Learning Styles of *Orang Asli* Students

Intan Farahana Kamsin [1*], **Rosseni Din** [1], **FarizaKhalid** [1],
Nor Syazwani Mat Salleh [1], **Analisa Hamdan** [1], **Siti Zuraida Manaf** [1]

[1] Personalized Education Research Group Universiti Kebangsaan Malaysia 43600 UKM, Bangi,Selangor

intan_tuminah@yahoo.com,rosseni@yahoo.com,fariza.khalid@ukm.edu. my,norsyazwanimatsalleh@gmail.com,analisa.hamdan@gmail.com,cikgusitizuraida@ gmail.com

*CorrespondingAuthor

ABSTRACT

Learning style is an important aspect that should be taken into account while designing teaching and learning modules. The implementation of learning modules that addresses students' learning styles can help them to achieve meaningful learning. This study aims to explore the learning styles of indigenous (known as Orang Asli in the Malay language, and henceforth) students. The respondents of this study are Orang Asli students from a southern region in Malaysia who were involved in an ICT Literacy Program. Data was generated through observations and interviews which were conducted during and after the implementation of the ICT Literacy program. Data analysis was performed using ATLAS.ti software. The findings showed the emergence of seven learning styles of Orang Asli students. The learning styles preferred by the Orang Asli learners are (i) group, (ii) individual, (iii) movement, (iv) hold and touch, (v) visual, (vi) auditory, and (vii) phrase level. This paper provides a detailed discussion of learning styles among Orang Asli students and thus, provides implications for the future developmental processes of online teaching and learning modules particularly for this particular group of students towards achieving meaningful learning.

Keywords: ICT literacy, learning styles, meaningful learning, *Orang Asli*

INTRODUCTION

Lifelong Learning (LLL) is a process of democratization of education which includes the acquisition of skills, knowledge and competence, formally or informally, based on experience and training. LLL is essential in increasing added value to the community and it is the biggest contributor to national productivity and development (Alicia & Ruth, 2011). This dream is achievable with active involvement of youth who are going to lead the nation through educational programs integrated with technology (Rosseni et al. 2011). However, the educational process for *Orang Asli* students is not integrated with technology causing them to remain isolated from the mainstream of national development. Therefore, continuous research should be conducted to identify the needs and problems faced by *Orang Asli* in education to ensure that they are not left behind. Thus, in producing excellent, knowledgeable, skillful and well-rounded *Orang Asli* human resources, the government, through the Ministry of Education (MOE), has introduced the *Orang Asli* Education Transformation Plan. This plan is designed to ensure that there is no one left behind, including the children of the *Orang Asli* community in mainstream education. In the 10th Malaysia Plan, the effort to strengthen the national education system from childhood to higher education took account of the needs of all communities including *Orang Asli* communities in rural areas. However, one problem remains unsolved, which is low motivational level of the *Orang Asli* students to learn. Therefore, it is essential to conduct programs that can increase the motivation of these students to raise their educational level so that they can improve their quality of life and be competitive with other communities (Mohamad Johdi et al., 2009).

PROBLEM STATEMENT

A reputable Turkish thinker and the author of *Risale-i Nur,* stated that the main enemy of man consists of three things, one of which is ignorance, which can be overcome through education. This shows that education is an important element in the process of removing individuals from the cocoon of ignorance especially pertinent for the *Orang Asli* community in Malaysia (Bemen & Christopher, 2012). Low motivation to learn among *Orang Asli* students is one the contributing factors that causes ignorance

(Hou & Huang, 2012; Ruth, 2010; Doug, 2001). The consequence of this is illiteracy, inability to master the 3Rs (reading, writing, arithmetic), and a low academic performance (Mohamad Johdi et al., 2009; Bemen & Christopher, 2012). Therefore, in order to ensure that the nation will not lose a part of its human resources, this problem has to be addressed by identifying the factor/s that affect motivation level among *Orang Asli* students and utilizing that knowledge to improve the educational outcomes for this group of students.

Various issues may contribute towards the low motivation level among *Orang Asli* students. This study focuses on teaching and learning (T&L) methods which are unsuited to the learning styles of *Orang Asli* students. When the T&L methods implemented do not suit the learning styles of *Orang Asli* students, their learning will be impeded causing them to lose interest and enthusiasm to attend school (Nicholas, 2010; Linda, 2005; Mohamad Johdi et al., 2009; Bemen & Christopher, 2012). Technology plays an important role in creating meaningful learning based on the learning styles of students (Shutterstock, 2011; Rosseni Din et al., 2011). Several studies on the learning styles of indigenous students have been conducted overseas, but in Malaysia, this area is still insufficiently studied (Kamarulzaman & Osman, 2008). A meta analysis of the studies conducted in Malaysia in this area reveal that these studies do not include precise and adequate elaboration as well as description about the learning styles of *Orang Asli* students. Therefore, this study aims to fill the gap in order to identify the specific learning styles of *Orang Asli* students through ICT literacy program.

METHODOLOGY

This study uses a qualitative research design by using the case study approach. This approach was used to explore a phenomenon through variety of lenses and enable the researchers to better understand the respondents' actions. The respondents involved are 5 *Orang Asli* students from an *Orang Asli* settlement in Southern Malaysia. Data was collected in two ways; through interviews and observations. Individual interviews were conducted to obtain more detailed information as well as to build a strong rapport between the respondents and the researchers. Open-ended questions were used in this study to allow the respondents to create options. Interviews were conducted once the students had gone through the ICT literacy

program. Observations were made without any specific structure in order to obtain authentic data and to avoid deliberate acting during the observation. Observations were made in every session of the lesson conducted. In order to ensure that the observations were conducted effectively, tools such as video recorder and iPad were used to record the situations that took place throughout the program.

The data collection process was conducted based on the protocols prepared before the implementation of this study to ensure that the data collected is relevant to the research questions. The data obtained was then analyzed. The data was transcribed to ease the analysis process. Transcription is the early stage in the data analysis process, which becomes a reference for audio documents. Transcribing is essential in the research validity process (Seale, 2002). After that, open coding is conducted as an initial stage in the data transcription process. Open coding is the process of identifying codes contained in the transcribed data (Seaman, 2013). These codes will then be classified into several categories of information. Each category is then analyzed based on the research questions. Using open coding can create various temporary codes that can help in the axial coding process which is the following stage of data analysis. Axial coding process is a set of procedures that involve data combination in a new form after open coding process by creating associations among the categories created. Axial coding methods are conducted by extracting the codes produced in open coding process which are then combined based on suitable or relevant associations. Axial coding is used in the analysis process of this study to create new associations between two different concepts which will be organized based on the phenomena studied on the existing association. Finally, several themes will be produced based on the axial coding.

FINDINGS

This section will elaborate on the findings obtained regarding learning styles of *Orang Asli* students based on observations and interviews conducted. Observations were made during practice sessions in computer labs, while the interviews were conducted after the respondents had gone through the personalized learning conducted. Based on the analysis, seven themes were found to be associated with the learning styles of the *Orang Asli* students.

Group

The students were found to be more enthusiastic while completing their tasks in groups. This is because they are able to discuss and complete the task together, exchanging ideas among themselves and at the same time encouraging each other to learn. Following are the explanation given by the students related to the learning style related to group work.

> *"Because learning computer, with friends I can learn how to type, I don't get this in school."*(Fat)

> *"A lot of friends."*(Aca)

Individual

The students were more focused while completing their task individually. It was observed that some of them refused to share the computer unit that they were using while completing the task. The students were asked to complete their task by using the computers provided, yet some of them moved to another place without completing the task when other students came to use the computer that they were using. Following are the statements given to illustrate the description above.

> *"Teacher, s/he is bothering me. I don't like it when other people are bothering me while I am doing my work, or I will not be able to complete it."*(Su)

> *"Teacher, s/he is using my computer, how can I do my work?"*(Mah)

> *"Can you please do your work faster; I want to use my computer to do this. Teacher, s/he is doing things slowly, I want to do my work."*(Aca)

Movement

Movement learning style appears to be the main attribute among the *Orang Asli* students. Moving around during the T&L process contributed in reducing the students' boredom and focusing them on the T&L. This attribute is also influenced by the environment of the students. For example,

the students were given 10 minutes break after each T&L session during which time they ran outside the classroom to climb the guava and mango trees nearby. Then, they took the fruits inside and ate them while continuing with the task given. Listed below are the statements made by the students to support the observation above.

> *"I cannot sit still, teacher. I cannot do my work if I have to sit all the time. I need to move around."*(Su)

> *"There were students moving from one computer to another with their wheeled chair to look on the task done by their friends and then they returned to their original place to complete their task."* (Observation2)

Hold and Touch (Tactile)

Holding and touching denotes different meanings. Holding refers to the students' action in grabbing on to something such as the computer mouse while completing their task (*Kamus Dewan,* 2005). Meanwhile, touching refers to their action in holding or putting their hands on the surface of an object. This can be further explained in this observation: *"the students touched the computer screen using their index finger to show the teacher the part that they are stuck with"*. Following is the input of one of the students related to this attribute as their learning style.

> *"Do you have to hold it to understand?" [Nod]*
> *"So, you have to hold it?" "Yes"*(Su)

Visual

The students were more focused when the learning module contained easily comprehensible pictures such as those in the PowerPoint module. The task given in this module was to prepare a poster related to tourism and the forest products available in their village. They were able to complete the task easily and rapidly because they were asked to insert pictures in their PowerPoint slides. The feedback given stated that they enjoy visual learning. The statements below are the feedback given by the students related to their learning process based on visual learning.

"Do I have to include more pictures, not more words? "More pictures."(Mah)

"Put pictures in PowerPoint"(Wan)

Auditory

Auditory is one of the learning styles preferred by the *Orang Asli* students in this study. The students were more motivated when the T&L process was conducted by integrating sound. Sound in this research refers to music, animations, videos and any other sound element that can be integrated in the T&L process. The environmental factor of living in a jungle where they are surrounded with the sound of waterfalls, birds, insects, and the sound of the trees moving to the wind has influenced the learning styles of *Orang Asli* students (Mohamad Johdi et al., 2009). Feedback and observations below further support the auditory attribute in the learning styles:

"Teacher, look. There is sound… (while smiling and focusing at the computer screen)."(Wan)

"But, one computer will be shared by two people?"

[Nod] … there are computers with speakers." "Aha…so use?"
"Aah."
"Used for?"
"To listen to… what is it… radio"(Aca)

"The students inserted music CD from the classroom into the CD player on the computer."
(Observation1)

Phrase level

The students were observed to enjoy modules with limited phrases in terms of language use. Based on the observations made throughout the class session, if the lesson displayed on Microsoft PowerPoint contained more than three phrases, the student would only read up to two or three phrases, then would stop and look at the teacher. Based on the feedback given,

37

when less phrases are used, their learning motivation increases. They can focus more as well as hasten their learning process. This also refers to the answers given by the students when questions were asked. They tended to give at least two phrases or words and then they would stop. Below are the observations and feedback given by the students related to this learning style.

"There's smoke, teacher". Student giving feedback (Observation1)

The teacher asked, 'Which TV program do you normally watch?'… student replied… "Cartoon, watching motors" (Observation3)

"I like less words when I am studying, teacher."(Su)

Orang Asli Students' Learning Style Framework

Figure 1 indicates the framework for the learning styles of the *Orang Asli* students which consists of seven attributes. The attributes include group, individual, movement, hold and touch, visual, auditory, and phrase level. This framework was created using ATLAS.ti version 1.0.15(81).
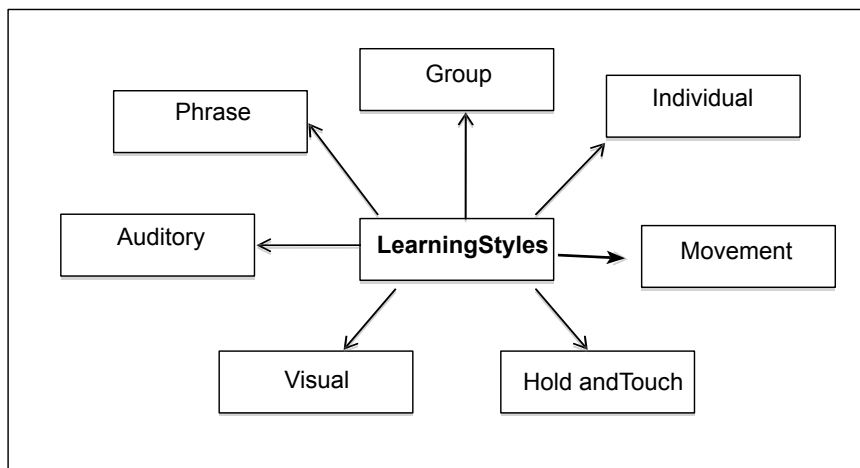

Figure 1: *Orang Asli* Students' Learning Style Framework

DISCUSSION

This study has attempted to contribute towards the discovery of the learning styles of *Orang Asli* students in Malaysia which have as yet not been thoroughly explored as compared with other studies abroad especially in Australia. The findings also show that the learning style of *Orang Asli* students in Malaysia is different from the indigenous people of other countries (Paul & Arthur, 1997). Learning styles such as hold and touch, sound (auditory) and phrase level are new attributes discovered in this study, and there are limited studies, both local and international, on these three attributes. The emergence of these attributes have contributed towards the identification of learning styles among *Orang Asli* students in Malaysia. Besides that, this discovery can also help researchers in the development of teaching and learning modules for *Orang Asli* students, ensuring that they acquire meaningful learning. It is essential to ensure that this group of students are motivated to learn and broaden their horizons to prepare them for the future.

CONCLUSION

The findings of this study reveal the emergence of seven learning styles of *Orang Asli* students based on the implementation of ICT literacy program in their T&L process. This outcome will contribute to the T&L planning process that can create meaningful learning for this particular group of children. Hopefully, this will increase students' comprehension and acceptance levels of the T&L conducted and increase their motivation to learn. By integrating students' learning styles in the T & L process, they will be more enthusiastic to prepare themselves to face the future.

REFERENCES

Alicia, B. & Ruth, W. (2011). Indigenous People And E-Nabling Technologies: An Analysis Of Recent Experiences In Northern And Central Australia. *Kulumun. Indigenous Online Journal, 1,1-14.*

Bemen, W. K. W. & Christopher, P. (2012). The Issues of Teaching and Learning In ThePrimarySchoolof Orang Asli: A Case Study of Pos Senderut, Kuala Lipis, Pahang. *BIMP-EAGA Conference,1-9.*

Doug, M. (2001). Indigenous education: Factors Affecting Students'Decisions To Continue Or Withdraw, from Tertiary Studies at Flinders University. *International Education Journal*, 2(4),233-239.

Hou,D. &Huang,C. (2012).AnAnalysisofTaiwaneseAboriginalStudents'E ducationalAspirations.
Higher Education Studies, 2(2),79-99.

Kamarulzaman Kamarudin & Osman Jusuh. (2008). Educational Policy and Opportunities of Orang Asli: A Study on Indigenious People in Malaysia. *The Journal of Human Resource and Adult Learning*, 4(1),86-97.

Kamus Dewan (2005). Dewan Bahasa Pustaka. http://dbp.gov.my. Accessed 20 January2015.

Linda, M., G. (2005). Creating Culturally Meaningful learning Environments: Teacher Actions to Engage Aboriginal Students In Learning. Thesis Doctor of Philosophy. University ofRegina.

Mohamad Johdi Salleh, Norul Khairiah Idris, Nur Awanis Abd Aziz, Nurul Huda Yusuf & Siti Aisyah Hashim. (2009). *Kajian Terhadap Kesedaran Pendidikan Di Kalangan Masyarakat Orang Asli*. Persidangan Kebangsaan Pendidikan Luar Bandar 2009.1-15.

Nicholas, C. (2010). Orang Asli: Rights, Problems, Solutions, *Suruhanjaya Hak AsasiManusia*.

Paul, H. & Arthur, J., M. (1997). Aboriginal Ways of Learning and Learning Styles. *Annual Conference of the Australian Association for Research in Education*,1-21.

Rosseni Din, Mohamad Shanudin Zakaria, Mohamad Sahari Nordin, M Faisal Kamarul Zaman, Noor Lide Abu Kassim, Tunku Badariah Tunku Ahmad, Khairul Anwar Mastor, Aidah Abdul Karim & Mohamed Amin Embi. (2011). A Meaningful Hybrid E-Training Measure And Model For Technology In Education. *AJTLHE,* 3(2),71-82.

Ruth, E., C., C. (2010). Indigenous Students' Attitudes towards Learning English through a Virtual Program: A Study in a Colombian Public University. *Profile*, 12(2),133-152.

Seale, C. (2002). Quality Issues In Qualitative Inquiry. *Qualitative Social Work*, 1(1),97-110.

Seaman, C. (2013). Using Qualitative Methods in Empirical Studies of Software Engineering. http://ccsl.ime.usp.br/files/QualMethods%20 minicourse%20USP-1.pdf. Accessed 7 January2015.

Shutterstock. (2011). *Goal of Technology Integrations: Meaningful Learning*.Pearson.