

**MALAYSIAN WORKFORCE AND OPEN & DISTANCE EDUCATION: DETERRENTS  
AFFECTING NEEDS TO PARTICIPATE**

Santhi Raghavan, PhD

Associate Professor

Faculty of Business & Management

Open University Malaysia,

Jalan Tun Ismail,

50480 Kuala Lumpur,

Malaysia

**ABSTRACT**

With the advancement of information and communication technologies, learning among workforce is more flexible and accessible, and at any time as well as at a reasonable cost. This paper discusses the current practices on workforce learning and assesses the deterrents faced by Malaysian human resource enrolled in open and distance education. Deterrents have potential for influencing workforce learners' participation in continuous education. These deterrents have to be identified and be provided for to ensure the achievement of their learning goals.

**Keywords:**

Workforce Learning, Open and Distance Education, Knowledge-based Manpower, Deterrents, Participation

## Introduction

Malaysia's national education policy was formulated in the context of the country's aim to attain fully developed nation status by the year 2020 by implementing knowledge-tailored planning documents such as the Third Outline Perspective Plan or OPP3 (2001-2010), the Ninth Malaysia Plan or 9MP (2006 to 2010), the Second Industrial Master Plan (1996 to 2005), Multimedia Super Corridor Project and Malaysia's Vision 2020. The education system has been reformed to ensure the development of a highly educated, highly skilled professional workforce to transform Malaysia from the production-based economy to the knowledge-based economy. The government has facilitated changes and sought innovative approaches to expand the educational base, covering not only schoolchildren but also adults who are working by promoting higher education at all levels to improve their academic background and competencies.

Trained, skilled and well-educated workforce is critical in enhancing work and economic performance and sustaining competitiveness as Malaysia transforms into an ICT-driven and knowledge-based society (Zainol, 1999). As Proenza (2001) aptly says "... In today's k-based economy, human capital is business capital. And staying close to the source of knowledge creation is not just a good idea; it is a business necessity." Needless to say, many adult learners face a number of problems such as domestic responsibilities, absence from employment, time management and financial liabilities when participating in full-time higher education. Fortunately, accessibility to education programmes through public and private universities and colleges offering part-time higher education are being provided so that Malaysian workforce has the opportunity to acquire new skills and qualifications. One such avenue is Open University Malaysia (OUM), which is offering degrees and diplomas right upto PhDs to adult students via open and distance education (ODL). ODL appeals to many Malaysian workforce because of the weekend day-time classes, flexible lecture time, low programme fee, convenient location of learning centres, wide choice of university learning centres, the proximity to home and familiar surrounding of people and neighbourhood. In addition, courses offered by OUM are carefully designed for the Malaysian workforce in mind. With the knowledge that this ODL provider has the support from the government and private sector, the enrolment among working adults is overwhelming. In just 9 years, due to its flexibility, the number of courses in OUM rose from 5 programmes with 753 students, to 71 programmes offered, with about 89,000 students enrolment (OUM Statistics, September 2009). Because the global economy requires a better-educated worker (Keegan, 1998), and due to the increase in the use of technology in the workplace, many adults seek more schooling (Burns 2001). According to Kachar (2003), adult learners are now the new majority in Malaysian higher education.

Learning via ODL has its own sets of problems: cost and affordability, lack of confidence, support services, inaccessibility to online learning, lack of time, domestic responsibilities, etc. Conditions in most workplaces are also not conducive either, due to unreasonable employers who often do not grant released time-offs, uncooperative peers, as well long working hours and stressful pace. The main investigation carried out here is to explore the deterrents affecting ODL for workforce, which is the underlying structure of the many reasons the working adults give for not being able to participate effectively in ODL.

The research carried out indicates that all respondents (100%) experience somewhat situational, institutional, dispositional and informational deterrent towards participation in ODL. Fortunately, the finding indicates that overall, the workforce learners in this study do not perceive the deterrents listed

to be of major concern. Nevertheless, in response to the need of accelerating the development of future knowledge-based Malaysian workers, recommendations to overcome the deterrents faced are also given for the workforce learners, educators, policy makers, and all those concerned in the formulation of educational policies for workforce learning.

### Literature Review

The concept of ODL is becoming more popular nowadays in the traditional university setting as universities reform to face local and global changes in human resource (Santhi et al, 2005). The term 'traditional' is used to describe full-time courses offered in higher education (Lawton & Barnes, 1998) where lectures are held behind closed doors, where face-to-face lectures and tutorial sessions are delivered on a frequent basis with extensive use of teacher-directed teaching. ODL, whereas, consists of the learner being in charge of his/her own learning and self-development where courses are flexibly designed to meet individual requirements, and it also suggests a learner-centred philosophy. The major differences between traditional on-campus programmes and ODL programmes are the instructional models 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 two student groups.

Houle (1961) published the first significant study on motivational orientations by adults toward education (Merriam & Caffaralla, 1999). Numerous studies have been conducted that supports the continued use of Houle's typology and Boshier's (1971) Education Participation Scale (EPS) which can be used to determine the needs of adult students who participate in an educational setting (Dirkx, 2000; Merriam & Caffarella, 1999; Truell & Turner, 1997; and Fujita-Starck, 1996 and Boshier, 1982). Cervero (1995) also argues that educational programmes are intended to benefit the individual learner as much as their employers and thus, it is essential that the needs of individual learners be high on the priority list.

The Deterrents to Participation Scale (DPS), developed by Scanlan & Darkenwald (1984) has been used for researches by Hubble (2000), Rezabeck (1999), Nahdi (1999), Hansen (1999), Galusha (1998), Murphy & Terry (1998), Quigley (1998), Belzer (1998), Miller (1997), and others, who have developed almost similar typologies or classification to identify what factors deter the participants from participating in adult education. The deterrents classifications are situational, dispositional, institutional and informational.

Situational and institutional are structural barriers, those that exist external to the learner and beyond his or her control. Situational barriers are such as lack of day care centres for the learners' children, lack of transportation, lack of family support for learning, health problems, financial or legal difficulties, and personal or family problems, which may not be under their control (Belzer, 1998). Institutional barriers are matters such as scheduling of classes, locations of programmes, and institutional red tape that may discourage participation or retention. Institutional barrier had the widespread support of researchers through their use of this categorization (Rezabeck, 1999; Garland, 1993; Brindley, 1988; Brookfield, 1986; Charner & Frazer, 1986; Darkenwald & Valentine, 1985; Scanlan & Darkenwald, 1984; and Thiel, 1984).

Dispositional deterrents describe barriers that are within the learner, such as fear of failure, unwillingness to try something new (Cross, 1981), lack of self confidence (Rezabeck, 1999), self-esteem and prior educational experience (Hubble, 2000). Quigley (1997) notes that dispositional barriers are the most significant for determining participation and retention in any adult learning programmes. He adds that early identification of at-risk learners in a programme, with appropriate interventions, can significantly reduce drop-out rates and increase retention. "At-risk" learners here

means, those learners who probably have the highest chance of dropping out in the first few critical weeks (Latifah & Mansor, 2007) by virtue of the dispositional barriers than others (Quigley & Kuhne, 1997). In Darkenwald & Merriam's (1982) study, the fourth deterrent was used: informational deterrent, arising from lack of information from faculty among learners regarding educational opportunities in the faculty and difficulty to accessing information from faculty staff.

Thus, there are many deterrents to successful ODL – some are new and many have plagued ODL since it was first conceived.

### **Methodology**

This study applies an exploratory survey which integrates Boshier's (1982) EPS and Scanland & Darkenwald's (1984) DPS as the basis for the research framework. These established scales are applicable in a university setting, and its test-retest reliability and construct validity has been previously certified in countless other studies.

This research utilizes the quantitative research methodology involving a sample of working adults participating in undergraduate programmes in OUM. In addition to examining who participates and why, the objective of this study is to address what deters them from participating effectively. The dependent variable adopted in this study is the participation need and the independent variable is the deterrents. Participation needs variables consist of Boshier's EPS seven factors: communication improvement, social contact/social relationship, educational preparation, professional advancement, family togetherness, escapism/social stimulation and cognitive interest. The questions were formulated to be answered using a seven-point scale, 1 = 'It is not a need at all', 4 = 'Average need', and 7 = 'It is a very strong need'. The deterrents variables four: situational, institutional, dispositional and informational deterrents. Respondents answer each item based on the seven-point scale, namely, 1 = 'I don't agree at all', 4 = 'Average', to 7 = 'I very strongly agree'. Higher scores indicate greater needs and greater deterrents.

Total population of open and distance learners studying in the OUM University Learning Centres at time of study was 24,000. A stratified sampling design was used. The survey sample covered all states in Malaysia and the Krejcie & Morgan (1970) formula was used to determine the minimum sample size, at 95% level of confidence. A pilot study to validate and improve the instrument was conducted in Science University Malaysia (USM) and International Islamic University (UIA). Cronbach alpha more than 0.7 was shown in all the components tested in this study. This was followed by a survey using the validated and improved instrument via direct administration. A total of 454 valid responses (83% of return rate) were used from 550 questionnaires sent. Exploratory Data Analysis (EDA) was first used to explore the data, followed by a reliability test. Descriptive and inferential statistics were then employed using the SPSS.

### **Findings and Discussions**

Firstly the socio-demographic profile of the Malaysian workforce participating in ODL is identified. Secondly, the levels of participation needs are determined. Lastly, the strength of the relationship between the four deterrents and seven participation needs are identified. The frequencies, percentages and Pearson Moment Correlation were applied to the entire data. All tests of significance were conducted at  $\alpha = 0.05$ .

### *Socio-demographic Profile*

Majority (78%) of the respondents are younger adults aged below 39. The average age of the respondents is 33 years. This finding supports Valentine's (1997), MacBrayne's (1995) and Johnstone and Rivera's (1965) studies that students who choose to enrol in distance education are aged in between of 18 to 40 years old. Older workforces are less likely to participate primarily because they are less likely to be promoted in their employment even though new qualifications obtained from ODL. In accordance with human capital theory, these older adults gain less from investments in education.

69.4% of Malays, 13.2% of Chinese and 9.3% of Indians had participated as respondents. Respondents from other races are represented by the percentage of 8.1%. This is not in accordance to the proportion of Malaysian population documented in Census 2000, where Malays comprised 65.1%, Chinese 26.0%, Indians 7.7% and others 1.2% (Population and Housing Census, 2000). Both Malays and Indians have a slight increase in participation rate as compared to the proportion of population. The Chinese demonstrated lower participation rate. What is interesting to note here is the higher participation rate demonstrated mainly by the indigenous people of Sabah and Sarawak. Their participation rate is 8.1% even though they constitute only about 1.2% of the total Malaysian population. This could be due to the availability of ODL in the many parts of rural and remote Sabah and Sarawak. Direct higher education is not easily available for the working adults there.

Married learners constituted the majority workforce learners in ODL. About 78.6% of the respondents were married, 19.8% were single, 0.2% was widowed and 1.3% was divorced. Majority of the respondents (86.6%) had dependents to care for. Earlier studies have found that adult students were more likely to having families (Merriam and Caffarella, 1999; MacBrayne, 1995; and Ross & Powell, 1990). About half of the respondents (49.8%) belong to the lower level of education (SPM and STPM which is equivalent to O-level and A-level) and had not completed tertiary education. A common need may underlie these findings; those who do not have basic higher education such as diploma or degree are more likely to pursue to the formal tertiary education. Findings in previous studies by Valentine (1997), Kim et al. (1995), Courtney (1992), Merriam and Caffarella (1991) and Darkenwald and Merriam (1982) have indicated positive relationship between education level and participation in adult education. In their findings, adults with higher levels of education participated in adult education at a higher rate than those with lower levels of education.

Majority of the respondents (94.8%) earn less than RM3000 per month. It was also found that more than half of the respondents (56.8%) have less than 10 years working experience. Majority (87.0%) have less than 20 years working experience. The distribution of the respondents by monthly income indicated that the sample was relatively not affluent since a high percentage (94.8%) had monthly income of less than RM 3000. Majority of the respondents (93.0%) are made up of permanent workforce where 64.5% respondents are from the government sector. These findings reinforce the important role that employment plays in motivating participation in adult education. A majority of them (89.2%) also travelled less than 100 km to their University Learning Centre.

### *The Level of Participation Needs*

Respondents were asked to indicate the level of need on a seven point scales, ranging from (1) 'It is not a need at all' to (7) 'It is a very strong need' and was recoded to 'Low = 1.0 - 3.0, Moderate = 3.1 - 5.0 and High = 5.1 - 7.0'. The findings showed that younger adults (ages < 39) have higher needs than those in any other age group. Older adults (ages >40) participate with a moderate need. This moderate need towards participation does not appear to be due to education level, income differences, or labour status. It is rather linked to the interests of older adults or the programme offerings.

It is interesting though to know that mid-aged and older adults (ages 40-49, 50-59 and >60) have moderate needs (5.01, 4.83 and 3.98 respectively) towards participation that seem to decline as they get older. The findings also show that all races have almost similar need for participation, ie Malays (mean=5.15), Indians (mean=5.06), 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 had moderate participation needs (mean=4.91 and mean=4.80). Participants with or without dependents have high level of needs. Interestingly, the level of needs seem to decline as the dependents get lesser.

The findings also showed that SPM, certificate and diploma holder have high participation needs (mean= 5.30, 5.06 and 5.29 respectively), whereas STPM and 'Others' have moderate participation needs (mean 5.03 and 4.87 respectively). The fact that underlies these findings may be that those who do not have basic higher education such as diploma or degree may be more likely to continue their formal tertiary education. This is again in contrast with findings in previous studies by Kim et al. (1995) and Valentine (1997), where positive relationship between education level and participation in adult education was evident.

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

Variables	Level	f	%	$\bar{x}$	SD	Level
Communication Improvement	Low	8	1.8	5.30	1.02	High
	Moderate	170	37.4			
	High	276	60.8			
Social Contact	Low	52	11.5	4.61	1.23	Moderate
	Moderate	236	52.0			
	High	166	36.6			
Educational Preparation	Low	13	2.9	5.10	0.96	High
	Moderate	193	42.5			
	High	248	54.6			
Professional Advancement	Low	11	2.4	5.36	1.05	High
	Moderate	171	37.7			
	High	272	59.9			
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	237	52.2			
	High	100	22.0			
Cognitive Interest	Low	9	2.0	5.31	0.92	High
	Moderate	159	35.0			
	High	286	63.0			
Total Participation Needs	Low	6	1.3	5.11	0.90	High
	Moderate	190	41.9			
	High	258	56.8			

Note:  $\bar{x}$  = Low = 1.0 - 3.0    Moderate = 3.1 - 5.0    High = 5.1 - 7.0

Table 1 reveals the means and standard deviations for the seven factors of participation needs. The highest reported need was the professional advancement (mean=5.36). Obviously, workforces participating in this study are motivated to participate in ODL when that involvement will result in professional advancement. This is followed closely by cognitive interest (mean=5.31) and communication improvement (mean=5.30). The lowest reported needs was moderate need for the factors social contact (mean=4.61) and escapism/social stimulation (mean=3.99) respectively. About 98% of the respondents fall in the category of moderate to high level of participation needs. The result achieved is similar to the findings by Truell & Turner (1997). Previous research based on surveys also showed that job-related reasons have often been cited by adults as their main reason for participation in adult education (Merriam and Cafferella 1999; Valentine, 1997; Kim et al. 1995).

The lowest reported needs were the moderate needs for social contact and escapism/social stimulation factors. These results are similar to the findings by Truell & Turner (1997). Social interaction of any kind was of little interest to the participants in this study. Hence, ODL programme planners and administrators, should be aware of this fact when they plan for the professional and cognitive advancement programmes for the workforce learning.

#### *The Level of Deterrents towards Participation Needs*

Table 2 indicates that all respondents (100%) experience some form of deterrent in their quest for education through ODL. This means that the workforce experience moderate level of situational, institutional, dispositional and informational deterrents (mean=3.61, mean = 3.68, mean = 3.38, and mean = 3.58 respectively). Specifically when looked into each type of deterrent, more than 90% of respondent experience low to moderate level of deterrent. About 10-12% of respondents face high level

of situational, institutional and informational deterrents and 7.7% respondents face high dispositional deterrent.

**Table 2: Characteristics of Deterrents (n = 454)**

Variables	Level	f	%	$\bar{x}$	SD	Level
Situational	Low	146	32.2	3.61	1.22	Moderate
	Moderate	263	57.9			
	High	45	9.9			
Institutional	Low	136	30.0	3.68	1.22	Moderate
	Moderate	263	57.9			
	High	55	12.1			
Dispositional	Low	187	41.2	3.38	1.17	Moderate
	Moderate	232	51.1			
	High	35	7.7			
Informational	Low	166	36.6	3.58	1.39	Moderate
	Moderate	237	52.2			
	High	51	11.2			
Total Deterrents	Low	148	32.6	3.56	1.14	Moderate
	Moderate	265	58.4			
	High	41	9.0			

Note:  $\bar{x}$  = Low = 1.0 - 3.0    Moderate = 3.1 - 5.0    High = 5.1 - 7.0



Supported by the total deterrent mean of 3.56, most of the respondents were found to be “Average Agree” with almost all items of the scale. Participants seem to perceive moderate deterrence to participation. The mean score of deterrent level is able to indicate the ranks of the deterrents for descriptive purposes. Institutional deterrent is higher than situational and informational. Dispositional has the least mean score.

#### *Relationship between Deterrents and Total Participation Needs*

Table 3 below shows the relationship between the four deterrents and total needs to participate. Situational deterrent has weak and negative relationship with participation needs. This shows that the lesser the situational deterrent, the more need the respondents have towards participating in open and distance education. Institutional deterrent has weak but positive relationship with needs to participation. This data means that when the institutional deterrent increases, the need towards participation also increases.

**Table 3: Relationships between Deterrent Variables and Total Participation Needs**

Variables	<i>r</i>	<i>p</i>
Situational Deterrent	-0.010	0.832
Institutional Deterrent	0.038	0.416
Dispositional Deterrent	0.003	0.955
Informational Deterrent	-0.119	0.011*

Dispositional deterrent has weak but positive relationship with needs to participation. This data means that when the dispositional deterrent increases, the need towards participation also increases. Informational deterrent has weak and negative relationship with participation needs. This shows that the lesser the informational deterrent, the more need the respondents have towards participating in ODL.

Since the p value is not below alpha=0.05 for situational, institutional and dispositional deterrent, there is no significant relationship between these three deterrents and participation needs. However, only informational deterrent is significantly correlated with participation needs.

#### *Relationship between Deterrents and Individual Participation Needs*

The seven components of participation needs employed in this study were communication improvement, social contact, educational preparation, professional advancement, family togetherness, escapism and cognitive interest. Table 4 below reveals the relationship between the deterrents and individual participation needs. Pearson Product Moment Correlations were employed in determining the strength of the relationships.

As the p value is not below  $\alpha=0.05$ , there is no significant relationship between situational deterrent and needs, as well as between institutional deterrent and needs. The p value is below  $\alpha=0.05$  for “educational preparation” ( $r=0.119$ ). Therefore, there is weak, positive and significant relationship between dispositional deterrent and educational preparation need. This means the higher the dispositional deterrent is, the more inclined the respondent is for educational preparation need.

**Table 4: Relationship between Deterrent Variables and Individual Participation Needs (n=454)**

Variable	Communication Improvement		Social Contact		Educational Preparation		Professional Advancement		Family Togetherness		Escapism		Cognitive Interest	
	r	p	r	p	r	p	r	p	r	p	r	p	r	p
Situational Deterrent	0.090	0.055	0.198	0.000	0.125	0.008	0.069	0.144	0.208	0.000	0.370	0.000	0.039	0.405
Institutional Deterrent	0.032	0.501	0.162	0.001	0.091	0.052	0.022	0.642	0.145	0.002	0.340	0.000	-0.007	0.877
Dispositional Deterrent	0.128	0.006	0.196	0.000	0.119*	0.011	0.012	0.792	0.159	0.001	0.387	0.000	-0.016	0.732
Informational Deterrent	0.083	0.076	0.173	0.000	0.109*	0.020	-0.007	0.878	0.583	0.008	0.314	0.000	-0.035	0.454

The p value is also below  $\alpha=0.05$  for “educational preparation” ( $r=0.109$ ). There is significant relationship between informational deterrent and educational preparation needs. This relationship is both weak and positive. The more informational deterrents the respondents experience, the more inclined they are towards educational preparation need.

### Recommendations

#### *Recommendations for the Workforce Learners*

The self-perceived learning needs and suitability of learning styles of the learning workforce are very often confined by their own experience and knowledge of the current courses. Without recognizing their real learning needs and style, intention to participate in organized learning activities is bound to be low. Learners should therefore understand better their learning needs and style through a more

systematic planning for their needs. They also need to expose themselves to innovative possibilities in terms of course content, learning environments and instructional methods.

#### *Recommendations for the Programme Planners*

One important ingredient in needs assessments and programme design is to involve the learners and would-be learners in the process. Such exercises can serve two purposes: Firstly, is to help the programme planner better grasp and interpret the needs and make the programme more relevant to the clients. This would very well remove any particular institutional and information deterrents the workforce learners might encounter. Secondly, is to help the learners themselves better understand their own needs and relate it to the relevance of the programme. This can be done by involving the workforce learners to recruit would-be learners. These workforce learners, who are living and convincing examples of the fact that “the older working adults can learn”, could establish rapport and share experiences, whereby for some of the non-learners who have doubts about adult learning, such peer influence could possibly be enough to help break their belief in the myth about ageing and learning.

#### Recommendations for the Education Providers

To overcome situational deterrents, some deterrents to participation such as cost, financial assistance for courses, transportation problems, and child care, may be beyond the control of education providers to intervene. What could be adopted are for example, child care facilities could be made available at the University Learning Centres, transportation problems could be solved by car-pooling or bus/taxi vouchers, and part-time work could be provided to learners who may want to find extra money to cover cost.

To overcome institutional barrier, the availability of effective learner support services to the ODL students is essential (Birnbaum, 2001; Rezabek, 1999; Galusha, 1998 and Berge & Mrozowski, 1999). A lack of feedback and instructors contacts have been identified as deterrents (Zirkle, 2003; Flowers, 2001; Grace, 2001; Dooley, Patil, & Lineberger, 2000). Hillesheim (1998) has found that the quality of ODL depends on two-way communication between students and faculty. Some suggestions to improve institutional barriers are to provide:

1. toll-free telephone support to all areas of the campus.
2. online provision of learner services such as advice and counseling, library services, admissions, and financial aid which is a critical aspect of any ODL programme.
3. online office hours by faculty.
4. a database system for two-way communication use.
5. continuous monitoring on technical support to determine if deterrents exist that may keep students from accessing courses and programmes.

Interaction among students and between students and the instructor, and a high quality of content and instruction, are desired features of all courses (Mowen and Parks, 1997; Schrum and Berge, 1998). In order to maximize learners' interaction during an ODL course, the workforce learner, instructor, and the instructional designer needs to be very familiar with the characteristics of the delivery system being used. Based on the thorough understanding and competence with these tools, they can plan high quality, stand-alone, interactive learning experiences. Nevertheless, record-keeping of learners' interaction in ODL settings is an essential source for evaluating workforce learners' achievement and participation in a course, as well as evaluating their reaction to the course itself.

Concerning informational barrier, it is difficult for workforce learners as well as education provider to keep pace with technological change. Many adult students lack the knowledge and skills to learn through ODL courses. Flowers (2001) describes the need for institutions to better advertise their courses to facilitate awareness. The educational providers too may lack support staff to assist with

technical problems, to develop distance learning course materials (Dhanarajan, 2003), or to provide distance learning training to students. The technology-enhanced classrooms or laboratories and the infrastructure required to use them may also not be available in most University Learning Centres. Many workforce learners lack access to necessary hardware, software, or the internet. There are concerns over equal access to courses offered via newer technologies such as web-based instruction. Instructors also may lack access to the necessary equipment and courses. High costs to obtain these could also be a deterrent. Among ways to overcome lack of access to information are:

1. Negotiate with the local telephone company to reduce telephone charges could be one way to have easier access to information via internet or telephone.
2. Provide constant and similar messages via multiple channels, such as SMS, email alerts, management and team briefings, high quality catalogues, or on-demand videos of site information and resources.
3. Distribution of organisational, programme and course newsletters, flyers and wall posters.
4. If special infrastructure is built, it is necessary to have planned maintenance and resources to sustain the network over its lifetime.
5. Host an 'open day' for the programme, or course.
6. Reducing users' technical problems regarding access to courses by selecting the simplest courseware to meet the course goals
7. Provide easier access both with internet connection to the server and via direct dial to the server
8. A web page providing information regarding registration, admission, study skills, credit transfers, help-lines, etc.

In dispositional deterrent, adult participants in ODL can feel isolated and alienated due to lack of person-to-person contact, lack of feedback (Galusha, 1998) or may be uneasy about their own sense of competence, strength and weakness to continue learning. As the sense of isolation persists, the students may perceive themselves as unimportant when compared with the full-time, on-campus students (Zirkle, 2002). They may also experience fear in the increase use of technologies and may be lost or intimidated in the learning process.

Some learners are uncomfortable with the use of student-centered, group learning and collaborative online learning activities because they change the traditional social structure of the classroom. They may have adopted external locus of control that could lead to experiencing psychological factors that may impede learning. Solutions are to:

1. encourage participation and elicit feedback among workforce learners in their educational and social interaction so as to increase interactions with each other to establish a community of learners, either web-based or face-to-face.
2. identify workforce learners with external locus of control during the programme orientation, and stream them into small groups to be instructed in skills that would help in changing their external behaviours and attitudes.
3. provide counseling session on continuous basis to workforce learners to elicit and share information from the university and faculty. This will also humanize the information flow to and from the organisation, faculty and the workforce learners. This too can be done either web-based or otherwise. It may be possible to counsel workforce learners with external locus of control in increasing their feelings of self-efficacy, thereby raising their chances to complete the programme of study.
4. offer courses for workforce learners which are interaction-based, either web-based or face-to-face to encourage lack of interest among learners.
5. develop train-the-workforce learner sessions specifically for learning how to use e-tools.
6. improve workforce learners' self-image by conducting seminars on leadership, self-grooming, study skills, time management, etc.

### **Conclusion**

The mean level of deterrents indicates that all respondents (100%) experience *moderate* level of situational, institutional, dispositional and informational deterrent towards participation in ODL. This finding indicates that overall, the workforce learners in this study do not perceive the deterrents listed as major concern. The mean score of deterrent level is able to indicate the ranks of the deterrents for descriptive purposes. Institutional deterrent is higher than situational and informational, which is similar to Rubenson's (2001) research. Dispositional has the least mean score. Partnerships among different units within an organisation or among different organisations require agreements on many fiscal issues. Consideration of these variables help leaders of other open and distance education providers find solutions to reduce or to minimize obstacles in their own organization when they use ODL.

An idea has been proposed that different business organizations are at different stages or levels of maturity regarding the capabilities that they have to conduct distance education (Berge, 2001; Schreiber, 1998). A hypothesis that was tested by Berge and Muilenburg (2001) states that when an organization is in the earlier stages, like OUM, it will face many deterrents. As the organization's competency in ODL as a whole matures, the overall number or intensity of perceived barriers to ODL will be reduced.

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