Employers specifically target this university in order to recruit individuals from my subject area(s).

(3) (b) My university has an outstanding reputation in my field(s) of study.

(4) (a) A lot more people apply for my degree than there are places available.

(4) (b) My chosen subject(s) rank(s) highly in terms of social status.

(5) (a) People in my career I am aiming for are in high demand in the external labour market.

(5) (b) My degree is seen as leading to a specific career that is generally perceived as highly desirable.

(6) (a) There is generally a strong demand for graduates at the present time.

(6) (b) There are plenty of job vacancies in the geographical area where I am looking.

(7) (a) I can easily find out about opportunities in my chosen field.

(7) (b) The skills and abilities that I possess are what employers are looking for.

(8) (a) I am generally confident of success in job interviews and selection events.

(8) (b) I feel I could get any job so long as my skills and experience are reasonable relevant.

Similarly responses were on a five-point Likert scale, with anchors strongly disagree (1) to strongly agree (5). The alpha internal reliability coefficient was 0.75, implying that the overall scale was reliable. The study by Rothwell et al. (2008) found the respondents were unusually modest in their expectations regarding their future employment. Recent research thus shows that employability is mainly examined at the individual level (Forrier and Sels, 2003). It is interesting to note that a broader definition of employability by Peck and Theodore (2000) involves the collection of worker characteristics, including attitudes towards work, expectations regarding employment and wages, and behaviours both in the labour market and on the job. In addition to this broader definition of employability, we also take into consideration that an individual's attitude towards career may be related to family systems (Lee and Yi, 2010) in our effort to investigate self-perceptions of employability. These examples of recent research in employability helped to shape our present study on what it actually means to individuals in the context of their educational experiences and perceptions of their abilities in their domain of work.

CHAPTER 3

SELF-PERCEIVED EMPLOYABILITY OF DISTANCE GRADUATES

While it is widely accepted that tertiary distance education programmes have gained popularity in recent years they have sometimes also been perceived to lack parity of esteem when compared with traditional or face-to-face programmes. Some three decades ago, in the absence of cost-effective and sustainable communication links, distance learning had to make do with self-instructional packages and was very much dependent on the conventional mailing system. With a large enrolment of students, distance education programmes generally adopted the Fordist strategy which operated on the concept of economies of scale. In such a strategy, the structure of distance learning and teaching can sometimes be rigid and determined to a considerable degree by rationalisation, mass production and the increased division of labour. This contrasted with face-to-face education where there was less division of labour and almost all aspects of learning and teaching were handled by the teacher. In face-to-face teaching and learning, there were many opportunities for the teacher and students to interact with each other. It was not uncommon to find distance education programmes suffering from an unreliable mail system and low quality mass-produced materials whose 'shelf-life' had expired. Teachers often found it difficult to communicate with students while some students felt 'isolated and abandoned'. In many cases the self-instructional packages formed the only 'link' between the student and the institution. With the lack of communication and a sense of abandonment, students often assumed a passive role in

their study. While there were efforts to improve distance learning such as the use of guided didactic interaction as the appropriate writing style for teaching materials (Holmberg, 1989) the disadvantages of the distance mode raised concerns on the quality of the distance education programmes, affecting perceptions of employability of their graduates.

However, distance education is not entirely without merits. Moore's transactional distance theory (Moore, 1972) clearly shows that it is the (distance) learner rather than the teacher who determines the goals, learning experiences and the evaluation decisions of the learning programme. In Moore's theory, student autonomy or independence is crucial suggesting that distance learners are self-directed and actively making decisions relating to their study. In the course of their programme, they learn to plan, strategise and make evaluations. Thus it is not surprising that Bartels and Rathore (1989) found that the majority of graduates of the Economics department perceived that the Diplom I qualifications (equivalent to a Bachelor's degree) conferred by Fernuniversitat was highly valued in the employment market in Germany. A survey by Gaba et al. (2006) on the perceptions of undergraduate distance learners towards employability carried out at the Indira Gandhi National Open University found that 41% of the respondents perceived their degree would help them achieve their ambition of enrolling for higher education, 30% indicated that they were likely to get a new job while 18% believed that they would receive a promotion in their present job after graduating. Having a degree via distance learning was also perceived to be useful should the respondents wish to change jobs or to start their own business. In a similar study,

Sharp and Sosdian (1979) found that external degree programmes actually gave students a valid credential in institutions of higher education as well as in many employment settings. Their findings were generally categorized into acceptability and negotiability outcomes. Acceptability as defined by Sharp and Sosdian (1979) is the credential of the degree obtained and acceptance by educational institutions for admission at the next higher level while negotiability refers to the usefulness of the degree in the world of work, which includes access to jobs, promotions as well as licences. Their findings pointed clearly to the self-perceived usefulness of the external degree, which especially benefitted women as a group and those who were at the lower end of the occupational spectrum.

In recent years the increasing use of educational technology in tertiary distance education programmes has made learning more meaningful and effective. The distance learner's learning experience can now be as real as that found in a face-to-face traditional learning environment. The use of educational technology, dedicated systems including Internet-based approaches as part of the delivery mode, computer software and hardware as well as trained technical staff has made distance education more appealing (Ojo and Olakulehin, 2006).

Where higher education outcomes are concerned, possessing the skills to look for a job, stay employed or secure a new position has become a benchmark for measuring performance at both individual and institutional levels (Harvey, 2001; Rothwell and Arnold, 2007; Rothwell et al., 2008; Crossman and Clarke, 2010). Put simply, graduate

employability is more than just an outcome of professional, discipline-specific knowledge. It includes the ability to demonstrate broader skills such as communication, problem-solving, interactional skills, initiative and efficiency (Clarke, 2008; Leckey and McGuigan, 1997). At an individual level employability thus includes skills and abilities, attitudes and behaviours, or a combination of personal attributes, personal skills and technical skills, or a reflection of the individual's position within the labour market (Clarke, 2008; Dench, 1997). With employability increasingly being seen as primarily an individual responsibility (Iles et al., 1996), the focus of our study is on employability from the perspective of the graduates of distance education programmes. Self-perceived employability is "what individuals seeking a particular type of work believe their chances of successes are, and what factors influence their perception" (Rothwell et al., 2008). Thus for bachelor degree students, self-perceived employability is defined by Rothwell et al. (2008) as the "perceived ability to attain sustainable employment appropriate to one's qualification level" (Rothwell et al., 2008). In a recent study, self-perceived employability appeared to vary with different types of samples with business undergraduates being modest while the postgraduates from a mixed background (including some who had part-time jobs) being generally positive regarding their employability (Rothwell et al., 2008; Rothwell et al., 2009). With this in view, a study on how graduates from distance education programmes perceive their employability would provide further insights on self-perceptions of employability. In particular, it would be interesting to see how graduates from distance education degree programmes perceive their employability at entry and exit points of their programmes since at the

entry point they usually bring to their studies an accumulation of working experience as well as other commitments.

In order to develop a scale to measure the perceptions at the entry and exit points of a distance education programme, we hold the view that employability is mainly built on attributes that include knowledge and skills, capacity for learning as well as resilience. In particular, a positive change in the attributes between the entry and the exit points is seen as a result of undertaking a distance education programme. Our conceptualisation of employability is guided by the previous work of Fugate et al. (2004), Ashford and Fugate (2001), Hillage and Pollard (1998), Bagshaw (1996), Illes et al. (1996), Rothwell and Arnold (2007), Rothwell et al. (2008), Leckey and McGuigan (1997), Clarke (2008), Dench (1997) as well as Markus (1983). The use of personal attributes to develop a scale for self-perceived employability is reinforced by the previous work by Rothwell et al. (2008) where factors relating to internal employability were replaced by personal attributes. We also take into consideration that employability can also be measured by its effects.

Thus our scale would include perceptions of academic qualifications and the possibilities for personal growth as well as attitudes towards work, expectations regarding conditions of employment and wages (Peck and Theodore, 2000). The focus of our study is thus on the individual rather than on the organisation, external labour market or government policies. An earlier study by Saw et al. (1999) found that unlike other groups of adult distance learners in other

countries who may have purely academic goals, students who engaged in tertiary distance education programmes in Malaysia had social mobility in mind. A study on self-perceived employability of graduates from distance education programmes would thus give policy makers and researchers valuable insights into what constitutes a successful distance education programme from the perspectives of the distance learners. Furthermore, since the notion of employability is often associated with an analysis of career patterns, we will look into the possibility that graduates from distance education programmes prefer a more individual model of work and borderless career to a linear, hierarchical organisational career.

CHAPTER 4

METHODOLOGY

Within the context of self-perceived employability the present study investigated how distance education graduates perceived their own employability before they embarked on a distance learning degree programme and after successful completion of the programme.

Specifically the research questions were

1. What are the perceptions of recent graduates of the distance learning programmes at the School of Distance Education at USM regarding their employability prior to enrolling for a distance learning degree programme and after graduation?

2. Is there a significant difference between these perceptions before enrolment and after graduation?

In addition, with the choice of maintaining previous employment or moving on to another job, graduates of distance education programmes could provide interesting insights into the current debate on whether linear careers are being superseded by more flexible and adaptive careers. To explore all the above elements, both quantitative and qualitative data were solicited.

The study adopted a mixed methods approach which used two basic instruments, namely, a questionnaire and an interview. The instrument for the quantitative part was a questionnaire with statements incorporating employability standards. The development of this questionnaire that contains 12 items was mainly guided by that used by Smith and Katz (2005) in their work on perceived inclusion of such standards in the Family and Consumer Sciences Curriculum. We included five of the seven categories used by Smith and Katz (2005). The five categories were basic skills, thinking skills, personal skills, interpersonal skills and career development, all of which constituted different kinds of essential skills indicating employability standards (Smith and Katz, 2005; Rothwell et al., 2008; Heinemann, 1996; Knight and Yorke, 2002). To check for content and face validity of the questionnaire we consulted an independent panel of experts.

We first administered the questionnaire to 10 respondents randomly selected from the pool of recent (not more than 10 years) graduates of the school to check the clarity of the items. These respondents were not included in the main study. We found that shorter statements were better understood while long statements, similar to those used by Smith and Katz (2005), seemed confusing to the respondents. We also realised that, probably due to time constraints, questionnaires with numerous items were not so well received by the respondents.

The questionnaire was consolidated after taking into consideration the modifications recommended by the panel as well as

the short-comings revealed by the first administration. The final questionnaire consisted of 12 statements with two five-point Likert scales with anchors strongly disagree (1) to strongly agree (5). The first Likert scale measured the respondents' perceptions of their employability standards before enrolling for the programmes while the second scale measured their perceptions after graduation. The 12 statements were as follows:

1. *I am satisfied with my academic qualifications and skills.*
2. *I am able to understand instructions and information quickly and accurately.*
3. *I can communicate ideas, thoughts in a clear, concise and courteous manner.*
4. *I am able to find new ideas.*
5. *I can make good decisions based on rational thinking and facts.*
6. *People trust my ability to do a good job.*
7. *My knowledge and skills are suitable for my job.*
8. *I can adapt to a new working environment or a new task easily.*
9. *I feel confident if I have to develop a new career.*
10. *I receive the right pay/income for the work I am doing.*
11. *I have a good chance to get a better income or promotion.*
12. *I can qualify for the kind of jobs I really want.*

The sample population consisted of recent (not more than 10 years) graduates from the Science, Social Sciences, Arts, Management and Education degree programmes offered by the School of Distance Education. The respondents were randomly selected from a list of recent

graduates from all over Malaysia. Initial contacts were made via e-mails and telephone calls to determine a suitable date and venue for the researchers to meet them. The anonymity of the respondents was preserved as they were not required to state their name but only their race, age range, gender, current and previous occupations and degree programmes attended in the questionnaire. A total of 110 graduates took part in the study. However due to incomplete responses in the questionnaires we only considered the input of 104 respondents. Out of this number, 90 respondents agreed to be interviewed after answering the questionnaire.

A preliminary analysis of the 110 questionnaires revealed that six of the questionnaires were incomplete and therefore had to be excluded from the analysis. Based on the data from 104 respondents, a reliability test was conducted. Cronbach alpha values of 0.88 and 0.87, for the responses before enrolment and after graduation respectively, suggested that the reliability of the questionnaire was acceptable.

Descriptive data analysis was then performed by cross tabulating the respondents' demographic variables. Further analysis was presented with means and standard deviations of the responses to the items. This was followed by inferential statistical analysis to compare the respondents' perceptions before enrolment and after graduation. For this purpose a dependent *t* test, treating the perceptions of their employability standards before enrolment and the perceptions after graduation as matched variables was used. However, prior to using the *t* test, the Kolmogorov-Smirnov (KS) test of normality was performed on

the two sets of scores. The results indicated that the scores before enrolment and after completion of the distance education programmes were normally distributed. Significance levels were reported at the 0.05 level.

For the qualitative part an open-ended interview with 10 questions was used to help the respondents reflect upon whether and how the distance programmes had contributed to their employability and career advancements. This was to supplement findings from the quantitative data for the first research question. Based on a broader definition of employability (Peck and Theodore, 2000) and the notion that an individual's attitude towards career is related to family systems (Lee and Yi, 2010), the interview protocol was designed to investigate personal satisfaction (and that of the family's) after completing the degree programme, a sense of the worthiness of the degree compared to other similar qualifications as well as a credential for further studies. Aspects such as plans after graduation, job security, job responsibilities as well as treatment by colleagues and superiors were also probed. Additional indicators were similar to those used by Sharp and Sosdian (1979) to determine negotiability outcomes including the usefulness of the degree in obtaining a promotion or a better income, and in setting up a private business or venture. After the set of questions was checked by a panel of experts in distance education for content validity, it was pilot tested with the same 10 graduates mentioned earlier. Words or phrases that appeared ambiguous were replaced or deleted after the pilot test. The 10 questions are listed below.

Interview Protocol

1. *What was your most important objective when you decided to enrol for the degree programme by distance learning?*
2. *How did you feel immediately after completing your degree by distance learning?*
3. *How do you perceive your degree compared with other qualifications?*
4. *What was your plan after you graduated?*
5. *Did you change your job after you had obtained your degree? (If yes, to what extent did your degree contribute to your job change?)*
6. *Did you get a promotion or better pay after you had graduated? (If yes, to what extent did your degree contribute to this promotion?)*
7. *Do you now have more job responsibilities? (If yes, to what extent did your degree contribute to you having more job responsibilities?)*
8. *Do you think now your job is more secure with a degree?*
9. *How did your boss/colleagues/partners treat you after you had obtained your degree?*
10. *How did the skills that you had learned help you get started in your own business (or other ventures) without depending on others for a job?(If you were to start your own business (or other ventures) how would the skills that you had learned help you?)*

Question 10 had two versions. The first version was directed to respondents who had already started their own business while the second version was intended for respondents who had not entered into any business venture. On the average the actual interviews took 20-30 minutes each. A total number of 90 respondents were individually interviewed. The recordings of the interviews were transcribed for

analysis. NVivo 8®, a text-analysis software, was used to facilitate the analysis of data. Tree nodes were created for the responses to each of the 10 questions and nodes with high frequencies were considered to be characteristic of the sample population.

Respondents' Demographics

Out of the total of 104 respondents, 88 of these recent graduates were between 35 and 50 years old while 15 of them were between 25 and 34 years old. Only one respondent was more than 50 years old. All the respondents had some form of working experience before enrolling for the distance learning programmes. The other variables are cross tabulated and presented in Tables 1 and 2. Table 1 shows the distribution of respondents according to gender and race while Table 2 indicates the distribution of respondents according to programme and race.

Table 1 Distribution of respondents according to gender and race

	Malays/ Indigenous people	Chinese	Indians	Others	Total
Males	58	6	4	1	69
Females	32	3	0	0	35
Total	90	9	4	1	104

The majority of the respondents were Malays who formed the largest group of students registering for the programmes offered by the School of Distance Education at USM. There were also a few respondents from the indigenous tribes of Sarawak and Sabah, two

states in East Malaysia. The representation of races in this study does not reflect the composition of races in multiethnic Malaysia. The approximately 28 million people in the country are made up of about 50% Malays, 24% Chinese, 7% Indians and 19% from other groups. Table 1 also shows that males constitute about two-thirds of the total number of respondents.

Table 2 Distribution of respondents according to programme and race

	Malays/ Indigenous people	Chinese	Indians	Others	Total
Social sciences	32	1	4	1	38
Arts	28	2	0	0	30
Management	12	3	0	0	15
Science	17	3	0	0	20
Education*	1	0	0	0	1
	90	9	4	1	104

*This programme is no longer offered by the school.

The respondents have graduated from programmes that are skewed towards the social sciences, arts and management. A smaller number of graduates came from the sciences i.e. physics, chemistry, biology and mathematics. All the respondents have been variously employed in a wide range of jobs. Among them was a police officer, an immigration officer and a court official. A few worked as technicians in laboratories in government hospitals while a significant number were school teachers. These teachers who enrolled as certified teachers in government schools hoped to upgrade themselves and later return to serve in the school with a promotion.

Malay civil servants (including those in semi-government organisations) formed the bulk of our randomly selected respondents. Within the civil service, which is predominantly made up of Malays, there is provision for the upgrading of staff if they fulfil certain minimum conditions. The annual study leave granted enabled the distance learners to fulfil the 3-week residential block requirement at the School of Distance Education. In contrast, workers from the private sector might face difficulty in obtaining extended leave for study purposes while those who were self-employed sometimes suffered some form of financial loss.

CHAPTER 5

FINDINGS AND DISCUSSION

Having discussed the methodology we will now look at the findings of our study. We refer to our first research question which is as follows.

Research Question 1:
What are the perceptions of recent graduates of the distance learning programmes at the School of Distance Education at USM regarding their employability prior to enrolling for a distance learning degree programme and after graduation?

Table 3 shows the means and standard deviations of each item measuring the respondents' perceptions of their employability at the entry and exit points of their programmes.

Table 3 Respondents' perceptions before enrolment and after graduation

No.	Statement	Before enrolment		After graduation	
		Mean	s.d.	Mean	s.d.
1	I am satisfied with my academic qualification and skills.	2.6827	1.0544	4.4135	0.7454
2	I am able to understand instructions and information quickly and accurately.	3.6154	0.7671	4.4327	0.6501
3	I can communicate ideas, thoughts in a clear, concise and courteous manner.	3.3942	0.8749	4.5481	0.6213
4	I am able to find new ideas.	3.4423	0.7737	4.5481	0.6518
5	I can make good decisions based on rational thinking and facts.	3.4808	0.7756	4.5962	0.5833
6	People trust my ability to do a good job.	3.4615	0.8805	4.5192	0.6824
7	My knowledge and skills are suitable for my job.	3.5673	0.9112	4.3846	0.8737
8	I can adapt to a new working environment or a new task easily.	3.6442	0.8234	4.6154	0.5797
9	I feel confident if I have to develop a new career.	3.3269	0.9598	4.5673	0.6350
10	I receive the right pay/income for the work I am doing.	3.2019	1.0828	4.0288	1.0092
11	I have a good chance to get a better income or promotion.	3.0481	1.0370	4.4423	0.7482
12	I can qualify for the kind of jobs I really want.	3.2308	0.9056	4.5288	0.6225

As seen above, both sets of means are high indicating that the respondents generally have high perceptions regarding their ability to stay meaningfully employed and progress in their careers. However, for all the items, the means are higher for the period after graduating from a degree programme undertaken at the School of Distance Education at USM. This indicates that the respondents probably felt that their employability was higher after obtaining their degree.

With reference to specific items in the table, the respondents considered the distance learning programmes to have equipped them with higher qualifications and skills which were their bargaining points in seeking better employment and pay. Opportunities for promotions, higher incomes as well as preferred jobs were perceived to be higher at the exit point of the programmes. The respondents generally received the right pay for their jobs after graduation, suggesting that they had been appropriately rewarded. While a significant number of respondents perceived that their degree could bring financial gains only 13 respondents revealed in the interviews that they were promoted as soon as they had obtained their degree. It was found that together with career-related objectives, the satisfaction of obtaining a degree with its conferral of self-esteem and respect from others ranked highly among distance education graduates. A significant number of respondents also noted that their purpose for enrolling in a tertiary distance education programme was to get more knowledge and skills that came with the tertiary qualification.

Most of the respondents viewed their degree as equivalent to the qualification obtained by those enrolled in conventional face-to-face programmes. In addition, the newly obtained degree qualification motivated about half of them to consider pursuing a higher degree. A significant number of respondents indicated that their immediate focus after graduation was to get a promotion in their job. Our findings thus confirm that the findings of Sharp and Sosdian (1979) that a degree from non-traditional programme gave students a valid credential in institutions of higher education as well as in many employment settings.

As expressed in the interviews, a good number of respondents did not change their jobs despite having obtained a new and higher qualification. Most of the respondents remained in their jobs with some receiving a promotion. One of them said, "There are opportunities, in fact, many opportunities, to apply for the position of a science officer but I remain in (my) old job...I have not even once applied for a new job but I am happy in my job...although I did not apply for a new job with a better salary, I was promoted from the ordinary salary scheme to the senior salary scheme, from scheme 29 to 32." (Kota Bahru 01)

Among those who did not change jobs, seven respondents indicated that they had developed a liking for their job. They felt 'called' to continue serving in their old job. As a respondent put it, "Oh, no plans (to change jobs)...I have no plans to apply to teach in a secondary school. I see myself spending my life teaching in this primary school..." (Kuantan 01). Based on the qualitative data being reluctant to move to

another job was quite characteristic of the respondents who were civil servants.

One respondent who was given an executive position although he was still employed in the same organisation described his experience simply as changing the nature of daily job routine from a lot of physical activities to a more mundane activity of interacting with people. "In the previous position, I was the (train) station master in charge of operations. But now I am an executive...When I was the station master, I had to control the movement of trains as well as to look after the safety aspects. Now I have to go out and do marketing and interact with people." (Kuala Lumpur 10).

Another finding is that financial reward for government servants who have obtained a higher degree during their service varied among the different sectors within the civil service. Those in the teaching profession noted that promotions were slow in coming although they were eligible to apply for higher positions. Outside the teaching profession prospects were better, as indicated by two cases below,

> "I can get a jump (in salary and position as a teacher) but it looks like (I) have to wait for a few years. I have been waiting for almost 2 years..." (Kuala Lumpur 14).

> "...I am fortunate that I was promoted around 2005-2006 (less than one year after graduation) from a medical lab technician to senior technician with a higher salary...My salary increased by

25%. I was then promoted again to the post of a science officer with a much higher salary." (Kota Bahru 07).

According to Table 3, the respondents were also more confident in developing a new career. In terms of personal skills, they felt that their studies had enabled them to understand instructions and information better. They also felt that they were better able to communicate ideas, seek new information and make good decisions based on rational thinking and facts. Moreover, they believed that they could adapt to a new task or work environment. The newly acquired skills and knowledge led to more work and job responsibilities as well as the ability to adapt to new tasks. As a respondent put it, "Yes, it (the degree) is a factor in causing us to have more job responsibilities. The degree that we got...we could use it, or rather the knowledge or skills that we got can be applied in our job." (Alor Setar 53). Another respondent from Johor Bahru commented, "I find that there is a lot of difference in my mental capacity and development. Before I graduated I usually did what I was told. But after I had graduated I am taught how to build ideas. It is helps me (in my job). In other words, it builds up my ability to make decisions. There are now more responsibilities for me but my salary remains the same. I am now doing the work of an officer, the full range of duties including going to court and writing reports."

Although most of the respondents were civil servants they felt that their jobs were more secure with the knowledge and skills that they had acquired. As an enforcement officer said, "There is no difference in job security since we are in the civil service. However, we feel more

secure because we can now apply our knowledge into our job and thus we are now more confident in carrying out our duties. Others can see that we are confident in carrying out our duties. All this imparts a sense of job security in me." (Kuching 07).

The respondents also perceived that they had more respect and trust from their superiors and colleagues after they had successfully completed their studies. A police officer who had recently graduated said, "I now have more job responsibilities than when I was serving in Kubang Pasu (name of a district in the state of Kedah). I believe the reason is due to the trust from my superiors. In my capacity as an investigating (police) officer, I can be selected by anyone above my rank, including the top police officer of the country or his deputy, for a particular case. They would choose an investigating officer. I don't know what the criteria are but it will certainly be from among those they trust. So I need to perform my responsibility to the best of my abilities." (Alor Setar 54)

Overall perceptions regarding the impact of the distance learning programmes were positive. It was evident that most respondents possessed a malleable self-belief as they indicated the possibility of further development and were willing to engage in difficult tasks. In particular, workers within the civil service seemed to possess a positive outlook on their employability. Distance learning degree programmes seemed popular among civil servants, providing them opportunities for advancement in the same sector. In the interviews most of the respondents did not explore career possibilities beyond their familiar

settings and hardly indicated the importance of graduate outcomes that encompass globalisation, cross-cultural and international perspectives. Career success for civil servants in this study seems to be more organisationally driven than expected. A respondent commented, "I am very comfortable with my present career and I feel that the future for me will only be better (in the civil service). So I have decided not to go anywhere else. If I go elsewhere I have to learn new things in my new job. I have already worked in my present position for 13 years, so I already know what I need to do (in my job)." (Kuala Lumpur 02).

So far the discussion is on the positive perceptions of the respondents with regard to their employability after graduating from distance learning courses. From a statistical point of view, it is important to determine whether perceptions before enrolling for the courses were significantly different from those after graduation. This brings us to the next research question.

Research Question 2:
Is there a significant difference between these perceptions before enrolment and after graduation?

The null hypothesis of the study is that there is no significant difference in the respondents' perceptions before and after undergoing the distance learning programmes. To test this hypothesis a dependent *t* test was performed comparing the mean scores of all the 12 statements at entry and exit points. Table 4 shows the overall means and standard

deviations of the respondents' perceptions at entry and exit points while Table 5 displays the *t* statistics for the paired differences.

Table 4 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Before enrolment	3.3413	1248	.9429	.0267
	After graduation	4.4688	1248	.7235	.0205

As shown in Table 4, the overall mean is higher for the period after graduation (M=4.47, SD=0.72) than before enrolment (M=3.34, SD=0.94). Table 5 shows that at the confidence level of 0.05, the difference is statistically significant $t(1247)= -36.14$, $p= .000$. The null hypothesis is thus rejected.

Table 5 Paired Samples Test

	Paired Differences					*t*	df	Sig. (2-tailed)
	Mean	SD	Std. Error Mean	95% confidence int of the difference				
				Lower	Upper			
Pair 1 Before enrolment After graduation	-1.1274	1.1021	.0312	-1.1886	-1.0662	-36.137	1247	.000

The finding that perceptions regarding employability after graduation were significantly higher than perceptions before enrolment reinforced the fact that distance learning programmes did seem to have produced a positive effect on employability. After undergoing the

degree programme the respondents perceived themselves to be more equipped with skills to succeed at the workplace and were more confident about progressing in their career or opting for a new career. The finding also showed that employability could change as a result of the impact of education on individual characteristics, skills or abilities, and is never a static measure. It is interesting to note that individuals in the face-to-face degree programme in the 'strongest British university brand' in the study conducted by Rothwell et al. (2008) were the least confident in their perception of employability. In contrast, graduates from distance education programmes from a public university in Malaysia were positive in their perception of employability.

In conclusion, the USM distance programme shows that distance education has the potential for enhancing multiple individual attributes, skills, abilities, ambitions and self-confidence which relate to the internal dimension of self-perceived employability. It is able to provide social mobility and does have pedagogical merits as evident from the significant difference in the graduates' perceptions at the entry and exit points of their programme. Together with career-related objectives, the satisfaction of obtaining a degree with its conferral of self-esteem and respect from others ranked highly among these distance education graduates. While graduates from such programmes may be generally positive regarding their employability they hardly explore possibilities outside their own domain of work, focusing mainly on an organisational career rather than a borderless one. However, it should be noted that most of our respondents are from public sector. Further work on distance education programmes with the majority of students from the

private sector may provide insights on whether a more individual model of work and borderless career is preferred. Our findings thus contribute to a reliable conceptualisation of self-perceived individual employability among distance education graduates. Our scale to measure self-perceived employability among distance education graduates could thus be used in a range of contexts since it does not include any course or culturally specific items.

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ABSTRACT

This monograph is about a study that investigates the perceptions of recent graduates of Universiti Sains Malaysia, a public university in Malaysia, on their employability before and after undergoing a tertiary distance education programme. The study explores the constructs which relate to the internal dimension of self-perceived employability. These constructs are measured using a questionnaire with a five-point Likert scale. An interview is also used to obtain qualitative data to supplement the quantitative findings. A dependent t-test suggests perceptions at the entry and exit points of their programme to be significantly different. Implications of the graduates' perceived employability are discussed.

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