

THE NEED FOR PARTICIPATION IN OPEN AND DISTANCE EDUCATION: The Open University Malaysia Experience

Santhi RAGHAVAN
(Corresponding author)
Faculty of Business & Management
Open University Malaysia,
Kuala Lumpur, MALAYSIA

P. Rajesh KUMAR
Faculty of Science
Open University Malaysia,
Jalan Tun Ismail, 50480
Kuala Lumpur, MALAYSIA

ABSTRACT

This paper provides an overview of adult learner participation in open and distance education by focusing participation needs based on selected socio-demographic variables such as age, years of working experience and monthly income. The related study involved a sample of 454 Open University Malaysia students from a number of learning centres located in different parts of the country.

The study found that adult learners are generally below the age of 39, relatively not affluent, have less than 20 years of work experience and have a high need for participation. The highest need is professional advancement, followed closely by cognitive interest, and communication improvement while the lowest reported need is escapism/social stimulation. Age and work experience exhibited negative regression coefficients, indicating inverse associations with participation need. These results are comparable to the findings of previous research on the role of age, work experience and monthly income as factors determining participation in adult higher education.

Keywords: Adult learners, Learner needs, Participation, Open and Distance Education.

INTRODUCTION

Open and distance education is increasingly seen as a powerful vehicle for delivering educational opportunity to adults from all walks of life. As practiced in Open University Malaysia (OUM), open and distance education is best referred to as an educational process where learners take responsibility for their own learning. Instructional delivery relies on a combination of face-to-face interaction, which offers the opportunity to deliberate on concepts, ideas and thoughts related to course content, and on the use of educational media such as print modules, audio and radio broadcasts as well as computer supported interaction.

Recent developments in education have seen the advent of distance learning in both traditional universities as well as in open and distance learning institutions.

The term "traditional" is used to denote the main, full-time course approach that has been evident in higher education (Lawton & Barnes, 1998). Face-to-face lectures and tutorial sessions are often held on a weekly basis with the opportunity for closer scrutiny and criticism from lecturers and course mates.

There is also extensive use of teacher-directed forms of instruction in lecture rooms, laboratories and other controlled educational settings. Open and distance learning, however, consists of a flexible learning phase where the learner is in charge of his/her own learning and development. Open learning is a term used to describe courses flexibly designed to meet individual requirements. It not only tries to remove barriers that prevent attendance, but it also suggests a learner-centered philosophy.

The major difference between traditional on-campus programmes and open and distance education programmes lies in the mode(s) of instruction being used to instruct students, the degree of maturation of the two learner groups, the physical location of the students, and the degree of responsibility placed on the students to master and demonstrate understanding and competence in the content of courses and curricula (Boone, 1990).

One reason for the advancement of open and distance education in Malaysia is the perceived inequality in opportunities for higher education between working adults and full-time university students. When the National University of Science Malaysia (USM) was set up in 1969, it was conferred the unique distinction of offering courses for part-time students, besides providing courses for regular on-campus students. However, it is worth mentioning that when USM pioneered distance education in the country in 1971, few Malaysians took advantage of this mode of learning.

Today, after 37 years, interest in distance education has grown and its use has expanded in Malaysia. To establish socio-economical credibility, programmes offered through the distance education mode are similar to those available in the formal public university education system. Course delivery, however, is tailored to suit the demands of the home-based learner. Most local public universities in provide distance learning programmes. In 1999, a new private university, Open University Malaysia (OUM), was established to co-ordinate the open and distance learning programmes of all 11 local public universities in the country.

Such developments are partly in recognition of the need to provide greater opportunity for more adult students to pursue programmes of study leading to the award of an appropriate qualification of their choice. Using the growth rate of student enrolment in Malaysia as an indication, educational growth inspired by distance education has been significant (Dhanarajan, 1990). However, there is a need to understand the motivation spurring participation in distance education so that higher education can provide for the exigent needs of the Malaysian labour force. Research of this nature, we hope, will inspire policy-makers to formulate distance education programmes that are tailored for the unique circumstances of the adult learner in Malaysia.

ADULT PARTICIPATION IN HIGHER EDUCATION

Open and distance learners in all parts of the world are often challenged to perform amid difficult circumstances. Their learning endeavours are often influenced by a myriad number of determinants such as type of vocation, job sector and discipline (such as engineering or health services).

These factors have the potential for influencing an individual's perception of what motivates or hinders success in distance education (Berge, Muilenburg and Haneghan, 2002). The effects of social and psychological forces, i.e. variables that include marital status, number of dependent children and occupation, can undermine learner motivation and persistence (Deci, Ryan and Williams, 1996). For these reasons, open and distance educators should assist learners identify sources of power and factors that will support persistence in open and distance education.

In order to encourage continued participation in open and distance education, learner needs and reasons for participation have to be identified at the onset. Merriam and Caffarella (1991) state that in pre-industrial times, the knowledge that a person needed to succeed as an adult could be accumulated during childhood. But as technology expanded, adults found that additional skills were necessary.

Today, a high percentage of individuals attend college and participate in supplementary courses or seminars in order to acquire better jobs, as well as to improve their skills (Merriam and Caffarella, 1991). Various organizations and universities support the education industry by providing educational programmes. Sometimes, government entities mandate that their employees participate in training programmes conducted by agencies such as the National Institute of Public Administration (INTAN), Institute Aminuddin Baki (IAB) and National Productivity Centre (NPC).

Cervero (1995) argues that as these educational programmes are intended to benefit the individual learner *and* the employer, it is thus essential that the needs of individual learners be high on the priority list. Wlodkowski (1986) has defined this need as a condition experienced by the individual, and one that acts as an internal force leading one to move in the direction of a goal. However, many universities fail to conduct needs' assessments, and instead choose to plan programmes on the basis of tradition, public relations appeal, intuition or greater utilization of existing resources.

As older, working adults now form the majority of students in Malaysian higher education institutions it is axiomatic that traditional programmes that cater for youth education do not fully prepare a person for the challenges of adult life.

THE STUDY

The study aimed to examine the socio-demographic profile of students who participate in open and distance education, as well as to determine the reasons for participation by the workforce. For these reasons, the study employed survey methodology to reach out to adult distance learners enrolled for study at 53 (2006 statistics) OUM Learning Centres in the 14 Malaysian states. To determine the needs of adult students to participate in distance education at the university level, the study utilized an established education participation scale by Boshier (1971) called the Education Participation Scale (EPS).

Boshier's EPS has been applied in numerous studies and has subsequently been established as a standard scale for measuring the level of participation in education. A number of studies (Dorn, 1987; Poltechar, 1987; Valentine & Darkenwald, 1990 and Dixon, 1986) have been conducted supporting the continued use of Boshier's EPS to assess the needs of adults in educational settings (Dirkx, 2000; Truell & Turner, 1997). In this study, Boshier's EPS formed the basis of our research framework for measuring adult learner participation in OUM programmes.

The dependent and the independent variables adopted in this study were need for participation and socio-demographic variables, respectively. The participation needs variables consisted of Boshier's EPS seven factors, which were: communication improvement, social contact/social relationship, educational preparation, professional advancement, family togetherness, escapism/social stimulation and cognitive interest. The socio-demographic variables examined were: Age, work experience and monthly income. For these reasons, only working adults were considered as part of the sample for the study.

The questions were formulated in such a manner that they had to be answered using a seven-point, Likert-type scale, where 1= 'It is not a need at all', 4= 'Average need', and 7= 'It is a very strong need'. Higher scores, therefore, indicate greater need.

To ensure participation from a representative group, a stratified sampling design was used. The survey sample covered all 14 Malaysian states and the Krejcie & Morgan (1970) formula was used to determine the minimum sample size, at a 95% confidence level. A pilot study to validate and improve the instrument was conducted in Science University Malaysia (USM) and at the International Islamic University Malaysia (IIUM). This was followed by a survey using the validated and improved instrument via direct administration.

Following the pilot test, a Cronbach alpha reading of more than 0.7 was shown in all components tested in this study. A total of 454 valid responses (83% return rate) were used from the 550 questionnaires sent to selected workforce learners participating in open and distance education in Open University Malaysia.

The Exploratory Data Analysis (EDA) technique was used to establish patterns in the data, followed by Pearson Moment Correlation and multiple regression. Confidence levels of 0.05 were established for all tests of significance applied to the data.

RESULTS AND DISCUSSION

The findings of the study are presented as follows. First the socio-demographic profile of the Malaysian adult-learner participating in OUM is described. Second, the levels of participation according to socio-demography are determined.

Subsequently, the strength of the relationship between selected socio-demographic variables and participation needs is determined. Finally, the contributions of the selected independent variables to participation needs are presented.

Socio-demographic Profile

It was found that 78% of the respondents are young adults below the age of 39. The average age of the typical respondent is 33 years. Our results corroborate those of Valentine & Darkenwald (1990), MacBrayne (1995) and Johnstone and Rivera (1965), which show that adult learners who choose to enrol in distance education programmes are those aged between 18 and 40.

Older working adults tend to be less participatory, possibly due to the fact that getting a promotion is no guarantee despite having obtained additional tertiary qualifications

In the survey, 69.4% of Malaysian Malays, 13.2% of Malaysian Chinese and 9.3% of Malaysian

Indians participated as respondents. The remaining 8.1% of the respondents were made up of smaller race groups. However, it is important to remember that this is not a true reflection of how the major races are represented-population wise-in Malaysia.

For example, in the 2000 national census, Malays comprised 65.1% of the total population, Chinese 26.0%, Indians 7.7% and others 1.2% (Population and Housing Census, 2000). In our study, both Malays and Indians show a marginal increase in participation rate in relation to their proportion of the population. By contrast, the Chinese demonstrate a lower participation rate. A higher participation rate is also demonstrated by the indigenous groups of East Malaysia, vis. Sabah and Sarawak. Even though they constitute only about 1.2% of the total Malaysian population, their participation rate was found to be 8.1%.

This may be due to greater accessibility to open and distance education in Sabah and Sarawak in comparison to direct higher education from public universities. Additionally, the entry requirements for distance education provide for a greater amount of participation.

The study also found that the majority (78.6%) of the learners are married adults. Of the rest, 19.8% of the respondents are single, 0.2% widowed and 1.3% divorced.

A majority of the respondents (86.6%) have dependents to care for, with more than half (58.4%) of the respondents having less than 3 dependents. Earlier studies have found that adult students were more likely to have families (Merriam and Caffarella, 1991; and MacBrayne, 1995).

About half of the respondents (49.8%) have not had prior tertiary education, reflecting a common need underpinning participation in tertiary-level distance education. However, this finding contrasts with those of Darkenwald and Merriam (1982), Cross (1984), and Courtney (1992), who found that a positive relationship exists between level of education and level of participation in adult education. In their research, they found that adults with higher levels of education participate more actively compared to those with lower levels of education.

The distribution of the respondents by monthly income indicates that the sample is relatively not affluent. We found that a high percentage (94.8%) of our respondents earn less than RM 3000 a month. About 10.4% have incomes of less than RM1000 while 84.4% have incomes that range from RM 1001 to RM 3000. A majority of them (89.2%) travel less than 100 km to their learning centres. A majority of the respondents (93.0%) are adult learners with 64.5% of them coming from the government sector. It was also found that more than half of them (56.8%) have less than 10 years of working experience while less than a third (31%) have more than ten years of working experience.

Level of Participation Needs

The respondents were asked to indicate needs levels on a seven point scale, ranging from (1) 'It is not a need at all' to (7) 'It is a very strong need'. The data were subsequently recoded as *Low* for responses on the lower end of the scale (1.0 - 3.0), *Moderate* for responses on the centre of the scale (3.1 - 5.0) and *High* for responses on the higher end of the scale (5.1 - 7.0).

Our findings show that younger adults (ages < 39) have higher needs than those in any other age group. Older adults (ages >40) participate with moderate needs. This does not appear to have anything to do with the education level, income difference, or labour status of older adults. Rather, it is more likely to do with the interests of older adults or of the attractiveness of the programme being offered.

In this study, more women responded to the questionnaire (55.5%) in comparison to men (44.5%), a figure that does not reflect the national female-male ratio.

In Malaysia, men actually outnumber women (Population and Housing Census, 2000), with more women than men in the managerial, professional, executive and teaching vocations. In relation to this, the current study found that men participate in open and distance education with high needs (mean=5.23) while women participate due to moderate needs (mean=5.02).

In contrast to this finding, MacBrayne (1995) reported that women had higher needs to participate, due in part to goal attainment, seeking information, seeking degrees and location/circumstantial reasons.

It is of interest to note that middle-aged and older adults (ages 40-49, 50-59 and >60) have moderate needs (5.01, 4.83 and 3.98 respectively) towards participation, needs that seem to decline as they get older. The findings also show that all ethnic groups have almost similar needs for participation. Malays (mean=5.15) and Indians (mean=5.06) have slightly higher needs compared to the Chinese (mean=5.02) and others (mean=5.01). Both married and single respondents have high participation needs (mean=5.12 and mean=5.12). It was also found that both widowed and divorced respondents had moderate participation needs with means of 4.91 and 4.80, respectively.

Participants with or without dependents have a high level of needs. Interestingly, we detected a decline in the level of needs as the number of dependents got smaller.

The findings also show that SPM (equivalent to O-level), post-secondary certificate and diploma holders have high participation needs (mean= 5.30, 5.06 and 5.29 respectively) in comparison to STPM (equivalent to A-level) holders and others who have moderate participation needs (mean 5.03 and 4.87 respectively). The reason behind these findings may be that those who do not have basic higher education such as diploma or degree may be more likely to participate in tertiary education. This is again in contrast with findings in previous studies conducted by Kim et al. (1995) and Valentine (1997), where positive relationship between education level and participation in adult education was evident.

The study revealed that the highest mean for participation needs (mean=6.36) is from respondents who earn more than RM 5001 monthly. Other categories with high means are from those earning below RM 1000 (mean=5.12) and from RM 1001 to RM 3000 (mean=5.13). Respondents with earnings in the category of RM 3001-RM 5000 have moderate participation needs (mean=4.82).

Almost all categories of working experience have high participation needs that seem to decrease as the respondents get more experience. The means and standard deviations for the seven factors of participation needs are presented in Table 1. The highest reported need was for the professional advancement variable (mean=5.36).

This shows that adult learners are motivated to participate in open and distance education when that involvement will lead to professional advancement. As reported earlier in this paper, professionally active adults constitute the majority of open and distance students in Malaysia.

Historical evidence makes it safe to assume that distance education (in the form of pure correspondence study) was created to provide educational opportunity for students who could not attend full-time schools or university for financial, social, geographical or medical reasons. By the same token, open and distance education was, and is, a means of providing adult education, based on a belief in the value of education for professional promotion and for improving one's social status.

Professional advancement is followed closely by cognitive interest (mean=5.31) and communication improvement (mean=5.30).

The lowest reported needs were the need for social contact (mean=4.61) and escapism/social stimulation factors, with means of 4.61 and 3.99, respectively. About 98% of the respondents fall in the category of moderate to high levels of participation needs, results which are similar to the findings of Truell & Turner (1997).

Previous research based on surveys also shows that adults have often cited job-related reasons as the main reason for participation in adult education (Kim et al. 1995).

Table: 1
Characteristics of Individual Participation Needs (n=454)

Variables	Level	f	%	\bar{x}	SD	Level
Professional Advancement	Low	11	2.4	5.36	1.05	High
	Moderate	171	37.7			
	High	272	59.9			
Cognitive Interest	Low	9	2.0	5.31	0.92	High
	Moderate	159	35.0			
	High	286	63.0			
Communication Improvement	Low	8	1.8	5.30	1.02	High
	Moderate	170	37.4			
	High	276	60.8			
Educational Preparation	Low	13	2.9	5.10	0.96	High
	Moderate	193	42.5			
	High	248	54.6			
Social Contact	Low	52	11.5	4.61	1.23	Moderate
	Moderate	236	52.0			
	High	166	36.6			
Family Togetherness	Low	15	3.3	4.57	1.34	Moderate
	Moderate	181	39.9			
	High	258	56.8			
Escapism/Social Stimulation	Low	117	25.8	3.99	1.36	Moderate
	Moderate	236	52.2			
	High	100	22.0			
Total Participation Needs	Low	6	1.3	5.11	0.90	High
	Moderate	190	41.9			
	High	258	56.8			

Note: Low = 1.0 - 3.0 Moderate = 3.1 - 5.0 High = 5.1 - 7.0

The relationship between selected socio-demographic variables and total needs for participation is presented in Table: 2.

The strength of the relationship between variables was determined through Pearson product moment correlations. Among all the selected socio-demography variables, number of dependents has a significant relationship with education preparation needs ($r=0.118$).

Work experience has a significant relationship with professional advancement needs ($r=-0.111$), escapism/social stimulation needs ($r=-0.117$) and cognitive interest needs ($r=0.117$).

There is also a significant relationship between monthly income and social contact need ($r=-0.106$) and professional advancement need ($r=-0.105$).

However, as shown in Table: 2, the relationship registered between these variables is weak.

Table: 2
Relationships between Selected Socio-Demography and Individual Needs

Variables	Age	p	No. of		Work		Monthly	
	r		Dependent	s	Experience	r	p	r
			r	p	r	p	r	p
Communication Improvement	-0.066	0.160	0.157	0.001	-0.055	0.236	-0.019	0.000
Social Contact		0.134	0.129	0.006		0.236		0.025
Educational Preparation	-0.070	0.028	0.118*	0.012	0.055	0.333	0.106*	0.008
Professional Advancement	-0.059	0.000	0.049	0.000	-0.045	0.018	0.125	0.026
Family Togetherness	0.059				0.045		0.105	
Escapism/Social Stimulation	-0.013	0.353	0.069	0.000	-0.012	0.112	*	0.192
Cognitive Interest	0.082	0.001	-0.001	0.826	0.11*	0.012	-0.061	0.001
	0.044	0.111	0.010	0.010	0.075	0.012	0.154	0.652
	-0.058		0.056		-0.017*		0.021	
	0.075				0.017*			

*Significant at p<0.05

Table: 3 shows that there is a significant (R=0.205) but weak correlation between selected socio-demography variables and participation needs.

The regression model indicates that the selected variables were able to significantly predict 4.2% of the variance in needs.

The significant F value of 2.444 indicates that the variables used in the data fit the data set, contributing to a small percentage of variance among participation needs.

Table: 3
Multiple Regression Results between Socio-demography and Total Participation Needs (n = 454)

Variables	B	Beta	t	p
Age				
Work Experience	-1.450	-0.264	-2.490	0.013*
Monthly Income	1.260	0.213	1.970	0.049*
Constant	-0.003	-0.076	-1.360	0.175
	263.570		16.68	0.000
<hr/>				
R=0.205	R ² =0.042	Adj. R ² = 0.025	F =2.444	Sig. F= 0.014

In terms of the general findings of this study, the result point to an important finding: the four factors of *Professional Advancement*, *Cognitive Interest*, *Communication Improvement* and *Educational Preparation* recorded a high level of need to participate in open and distance education, the other three, vis, *Social Contact*, *Family Togetherness* and *Escapism/Social Stimulation* recorded a moderate level of need.

More significant is the fact while the four factors that recorded a high level of need appear to be related to the 'professional-organisational' exaltation the other three that recorded a moderate level of need appear to be related to the 'personal-humanistic' exaltation of the self. Additionally, it may be asserted that the general profile of the workforce participant in adult distance education may be characterized as follows: is more often a woman than a man; is typically under 40 years of age; has completed secondary school or some form of post-secondary education (but not tertiary education); earns, on the average, an income of less than RM3,000.00 per month; works full-time; and is a member of the permanent workforce; is either single or married rather than being divorced or separated; and is encumbered or has dependents.

IMPLICATIONS AND RECOMMENDATIONS

This study has been limited in terms of the number and disposition of the respondents as well as the methodology employed during data collection. Respondents who frequently attend classes and are active learners may have formed the larger part of the sample since attendance to lectures is not compulsory in Open University Malaysia. The quantitative measures also may not have captured all facets of participation in distance education. Nevertheless, the study has been useful in highlighting a number of points that may be worthy of mention for the purpose of programme planning and policy development in open and distance education.

In justifying the findings above where the highest reported need was professional advancement, education planners will do well to link open and distance learning programmes with the professional needs of the labour force, and with the needs of the working adult.

Houle (1961) lists out six classic needs of a practicing professional: keeping up with new knowledge related to a profession; establishing mastery of the new concepts in a profession; continued study of basic disciplines which support a profession; growing both individually and professionally, keeping both a fresh viewpoint and a firm grip on detail; looking for better ideas and procedures but never abandoning essential conception or routines; and retaining the power to learn.

This also supports Halliday's claim (1989) that professionalism is a planned process aimed at enhancing the effectiveness of the working adult learner, collectively or individually, through new knowledge, new ideas and changing circumstances, thereby improving the quality of the profession. In other words, professionalism comprises two main elements:

- the fulfillment of adult learning needs and
- ensuring personal and career development of the learner.

Secondly, adult development training involves learning for the purpose of self-fulfillment, social roles and assigned roles or vocations. Often, a working adult tries hard at the workplace to fulfill his or her intrinsic and extrinsic need as suggested by Maslow in his hierarchy of basic needs. The integration of these roles is likely to bring about positive changes and further development between the worker and his boss.

As expressed succinctly by Handy (1993), a satisfied worker is not necessarily a productive worker. For these reasons, an important ingredient in needs assessment and programme design is the direct and purposive involvement of the learners in the whole process. Such an exercise can have two purposes: First, to help the educator-provider understand and interpret the needs and relevance of the programme to the learner, and thereby reduce deterrents to learning.

Secondly as discussed previously, such an initiative could also help the learner understand his own needs better and relate it to the relevance of the programme. This can be done by implementing strategies such as getting the adult-learner to recruit would-be learners, and to get enrolled learners to establish rapport and share experiences with their working peers. For the doubting non-learner, such positive peer influence could be enough to dispel the myth that "older working adult cannot learn."

The finding that escapism/social stimulation demonstrated a moderate level of needs (52.2%) warrants further investigation. A study that more thoroughly examines this need in relation to participation would provide important information about the nature of the learner who is drawn to open and distance education. It may well be the case that open and distance institutions ought to provide more non-credit bearing and non-academic courses, such as those with aesthetic appeal, in order to cater to the need for recreational and therapeutic fulfillment of the socio-emotional self. In a similar vein, the finding that family togetherness and social contact recorded moderate levels of participation draws attention to the fact that education carries a strong group-oriented and communal bearing. While this appears to be in sync with the traditional Asian value-system, it also underscores the need for professional networking and establishing new contacts in the working arena. Thus, it is incumbent upon educators and policy developers alike to consider these factors during programme planning, and in the implementation of courses.

CONCLUSION

This study revealed that factors related to professional, organisational and personal self-development define adult learners' needs to participate in open and distance education. Further, the need for professional advancement, cognitive interest, communication improvement, educational preparation, social contact, family togetherness and escapism/social stimulation cannot be ignored in the planning, designing and implementation of open and distance education programmes. Further research on the dependent and independent variables explored in this study is necessary to establish a pattern of needs for adult learner participation in distance education in Malaysia.

BIODATA and CONTACT ADDRESSES of AUTHORS



Santhi RAGHAVAN is the Deputy Director of the School of Lifelong Learning and a Senior Lecturer of the Faculty of Business & Management in Open University Malaysia. She holds a PhD in Training Management from University Putra Malaysia. She specializes in management, business studies, human resource management and training management.

Santhi RAGHAVAN

Faculty of Business & Management
Open University Malaysia,
Kuala Lumpur, MALAYSIA
Fax: 603-2691 0392, Tel: 603-2616 8807
Email: santhi@oum.edu.my



P. Rajesh Kumar has been in the education line for almost a decade. Currently, he is the Vice-Dean of the Faculty of Science in Open University Malaysia. Rajesh holds a Masters degree in Physics from the University of Malaya and plans to embark on his PhD studies very soon. His research interests include physics education and theoretical physics.

P. Rajesh KUMAR
Faculty of Science
Open University Malaysia,
Jalan Tun Ismail, 50480
Kuala Lumpur, MALAYSIA
Fax: 603-2697 8830, Tel: 603-27732149
Email: rajesh@oum.edu.my

REFERENCES

- BERGE, Z. L., Muilenburg, L. Y., and Haneghan, J. V. (2002). Barriers to distance education and training: Survey results. *The Quarterly Review of Distance Education*, 3 (4), pp: 409-418.
- BOONE, E. J. (1990). *A perspective on self-directed learning and its implication for adult students enrolled in USM's off-campus academic programme*. Paper presented in a teletutorial with USM off-campus students, Universiti Sains Malaysia, Pulau Pinang.
- BOSHIER, R. (1971). Motivational orientations of adult education participants: A factor analytic exploration of Houle's typology. *Adult Education*, 21, 3 -26.
- CERVERO, R. M. (1995). *An overview of continuing education for the professions in the United States of America*. Paper presented at the conference on Continuing Professional Development: Towards Effective Practice, Universiti Putra Malaysia, Serdang, Selangor.
- COURTNEY, S. (1992). *Why adults learn: Towards a theory of participation in adult education*. London: Routledge.
- CROSS, K. P. (1984). *Adults as learners*. San Francisco: Jossey-Bass.
- DECI, E. L, Ryan, R. M, & Williams, G. C (1996). Need satisfaction and self-regulation of learning. *Learning and Individual Differences*, 8, 165-183.
- DHANARAJAN, G. (1990). *Universiti Sains Malaysia: Distance Education- A Spectrum of Case Studies*. Kogan Page Ltd. London.
- DARKENWALD, G. G., & Merriam, S. (1982). *Adult Education: Foundations of Practice*. New York: Harper & Row.
- DIRKX, J. M., (2000). *Module on adult learning: Overview-Mapping the research and theory on adult learning*. Retrieved on 14 February 2005 from, <http://www.msu.edu/~dirkx/adult%20learning%20module.html>
- DIXON, G. R. (1986). *A study of the characteristics, motivation and perceptions of adult part-time students at North Carolina State University*. North Carolina State University.
- DORN, D. K. (1987). *Continuing Professional education Motivational orientation of state supervisors of agricultural education*. Unpublished doctoral dissertation. The Ohio State University.

- HALLIDAY, I. (1989). *Teacher management and records in educational school system*. Resource Book for Educational Administrators, Commonwealth Secretariat. London.
- HANDY, C. (1993). *Understanding Organizations*. Penguin. England.
- HOULE, Cyril. 1961. *The Inquiring Mind*. Madison: University of Wisconsin Press.
- JOHNSTONE, J. W., & Rivera, R. J. (1965). *Volunteers for learning*. Chicago: Aldine.
- KIM, K., Collins, M. A., Stowe, P. & Chandler, K. (1995). *Forty percent of adults participate in Adult Education Activities: 1994-94 (NCES 95-823)*. U.S. Department of Education. Washington, DC: U.S. Government Printing Office.
- KREJCIE, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- LAWTON, S. & Barnes, R. (1998). Developing distance learning courses in a "traditional" university. *Quality Assurance in Education Journal*. 6(2), 106-111.
- MACBRAYNE, P. (1995). *Rural adults in community college distance education: What motivates them to enroll? In New directions for community colleges* (pp. 85-93). San Francisco, CA: Jossey-Bass.
- MERRIAM, S. B. & Caffarella, R. S. (1991). *Learning in adulthood: A Comprehensive guide* (2nd Ed.). San Francisco: Jossey-Bass.
- POLTECHAR, B. (1987). *A study of motivational orientations of the teachers attending community-base in-service teacher education programs in northeastern Thailand*. Unpublished doctoral dissertation. University of Southern Illinois.
- Population and Housing Census (2000). Retrieved on 20 February 2007 from <http://www.statistics.gov.my?English/pressdemo.htm>
- TRUELL, A.D., & Turner, P.A. (1997). *The motivation to participate in distance education: an analysis based on Houle's typology*. Retrieved on 9 October 2004 from www.bcte.ecu.edu/ACBMITEC/p1997/Truell2.htm
- WLODKOWSKI, R. J. (1986). *Enhancing adult motivation to learn*. San Francisco: Jossey-Bass.
- VALENTINE, T., & Darkenwald, G. G. (1990). Deterrents to participation in adult education: Profiles of potential learners. *Adult Education Quarterly*, 41(1), 29-42.
- VALENTINE, T. (1997). United States of America: The current predominance of learning for the job. In P. Bleanger and S. Valdivielso (eds.), *The emergence of learning societies: Who participates in adult learning?* New York: Elsevier.

