

An Evaluation of the Non-Formal Adult Orang Asli Education Program: A Case Study

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ABSTRACT

This case study using program evaluation method was designed to assess the input, output, outcome and impact of three non-formal education programs for the Orang Asli namely the Adult Class for Orang Asli Parents Program (KEDAP KPM – Ministry of Education), The Adult Class for Orang Asli Parents Program (KEDAP JAKOA – Department of Orang Asli Affairs) and Skill Training and Career Program (PLKK). For KEDAP KPM the respondents have been selected randomly involving 136 respondents representing the management, 331 students (adult Orang Asli) and 144 teachers. Meanwhile for KEDAP JAKOA, the respondents include 36 respondents from the management, 351 students and 97 teachers. For PLKK, the respondents were 48 respondents from the management, 214 trainees and 40 trainers. The instrument consisted of a set of questionnaires. In general, the main finding of research showed that the respondents agreed that the three programs have been implemented efficiently. In other words, the program administrators, teachers and trainers, students, and trainees have responded positively to the planning process and the execution of the programs. The results showed that the highest means were program planning, teachers' expertise, and budgeting. The other aspects such as curriculum, learning assessment, and learner centered approach need to be improved. The implication of this study on the non-formal education for adult Orang Asli showed that the curriculum aspect, teaching process, and teaching and learning method were among the important factors to ensure the efficiency of each program. Thus, a new framework for the non-formal education for adult Orang Asli program in Malaysia should be proposed.

Keywords: Program evaluation, non-formal adult education, Orang Asli, training program, Malaysia

INTRODUCTION

Education is seen as a process of human learning and as a process of gaining knowledge, understanding, and skills (Muhamad & Carter, 2000; Hamid et al., 2004); to achieve life success (Harrison & English, 2003); to build human capacity (Mok, 1992; Keow, 2008); and to nurture moral values (Yusof et al., 2018). In general, learning occurs in three forms, i.e., formal, non-formal, and informal (Coombs et al., 1973; Salleh, 1991; Hussin, 1996; Merriam & Caffarella, 1999; Kamil, 2013). In brief, formal education is linked with schools and training institutions; non-formal with community groups and other organizations; and informal covers what is left, such as interactions with friends, family and colleagues (Coombs & Ahmed 1974). Non-formal education refers to education that occurs outside the formal school system. Non-formal education is often used interchangeably with terms such as adult education, community education, and lifelong education. Non-formal education is commonly designed outside of a formal educational setting for non-conventional learners according to their needs and aspiration (Hussin, 1996). Informal education consists of learning activities that are voluntary and self-directed, life-long, and motivated mainly by intrinsic interests, curiosity, exploration, manipulation, fantasy, task

completion, and social interaction. Informal learning occurs in an out-of-school setting and can be linear or non-linear and often is self-paced and visual- or object-oriented. It provides an experiential base and motivation for further activities and learning.

According to UNESCO (2010), non-formal education helps to ensure equal access to education; to eradicate illiteracy and to improve access to vocational training, science, technology and continuing education. Non-formal education program should provide a diversification of learning opportunities and the usage of a wide range of education and training modalities in recognition of the importance of education. Moreover, non-formal education is beneficial in a number of ways. There are activities that encourage young people to choose their own program or project that provides the flexibility and freedom for them to explore their emerging interests. When the youth can choose the activities in which they can participate, they have opportunities to develop new skills.

Non-formal learning could be an experiential learning that would foster the development of skills and knowledge. It also helps in building the confidence and abilities among life long learners. Often lifelong learning is used synonymously with adult education. With the increasing emphasis on the importance of non-formal education, there is a growing awareness among government, non-government organizations and private sector of the importance of adult education. There is a growing recognition that the education of the adult population is essential to sustain economic growth and development (Azman & Ahmad, 2006).

As a country that has developed tremendously for the past three 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 labor force that is well educated, dynamic and skilled (Mustapha, 2017). However, as a developing country, Malaysia grapples with the task of building its economies to achieve sustainable development and to improve the quality of life for its people (Mustapha et al., 2008). Like any developing countries, the focus in adult education in Malaysia has shifted from educational concerns to the economy and employment (Azman & Ahmad, 2006). Essentially, according to Tennant and Morris (2001), adult education in developing countries has evolved around two axes: development of employability and the new economy of information and knowledge. Hence, the idea of enhancing human capital and the competitiveness of skills acquisition has gained ground with political decision makers, business leaders and educational leaders. For Malaysia, the government, private institutions and non-government organizations have taken note of the societal and technological changes and therefore have recognized the critical need for adult education and training mainly through community education and professional development (Kerajaan Malaysia, 2006). In addition, there has been a renewed interest in adult education as a vehicle for addressing national priorities such as the formation of adaptable and multi-skilled workers; the creation of harmonious multicultural society; the promotion and awareness of civic education, health, indigenous rights and the environment (Kerajaan Malaysia, 2006).

REVIEW OF LITERATURE

The Concept of Adult Education

Adult learning is a critical part in non-formal learning context (Ruud & Preece, 2005). According to Haron and Doraisamy (1982), non-formal education in Malaysia aimed at improving the quality of life and economy of each individual, especially among rural community. Majority of rural community consisted of elders who moved into the rural areas upon their retirement (Kandiah, 1990; Chong, 1992). In order to develop rural community, the government has organized varied non-formal activities for rural elders. Non-formal education is very important in giving additional skills to the elders. Waller (1956) clarified the importance of adult education. He stated that:

Adult education must not be regarded as a luxury for a few exceptional persons here and there, nor as a thing which concerns only a short span of early manhood, but that adult education is a permanent national necessity, an inseparable aspect of citizenship, and therefore should be both universal and lifelong (1956: 22)

UNESCO (2006) 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 behaviours in the two-fold perspective of full personal development and participation in balanced and independent social, economic and cultural development.”

The term “adult education” in this article refers to the learning opportunities that are undertaken by adults outside the formal schooling system. Hence, the term will be used interchangeably with non-formal education. The non-formal system in Malaysia includes community education program, vocational skilled training scheme and the training at the workplace. According to Rogers (1993), adult education is an opportunity for the adults who have left the formal education system. The educational approaches in non-formal education should be appropriate to their experience. Adult education has four main objectives. Firstly, the program should assist in motivating adults to accept and make positive changes. Secondly, the program should be flexible in accommodating the adults’ previous experience and education level. Thirdly, the program should focus on developing the participants’ knowledge, skills, attitudes and creative ideas. Lastly, adult education program should be able to help adults to apply their knowledge to improve their quality of lives (McLagan, 1978).

Adult education programs in Malaysia include the government literacy program, personal development, citizenship education, political, ideological and religious studies, and employment training. The goals are: (a) to prepare an adult learner for work and job enrichment through vocationally oriented education, (b) to promote nation building in a multicultural society through citizenship education, (c) to provide an “alternative education” that allows mature students to continue their education in a non-traditional manner, and (d) to provide personal enrichment especially to senior citizens through participation in locally organized community programs. These alternative education programs in Malaysia are mainly provided by three major groups: government agencies (39.6%), non-profit organisations (12.3%) and private sector (48.1%) (Ahmad et al., 2007). The providers are categorized according to target groups and/or disciplines of the study or the way they offer or provide adult education programs. 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, and others. Private providers comprise non-governmental organizations 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.

Adults learning is pertinent in lifelong learning context (Ruud & Preece, 2005). In Malaysia, adult learning refers to the opportunities given to adults to obtain the education outside of the formal school system, also known as non-formal education (Muhamad et al., 2001; Ahmad et al., 2007). According to Hussin (1996), the main aim of non-formal education in Malaysia is to abolish illiteracy among the adults, especially for those who live in rural areas. It was further turned into various programs such as health education, family, civic, politics, religion, economic-based education such as work training and generating income from agriculture activities (Muhamad et al., 2001; Azman et al., 2006; Hussin, 1996). Muhamad et al. (2001) stated that non-formal adult education programs played an important role in nation-building. This is in line with the Malaysian government's aspiration to build a holistic human capacity (Kerajaan Malaysia, 2006). Historically, non-formal adult education in Malaya had its genesis in the Malacca Malay Sultanate era (Salleh, 1997) and it had been implemented prior to the British invasion (Keow, 2008) and during the British and Japanese occupations (Junid, 1977; Muhamad et al., 2001). It had been implemented due to the varied and unequal opportunities for learning for different ethnic groups. One of the groups that were left behind in the context of education for adults is the Orang Asli – the indigenous of the Malay peninsula.

Issues and Challenges of 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) the greater number of service providers for adult programs especially by the government and NGOs, (b) the development of diverse programs and projects supported by the government, (c) the access to professional development training in companies has been wide open with the new forms of training are being introduced such as work/study, apprenticeship scheme, and on-the-job training. However, the main challenge faced by the adult education providers is a lack of coordination among the ministries. Hence, 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 programs.

In addition, some adult education providers reported that they lacked of resources in implementing adult education programs. 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 organizations. 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 programs enjoyed the benefits of ample funding, programs organized by interest groups/NGOs are constrained by the limited funding. Finally, the effectiveness of the programs offered is another critical concern especially to the stakeholders. Quite often, the programs are planned on an *ad-hoc* basis rather than a systematic long-term planning. Also, there is a lack of follow up studies conducted on the programs.

The Context of the Study

Orang Asli are the aborigines of the Malay peninsula. Most of them were believed to be descendents from the hoabinhians, stone-tool-using hunter-gatherers who occupied the peninsula as early as 11,000 BC (Bellwood, 1997). Today, Orang Asli communities comprise at least eighteen culturally and linguistically distinct sub-groups (Lin, 2008). The estimated total population of Orang Asli in peninsular Malaysia is 198,000 (www.iwgia.org) – they represent less than one percent of the total Malaysian population of 31 million people. The Orang Asli are officially classified into three main ethno-linguistic groups, namely the Senoi, Proto-Malays, and the Negritos. Each group consisting of several dialectic sub-groups. Orang Asli communities are concentrated in selected states based on their ethnic groups, with the Senoi predominantly residing in Perak and Pahang, the Proto-Malays in Pahang, Johor, Negeri Sembilan and Selangor, and the Negritos in Kelantan, Perak and Pahang (Khor & Shariff, 2008). Orang Asli once were thinly scattered throughout the peninsula, but most were pushed backed into the interior montane forests as the Malay population grew on the coastal plains and in the major river valleys (AITPN, 2008). Since 1961, the Malaysian leadership has devised systematic plan to “integrate” Orang Asli into the “mainstream” (Mustapha, 2013). This has come to mean bringing them into the market economy and assimilating them into the Malay ethnic category (Endicott & Dentan, 2004). Despite continuous efforts by the Federal Department of Aboriginal Affairs (*Jabatan Hal Ehwal Orang Asli*, or JHEOA and now JAKOA – *Jabatan Kemajuan Orang Asli*), most Orang Asli are among the poorest of the poor; they are still live on the fringes of Malaysian society, receive minimal social services, poorly educated, and making a meager living (Endicott & Dentan, 2004; Salleh, 1990; Siwar & Chamuri, 2007). The average life expectancy for Orang Asli is 53 years as compared to the national average of 73 years (Idrus, 2010).

Cultural transformation that disregards the indigenous root may pose a challenge for the government’s effort to modernize the Orang Asli in Peninsular Malaysia. Sustainable development of Orang Asli community requires them to participate in decision-making process at all levels (Mustapha, 2013). However, Orang Asli are perceived as incapable of making their own decision and are highly dependent on the state authority to provide the guidance, financial aids, and protection (Subramaniam, 2011). Imposition of uniform national curriculum for the mainstream and Orang Asli students has been criticized (Kamaruddin & Jusoh, 2008; Wong & Perumal, 2012). Indigenous curriculum and pedagogy should be put in place for Orang Asli students. In the Malaysian Educational Development Plan 2013-2025, the Ministry of Education (2012) has stated that a special curriculum for Orang Asli and Penan pupils known as KAP (*Kurikulum Asli & Penan*) will be implemented. Pending the KAP curriculum, the conventional curriculum and pedagogy is widely applied to Orang Asli schools. Malaysian national

curriculum and teaching methodology have relied heavily on the Western and Islamic epistemologies that are foreign to Indigenous epistemology. Miniscule number of teachers who are of Asli origins has compounded the problem of lacking the role model for Orang Asli students and invariably created a paucity of indigenous pedagogy in the classrooms. Teacher education programs in the teacher training institutes and universities in Malaysia have not included indigenous pedagogy in their curricula. Thus, almost all school teachers are not formally trained to teach and handle Orang Asli students.

High dropout among Orang Asli children has become an issue as it was reported nearly 32% of those who had completed their primary schooling did not pursue their studies at the secondary level in 2009 (Education and Research Association, 2011). This might be because they lack interests in academic subjects at the mainstream schools (Mustapha et al., 2009). The imposition of modern education has the potential of destroying the balance of social life and the ecological balance of indigenous community (Koentjaraningrat, 1993; May & Aikman, 2003). Indigenous learning system is a learning system used by native people in order to maintain and conserve their eco-social system for their continued existence. The indigenous learning system was traditionally used to fulfill practical needs and to perpetuate local socio-cultural heritage, skills and indigenous technology from one generation to the next (Coombs et al., 1973). As mentioned earlier, the imposition of outside system on native people may disrupt their socio-cultural legacy. Freire (1973) argued that imported education is a form of alienated or isolated culture. Moreover, Freire (1973) explained that such education lacks authenticity because it was not linked to the local context and did not have power to change reality. The indigenous learning system in a native society has its own power.

The Orang Asli was also identified as one of the most vulnerable groups in Malaysia, with a disproportionately high incidence of poverty and hardcore poverty (Endicott & Dentan, 2004; Siwar & Chamuri, 2007). In 2006, 33.5% and 15.4% of the Orang Asli were identified as poor and hardcore poor, respectively (Economic Planning Unit, 2006 as cited in Mustapha, 2020). In the 9th Malaysian Plan covering 2006-2010, a total of RM 417.4 million was allocated for various strategies and programs to address the high incidence of poverty and hardcore poverty among the Orang Asli, including economic programs, resettlement initiatives, and programs aimed at the development of human capital (Bhuiyan et al., 2012). Focus was given to enhance access of the Orang Asli to income generating programs, such as cultivation of food crops, handicraft and tourism, as well as the provision of employment opportunities, infrastructure and other basic amenities.

In the 11th Malaysia Plan (2016-2020), there is a critical need to take human capital development of the minorities and indigenous groups in Malaysia seriously. A more aggressive strategy aimed at eradicating poverty, upholding full access to education and health services, and enhancing quality of life, particularly among the few remaining underserved communities in Malaysia, such as the Orang Asli, Penan, and other native groups are in dire need. Identification of their education and future career pathways is crucial because these marginalized groups often are at a disadvantage when it comes to obtaining decent careers because of their low academic achievement. The children of Orang Asli usually have low academic achievements. But the empirical research on the Orang Asli parents' influence on their children's education is scarce. The present education system should not ignore the Orang Asli parents. However, the challenges of non-formal education for Orang Asli are evident (Ahmad et al., 2007). Thus, it is critical to examine the effectiveness of adult class of Orang Asli parents.

Education for Adult Orang Asli

Starting in 2008, the Government of Malaysia, through the Ministry of Education (KPM) had officially launched an Adult Orang Asli Class Program (KEDAP KPM) with the aim of exposing literacy to the parents of Orang Asli students (Kementerian Pelajaran Malaysia, 2008). Besides that, under the initiative of the Department of Orang Asli Development (JAKOA), education for adult Orang Asli has been spread wider with the launching of another two programs, i.e., Training of Skills and Career Program (PLKK), which started in 2009 and Class for Adult Orang Asli (KEDAP JAKOA) in 2013 (JAKOA, 2013a; JAKOA, 2013b). PLKK is also focused on Orang Asli adults to gain multiple skills and opportunities to gain a decent work. On the other hand, KEDAP JAKOA focused on their literacy and numeracy skills. Based on the library research, before proper education given to adult Orang Asli, they were exposed to courses such as Basic Wood Working, Basic Rattan, Basic Medical Aid for Youth Orang Asli (JHEOA, 1985), Handicraft Training Program, Program on Agricultural Development (Consultation) and Co-operative Society Movement (Tumirin, 1986). However, empirical research on

the Orang Asli in Malaysia showed that the basic courses were only given adhocly, not systematically, nor continuously (Latiff, 2010).

PROBLEM STATEMENT

Although the financial allocation given to the education of the Orang Asli was relatively high (JAKOA, 2013b; Ali, 2012), the goals of the Action Plan for Orang Asli Community Education Development (PTPPMOA) that started in the year 2001 to 2010 were not completely achieved (Ali, 2012). It was also confirmed from the study conducted by Awang and Edo (2003) where the economic and social development program executed by the government was not fully successful in developing the Orang Asli community. To develop the Orang Asli community, the government must focus on the development of the capacity building and not focusing on materialistic development (Redzuan, 2010). Based on that justification, a thorough research should be conducted to evaluate the effectiveness of the non-formal education programs that are currently ongoing for the Orang Asli.

PURPOSE AND OBJECTIVES OF THE STUDY

The purpose of the research was to evaluate the input, output, outcome dan effect of the non-formal education for adult Orang Asli programs, i.e., KEDAP KPM, KEDAP JAKOA, and PLKK. Specifically, the objectives of the research were to:

1. Evaluate the *input* aspect for the non-formal education of adult Orang Asli from the perspectives of JAKOA management, Ministry of Education management, and Private Training Institution teams who were involved conducting non-formal education programs for adult Orang Asli.
2. Evaluate the *output* aspect for the non-formal education of adult Orang Asli from the perspectives of managers, teachers and trainers, students, and trainees involved in the non-formal education program for adult Orang Asli.
3. Evaluate the *outcome* aspect for the non-formal education of adult Orang Asli from the perspectives of managers, teachers and trainers, students, and trainees involved in the non-formal education program for adult Orang Asli.

CONCEPTUAL FRAMEWORK

The conceptual framework for the research was based on Logic model by Barkman (2000), Powell et al. (2003; 2008) Fitzpatrick (2004), Kellogg (2004), Angela (2008), and McCawley (2013) as shown in Figure 1. According to Kellogg (2004), the Logic model comprised five aspects, i.e., *input*, *output*, *activity*, *outcome*, and *effect* – that could be used as prospective or retrospective evaluation (Collaborative Institute for Research, Consulting & Learning in Evaluation, 2003). Prospective was used to plan the program, and retrospective was used for monitoring and evaluating the current program and post-program. Briefly, as from the research persepctive, the *input* aspects that the researchers looked into were (a) program planning, (b) program curriculum, (c) teachers and trainers' training, (d) facilities, (e) distribution, and (f) finance. From the *output* aspects, the researchers were looking into (a) students/trainees participation, (b) teachers and trainers readiness, (c) teaching and learning process, (d) teaching and learning methods, (e) teaching and learning management, (f) students and trainees learning, and (g) learning evaluation/assessment process. From the *outcome* aspects, the researchers evaluated the results of learning, such as (a) behavioral change in students and trainees (knowledge, skills, attitude) and (b) career and entrepreneurial opportunities. The *effect* aspects enabled the researchers to make an evaluation and proposed suggestions to enhance the organization and execution of non-formal education for the adult Orang Asli programs.

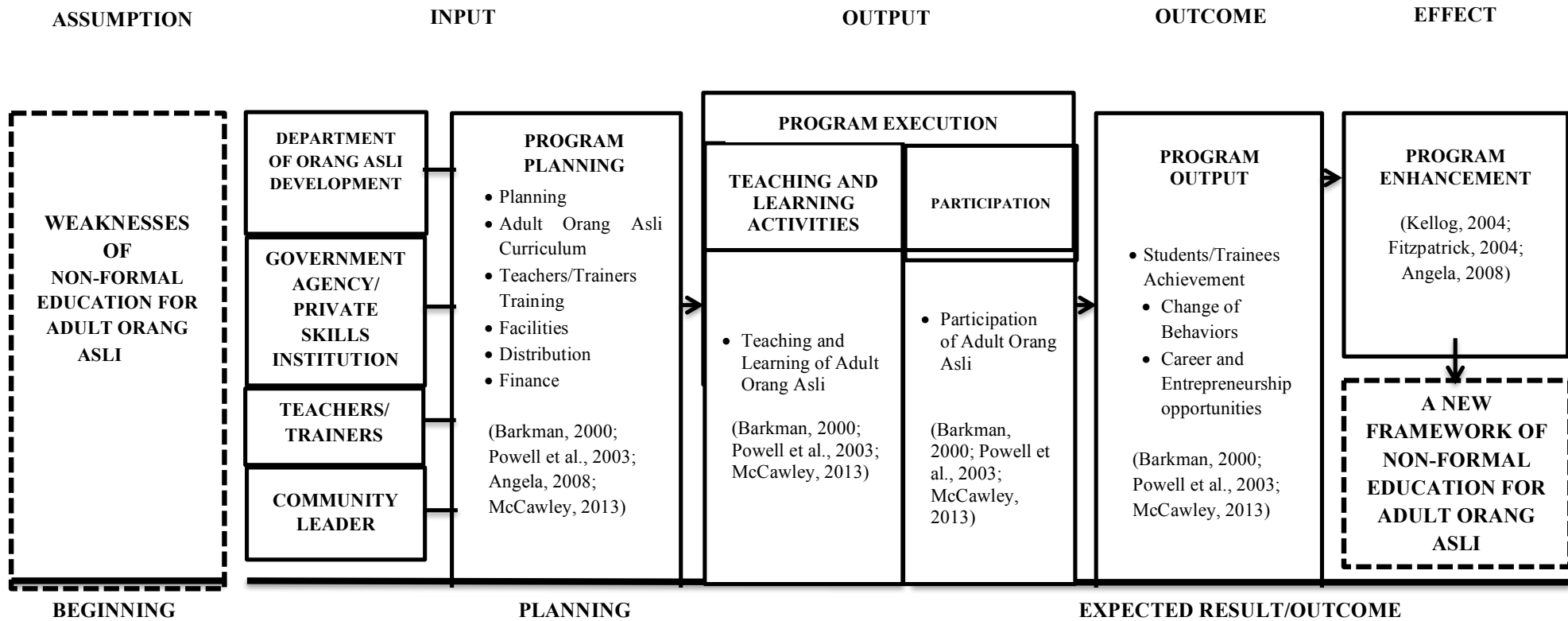


Figure 1: Conceptual framework for research on non-formal education for adult Orang Asli in Malaysia
 (Adapted from Logic Model by Barkman, 2000; Powell et al., 2003; Fitzpatrick, 2004; Kellogg, 2004; Angela, 2008; McCawley, 2013)

METHODOLOGY

The research design used in this research was research evaluation method (Weiss, 1998; Ayob, 2002; Royse et al., 2006; Babbie, 2008; Blaikie, 2010) that used the objective achievement orientation using the re-adaptation of Logic model (Kellogg, 2004). The program evaluation method used to collect and analyze data from the program to determine whether the purpose and objectives of the program were obtained (Gay, 1992). Population and samples for the research consisted of the management team of KEDAP KPM, KEDAP JAKOA, and PLKK, teachers, and trainers of KEDAP KPM and KEDAP JAKOA, adult Orang Asli students from KEDAP KPM and KEDAP JAKOA, and youth Orang Asli trainees from PLKK. A list of populations and samples of the research areas was tabulated in Table 1:

Table 1: Research population and sample

Programs	Respondents	Population	Sample
KEDAP KPM	Management	216	136
	Teachers	237	144
	Students	2370	331
KEDAP JAKOA	Management	41	36
	Teachers	132	97
	Students	3970	351
PLKK	Management	58	48
	Trainers	48	40
	Trainees	471	214

A total of 1,397 respondents took part in the research where 136 represented the management of KEDAP KPM, 36 represented the management of KEDAP JAKOA, and 48 from the management of PLKK. A sample of 144 respondents were teachers from KEDAP KPM, 97 teachers from KEDAP JAKOA, and 40 trainers from PLKK. A sample of 331 students from KEDAP KPM, 351 students from KEDAP JAKOA, and 214 trainees from PLKK were selected as respondents. Questionnaires were used in the research to collect data. Several scholars have suggested that using questionnaires was the most suitable for descriptive research such as Slavin (1992), Cohen and Manion (1994), Wiersma (2000), Mertens (2005), and Mertler and Charles (2005). There were nine sets of questionnaires for this research. A pilot study was conducted to validate the content and reliability of the questionnaires. Findings from the pilot study had shown that the questionnaires were highly reliable with the range of *Alpha Cronbach* was between 0.77 to 0.95.

RESULTS

Empirical data from the research questionnaires were analysed using the SPSS 19.0 software to determine the frequency, percentage, mean and standard deviation. The mean score for each variable used in the questionnaires was interpreted according to the range scale as displayed in Table 2.

Table 2: Mean Score interpretation for each variable in the questionnaire

Score	Mean score range	Mean score interpretation
1	1 to ≤ 1.80	Strongly disagree
2	> 1.80 to ≤ 2.60	Disagree
3	> 2.61 to ≤ 3.40	Not sure
4	> 3.41 to ≤ 4.20	Agree
5	> 4.21 to ≤ 5.00	Strongly agree

(Adapted from Wiersma, 2000)

Research Question 1

Based on Table 3, it was found that the mean scores for all aspects of *input*, *output*, and *outcome* in the management of three programs, i.e., KEDAP KPM, KEDAP JAKOA, and PLKK were in the range between 3.77 to 4.37. Table 3 showed that most respondents for the three programs said that the programs were being executed effectively.

Table 3: Mean score for program management

Construct	KEDAP KPM Management (n=136)			KEDAP JAKOA Management (n=36)			PLKK Management (n=48)		
	Mean Score	Standard Deviation	Mean Score Interpretation	Mean Score	Standard Deviation	Mean Score Interpretation	Mean Score	Standard Deviation	Mean Score Interpretation
(a) Program planning and execution	4.05	0.43	Agree	4.28	0.42	Strongly agree	4.09	0.47	Agree
(b) Curriculum	4.04	0.46	Agree	4.07	0.45	agree	4.07	0.44	Agree
(c) Teachers and trainers training	4.33	0.67	Strongly agree	4.29	0.58	Strongly agree	4.22	0.56	Strongly agree
(d) Information distribution	3.98	0.53	Agree	4.20	0.50	Agree	3.85	0.56	agree
(e) Source of finance and expenses	4.31	0.56	Strongly agree	4.29	0.49	Strongly agree	4.32	0.54	Strongly agree
(f) Available Facilities	3.95	0.84	Agree	3.77	0.72	Agree	4.11	0.67	Agree
(g) Teachers and Trainers teaching process	4.01	0.41	Agree	3.96	0.38	Agree	4.10	0.42	Agree
(h) Students/trainees teaching method	4.02	0.70	Agree	4.01	0.58	Agree	4.21	0.60	Strongly agree
(i) Teaching management	4.37	0.44	Strongly agree	4.12	0.51	Agree	4.45	0.53	Strongly agree
(j) Students/Trainers Centered Learning Method	4.08	0.49	Agree	4.08	0.45	Agree	4.20	0.46	Agree
(k) Learning Assessment Process	4.16	0.43	Agree	4.15	0.43	Agree	4.13	0.48	Agree
(l) Students/Trainees Learning Outcome	3.88	0.37	Agree	3.99	0.49	Agree	4.00	0.44	Agree
Total	4.08	0.53	Agree	4.10	0.50	Agree	4.12	0.51	Agree

Research question 2

Based on Tables 4, 5, and 6, the study found that the mean scores for *output* aspects were high between 3.72 and 4.45. These means showed that based on the perceptions of the managers, students and trainees, teachers, and trainers of KEDAP KPM, KEDAP JAKOA, and PLKK that the programs were effectively implemented.

Table 4: KEDAP KPM program output mean scores

Construct	KEDAP KPM Management (n=136)			KEDAP KPM Students (n=331)			KEDAP KPM Teachers (n=144)		
	Mean score	Standard deviation	Mean score interpretation	Mean score	Standard deviation	Mean score Interpretation	Mean Score	Standard deviation	Mean score interpretation
Teaching process	4.01	0.41	Agree	4.01	0.38	Agree	3.98	0.41	Agree
Teaching management	4.37	0.44	Strongly agree	4.16	0.49	Agree	4.41	0.65	Strongly agree
Facilities	3.95	0.84	Agree	3.96	0.82	Agree	3.84	0.66	Agree
Student centered learning method	4.02	0.70	Agree	4.07	0.63	Agree	4.03	0.58	Agree
Student centered learning method	4.08	0.49	Agree	4.08	0.49	Agree	4.09	0.47	Agree
Total	4.09	0.40	Agree	4.05	0.37	Agree	4.07	0.34	Agree

Table 5: KEDAP JAKOA program output mean scores

Construct	KEDAP JAKOA Management (n=36)			KEDAP JAKOA Students (n=351)			KEDAP JAKOA Teachers (n=97)		
	Mean score	Standard deviation	Mean score interpretation	Mean score	Standard deviation	Mean score interpretation	Mean score	Standard deviation	Mean score interpretation
Teaching process	3.96	0.38	Agree	4.00	0.50	Agree	4.09	0.43	Agree
Teaching management	4.12	0.51	Agree	3.96	0.94	Agree	3.84	0.70	Agree
Facilities	3.77	0.72	Agree	3.67	0.75	Agree	3.72	0.75	Agree
Student centered teaching method	4.01	0.58	Agree	3.96	0.61	Agree	4.02	0.58	Agree
Student centered learning method	4.08	0.45	Agree	3.98	0.59	Agree	4.07	0.48	Agree
Total	3.99	0.41	Agree	3.91	0.44	Agree	3.95	0.36	Agree

Table 6: PLKK program output mean scores

Construct	PLKK management (n=48)			PLKK trainees (n=214)			PLKK Trainers (n=40)		
	Mean score	Standard deviation	Mean score interpretation	Mean score	Standard deviation	Mean score interpretation	Mean score	Standard deviation	Mean score interpretation
Teaching process	4.10	0.42	Agree	3.82	0.44	Agree	4.10	0.37	Agree
Teaching management	4.45	0.53	Strongly agree	3.96	0.56	Agree	4.23	0.45	Strongly agree
Facilities	4.11	0.67	Agree	3.94	0.69	Agree	4.07	0.70	Agree
Student centered learning method	4.21	0.60	Strongly agree	4.13	0.59	Agree	4.16	0.63	Agree
Student centered learning method	4.20	0.46	Agree	4.08	0.51	Agree	4.16	0.47	Agree
Total	4.21	0.40	Strongly agree	3.99	0.47	Agree	4.13	0.37	Agree

Research Question 3

Tables 7, 8 and 9 displayed the findings for objective 3 on program *outcomes*. The aspects evaluated, i.e., learning evaluation process and learning results have shown relatively high mean scores between 3.78 to 4.26. Thus, the *outcomes* for the KEDAP KPM, KEDAP JAKOA, and PLKK were effectively executed, and the objectives were achieved.

Table 7: KEDAP KPM Program Outcome Mean score

Construct	KEDAP KPM Management (n=136)			KEDAP KPM Students (n=331)			KEDAP KPM Teachers (n=144)		
	Mean score	Standard deviation	Mean score interpretation	Mean score	Standard deviation	Mean score interpretation	Mean score	Standard deviation	Mean score interpretation
Learning Evaluation Process	4.16	0.43	Agree	4.17	0.42	Agree	4.17	0.42	Agree
Learning outcome	3.88	0.37	Agree	3.72	0.42	Agree	3.92	0.44	Agree
Total	4.02	0.34	Agree	3.95	0.35	Agree	4.04	0.37	Agree

Table 8: KEDAP JAKOA program outcome mean score

Construct	KEDAP JAKOA Management (n=36)			KEDAP JAKOA Students (n=351)			KEDAP JAKOA Teachers (n=97)		
	Mean score	Standard deviation	Mean score interpretation	Mean score	Standard deviation	Mean score interpretation	Mean score	Standard deviation	Mean score interpretation
Learning Evaluation Process	4.15	0.43	Agree	4.02	0.52	Agree	4.19	0.43	Agree
Learning outcome	3.99	0.49	Agree	3.83	0.48	Agree	3.99	0.49	Agree
Total	4.07	0.40	Agree	3.92	0.41	Agree	4.09	0.41	Agree

Table 9: PLKK program outcome mean score

Construct	PLKK Management (n=48)			PLKK Trainees (n=214)			PLKK Trainers (n=40)		
	Mean score	Standard deviation	Mean score interpretation	Mean score	Standard deviation	Mean score interpretation	Mean score	Standard deviation	Mean score interpretation
Learning Evaluation Process	4.13	0.48	Agree	4.05	0.61	Agree	4.25	0.39	Strongly agree
Learning outcome	4.00	0.44	Agree	3.78	0.58	Agree	4.26	0.37	Strongly agree
Total	4.07	0.42	Agree	3.91	0.47	Agree	4.26	0.33	Strongly agree

CONCLUSION

The purpose of the research was to evaluate the input, output, outcome dan effect of the non-formal education for adult Orang Asli programs. The programs include Adult Orang Asli Class organized by Malaysia Education Ministry (KEDAP KPM), Adult Orang Asli Class (KEDAP JAKOA), and Skills Training (PLKK). Program evaluation method was used as a research design in this study where the data were collected from sets of questionnaires. Respondents consisted of 220 program administrators, 281 teachers, and trainers, and 896 adult Orang Asli students and trainees from all over Malaysia who attended KEDAP KPM, KEDAP JAKOA, and PLKK. Data collected were analyzed using the Statistical Package for Social Sciences 19 (SPSS 19.0). Based on the high mean scores of almost all aspects evaluated, it can be said that the implementation of KEDAP KPM, KEDAP JAKOA, and PLKK programs were effective. The program administrators, teachers and trainers, students, and trainers have responded positively to the planning process and the execution of the programs. The results have shown that the highest means were program planning, teachers' expertise, and budgeting. The other aspects such as curriculum, learning assessment, and learner centered approach need to be improved.

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