Abstract: - This study aims to explore the perspective of adult participants from the rural areas on computer literacy program performance in terms of the cognitive domain, affective domain and skills based on gender, age and socioeconomic status. The study employed a questionnaire with five point Likert scale to collect data. This study uses Hammond and Collin’s (1991) model of evaluation, which contains three components, namely teaching, achievement, and behaviour. The study sample consisted of 537 participants enrolled in Computer Literacy Program organized by the Department of Community Development in four states in Malaysia. Data were analyzed using descriptive analysis and inferential statistics. The results show that male participants are more positive towards the teaching dimension of computer compared to female participants. Moreover, the results show that the mature age group between 41 to 50 years is seen to have better knowledge and skills in using computers than other age groups, whereas the income groups of MYR2000 have higher computer purchasing power. It is recommended that any development program for rural area should take into consideration the factors of gender and socioeconomics so that rural youth are not left behind in the country's development.

Key-Words: - Computer Literacy, Skills, Socio-Economic, Gender, Adults, Rural Community

1 Introduction
Non-formal adult education is flexible and contributes to the enhancement of the knowledge and skills of individuals [1][2]. In the Malaysian context, the adult education is geared to the educational process towards the development of adults in rural areas [3]. In general, the development programs of adults conducted in Malaysia has involved various stakeholders including the private sector, Non-government’s Organizations and the Community Development Department. The Community Development Department is an agency which has directly been involved in adult education programs since 1998 [3]. The main goal of this program is to resolve the problems faced by the average adults who do not get an opportunity to attend formal education.

2 Background of the Study
Socio-economic activity of rural communities is based on agricultural, livestock and fisheries. Almost all of this activity is done in the sense of self-sufficiency or others to meet the basic needs of the whole family [4][5]. In this situation, the head of family of farmers or fishermen communities often see their children as a source of energy and support to the heir and the activities they do. Children diligently working on the farm and the sea can help provide other additional work to ease the workload.
of the family head. Education is not seen as a factor that can enhance their productivity [6][7].

A study carried out by Hall and Moseley [8] found that adult participants experienced problems related to space and their learning situations. Space can jeopardize the attention of the participants during the learning session, and also their positions in a scattered manner in class affect cooperative learning. This causes to hamper social interactions among the participants and consequently they will have difficulty in communication.

Rural communities are bound by various customs and traditions. Although modern education is implemented in rural areas, there are still the traditional elements that influence the education system in rural communities. The presence of modern educational and scientific objectives is seen as a challenge to players of traditional education [8]. The struggle between traditional and modern thinking in this rural community, slows down the development of their education [9].

3 Statement of Problem
Computer Literacy Education Program was introduced in 1998. The main purpose of the program is to expose and guide its specific rural adults in improving their knowledge of communications technology. It also aims at providing exposure and guidance to rural communities regarding computers and information technology. In addition, the government provided computer technology facilities via this program for rural communities who cannot afford to follow the computer class with cheaper rate and affordable payments. The government hopes that this program would enhance the skills and knowledge of internet and communication technology among rural communities [3].

Computer Literacy Education Program has three basic courses including Basic Computer Literacy, software (Microsoft Word, Excel and PowerPoint) and Microsoft Publisher. Learning implementation is five days a week (twenty hours). Specially trained community developers are accountable to teach and conduct tests to evaluate the performance of the participants according to module.

The main goal of computer literacy education is to give exposure and guidance to rural communities in order to facilitate the development of information and communication technology knowledge. It also aims at improving the quality of life regarding aspects of the skills and knowledge to produce quality human resources. Through this program, the government has provided facilities to rural communities that cannot afford to attend computer classes with cheap rates and affordable payments [10]. Computer Literacy Education Program was carried out between three and six months. Recruitment of participants is performed two times a year. Participants were males and females from ages 20 to 50 years. Participants who successfully complete this program will receive a certificate. Computer Literacy Education Program is held in special buildings with complete sets of equipment, systematic management, and conducive environment. Centre operation, financial and Computer Literacy Education Program is run by members of the CSR committee in a systematic and organized way [10].

The Community Development Department plays a big role to drive the development of rural communities. The Community Development Department achievement was commendable when measured with other developing countries which are also implementing similar programs under the auspices of UNESCO. Realizing the importance of adult education for rural development, special program for them is highly needed. Although computer literacy program was carried out, the effectiveness of the program is still unclear. Indeed, there is insufficient evidence to identify adult student perspectives on computer literacy education.

2.1 Objectives of the Study
This study evaluated the effectiveness of computer literacy program organized by the Community Development Department for adults in rural areas. It aims at identifying the different perspectives of adult participants regarding computer literacy program related to the aspects of teaching methods based on socio-demographic factors such as gender, age, and socio-economic status. This study also aims to identify different perspectives on adult literacy program participants in terms of dimensional computer-related instruction scheduling aspects (organization) and behavior based on socio-demographic factors including gender, age and socioeconomic status.

4 Research Methodology
4.1 Theoretical Framework
This study uses a model of evaluation by Hammond, M and Collins, R. [11] as the research framework.

Three main components of this model are:

i. Institutional Component
Institutional component refers to the background involving gender and socio-economic aspects.

ii. Teaching Components

Teaching components covers the main aspect of teaching methods of the lecturer in the computer literacy courses that are followed.

iii. Behaviour Achievement Component

Behaviour achievement component includes three aspects, namely cognitive, attitudes and skills achieved by the participants at the end of the program of computer literacy.

4.2 Instruments

This is a survey using questionnaires and tests as research instruments for assessing the ability of the adult education program organized by the Community Development Department. Questionnaire with five-point Likert scale of agreement with the terms of: 1 = Strongly Disagree, 2 = Disagree, 3 = Not Sure, 4 = Agree, 5 = Strongly Agree, was employed. The result of pilot test showed the Cronbach Alpha value was between 0.80 and 0.86, indicating that the instrument has high level of reliability.

4.3 Respondents of the Study

Study sample consisted of participants of computer literacy program involving four states of Malaysia namely Pahang, Perak, Johor and Negeri Sembilan in Malaysia. Sampling was performed randomly in which all the participants involved in the program of computer literacy of the four states had the chance of being selected. Cluster sampling found to be appropriate for large populations scattered all over the place [12][13]. The total number of participants was 537 in which 172 from Johor, 84 from Perak, 124 Sembilan and 157 Pahang. As the programs are for participants from different states and require the researcher to have a minimum meeting, the survey method is appropriate. Furthermore, the survey method is considered to be appropriate for the study program, since it has long existed in the Community Development Department. Thus, the researcher does not have the power to make an intervention or control factors that influence whether the programs related to planning, curriculum, facilities or matters connected with the administration of the program. To analyze the data, descriptive statistics was used.

5 Findings

5.1 Level of Participants regarding the Dimensions of Teaching Computer Literacy

The results showed that the majority of computer literacy program participants as a whole have a positive attitude, as the mean value obtained was found to be moderately high. This shows that the method of teaching adult education based on the use of existing experience, teaching the application form, the use of multimedia and instructional diversity leading to the thinking process is very important. The mean of the aspects mentioned above are moderately high.

This result is in line with the study by Tsai, K.C. [14] that found that adults need more creative teaching. Regarding adult education, approaches to teaching and learning should be different from those employed with young students, because adults have a wealth of experience stemming from psychological development that can be applied [15]. Items easy to use for innovative teaching methods and the teaching that encourages creativity are well loved by the adult people. The study also showed that adults would prefer learning approach which is easy and handled informally [16]. Older adults also tend to be learning and doing practical application.

<table>
<thead>
<tr>
<th>No.</th>
<th>Items (N = 537)</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Simple teaching method</td>
<td>3.70</td>
<td>1.48</td>
</tr>
<tr>
<td>2</td>
<td>The experience of teaching</td>
<td>3.33</td>
<td>1.34</td>
</tr>
<tr>
<td>3</td>
<td>Teaching through private study</td>
<td>3.53</td>
<td>1.44</td>
</tr>
<tr>
<td>4</td>
<td>Teaching in cooperatively</td>
<td>3.27</td>
<td>1.24</td>
</tr>
<tr>
<td>5</td>
<td>Teaching applied daily problems</td>
<td>3.25</td>
<td>1.21</td>
</tr>
<tr>
<td>6</td>
<td>Teaching in a systematic and orderly pattern</td>
<td>3.63</td>
<td>1.43</td>
</tr>
<tr>
<td>7</td>
<td>Instructional materials using a variety of media</td>
<td>3.20</td>
<td>1.23</td>
</tr>
<tr>
<td>8</td>
<td>Emphasizing teaching students for understanding</td>
<td>3.32</td>
<td>1.31</td>
</tr>
<tr>
<td>9</td>
<td>Teaching that encourages students to think</td>
<td>3.72</td>
<td>1.44</td>
</tr>
<tr>
<td>10</td>
<td>Teaching that promotes creating something new</td>
<td>3.55</td>
<td>1.15</td>
</tr>
</tbody>
</table>

Achievement of the cognitive, affective and skills in computer literacy program based on gender, age and socioeconomic status

5.2 Cognitive, Affective and Skills of Computer Literacy Program Based on Gender

Table 2 clearly demonstrates an understanding of the male participants in terms of computer literacy
which is theoretically better compared to female participants; however, concerning computer skills, female participants showed better skills compared to males. Regarding attitudes toward the use of computers, there was no difference between male and female participants in terms of: (1) the desire to use the computer, (2) determination to learn the computer, (3) self-control in the use of computers and (4) creating innovation through computer use.

Table 2: Score Mean and Standard Deviation by Gender in Computer Literacy Program

<table>
<thead>
<tr>
<th>Gender</th>
<th>Achievements</th>
<th>Cognitive</th>
<th>Affective</th>
<th>Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>M (N = 180)</td>
<td>Mean</td>
<td>4.31</td>
<td>3.33</td>
<td>3.40</td>
</tr>
<tr>
<td></td>
<td>Frequency of deviation</td>
<td>1.28</td>
<td>1.42</td>
<td>0.61</td>
</tr>
<tr>
<td>F (N = 357)</td>
<td>Mean</td>
<td>4.27</td>
<td>3.72</td>
<td>3.40</td>
</tr>
<tr>
<td></td>
<td>Frequency of deviation</td>
<td>1.19</td>
<td>1.25</td>
<td>0.69</td>
</tr>
<tr>
<td>Total (N = 537)</td>
<td>Mean</td>
<td>4.28</td>
<td>3.59</td>
<td>3.40</td>
</tr>
<tr>
<td></td>
<td>Frequency of deviation</td>
<td>1.22</td>
<td>1.32</td>
<td>0.66</td>
</tr>
</tbody>
</table>

Male participants perceived information exploration and knowledge regarding various computer software but cannot internalize them effectively. However, female are more diligent participant mastering every skills based on the use of the software. Nevertheless, both genders recognize the importance of computers to meet the needs and future career in the era of globalization and have a desire to master computer skills and take advantage of the training provided to develop their knowledge and skills in using computers.

This is in line with the views of the Report of World Bank [17] that assume the key role of the community in helping people in the struggle between traditional and modern thinking in rural communities, in which men are usually are more vulnerable and have extensive socialization than women, burdening housework and child management. Therefore, technology knowledge including computer literacy can be boosted in a cooperative community.

5.3 Cognitive, Affective and Skills of Computer Literacy Program Based on Age

In terms of age, the mature age group between 41 to 50 years are seen to have better knowledge and skills in using computers than other age groups. It shows that knowledge and computer skills are easily absorbed by the rural community, because the age of maturity allows them to absorb the positive elements in the use of computers used for communication, preparation and marketing of paper. It is also needed to make awareness of the importance of computer use among participants who are 40 years old. Therefore, they have high enthusiasm to master computer skills. Furthermore the use of computer skills is closely associated with economic resources and virtual socialization [18].

5.4 Achievement of the Cognitive, Affective and Skills in Computer Literacy Program Based on Socioeconomic Status

The study also found that an understanding of the use of computer literacy has not been influenced by economic status, what is more important is that the needs and goals of mastering the use of computers; however, the income group of MYR2000 have higher purchasing power.

Table 3: Mean Scores and Standard Deviation according to the SES in the Computer Literacy Program

<table>
<thead>
<tr>
<th>Socio-Economic Status of Achievement</th>
<th>Cognitive</th>
<th>Affective</th>
<th>Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below MYR 500 (N = 257)</td>
<td>Mean</td>
<td>4.20</td>
<td>3.53</td>
</tr>
<tr>
<td></td>
<td>Frequency of deviation</td>
<td>1.34</td>
<td>1.35</td>
</tr>
<tr>
<td>MYR 501-1000 (N = 192)</td>
<td>Mean</td>
<td>4.40</td>
<td>3.76</td>
</tr>
<tr>
<td></td>
<td>Frequency of deviation</td>
<td>1.03</td>
<td>1.16</td>
</tr>
<tr>
<td>MYR 1001-1500 (N = 56)</td>
<td>Mean</td>
<td>4.07</td>
<td>3.54</td>
</tr>
<tr>
<td></td>
<td>Frequency of deviation</td>
<td>1.37</td>
<td>1.43</td>
</tr>
<tr>
<td>MYR 1501-2000 (N = 188)</td>
<td>Mean</td>
<td>4.48</td>
<td>3.78</td>
</tr>
<tr>
<td></td>
<td>Frequency of deviation</td>
<td>0.99</td>
<td>1.44</td>
</tr>
</tbody>
</table>
However, in terms of skills of using software such as Microsoft Word, Power Point and Excel the participants with incomes in the range of MYR501 to MYR2,000 show good initiative in mastering skills of using computer software, and also have a high motivation in using the online applications.

Positive attitude towards the use of computers in life and learning facilities are clearly shown by the group of participants earning between MYR1501 to MYR2000 compared to other income groups.

Isolated rural life and being away from the facility to make training and the use of computers by the Community Development Department as a form of a very important facility to the participants even be a new revolution for their lives.

6 Implications and Recommendations

Overall, this study found that most respondents have positive attitude towards the Computer Literacy Program. They acknowledge that the program is beneficial. In this situation, the role played by the Community Development Department in developing rural communities is very important and is potentially able to make a difference and leave a positive impression. Despite the overall participants’ satisfaction with facilities provided, there is a slight gap between males and females in terms of their perceptions of the whole course.

The study recommendation is that any development programs including computer literacy for rural area should take into consideration the factors of gender and socioeconomics, so that rural youth are not left behind in the country's development. To delve into this issue, further study with mixed method design is recommended.

7 Conclusion

All in all, it was found that male participants are more positive towards the teaching dimension of computer compared to female participants. Results also revealed that the majority of the participants are satisfied with the course provided. Moreover, the results show that the respondents with average socio-economic status declare that some improvement in computer software is required to boost their knowledge about computer function. Regarding gender, male participants theoretically had better understanding of computer functions, whereas female participants employed the computers more successfully and efficiently. It was observed that there is no significant difference between male and female participants regarding: (1) the desire to use the computer, (2) determination to learn the computer, (3) self-control in the use of computers and (4) creativity and innovation through the use of computers. It is recommended that any development program for rural area should take into consideration the factors of gender and socioeconomics so that rural youth are not left behind in the country's development.

References:


