

The Evaluation of Non-Formal Programmes in Rural Areas: Implications on Adult Education in Malaysia

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ABSTRACT

The Ninth Malaysia Plan focuses on human capital development. Rural areas, however, are lacking human capital development especially among villagers. Thus, this paper discusses the goals and challenges of adult education in Malaysia. In addition, this paper reports on the evaluation of two programmes - Computer Literacy and Civic Development offered by a Community Development Department (KEMAS) to rural communities. In terms of computer literacy, the respondents asserted that they know the importance of computer literacy but they lacked the computer skills. In the civic development, the respondents claimed that their behaviours are in line with the social norm even though they scored low in the affective aspect of the domain. Finally, it is recommended that the government agencies, private sectors, NGOs and the wider community should work together to support adult learning especially in the rural areas.

INTRODUCTION

Malaysia is geographically divided into West and East Malaysia. West Malaysia is also known as the Malay Peninsula or Peninsular Malaysia. The West and East Malaysia are separated by about 540 kilometres of South China Sea. The Malay Peninsula is located strategically between the Straits of Malacca and South China Sea. Overall, Malaysia has a land area of 330,000 square kilometres and a tropical climate with heavy year-round rainfall (Moore, 1991). About 55% of the area is covered by dense tropical forest.

Malaysia with an estimated per capita GNP of US 4,000 is a major socio economic force in the Asia Pacific region. Traditionally, the economy of Malaysia was based on its natural resources. During the 1980s, however, the government recognised the need for a balance between resource based and technology based industries and started to focus on technology and industry. In 1991, the nation's Vision 2020 was launched (Mohamad, 1991). The Vision 2020 is a 30-year plan to "push" Malaysia to obtain developed nation status by the year 2020.

Malaysia is a multiracial and multilingual country. It has approximately 24 million people with a racial composition of 59.0% Malays, 32.1% Chinese, 8.2% Indians and 0.7% others. Bahasa Melayu (Malay language) is the official language with English as a second language. English is widely used in education, business and government sectors. Education in Malaysia has developed along the British model. Bahasa Melayu is the medium of instruction and English is taught as a second language. Students spend six years in primary school followed by six more years in secondary and high school. Tertiary education towards the first degree takes from three to six years depending on the discipline. Education is seen as the means by which national goals can be achieved. With the increasing emphasis on the

importance of education, there is a growing awareness among government, non-government organizations and private sector of the importance of lifelong education.

As a developing country, Malaysia grapples with the task of building its economies to achieve sustainable development and to improve the quality of life of its people. There is a growing recognition that the education of the adult population is essential to sustain economic growth and development. As a country that has developed tremendously for the past two decades, Malaysia has become an example and is often cited by economic analysts and developmental planners as a model of a developing country. To continue to become fully developed, Malaysia needs a labour force that is well educated, dynamic and skilled. Thus, andragogy or adult learning especially in non-formal setting is critical in Malaysia's nation-building agenda.

The Context of the Study

The study examined the effectiveness of two programmes - Computer Literacy and Civic Development provided by KEMAS. As one of the government adult and continuing education providers, KEMAS (Community Development Department) is responsible for developing the rural community. Since it is under the Ministry of Rural Development, the majority of its clients or participants are rural folks. However, urban and suburban communities also benefit from the programmes. With strength of 1500 extension personnel (supervisors and community developers) located all over the country, KEMAS programmes reach almost every district and sub-district in Malaysia. With a new policy on rural transformation, KEMAS is redirected to develop human capital among rural community. KEMAS offers adults and continuing education programmes to the public through extension education and training in basic fields such as home science, nutrition, health, entrepreneurship, religion, functional literacy, civic development and vocational training.

This paper reports a section of a bigger study that examined the effectiveness of non-formal programmes in Malaysia. Briefly, we described the evaluation of two non-formal programmes conducted by KEMAS using Hammond's model. According to Hammond (1973), evaluation is a process that is best approached through objectives stated in behavioural terms. He further specified steps for programme evaluation. The first step is to determine the content area such as computer literacy or mathematics. The second step is to define the independent and dependent variables in the programmes. The third step in the evaluation process is to state the objectives in behavioural terms.

Properly stated objectives will (a) specify the kinds of behaviour which will be accepted as evidence that the learner has achieved the objectives, (b) state the conditions under which the behaviour will be expected to occur, (c) specify the criteria of acceptable performance by describing how well the learner must perform. Once the behavioural objectives have been developed, the fourth step is to assess the behaviours described in the objectives. The fifth step is to analyse the data and then to arrive at conclusions based on the evaluation.

Objectives of the Study

The objectives of the study were to (a) evaluate the participants' level of achievement in terms of cognitive, affective and psychomotor behaviours in both programmes, and to (b) investigate the participants' perceptions towards the instructional dimensions in terms of the teaching methods, programme facilities and organisational management.

The first domain used in this study is the cognitive behaviour. It includes the recall, comprehension and application of knowledge and the utilization of intellectual skills of analysis, synthesis and evaluation.

An example would be an achievement test. The second domain is the affective behaviour which is defined as the interest, attitudes, and values adjustments of the individual. On the whole, it is the willingness of the participants to identify themselves with a given subject. Psychomotor behaviour is the third domain which includes those acts that involve neuro-muscular coordination. On the other hand, instructional dimensions are divided into three categories i.e., the teaching methods, programme facilities and organisational management.

LITERATURE REVIEW

The Concept of Adult Education

UNESCO defined adult education as:

“...the entire body of organised processes, whatever the content, level and method, whether formal or whether they prolong or replace initial education in schools, colleges and universities as well as in apprenticeship, persons regarded as adult by the society to which they belong develop their abilities, enrich their knowledge, improve technical or professional qualifications or turn them in a new direction and bring about changes in their attitudes or behaviour in the twofold perspective of full personal development and participation in balanced and independent social, economic and cultural development.”

The term “adult education” in this paper refers to the learning opportunities that are undertaken by adults outside the formal schooling system. Thus, the term is used interchangeably with andragogy. The non-formal system in Malaysia includes community education programmes, vocational skilled training and the training at the workplace.

Purpose and Goals of Adult Education

Adult Education activities in Malaysia include the government literacy programme, personal development, citizenship education, political, ideological and religious studies, and employment training. The goals are: (a) to prepare an adult learner for jobs and job enrichment through vocationally oriented education, (b) to promote nation building in a multicultural society through citizenship education, (c) to provide “alternative education” that allows mature students to continue their education in a non-traditional manner through distance education programme, and (d) to provide personal enrichment especially to senior citizens through participation in locally organised community programmes.

Adult education programmes in Malaysia are mainly provided by three major groups: government agencies (39.6%), non-profit organisations (12.3%) and private sector (48.1%) (Mazanah, 2001). The providers are categorised according to target groups and/or disciplines of study or the way they offer or provide adult education programmes. Public adult education providers receive financial support from the government. They are from several Ministries such as the Ministry of Rural Development, the Ministry of Women and Family Development, etc. Private providers comprise non-governmental organisations and receive contributions from the private sector and they are structured to earn a profit. The NGOs are either self-financed or supported financially by the government, or the private sector or international bodies.

Issues and Challenges in Adult Education in Malaysia

The role of adult education in creating more equitable development in Malaysia has been in some ways positive. Advances have been made in three areas in particular (a) greater number of service providers for adult programmes especially by the government and NGOs, (b) the development of many

diverse programmes and projects supported by governments, (c) access to professional development training in companies becoming more developed and more structured and with new forms of training being introduced such as work/study, apprenticeship plans etc.

The main challenge faced by adult education providers is a lack of coordination among the ministries. Thus, there is a need for a policy on adult education to be instituted at the national level and a coordinating body to be established to ensure effective delivery of adult education programmes. On the whole, adult education providers reported that they lacked of resources in implementing adult education programmes. The resources include qualified teachers, learning sites, audio-visual aids and reference materials. Among the most frequently cited problem encountered by the providers is a shortage of qualified and experienced educators/trainers. The problem is acute in smaller private sector providers and non-governmental organisations. Besides knowledge of subject matter, the educator/trainer needs to be skilful in designing and facilitating the learning process. Funding is another important issue that resulted in limited applications of computer technology due to the lack of facilities and software. While the government-sponsored programmes enjoyed the benefit of ample funding, programmes organised by interest groups/NGOs are constrained by the limited funding available. Finally, the effectiveness of the programmes offered is another critical concern especially to the stakeholders. Quite often, the programmes are planned on an ad-hoc basis rather than on a long-term planning. Also, there is a lack of follow up studies conducted on the programmes.

METHODOLOGY

This research used a quantitative design. A random sample of 537 adult participants from the Computer Literacy programme and 1563 from the Civic Development programme. Both groups answered two sets of questionnaires. Section A of Questionnaire 1 determines participants' demographic profiles and educational background. Section B consists of 20 items related to affective behaviours on a Likert Scale. Section C asks questions on the teaching dimensions with 10 questions on methods of teaching, 10 questions on course facilities and another 10 on institutional management using the Likert Scale. Questionnaire 2 is a test that measures cognitive and psychomotor behaviours.

RUSULTS AND DISCUSSION

The respondents in this study comprised 1563 adults who participated in the Civic Development programme in four states – Perak, Pahang, Negeri Sembilan and Johor. A total of 512 respondents (32.3%) from Perak, 502 (32.1%) from Pahang, 302 (19.3%) from Negeri Sembilan and 247 (15.6%) from Johor. In terms of gender, the majority (92.0%) is female and only 8.0% male. A total of 537 participants joined the Computer Literacy programme – 172 from Johor, 84 from Perak, 124 from Negeri Sembilan, and 157 from Pahang.

In terms of marital status, a total of 1298 participants (83.0%) are married as compared to 82 (5.2%) unmarried participants. About 11.7% of the participants were divorcees. In terms of age, most of the respondents (34.4%) were those above 51 years old followed by 41-50 (28.1%) and 31-40 (19.9%). Those below 30 are only 17.6%. Most of participants (40%) possessed primary school education followed by those with lower secondary education (33.8%) and upper secondary education (20.3%). Only 6% of the respondents possessed High School Certificate. In line with their academic qualification,

most of the participants (47.4%) were unemployed. 14.1 % worked in government sector, 11.6% were FELDA settlers, 7.3% worked as petty traders and 4.8% were farmers.

In terms of salary, majority of the participants (74%) received montly salary below RM 500. 19.6% received salary between RM 501-1000 per month. About 3.2% of the respondents gained monthly income of RM 1500-2000. Very few of the participants (0.6%) have an income of more than RM2000 per month.

For Computer Literacy programme, females still dominated (66.5%) as compared to males (33.5%). Contrary to Civic Development programme, unmarried participants (60.9%) were the majority in Computer Literacy programme followed by married participants (38.4%) and divorcees (0.7%). In terms of age range, computer literacy programme witnessed majority (55.3%) of the participants came from 30-40 age group followed by 23-29 (29.8%) and 41-50 (11.4%). The least group who participated in the computer literacy programme were from those above 50 (3.5%).

In terms of academic qualification of those who participate in the computer literacy programme, 58.7% were those who had completed SPM followed by those completed STPM (27%) and SRP (11%). Those with Primary school qualification were only 3.4%. Similar to those participated in Civic Development programme, most (38.9%) who participated in Computer literacy programme were unemployed followed by civil servants (33.5%), private sector workers (11.9%), petty traders (5.2%), farmers (4.1%) and FELDA settlers (3%).

Monthly income of the participants also show similar pattern with those participated in Civic Development programme where most of the repondents (47.9%) in Computer Literacy programme were those received a monthly salary less than RM 500. About one-thirds (35.8%) gained montly salary between RM 500 – 1000. Approximately one-tenths (10.4%) claimed that they received salary between RM 1001 – 1500 per month. Only 1.7% had a monthly salary above RM 2000.

Table 1 shows the cognitive achievement of the participants in Civic Development programme. More than half (54.8%) of the participants scored high in cognitive aspect of civic development followed by middle level (39.5%) and low level (5.6%). In terms of behaviouristic aspect of the civic development, about two-thirds (65.1%) claimed that they had high achievement in the aspect followed by middle (31%) and low (3.9%). Affective aspect of the civic development shows that the majority of the participants (81.8%) stated middle level followed by low level (13.9%) and very few had the high level (4.2%).

Table 1: Frequency and percentages of participants and their achievement in cognitive, skills and affective domain of civic development programme (n=1563)

Achievement	Cognitive (%)	Skills (%)	Affective (%)
High	857 (54.8%)	1018 (65.1%)	66 (4.2%)
Medium	618 (39.5%)	484 (31.0%)	1279 (81.8%)
Low	88 (5.6%)	61 (3.9%)	218 (13.9%)
Total	1563	1563	1563

Table 2 portrays the achievement of participants in Computer Literacy programme. Majority of the participants (86.4%) claimed that they had high cognitive achievement in computer literacy followed by low (8.6%) and medium level (5%). In terms of actual computer skills, the majority (73.7%) said that they had high skills followed by intermediate level (14.3%) and low (11.9%). In terms of affective domain, majority of the participants in computer literacy programme said that they had medium level (90.1%) of affective aspect of computer literacy followed by high (7.3%) and low (2.6%).

Table 2: Frequency and percentages of participants and their achievement in cognitive, skills and affective domain of computer literacy programme (n=537)

Achievement	Cognitive (%)	Skills (%)	Affective (%)
High	464 (86.4%)	396 (73.7%)	39 (7.3%)
Medium	27 (5.0%)	77 (14.3%)	484 (90.1%)
Low	46 (8.6%)	64 (11.9%)	14 (2.6%)
Total	537	537	537

Table 3 illustrates the mean scores and standard deviations of the respondents' perceptions regarding the teaching method used in the computer literacy programme. The questionnaire used 5 point Likert Scale (strongly disagree [1], disagree [2], uncertain [3], agree [4], and strongly agree [5]). The range of the means are as follows:

1.00 – 1.80	Strongly Disagree
1.81 – 2.60	Disagree
2.61 – 3.40	Uncertain
3.41 – 4.20	Agree
4.21 – 5.00	Strongly Agree

Overall, respondents seemed slightly agreed (M=3.45) that teaching method used in Computer Literacy Programme was effective (see Table 3). Respondents agreed that the instruction was easy to understand (M=3.70) and systematic (3.63). Instruction also includes self-access learning (M=3.53). However, the participants were less certain regarding whether the instruction suited to their experience (M=3.33), involved group work (M=3.27), applied to solving daily problems (M=3.25), used variety of media (M=3.20). The data show that much has to be done to improve the teaching of Computer Literacy class.

Table 3: Mean and Standard Deviaton for Teaching Method used in the Computer Literacy Programme

Item	(n=537)	Mean	SD
1. Instruction is easy to understand		3.70	1.48
2. Instruction is suited to the participant experience		3.33	1.34
3. Instruction includes self-access learning		3.53	1.44
4. Instruction involves group work		3.27	1.24
5. Instruction involves solving daily problems		3.25	1.21
6. Instruction ie delivered systematically		3.63	1.43
7. Instructor uses variety of media		3.20	1.23
8. Instructor is concerned about student's learning pace		3.32	1.31
9. Instructor encourages students to think		3.72	1.44
10. Instructor encourges the students to be creative		3.55	1.15
Total		3.45	

Table 4 shows the means and standard deviations of the participants' perceptions regarding the facilities in Computer Literacy Programme. Overall, respondents seemed uncertain (M=3.19) regarding the facilities and resources in Computer Literacy Programme (see Table 4). Evethough the participants seemed to agree (M=3.55) that the classroom is appropriate for teaching and learning activities, they disagreed (M=2.20) that the textbooks were appropriate. The respondents were ambivalent in terms of the adequacy of the classroom and the computer labs (M=3.25) and the use of computer software (M=3.01). The participants also were uncertain regarding the audio visual aids provided (M=3.37) and whether the class enviroment was condusive (M=3.09). The data suggest that facilities and resources for Computer Literacy Programme need to be upgraded.

Table 4: Means and Standard Deviation of the Participants' Perceptions regarding the Facilities in Computer Literacy Programme

Item	(n=537)	Mean	SD
1. The number of classrooms is adequate		3.34	1.34
2. The classroom is appropriate for teaching and learning activities		3.55	1.48
3. The facilities and equipment is adequate in the classroom/computer lab		3.25	1.42
4. The facilities and equipment are up-to-date		3.45	1.32
5. The textbooks are appropriate		2.20	1.15
6. The reference books are provided		3.39	1.38
7. Computer software is used in the teaching		3.01	1.25
8. Audio visual aid is provided for teachers		3.37	1.35
9. The class environment is conducive		3.09	1.41
10. Overall, the classroom is functioning well		3.34	1.41
Total		3.19	

In terms of the course management in the Computer Literacy Programme, overall the respondents were rather uncertain regarding the suitability of the programme (M=3.30). Table 5 shows that the participants had problems with the class schedule (M=3.13), duration of the programme (M=3.11) and the time allocated to meet instructor after class (M=3.06). Nevertheless, the participants seemed slightly agreed regarding the duration of the course (M=3.48) and the adequacy of the discussion time in class (M=3.50). However, they were unsure regarding the time allocated to do the assignments (M=3.35) and the appropriateness of the sequence of the courses (M=3.26).

Table 5: Means and Standard Deviations for Participants' Perception regarding Course Management in Computer Literacy Programme

Item (N=537)	Mean	SD
1. Time allocated for the course is appropriate for me	3.48	1.45
2. The scheduling of classes is appropriate for me	3.13	1.25
3. The arrangement of classes is attractive for me	3.34	1.35
4. The period of the course is appropriate for me	3.38	1.40
5. Time allocated for discussion is adequate	3.50	1.44
6. Time allocated to meet the instructor after class is adequate	3.06	1.27
7. Time allocated to do the assignments is adequate	3.35	1.35
8. The sequence of courses offered is appropriate	3.26	1.36
9. The sequence of courses helps me to master the subject	3.38	1.36
10. The duration of programme is appropriate	3.11	1.43
Total	3.30	

Implications on Adult Education

It is critical to evaluate the effectiveness of non-formal education especially in the civic and computer literacy programmes. Based on the findings of the study, it is clear that affective aspect of the civic and computer literacy programmes need to be looked into because most participants in both programmes scored medium as compared to other domains. Affective aspect involves the emotional and the feelings towards the programme. In other words, the programmes may not fully fulfill the aspirations and expectations of the participants.

The participants slightly agreed that the teaching method used in Computer Literacy Programme was effective. Respondents agreed that the instruction was easy to follow and systematic. Instruction also includes self-access learning. However, the participants were less certain whether the instruction suited to their experience. They also unsure whether the instructor used variety of teaching strategies such as group

work (cooperative teaching) and problem solving. The data show that much has to be improved with regard to the teaching Computer Literacy class.

In terms of the facilities and resources in the Computer Literacy Programme, respondents seemed uncertain. Even though the participants seemed to agree that the classroom is appropriate for teaching and learning activities, they disagreed that the textbooks were appropriate. The participants were ambivalent in terms of the adequacy of the classroom and the computer labs, the appropriateness of the teaching and learning activities, and the use of computer software. The participants also were uncertain regarding the audio visual aids provided and whether the class environment was conducive. The data suggest that facilities and resources for Computer Literacy Programme need to be upgraded.

Similarly, the participants were rather uncertain regarding the suitability of the programme. The participants had problems with the class schedule, duration of the programme and the time allocated to meet instructor after class. Nevertheless, the participants agreed that the duration of the course was appropriate and the adequacy of the discussion time in class. However, they had problems with the time allocated to do the assignments and the appropriateness of the sequence of the courses. As the participants were matured students, they may need different pace than the young students in terms of the duration to master a subject matter and the duration to complete the course assignments.

CONCLUSION

Based on the findings and limitations of the study, we can conclude that the Civic and Computer Literacy Programmes conducted by KEMAS have, to some extent, contributed to the enhancement of knowledge and skills of the participants in these areas. However, some aspects of the programmes need a reassessment in order to improve the overall programme. In Civic Development Programme, the affective aspect of the module was less rigorous as compared to cognitive and behaviouristic components. It can be suggested that Emotional Literacy of Emotional Intelligence aspect could be incorporated in the programme. In the Computer Literacy Programme, the participants were less impressive regarding the resources and facilities in the learning sites. The teaching method used by the instructors was mainly lecture style and lacked of innovative teaching methods such as cooperative learning and problem-based learning. Thus, it is suggested that a comprehensive assessment should be conducted by KEMAS in order to keep up with current demands.

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