

ORANG ASLI TEMUAN MUSIC PORTAL

By

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FINAL PROJECT REPORT

**Submitted to the Computer and Information Sciences Programme
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CERTIFICATION OF APPROVAL

CAPTURING KNOWLEDGE FROM TEMUAN PEOPLE IN MALAYSIA TOWARDS KNOWLEDGE SOCIETY

by

Mohd Taufiq Aqmal Bin Abdul Gani

A project dissertation submitted to the
Computer and Information Sciences Programme
Universiti Teknologi PETRONAS
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Approved:



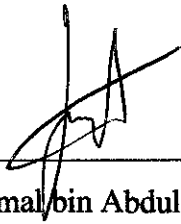
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June 2009

CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.



Mohd Taufiq Aqmal bin Abdul Gani

ABSTRACT

Long before the development of modern science, indigenous peoples which known as *Orang Asli* in Malaysia have developed their ways of knowing how to survive and also of ideas about meanings, purposes and values. They gathered knowledge for two purposes: survival and meaning. Their knowledge which can be interpreted as *indigenous knowledge* have been handed down through the generations especially music. Due to various kind of indigenous music, the scope of this study only limited *Orang Asli Temuan* people and their music. Term of *Temuan* referred to an ethnic group of *Orang Asli* in Malaysia. Traditionally, *Orang Asli Temuan* music has been inherited generation by generation of *Orang Asli Temuan* people through word of mouth. Unfortunately, this method has exposed risk of losing this knowledge due to the knowledge only be kept in minds of *Orang Asli Temuan* music experts only. The challenge indicates a part of knowledge leaking from *Orang Asli Temuan* people where knowledge should be stored, enriched and passes their next generations. It is crucial for Malaysian to understand *Orang Asli Temuan* music as part of Malaysian heritage. As an initiative to document *Orang Asli Temuan* music, a prototype of knowledge based portal has been developed to ensure the longevity of the knowledge. Hence, the uniqueness of *Orang Asli Temuan* able to appreciated by Malaysian as part of Malaysian heritage. Through this understanding and respecting different cultures in Malaysia especially *Orang Asli Temuan* music, harmony among Malaysian able to preserved. The purpose of this report paper is to capture knowledge of *Orang Asli Temuan* music and to share knowledge in a knowledge based portal that is called 'Orang Asli Temuan Music Portal'. The report presents how the portal works and benefits everyone; how efficient the proposing features can support and encourage users to share their knowledge. The paper also reviews some researches on the Malaysian and Australian web portals that applied the same concept as 'Orang Asli Temuan Music Portal' to help bring a deeper understanding towards improvement in the knowledge based portal.

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LIST OF ABBREVIATIONS

CMS – CONTENT MANAGEMENT SYSTEM

GPL - GENERAL PUBLIC LICENSE

HTML – HYPERTEXT MARKUP LANGUAGE

JHEOA- JABATAN HAL EHWAL ORANG ASLI

KM – KNOWLEDGE MANAGEMENT

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF STUDY

Jabatan Hal Ehwal Orang Asli (JHEOA) is a department in Malaysian government that is responsible in development of socio-economy and welfare of indigenous people that called *Orang Asli* in Malaysia. The main mission of JHEOA is to be an organization that guides community of *Orang Asli* to be involved actively in politic, social and economy together at the same level as other communities in Malaysia. The development of its portal (www.jheoa.gov.my) shows their effort and actions towards the vision and mission of the organization. This can be seen from their strategies, planning that have been done by JHEOA for the *Orang Asli* benefits. All the activities, planning and strategies such as arranging activities for *Orang Asli* and funding money for their education can be found in the portal.

Based on Jabatan Hal Ehwal Orang Asli (JHEOA) portal, there are 18 ethnic groups of *Orang Asli* that existed in Malaysia. One of ethnic groups that existed is called *Orang Asli Temuan*. Specifically, *Orang Asli Temuan* is the fourth largest group of *Orang Asli* in Malaysia. They live around Selangor (except Kuala Langat district), Melaka, Negeri Sembilan, Temerloh in Pahang and Muar in Johor. *Orang Asli Temuan* people can be identified by the similarity of their dialect compared to Bahasa Malaysia. For example, keyword 'kita' in Bahasa Malaysia which can be translated as we in English has been used in their dialect as 'kitak'. This is an advantage because it is easier for this study to be done.

Music is important in *Orang Asli Temuan* lifestyle. *Orang Asli Temuan* music functioned as a tool to maintain good relationship among *Orang Asli Temuan* people and their remembrance towards their ancestors. It has been performed by *Orang Asli Temuan* people to celebrate important events like the clearing of land, the end of the harvesting season and weddings. *Orang Asli Temuan* music can be represented by setting up one or more cultural groups to perform this music. They usually performed the music during *Hari Kesedaran*, one of the most important festivals for *Orang Asli Temuan* people. For example, *Kumpulan Pengsek* and *Kumpulan Lanok 3* are the *Temuan* cultural groups that actively performed in Jelebu, Negeri Sembilan respectively. Basically, these cultural groups consisted of three main components which are musicians, dancers and actors. The musicians are the heart of these cultural groups because they controlled the flow of music during performance. The uniqueness of these characteristics has been well-recognized by foreign tourists during Visit Malaysia Year 2007.

However, throughout assimilation that has been introduced by the Malaysian government has affected their way of life nowadays. Some of them have been affected by the influence of modernity which knowledge and information of their music might be gradually diminished in the future. As time goes by, the knowledge and information of music also has been forgotten by the Malaysian community due to the circumstances. As a solution for the risk of losing tacit knowledge of *Orang Asli Temuan* music like how to play *kong-kong* and *tung-tung*, a knowledge based portal should be developed as a resource centre to preserve this cultural heritage of *Orang Asli Temuan* people for the community benefits. This portal has encouraged researchers and academicians to share more their tacit and explicit knowledge of *Orang Asli Temuan* music. Their involvement in the portal indicated that the concept of knowledge society does really exist during the process of capturing knowledge of *Orang Asli Temuan* music. The development of the portal also supports the objectives of JHEOA - to conserve *Orang Asli* history as part of Malaysian heritage.

1.2 PROBLEM STATEMENT

Since development of JHEOA, it has successfully transformed strategies into actions to achieve their vision; to preserve *Orang Asli* cultural and heritage. Their initiatives have been envisaged by the establishment of Muzium Orang Asli and Perpustakaan Orang Asli which are situated in Gombak, Selangor. The main function of these information centers is to provide knowledge and information on cultural and heritage of *Orang Asli* in Malaysia. However, researchers and academicians are not willing to visit the museum or library everyday due to time and cost constraints. Therefore, the utilization of web based system is the best approach to obtain knowledge and information of *Orang Asli Temuan* music.

As web based system is very widely utilized, a non-profit organization called Akar Umbi used this advantage by developing a website called *Magick River*. The development of this website allowed Malaysian to discover information on *Orang Asli Temuan* people and music. Regardless of this initiative, there are two common drawbacks of the website:

- 1) Lack on focus as a resource centre of *Orang Asli Temuan* music; lack of additional features like forum, photo gallery, video gallery and latest news.
- 2) Existence of websites that exposed knowledge and information on *Orang Asli Temuan* music are hardly to be found.

Due to these advantages, a knowledge based portal should be created as a resource centre to capture tacit and explicit knowledge of *Orang Asli Temuan* music. Additional features like forum, photo gallery, video gallery and latest news able to enhance the effectiveness of knowledge sharing practice among the researchers.

1.3 OBJECTIVE

The main objectives for the Final Year Report (FYP) are:

- 1) To capture the tacit and explicit knowledge of *Orang Asli Temuan* music based on interviews with *Orang Asli Temuan* people in Kampung Putra, Simpang Durian and Kampung Parit Gong, Simpang Pertang, Jelebu, Negeri Sembilan, Malaysia.
- 2) To develop knowledge based portal of *Orang Asli Temuan* music for researchers, academician and public to understand *Orang Asli Temuan* music towards community benefits.

1.4 SCOPE OF STUDY

The scope of study for this project covered the researches on knowledge of *Orang Asli Temuan* music. The target audiences for this project are researchers and academicians. All knowledge and information of *Orang Asli Temuan* music including *kong-kong*, *tung-tung* and *bumbut* should be captured by applying knowledge capture techniques like interviews and learning by observation. The project will be implemented in 2 phases:

- Phase 1: Complete capturing knowledge and information of *Orang Asli Temuan* music by researches and interviews with *Orang Asli Temuan* people.
- Phase 2: Develop a prototype of knowledge based portal using Joomla platform to capture and document knowledge and information of *Orang Asli Temuan* music towards community benefits.

CHAPTER 2

LITERATURE REVIEW

2.1 DEFINITIONS OF INDIGENOUS PEOPLE

“Indigenous” has been defined by the World Council of Indigenous Peoples as: 1. The original inhabitants of an area; 2. The descendants of the original inhabitants of an area who are colonized; 3. Those who live in an indigenous way and who are accepted by the indigenous community. These usages tend to define indigenous by the experiences shared by a group of people who have inhabited a country for thousands of years, which often contrast with those of other groups of people who reside in the same country for a few hundred years. A number of alternative terms are preferred to indigenous. There are over 300 million indigenous people in the world, living on every continent and representing thousands of different cultures. (Ethel, 2004) (Please refer to Appendix 2-1 for more details)

Apart from of the indigenous peoples diversification, there is common similarities among them as they inherit richness of art and culture from previous generation especially art music. Art music, which encompassed transmitted music composed by specific individuals as an expression of their artistic creativity. (Chris, 2003) The art music can be concisely defined by the music that have played by some group of people to express their feeling on the situations that they endured such as win a great battle or grief on loss of loving ones. These situations showed that there is a strong correlation between art music and indigenous people lifestyle which they inherited from previous generation. It also can be applied on *Orang Asli Temuan* people who also inherited music from their ancestors since thousands years ago. The music still have strong bond with their lifestyle even tough new instruments like guitar have been added as additional music instruments.

2.2 OVERVIEW ON MUSIC OF ABORIGINAL AUSTRALIAN

In Australia, Aboriginal Australian has been well recognized by the government especially on richness of their art music. For instance, the Australia Council for the Arts has released a fully revised second edition of its protocol guides to help Australians better understand the use of Indigenous cultural material. The guides' editor Terri Janke said the guides were also created to help Indigenous artists know their rights and get a better financial return for their work.' Indigenous arts are worth more than \$500 million dollars to the Australian economy, but there are still some gaps in the general understanding of how cultural practices and Australian copyright law interact,' Ms Janke said. (Janke, 2007)

2.2.1 Apology to Aborigines by Australian Government

On the 13th of February 2008, New Prime Minister Kevin Rudd read the apology to Aborigines and the "Stolen Generations" of children who were taken from their families as a symbolic action towards the Australian government apologized for years of "mistreatment" that inflicted "profound grief, suffering and loss" on the country's Aboriginal people. (CNN, 2008) The apology was particularly addressed to the so-called Stolen Generations, the tens of thousands of indigenous children who were removed, sometimes forcibly, from their families in a policy of assimilation that only ended in the 1970s. The apology has been enshrined as a "new beginning". Indeed, it was on the one hand, about the past, and on the other hand, about the future. "A future where all Australians, whatever their origins, are truly equal partners, with equal opportunities." (CNN, 2008)

The apology also has inspired an Internet-based political action group Get Up to come up with an idea to create a pop song called "From Little Things, Big Things Grow". The song illustrates on rapprochement between mainstream Australia and the country's disadvantaged Aboriginal minority. "This follows a long history of being a significant song, but it has been given a new meaning because of the apology," said Richard

Kingsmill, music director of Triple J, one of Australia's most popular music radio stations. (Tim, 2008)

2.2.2 Australian government initiative towards Aboriginal tourism

The potential for Aboriginal tourist involvement is undeniable, as there are currently more than 40,000 Aboriginal sites that are listed within the Australian National Estate and in State Registers (Sofield, 2002). The Register of National Estate is maintained by the Australian Heritage Commission, and includes areas of “natural, historic, and Aboriginal heritage which should be conserved” (The Australian Heritage Commission, 2004). Based on the situation, it proved that Australian government has taken its responsibility to embrace Aboriginal social and economic development by promoting their music as national tourism product. Poverty among Aboriginal reduced with this government initiative while at the same time they can contribute their effort to promote Aboriginal tourism.

However, the benefits from Aboriginal tourism do not distributed to whole community of Aboriginal. Ryan and Hutton suggest that Aboriginals may benefit more by merely producing artifacts for mass consumption, rather than considering more interaction with tourists. The situation has been worsening since the tourists are more contented with stereotype performance rather than accurate performance of their culture. It has been encouraged the tribal members to focus on money rather than originality of their culture. Nevertheless, the situation has been resolved with government involvement to promote the significant aspects of their culture and history.

2.3 ISSUES ON MUSIC OF *ORANG ASLI* IN MALAYSIA

In Malaysia, Malaysia government via JHEOA played the main role as an organization which is responsible in developing socio-economy and welfare of *Orang Asli*. It has been established on 1953/54 under rule called 'Aboriginal Peoples' Ordinance No. 3, 1954' to protect *Orang Asli* and their way of life from modernization and other exploitations as well as to provide education and possible development for them ("Vision and Mission",2008).In order to achieve the mission and vision of the department, the web portal has been developed by providing information on JHEOA and *Orang Asli*; history, photos galleries, latest news and activities and information centers. (Please refer to Appendix 2-2 for more details) However, there is still a massive gap on knowledgeable approaches of promoting cultural music for *Orang Asli* comparing to Aboriginal Australian situation as general issues of *Orang Asli* such land and poverty are the main concerns on JHEOA website rather than focused on music of *Orang Asli*.

Antares, one of the members of a *Orang Asli Temuan* cultural group called *Akar Umbi* has managed to develop website called *MagicRiver* (<http://www.magicriver.net/index.htm>). (Please refer to Appendix 2-3 for more details) It has been developed since 1999 (Antares, 2002). The website is unique because of it is the only website that existed that concerning on issues of *Orang Asli Temuan* people and exposing *Orang Asli Temuan* music through *Akar Umbi* to Malaysian. It is a pioneer website that promoted *Orang Asli Temuan* people and their culture in Malaysia. Various articles of *Orang Asli Temuan* knowledge; people, culture, music, and beliefs are included in the website. It also included with photo galleries that exposed on the life of *Temuan* people in Malaysia especially Kuala Kubu Bharu, Selangor. The author managed to collaborate with other researchers and supportive people who have contributed their knowledge on *Orang Asli Temuan* towards benefits of website. The collaboration showed that knowledge sharing activities are actively been done among the researchers and supportive people towards *Orang Asli Temuan* knowledge.

Since the scope of the website is *Orang Asli Temuan* knowledge, the knowledge and information of *Orang Asli Temuan* music does not widely exposed in the web-documented form. Even tough, it has been acknowledged as information based portal, it still does not recognized as knowledge based portal because information on the website is still in text-based form and lack of resourceful features like video and forum. Thus, a resourceful portal of *Orang Asli Temuan* music with additional features; news, photo gallery and forums should be developed as one of the best solution to preserve the knowledge of *Orang Asli Temuan* and national heritage generally. The concept of the Australian Aboriginal music and cultural portals as well as *MagicRiver* website might be the main references for the knowledge based portal on design and implementation process of the project. The website also linked with a blog called *MagicRiver*. It has been established in December 2006 and also has been developed by Antares. However, the scope of the blog is on current political issues in Malaysia and researchers are hardly to find *Orang Asli Temuan* knowledge on the websites.

2.4 OVERVIEW ON WEB PORTALS

2.4.1 Introduction

A Portal is a web site that aims to be an entry point to the World-Wide Web, typically offering a search engine and/or links to useful pages, and possibly news or other services. Most portals on the Internet exist to generate advertising income for their owners; others may be focused on a specific group of users and may be part of an intranet or extranet. Some may just concentrate on one particular subject, say technology or medicine, and are known as vertical portals. ("What is a web portal",2008) Based on the information, web portal can describe as a site that allows everyone to access to information on the World Wide Web. It also offers other services such as e-mail, news, and other features. Web portal can be diverged two types which are information portal and knowledge portal.

Portals started as applications, typically Web-based, providing a single point of access to distributed on-line information, such as documents resulting from a search, news channels, and links to specialized Web sites. Because of their emphasis on information, these first-generation portals are often called information portals. (R. Mack, Y. Ravin, & R. J. Byrd,2001) In the other hand, information portals can be defined as a web site that offers precious services for a community of users who share common interests. For example, *MagicRiver* website is a good example of information portals since it provides text-based information and knowledge of *Orang Asli Temuan*; people, beliefs and music. The website also promotes knowledge sharing initiatives since the author has been collaborated with other researchers to share ideas and thought on *Orang Asli Temuan* knowledge.

One of the most important features of any web portal application is to design a friendly place to attract authors to join and contribute posting useful information to the portal. Authors who contribute content for the portal need to know feedbacks, popularity, and other related issues of their articles or contribution. Recognition can motivate them to contribute more on their works and able to develop interest among the authors via

frequently updating their article in the portal. This can be achieved by showing some parameters like top five authors or in terms of popularity.

2.4.2 Critical Success Factors for Building a Knowledge Based Portal

A successful development of a knowledge based portal should be built with:

- **Simplicity:** The portal should be easy and simple enough for normal users and experts to understand and find it convenient to apply and perform actions.
- **Open architecture:** The portal's overall architecture should provide the flexibility especially on its feature in order to achieve the objective of developing the web portal; capture the knowledge on music of *Temuan* people in Malaysia.
- **Resource Maximization:** Cost- effective feature should be applied in the portal via open source usage to minimize the cost of technology.
- **Proven Technology:** Reliable and technical configuration should be easy to implement on the server and stable once put into user by end-users

2.4.3 Previous Implementation of Web Portal on Indigenous People

Australian Government Culture and Recreation web portal

Australian Government Culture and Recreation web portal is another example of platform that has been created by Australian government through department of Culture and Recreation. (Please refer to Appendix 2-4 for more details). One the main reasons of the portal is to promote most of the aspects of Indigenous Australian culture – music, song, dance, body decoration, sculpture and painting. It also contains a few interesting issues of Indigenous Australia cultures as the oldest living cultural history in the world; collection of stories and articles on Australian history, culture and recreation, weekly news update on what's on and what's coming up in Australian culture and recreation plus a monthly newsletter, a range of resources including grants and services, digital content industry information and website development, search on other Australian culture sites.

This portal application is design for Web Portal Server. Users logon through a browser and the application communicate with the solution components of Culture and Recreation department using database and Portal Search Function. In addition, users can contribute and give feedback about articles in the web portal by emailing to editor of the portal

Yothu Yindi website

Yothu Yindi website is one of the examples for Aborigines music portal in Australia. (Please refer to Appendix 2-4 for more details). It has been developed in order to promote an Indigenous Australia band called Yothu Yindi to the mainstream industry. On the website, there a few important features to indicate on the information and knowledge of Indigenous Australia music; stories behind the songs, video and audio downloads, and latest news on Indigenous Australia music festival and activities especially about Yothu Yindi. The success of Aboriginal music via this website reflects on a greater acceptance of Aboriginal culture by white in Australia

Skinnyfish Music Portal

A major challenge of today's information systems is to provide the user with the right information at the right time. Using web-based technologies, Skinnyfish Music Portal is another approach to provide a single access to various types of information and knowledge of Indigenous Australian especially in traditional indigenous music. (Please refer to Appendix 2-4 for more details). By browsing the website, the users able to know in depth about the information and on their music like music performers and artist that seek to blend traditional modes with modern instruments or techniques.

Aboriginal Canada Portal (ACP)

The Aboriginal Canada Portal (ACP) is an example of indigenous portal about to Inuit and Métis, indigenous people who live in Canada. (Please refer to Appendix 2-4 for more details). The portal also contains information about their music, songs and music instruments. The portal is a partnership between Canadian government departments and

the indigenous community that allows better quality service and information delivery and to the degree possible, ensures that the site continues to evolve with a user-friendly and useful manner especially on the knowledge of their music.

2.5 WHAT IS A KNOWLEDGE SOCIETY?

2.5.1 Characteristics

Knowledge societies have the characteristic that knowledge forms major component of any human activity. Economic, social, cultural, and all other human activities become dependent on a huge volume of knowledge and information. A knowledge society is one in which knowledge becomes major creative force. ("Knowledge Society", 2008) Based on the definition, knowledge society has become main component in economic, social, cultural, and all other human activities towards sharing and building for social development especially in Malaysia perspective. Generally, knowledge society can be implemented base on three concept of freedom:-

- *Knowledge by nature is free.* Knowledge should be shared for everyone without any hoarding action towards it.
- *Knowledge should be free for better benefit of society.* Knowledge especially tacit knowledge should be documented to prevent it losses due to inevitable incidents; disasters and fatality.

2.5.1 Key Indicators of Knowledge Society

Below are the comparisons based on key indicators of knowledge society between Malaysia and other countries. (Please refer to Table 2.1 for more details)

Table 2.1 Knowledge Society Indicators, 1995/1998

Source : Statistical Appendix, World Development Report 1995/1998

Indicators	Malaysia	Indonesia	Korea	Netherlands	Germany
Population	21	220	46	16	82
Land area, ths sq km	329	1919	99	34	349
GNP billion US\$	98.2	221.9	485.2	402.7	2319.5
GNP at PPP per capita	10920	3450	13500	21340	21300
Mobile phones per 1000 people	74	3	70	52	71
PCs per 1000 people	42.8	4.8	131.7	232.0	233.2
Internet hosts per 10,000 people	19.3	0.54	28.77	219.01	106.68
Scientists and engineers in R&D per million people	87	181 ¹⁴	2636	2656	3016
High technology exports, % of manufacturing exports	67	18	39	42	25
Nr. of patents filed, residents	141	ni	59249	4460	51948
Nr. of patents filed, non-residents	3911	ni	37308	59279	84667

Based on the Table 2.1, Malaysia has become competent in developing knowledge society which produce better prospect especially the future for KM in Malaysia. The concepts of 'knowledge society' or 'knowledge-based economy' have a tendency to be separated from reality. A knowledge society becomes a vision (a wawasan). This was also pronounced by Malaysia's prime minister in his famous speech on his vision Wawasan 2020. "There was a time when land was the most fundamental basis of prosperity and wealth. Then came the second wave, the age of industrialization. Smokestacks rose where the fields were once cultivated. Now, increasingly, knowledge will not only be the basis of power but also prosperity..... No effort must be spared in the

creation of an information rich Malaysian society” (Mahathir, 1991). In other words, the knowledge society concept can be illustrated in vision which believed as a social fact which may impact on societal and economic reality especially in Malaysian community.

Therefore, the concept of the knowledge society should be implemented via knowledge portal in the project to ensure the knowledge of *Orang Asli Temuan* music can be shared and distributed to the people especially Malaysian and avoided risk of losing tacit knowledge of *Orang Asli Temuan* music. Through the collaboration with the government through JHEOA and *Orang Asli Temuan* people, it might be advanced effort towards creating better knowledge society in Malaysia to preserve *Orang Asli Temuan* music.

2.6 WHAT IS A NONAKA'S SECI MODEL?

The Nonaka SECI model has been proposed by Ikujiro Nonaka and Hirotaka Takeuchi as a model of the knowledge creating process to understand the dynamic nature of knowledge creation, and to manage such a process effectively. ["SECI Model.", 2008] According to Professor Ikujiro Nonaka, knowledge creation is a spiraling process of interactions between explicit and tacit knowledge. The interactions between the explicit and tacit knowledge lead to the creation of new knowledge. ("Nonaka's Knowledge," 2008) Since, it is the most recognized and accepted model of knowledge transfer all over the world, it is important to understand SECI model; appreciates the dynamic nature of knowledge and knowledge creation. (Please refer to Figure 2.1 for more details).

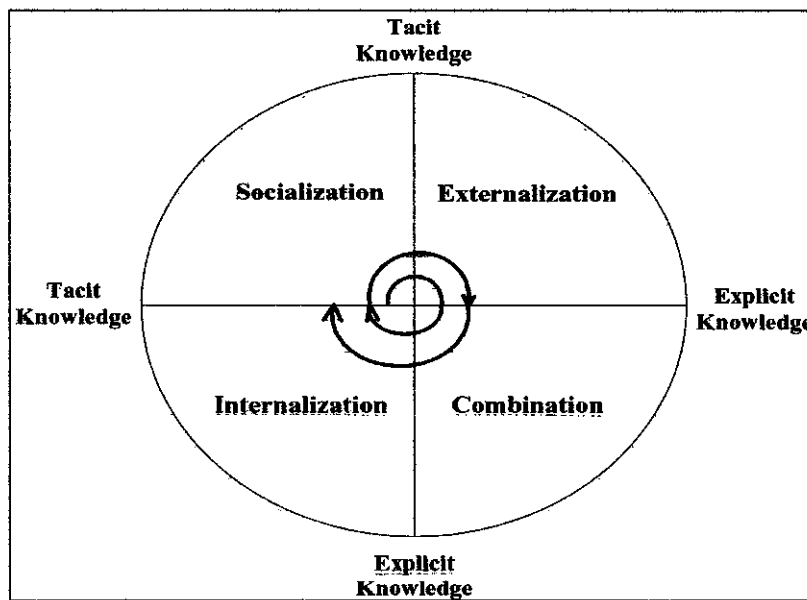


Figure 2.1 Nonaka SECI model

Source: <http://www.emeraldinsight.com/fig/2300070401001.png>

Therefore, the relevance to apply Nonaka SECI model for the project is to ensure knowledge on *Orang Asli Temuan* music is been shared and transferred effectively based

on modes of knowledge conversion interact in the spiral of knowledge creation which as below :

- **Socialization:** Able to capture and share the tacit knowledge of *Orang Asli Temuan* music through face-to-face communication and shared experience based on interviews with *Orang Asli Temuan* music experts.
- **Externalization:** The concept of the portal should be easy and simple for both end users and experts to understand and find it convenient to use and perform actions. The tacit knowledge of *Orang Asli Temuan* music will be documented into explicit knowledge for further analysis in the project.
- **Combination:** The portal should contain provide flexibility in term of *Orang Asli Temuan* music experts finding and file sharing amongst the members of the portal via combination of various elements of explicit knowledge.
- **Internalization:** Knowledge and information of *Orang Asli Temuan* music from portal has stored in mind of researchers and academicians.

2.7 CONTENT MANAGEMENT SYSTEM (CMS)

Content management system can be defined as "A CMS is a tool that enables a variety of (centralized) technical and (de-centralized) non technical staff to create, edit, manage and finally publish (in a number of formats) a variety of content (such as text, graphics, video, documents etc), whilst being constrained by a centralized set of rules, process and workflows that ensure coherent, validated electronic content." ("What is a Content Management System," 2008) It can be simply described as a combination of tools which can manage the content of the system and able to produce the desired result. Joomla which is one of CMS has been selected as a platform to document the knowledge of *Orang Asli Temuan* music due to its advantages; user-friendly and extensibility. To ensure successful development of knowledge based portal through this platform in order to document tacit and explicit knowledge of *Temuan* music, it should be built with:

- **Responsibilities.** Identification of all key users and their content management roles of the portal should be well-defined in term of recognition on their works.
- **Categorization.** The administrator should be able to assign roles and responsibilities to different content categories or types via well- organized explicit knowledge of *Orang Asli Temuan* music;
- **Graphic user interface.** The layout of the portal need to be set the colour, fonts, or emphasis of text as well as separation of content's semantic layer from its layout to attract authors to update their works for the portal.
- **Scanning.** The users to have the ability to capture the big picture and related ideas of elements of *Orang Asli Temuan* music.

Once the team and the parameters of the KM implementation in the knowledge based portal that using CMS are identified, the champion and working group dedicated to developing this KM initiative would then begin planning, focusing on transforming information of *Orang Asli Temuan* people into knowledge that should be documented in this portal. The working group must also decide upon the measurement to monitor progress and success of the initiative. For example, knowledge based portal able to rate as a successful portal based on user visiting count, number of registered users and their

frequent contribution once the portal is put on production. The more users visiting, users registered as official members and more articles posted on the application, it could be considered as successful CMS in term of documentation of *Orang Asli Temuan* music to some extent.

CHAPTER 3

METHODOLOGY

3.1 PROJECT IDENTIFICATION

There are two phases of methodology that going to be implemented for this project which started with an interview with *Orang Asli Temuan* music experts representative in Kampung Putra, Simpang Durian, Jelebu, Negeri Sembilan to capture and analyze on knowledge and information of *Orang Asli Temuan* music .The project followed through some researches via journals and articles regarding important issues of indigenous people worldwide and Malaysia and studying on KM concept to be applied for knowledge based portal.

On the second phase, implementation of prototyping methodology will be implemented and also applied all modes of knowledge conversion interact in Nonaka SECI Model; socialization, externalization, combination and internalization during development of knowledge based portal. The prototyping and Nonaka SECI Model are suitable to be applied in this project because it useful to develop and validate user requirements; experimenting with or comparing various design solutions since the user (knowledge workers) is involved throughout the process, which increases the possibility of user acceptance on knowledge based portal of the final implementation.

Moreover, it provides flexibility during when experimenting with or comparing various design solutions. In the prototyping methodology, it addresses the inability of many users to specify their information needs, and the difficulty of systems analysts to understand the user's environment, by providing with a tentative system for experimental purposes at the earliest possible time. (Janson and Smith, 1985) .The prototyping is very powerful. It has

ability to improve user participation in system development especially on developing and validating user requirements for the knowledge based portal. It is much better to build something if it is precisely known something is. There are five stages of the methodology for the project which as Figure 3.1 below:-

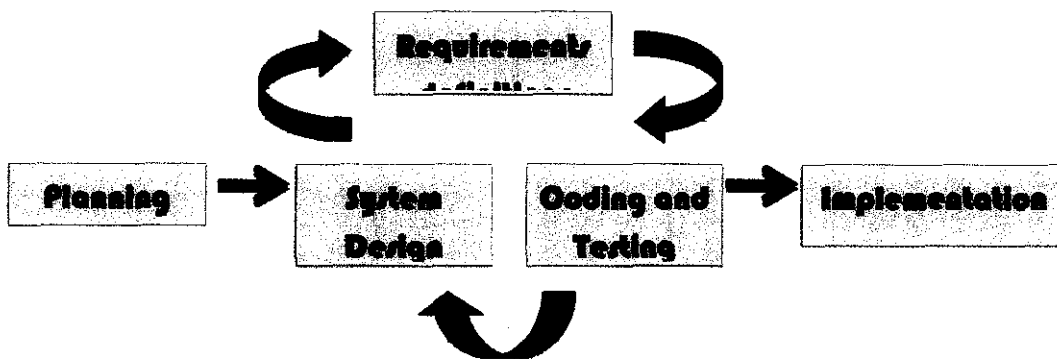


Figure 3.1 Prototyping Methodology workflow

- **Planning.** Knowledge and information of *Orang Asli Temuan* music are gathered and analyzed
- **Requirements Definition.** After the knowledge has been captured, the requirements of developing knowledge based portal need to be defined. The concepts of knowledge based portal which consists of the combined tacit knowledge and needed by to be referred to experts (knowledge based portal developer, *Orang Asli Temuan* music experts and researchers)
- **System Design.** The structure of the portal need to be designed based on the structure of knowledge based portal architecture.
- **Coding and testing.** Appropriate programming tools is coded and tested for knowledge based portal based on explicit knowledge on *Orang Asli Temuan* music that has been captured.
- **Implementation.** The model of the knowledge based portal is deployed to the end users and able to communicate with stakeholders and it can supply a concrete way of organizing and expanding the initial concept on *Orang Asli Temuan* music.

3.2 GANTT CHART

The Gantt chart shows the timeline and the important milestone of the project. Refer Appendix 3-1.

3.3 PORTAL DESIGN

3.3.1 Portal Architecture Design

The proposed architecture for the system is a three-tier server-client architecture which used three sets of computers which as Figure 3.2 below:

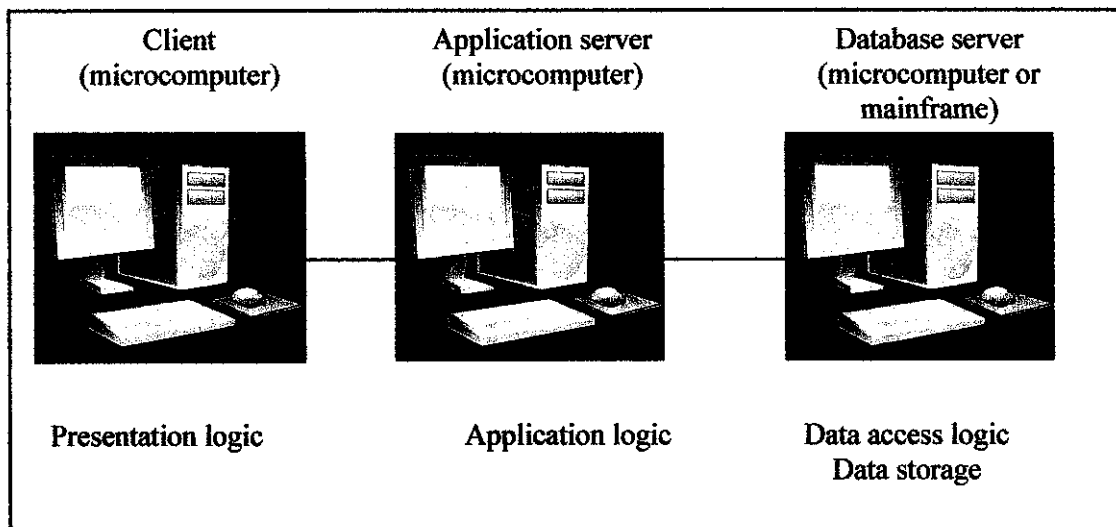


Figure 3.2 Three-tier server-client architecture

The server would be operating on Apache with SQL server as backend database. Two form of system architecture applied for the portal; logical and physical. In logical architecture part (Please refer to Figure 3.3 for more details), there are three tiers in the server; presentation tier, application tier and data tier. The presentation tier is applied to manage the user interface and data management for the users. This logic strongly linked with usage of Content Management System of the portal. The application tier provides the essential logic to operate and manage the portal. The data tier provides access to SQL

data storage of the portal. The Database Management System (DBMS) will be applied to handle all requests to query the database. The Business Logic Layer will take PHP to execute all necessary functions of the system and generate dynamic content in the portal. The portal can be accessed by the users via suitable Web Browser.

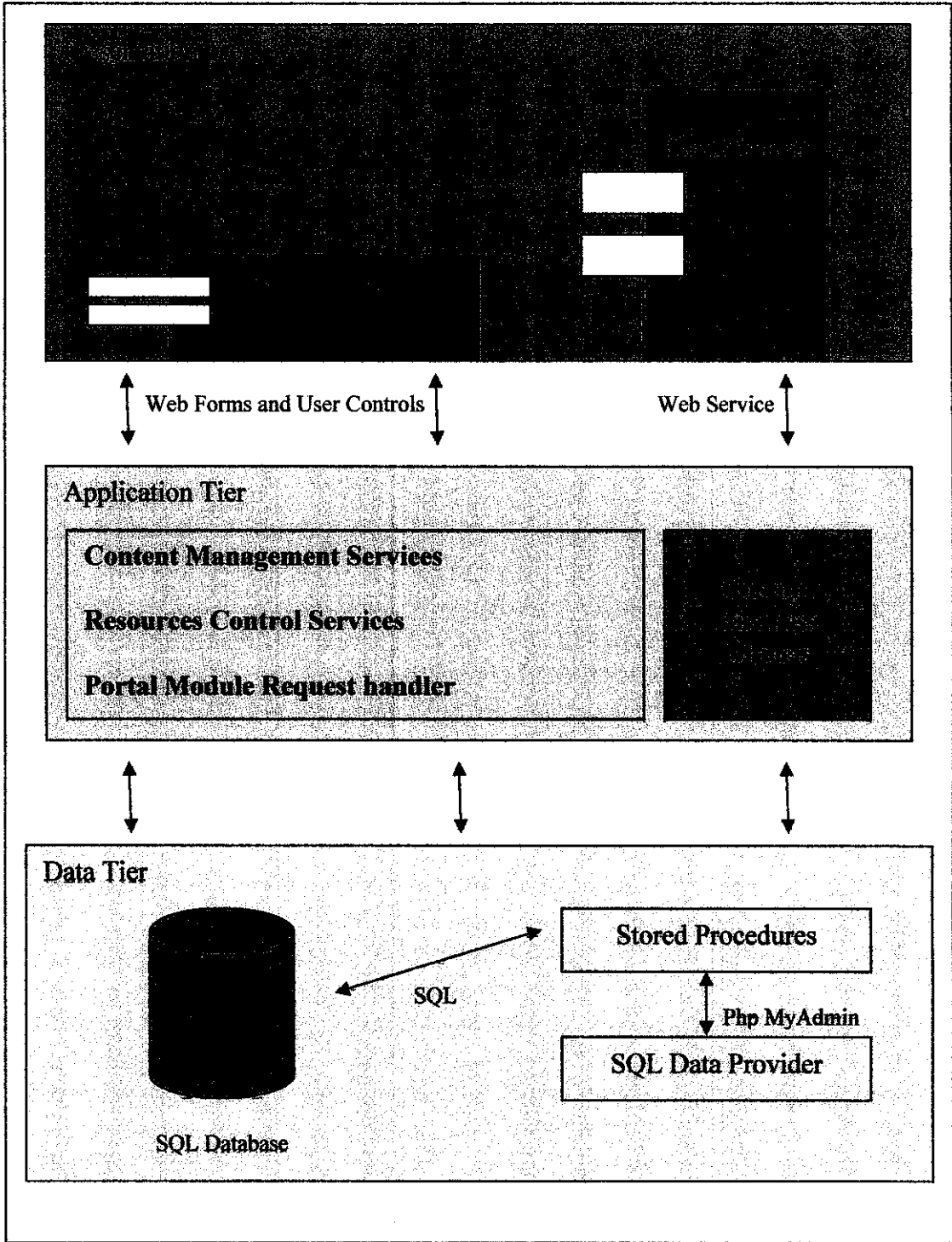


Figure 3.3 Logical Architecture of Orang Asli Temuan Music Portal

On the physical architecture layout (Figure 3.4), the clients who use PC platform be able to access directly to the portal at the server through the security management of portal server.

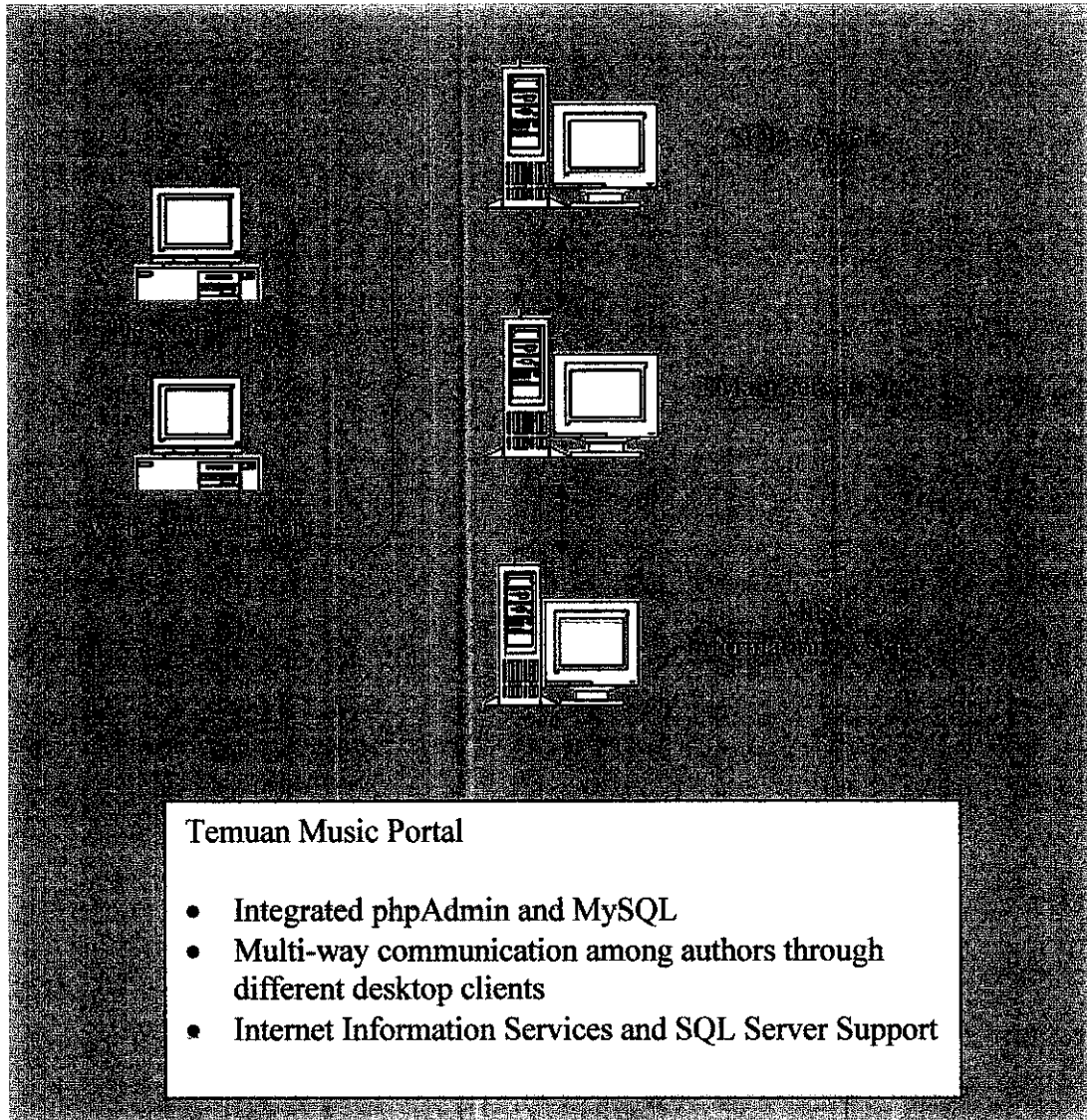


Figure 3.4 Physical Architecture of Orang Asli Temuan Music Portal

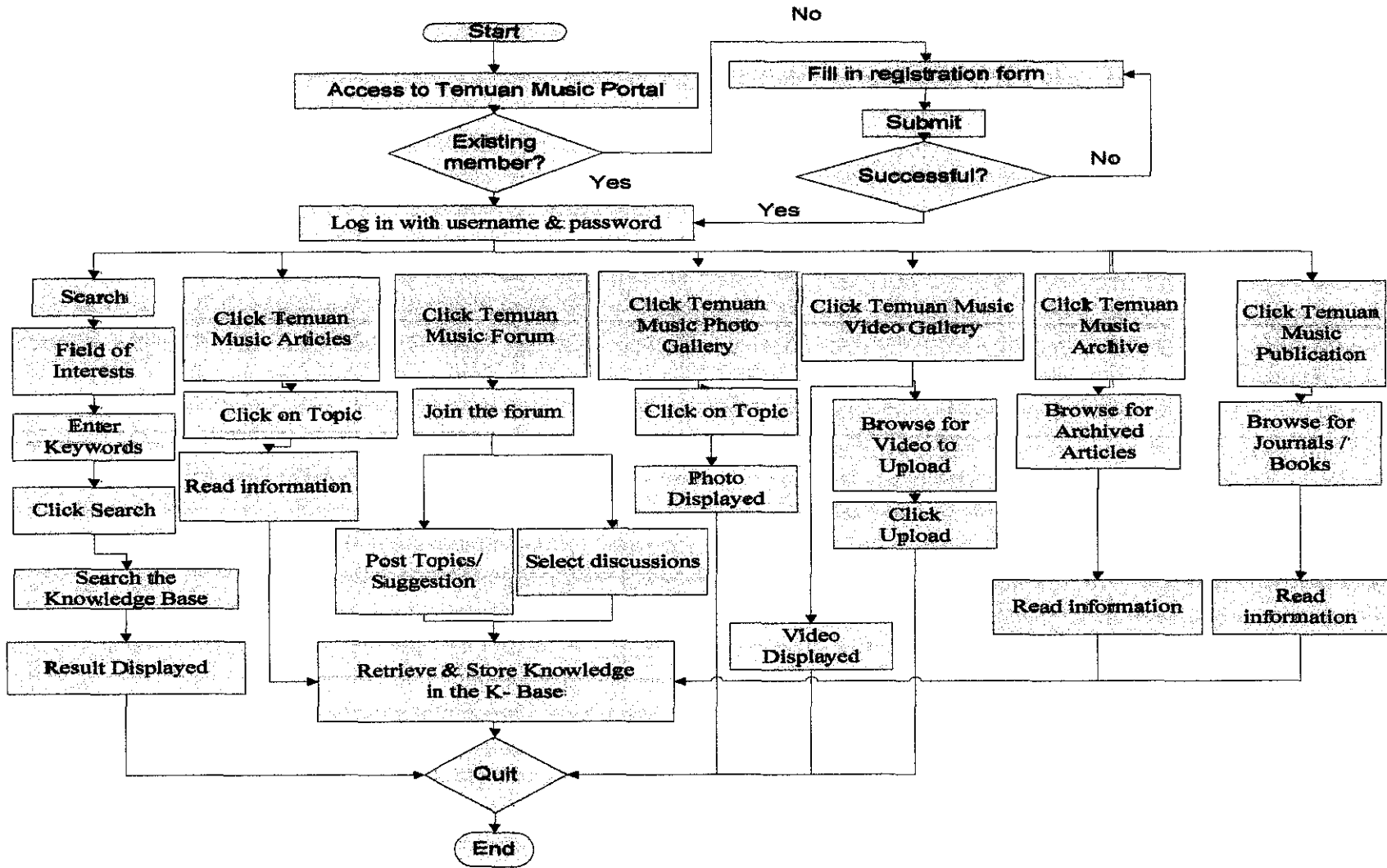


Figure 3.5 Flowchart of Orang Asli Temuan Music Portal

From the Flow chart of the portal(Figure 3.5), we could see that the portal provide the users six main features which are search engine, Temuan Music Forum, Temuan Music Articles, Temuan Music Photo Gallery , Temuan Video Gallery and Temuan Music Archive. Before get into the portal, users need to log in via username and password registered in the portal. For the search part, users are able to search for subject matter experts in the fields of *Orang Asli Temuan* music, and other specific fields that are related to the music. For forum, users can post their suggestions or topics that related to *Orang Asli Temuan* music. They also can select discussions that related to their interest on *Orang Asli Temuan* music. For *Orang Asli Temuan* Music Articles, users able to read any related articles regarding Temuan music based on selected topics. For *Orang Asli Temuan* Photo Gallery, users can select and view any pictures that related to *Orang Asli Temuan* music. For *Orang Asli Temuan* Video Gallery, user can view any videos that related to *Orang Asli Temuan* music. Only the registered users have been allowed to upload videos that related to *Orang Asli Temuan* music from their PC. For *Orang Asli Temuan* music archive, user can retrieve and view any *Orang Asli Temuan* music articles that have previously posted in the portal. For Temuan Music Publication, user can view lists of journals and books that related to *Orang Asli Temuan* music.

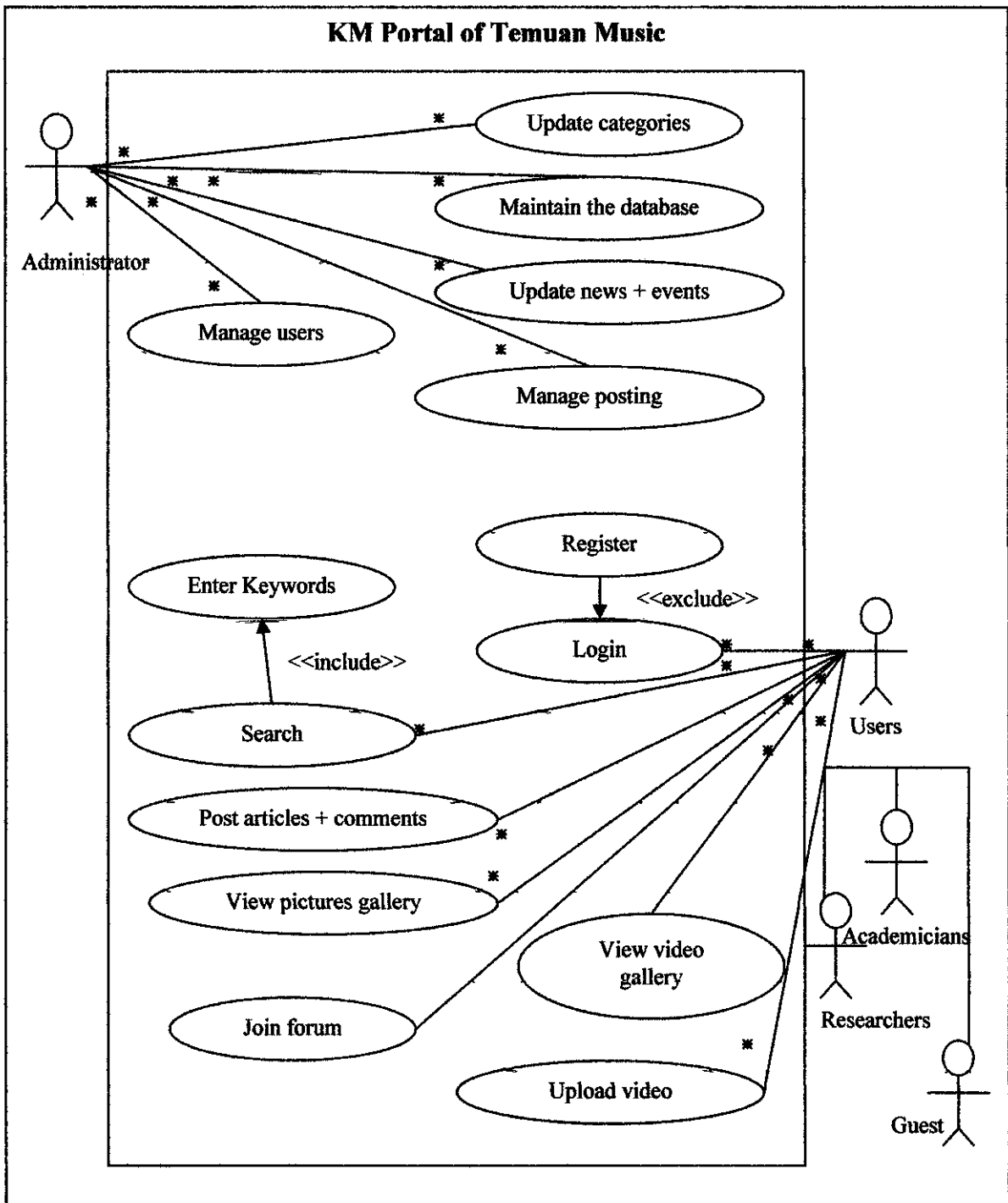


Figure 3.6 Use Case Diagram for Orang Asli Temuan Music Portal

The Use case diagram (Figure 3.6) is applied to represent the basic functions of the system – that is, what the users can do and how the system should respond to the user’s function. (Alan Dennis, Barbara Haley Wixom & David Tegarden, 2007). From the use case diagram of the system, there are three main types of the researchers, academicians or

guest. The users describe the roles of the parties involved in the knowledge based portal. The end users via log in under user management by the administrator could get into the portal with their own unique name and password. They could use the forum, photo gallery, video gallery, posting *Temuan* articles, download files and use the search engine to find more about *Temuan* music experts or any relevant *Temuan* music documents available on the portal. The user account will be synchronized to log in at a time to the forum inside the portal once a user log in to the portal. In the forum, users can view latest posted topics or article, online status of members, and also can search for the related topics or any members in the forum. Moreover, the users can just log in to the portal to view updated news and also can submit latest news or web links to the portals via administrator's control and acceptance. The administrator have access to all roles in managing the portal, from managing user accounts, managing posting, comments to maintaining the database as well as managing update events for the portal via the admin site control panel. The notification is sent to the portal administrator under User Management in every time a guest has registered for the account in the portal. The administrator has right to decide whether to activate that account or not.

3.3.2 Tools to Be Used

- Apache Server/PHP/MySQL
- Simple HTML Utilities
- Joomla Platform

After analysis phase of the project, in the next semester, the project would be developed mostly on Joomla platform with support of PHP, MySQL, and simple HTML utilities programming language. Apache server is been selected due to its flexibility to be configured to perform various task in different environments. It is also categorized as open source software which is an alternative low cost solution for development is the project.

Joomla platform is applied as one of the most influential Open Source Content Management System nowadays. It can be used to develop simple websites as well as complex corporate applications. It is also easy to install and really reliable in terms of performance and cost wise. Moreover, it is distributed under GNU General Public License (GPL) which means it is easier to document *Orang Asli Temuan* music elements through Joomla platform without additional cost in purchasing other software license.

CHAPTER 4

RESULT AND DISCUSSIONS

4.1 INTERVIEWS WITH *ORANG ASLI TEMUAN* PEOPLE

4.1.1 1st And 2nd Interviews With *Orang Asli Temuan* People At Kampung Parit Gong, Simpang Pertang, Jelebu, Negeri Sembilan

On 20th September 2008, an initial interview with *Orang Asli Temuan* people at Kampung Parit Gong, Simpang Pertang, Jelebu, Negeri Sembilan. Basically, the interview was about capturing knowledge of their music as a case study for this project. The interviewees are Mr Ayun bin Panglima Seng (76 years old) and his daughter, Ms Siwah binti Ayun. They have been interviewed on *Orang Asli Temuan* music around 10 am to 11 am. The main reason of choosing to do an interview in this area is because of the residents of this area still actively involved in practicing *Orang Asli Temuan* culture especially their music. The interview questions with *Orang Asli Temuan* people in this area are attached in Appendix 4-1.

On 4th October 2008, another interview with *Orang Asli Temuan* people in the same site has been made in purpose of capturing more *Orang Asli Temuan* knowledge in multimedia form. The interviewees are Mr Ayub (Main instructor of Lanok 3) and Mr Santo b Polan (Leader of Lanok 3). According to Mr Ayun, *Orang Asli Temuan* are forest people found in the states of Selangor, Pahang and Negeri Sembilan. (Please refer to Appendix 4-2 for more details) They formed as one of Peninsular Malaysia's indigenous aboriginal tribes. They able to speak Malay as well as their own *Orang Asli Temuan* language and many still survive by gathering local jungle produce such as durian, petai, bamboo and rotan.

Specifically, *Orang Asli Temuan* people are the most prominent ethnic group of *Orang Asli* in Negeri Sembilan. The ethnic group can be diverged into two groups which are *Temuan Hulu* and *Temuan Hilir*. They can be recognized based on the geographic location where they are lived; people of *Temuan Hulu* tend to live in hill areas while people of *Temuan Hilir* tend to live near to the sea. *Adat Papatih* has been practiced by *Orang Asli Temuan* people for a long time ago, as Tok Batin, villagers' leader being part of members on selecting Undang Negeri Negeri Sembilan.

According to Mr. Ayun, the best way to identify characteristics of *Orang Asli Temuan* music is to set up cultural group (involving old and young people of the *Temuan* communities) to perform *Orang Asli Temuan* music and dance and their own versions of popular music. The music of *Orang Asli Temuan* has been performed by men and women during evening or night. It is most celebrated during Hari Moyang or also known as 'Hari Kesedaran' by ethnic group *Orang Asli Temuan*. It is the most important event for whole *Orang Asli* ethnic group in Peninsular Malaysia where on that day, there are many open houses being held and they gathered and having fun together on that day. The uniqueness of music of *Orang Asli Temuan* people in Kampung Parit Gong can be identified by its performers, music instruments, place for music performance, songs and their significance, history and development of *Orang Asli Temuan* music. The further details on *Orang Asli Temuan* music can be defined as below: -

Balai Adat

Balai Adat of Kampung Parit Gong has been created by *Orang Asli Temuan* people of this village around early 1990s). It has been functioned as a place to gather in order to perform and enjoy their music during important occasions of *Orang Asli Temuan* people like Hari Kesedaran. It also has been used as a storage place to keep all of the music instruments and clothes of their music performers in safe condition. As the building is situated in the middle of the village, it symbolizes cohesiveness on strong relationship among the *Orang Asli Temuan* people in the village as the building also has used in other important occasions like wedding and important meetings by residents of the village.

Other interesting features in this building are the pictures of their ancestors, performers of *Orang Asli Temuan* people on the earlier days and also music instruments. The layout of the building can be diverged into three main parts of the building; main place, storage place and dining hall (Please refer to Appendix 4-3 and Appendix 4-4 for more details). The main place is the core of this building as most of the cultural activities have been performed in this area during Hari Kesedaran and other important occasions; storage place has been used to store *Orang Asli Temuan* music instrument and dining hall used to serve the food to the villagers.

kong-kong

The *kong-kong* is one of *Orang Asli Temuan* music instrument that has been used to perform *Orang Asli Temuan* music. (Please refer to Appendix 4-4 for more details). It is made from wood that called *meranti*. The size of the *kong-kong* can be determined into its length around 45- 48 inches, its height around 2-3 inches and diameter around 2-3 inches. According to Mr Ayun, the suitable wood to create *kong-kong* is yellow *meranti*. The main reason used that kind of wood because of it is light and easy to be used during the performance. It usually has been played by two or more men in even number counting who are able to play the instruments well. Generally, the instrument needs to put on shins of the people who played it.

Based on *Orang Asli Temuan* belief, the *kong-kong* cannot be played by women; otherwise the sound of the *kong-kong* may out pitched. Another belief of the instrument is someone should not walk over the instrument; otherwise the effect as been played by women can occur. The sound of *kong-kong* usually only can be tuned by the elders who are experts in *Orang Asli Temuan* music. Basically, it can be played by hitting a set of number woods on the shin using *Orang Asli Temuan cylinder-type stick* according to the rhythm of the *Orang Asli Temuan* songs.

The making process of *kong-kong* is done by men of *Orang Asli Temuan* people only. The woods are collected from Genting Peras forest situated around 30 kilometers from

their settlements. It takes about a month to finish a complete set of this musical instrument before it can be played for any performances.

tung-tung

Another music instrument of *Orang Asli Temuan* music is a bamboo-made instrument called *tung-tung*. (Please refer to Appendix 4-4 for more details). The size of the kong-kong can be determined into its length around 40- 50 inches, its height around 2-3 inches and diameter around 2-3 inches. It consisted of two type of *tung-tung* is 'male' and 'female'. Both of them can be distinguished by 'male' *tung-tung* is longer than 'female' *tung-tung*. It is made from bamboo that called 'bulrush limbong'. The buluh limbong are pairs of bamboo instruments struck on a long block of wood which are used in healing rituals and also to accompany other songs for entertainment especially for *Orang Asli Temuan* people.

It has been played same as kong-kong, by normally being played by two people or in other even number counting who are able to play it. *Orang Asli Temuan* people also belief that The Great Spirit That Dwells in Everything takes all forms and speaks to them through the song of the wind in the bamboo grove which can be reflected on this music instrument. The beliefs on playing *kong-kong* also applied on how to *tung-tung*. The making process of *tung-tung* is also done by men of *Orang Asli Temuan* people. The bamboos are also been collected from Genting Peras forest situated around 30 kilometers from their settlements. It takes about a month and half to finish a complete set of this musical instrument before it can be played for any performances.

bumbut

The *bumbut* is a three-holed nose flute of *Orang Asli Temuan*. (Please refer to Appendix 4-4 for more details). It is made from a narrow diameter of bamboo which can be found in forest of Jelebu. This is a very beautiful instrument although it is capable of only one octave. The sounds that have been produced are quite similar to the singing of birds and

the chirping of insects in the forest. It was often used in conjunction with chants and song. Like most nose flutes it was traditionally used between lovers. The body of bambut is cut with one closed end and one open end, usually the end that is opposite the slanted hole used for controlling the flow of air from the nasal passages. A series of holes in the body of the nose flute allow the player to control the pitch and tone of the sounds produced by placing fingers over the different holes. Bambut has been played by the music performer by allowing for air to pass from both nostrils into it.

Bark cloth

Bark clothes has been used as clothing during their music performance. It is made from bark fiber of wood that called "terap". "Terap" is a common name applied commercially to species called *Artocarpus elasticus* from family *Moraceae* , grown most commonly in India (Aini), Indochina (Sui), Indonesia (Terap), Philippines (Antipolo), Sabah (Terap), Sarawak (Pudau), Sri Lanka (Riti). ("Light Hardwood", 2008). Based on Mr. Santo, there are a few steps needed to be taken in order to make a bark clothes based on (Please refer to Appendix 4-4 for more details). The cloth is only can be used during the performance. It is important to dry up well the clothes in the sun after have been used as a prevention to avoid germs.

Dances and songs

Dances of *Orang Asli Temuan* people can be diverged into two part; Sutan Dance and Festival Dance. Sutan Dance is being performed during fruit harvesting festival while Festival Dance has been performed during main occasions of *Orang Asli Temuan* people like Hari Kesedaran.

As song is a vital component of *Orang Asli Temuan* music, it has been played based on the nature, animals and their way of life. These are a list of examples of songs of *Orang Asli Temuan* music; Lagu Rebung Betung, Lagu Bunga Cica, Lagu Tebang Penak Tebang Manau, Lagu Kong-kong, Lagu Penutuh, Lagu Burung Elang, Lagu Siamang, and Lagu Bujang Ruyung. By referring to (Please refer to Appendix 4-5 for more details), Lagu

Rebung Betung has been played as a symbol of appreciation on bamboo in their daily life especially on music where most of the music instrument is made from bamboo.

Kumpulan Lanok 3

Kumpulan Lanok 3 is a cultural group of *Orang Asli Temuan* music of Kampung Parit Gong. It has been lead by Mr. Santo, one of residents in Kampung Parit Gong and being joined by other youngsters in the village. The cultural troupe of Kumpulan Lanok 3 is consisted of music performers (dancers, musicians and singers) and *Orang Asli Temuan* music instruments. Previously, this cultural troupe has been invited to perform in schools around Negeri Sembilan, and other main occasions with guidance of JHEOA officer, Mr Adenan. The achievements of this cultural troupe are live performance on TV3 morning show, 'Malaysia Hari Ini' as promotion of Hari Moyang or Hari Kesedaran and recently, cultural performance in Terengganu that has been sponsored by Toyota.

4.1.2 Interview with *Orang Asli Temuan* people at Kampung Putra, Simpang Pertang, Jelebu, Negeri Sembilan



Figure 4.1 Views of Kampung Putra

Source : Photograph Courtesy of the *Orang Asli Temuan* People in Kampung Putra

On 8th March 2009, an interview with *Orang Asli Temuan* people at Kampung Putra, Simpang Durian, Jelebu, Negeri Sembilan. (Please refer to Figure 4.1 for more details) The purpose of the interview is capturing more knowledge of *Orang Asli Temuan* music via camera and video. The interviewees are Ms Rido binti Bong (29 years old) and her father, Mr Bong bin Ichang (63 years old). Both of them are among residents of the village who are experts in *Orang Asli Temuan* music of this area. They have been interviewed on *Orang Asli Temuan* music around 10 am to 12 am. The same set of interview questions has been asked to *Orang Asli Temuan* people in this area. (Please refer to Appendix 4-1 for more details)

According to Ms Rido, *Orang Asli Temuan* culture especially music is still widely been practiced by *Temuan* people in Kampung Putra as part of their way of life. This argument is supported by recognizing the existence of *Orang Asli Temuan* cultural group in this area called Kumpulan Pengsek. The cultural group consisted of three components; musicians, dancers and actors. It has been formed in 2006 and has performed in many

events around the Negeri Sembilan, Selangor and Kuala Lumpur. However, there is lack of effort done by the ministry to document the information of Kumpulan Pengsek for their further references. As a result, they unable to retrieve the details of their previous performances since there are no specific efforts done to capture the information on the cultural group. Currently, they only can apply unconventional method to retrieve their records by the pictures as the evidences of their series of performances. The interviewees also explained that even tough their activities has been supported by the Ministry of Art, Cultural and Heritage, there is no recorded information on their achievements. Hence, the development of Orang Asli Temuan Music Portal is crucial as part of initiative to help the ministry to manage the information and knowledge of *Orang Asli Temuan* music. The interviewees believed that the specific system should be created to allow knowledge *Orang Asli Temuan* music achievement able to be recorded and shared for community benefits.

Kumpulan Pengsek



Figure 4.2 Performances by Kumpulan Pengsek

Source : Photograph Courtesy of the *Orang Asli Temuan* People in Kampung Putra

Kumpulan Pengsek was a *Orang Asli Temuan* cultural group that was formed by Rido binti Bong and other members of Kampung Putra, Simpang Durian, Jelebu, Negeri Sembilan in 2006. (Please refer to Figure 4.2 for more details) Kumpulan Pengsek went through its first succession of performance by performing for opening ceremony of Sekolah Kebangsaan Kampung Putra, Simpang Durian, Jelebu, Negeri Sembilan. Its potential has been noticed by Datuk Seri Rais Yatim, Minister of Culture, Arts &

Heritage at that time and luckily, the cultural group managed to get sponsors from the ministry for their upcoming performances in other areas.

With the popular song called 'Tarian Bunga Cica' which has been performed since 2006, Kumpulan Pengsek entered into the series of performance around Negeri Sembilan, Selangor, and Kuala Lumpur, bringing along with other popular song called 'Tembang Penak Tebang Meranti'. Kumpulan Pengsek's lengthy run continues with series of successful performances from 2006 until now, and the band's popularity continued where their performance has been recorded in a talent show audition called 'Radong - Rading' of Asyik FM. Since their debut, the cultural group managed to attract more RM 9000 for their sponsorship along their performances from 2006 until 2009.

4.2 IMPLEMENTATION OF NONAKA SECI MODEL IN THE PROJECT

The Nonaka SECI model has been applied during the process of capturing knowledge and information of *Orang Asli Temuan* music. The implementation of the model is important. It provides a framework to transfer *Orang Asli Temuan* music from tacit knowledge to explicit knowledge. In other word, knowledge and information of *Orang Asli Temuan* music that has been captured from interviews able to be managed effectively. Specifically, there are four modes on knowledge conversion have been selected for the project which are socialization, externalization, combination and internalization which as Table 4.1 below:-

Table 4.1 Implemented Nonaka SECI Model

<p>Socialization</p> <ul style="list-style-type: none"> ○ Capture tacit knowledge of Temuan music through experience rather than written or verbal instructions ○ Interview with Temuan people in Kampung Parit Gong and Kampung Putra 	<p>Externalization</p> <ul style="list-style-type: none"> ○ Transform tacit knowledge into explicit knowledge ○ To express Temuan music into words, concepts and visuals using features in Temuan Music Portal – Photo Gallery, Forum, Video Gallery, Archive
<p>Internalization</p> <ul style="list-style-type: none"> ○ Knowledge from the portal has been captured into mind of researchers and academicians 	<p>Combination</p> <ul style="list-style-type: none"> ○ Knowledge of the world of Temuan music is shared through the portal ○ Tacit knowledge of Temuan music is transformed into explicit knowledge through the portal ○ Knowledge of the world of Temuan music is shared through the portal

4.2.1 Justification on Modes of Knowledge Conversion Interact In Implemented Nonaka SECI Model

Socialization

This mode allowed the conversion of tacit knowledge of *Orang Asli Temuan* music through interaction between portal developer and *Orang Asli Temuan* music experts. The key to capturing tacit knowledge is experience. It is difficult for *Orang Asli Temuan* people to share their tacit knowledge on *Orang Asli Temuan* music without some form of shared experience. The tacit knowledge is exchanged through interviews – by spending time with *Orang Asli Temuan* people in Kampung Parit Gong and Kampung Putra—rather than through written or verbal instructions. For the project, the socialization

process is largely supported through direct interaction with *Orang Asli Temuan* people in both sites.

Externalization

Externalization allowed tacit knowledge of *Orang Asli Temuan* music able to transform into explicit knowledge that can be understood by the researchers. During the externalization process, tacit knowledge from *Orang Asli Temuan* music experts has been captured and integrated into Orang Asli Temuan Music Portal –using features like photo gallery, video gallery and forum that help to express *Orang Asli Temuan* music experts' ideas' or images as words, concepts and visuals.

Combination

Combination allowed the process of creating new explicit knowledge from existing explicit knowledge of *Orang Asli Temuan* music. Capturing and integrating new explicit knowledge is vital. It involves on collecting externalized knowledge like the study on variations of performance from *Orang Asli Temuan* cultural groups in Malaysia from researchers and the combining such knowledge. New explicit knowledge can be shared and utilized among the researchers through existing forum in the portal.

Internalization

Internalization allowed knowledge and information of *Orang Asli Temuan* music from portal has been stored in mind of researchers and academicians. They able to utilize the knowledge for their future research works regarding *Orang Asli Temuan* music.

4.3 THE STORYBOARD OF ORANG ASLI TEMUAN MUSIC PORTAL

After knowledge and information of *Orang Asli Temuan* music has been captured during Planning phase in Prototyping methodology, tacit and explicit knowledge on *Orang Asli Temuan* music need to be documented into knowledge based portal in order to prevent losses on the knowledge due to unexpected case like death of *Orang Asli Temuan* music experts. The developed knowledge based portal has applied a concept of information centre where the *Orang Asli Temuan* music experts and portal developer collaborate together in order to document the knowledge of *Orang Asli Temuan* music. Based on the preliminary interview in which Ms. Savita has explained on developing knowledge based portal and a review of an existing story on *Orang Asli Temuan* music, the content -- existing and anticipated -- broke down into (Please refer to Appendix 4-6 for more details):

- Nonlinear parts. Home page with four inside pages. The four parts are the main elements of *Orang Asli Temuan* music (research on *Orang Asli Temuan* music instruments), news (latest and popular information regarding *Orang Asli Temuan* music), photo gallery, video gallery (video on *Orang Asli Temuan* music) and forum (discussions on issues of *Orang Asli Temuan* music).
- Video. Anticipate video from the interviews with *Orang Asli Temuan* people: on how to play the music instrument, selection of the *Orang Asli Temuan* songs for the performance, *Orang Asli Temuan* dance performers, and the trip to and from Kampung Parit Gong and Kampung Putra.
- Audio. Anticipate audio from the interview: *Orang Asli Temuan* people of Kampung Parit Gong and Kampung Putra explaining how to create music instruments, what steps taken to create the materials of music instruments, what are the rules and traditions need to be obeyed during music performance and purposes of performing *Orang Asli Temuan* music.
- Still photos. Anticipate grabbing still photos from video of wide-angle shots of the *Orang Asli Temuan* music instruments, views of *Orang Asli Temuan* music

performance, maybe interviews on creating materials for *Orang Asli Temuan* music instrument.

- Graphics. Existing aerial photo, maps on area of *Orang Asli Temuan* people especially Kampung Parit Gong and Kampung Putra.
- Text. History of research on *Orang Asli Temuan* music, history of the *Orang Asli Temuan* music from interviews with *Orang Asli Temuan* personals from Kampung Parit Gong, and other researchers.

4.4 AUSTRALIAN AND MALAYSIAN GOVERNMENT INITIATIVES TOWARD ABORIGINAL MUSIC DEVELOPMENT

Australian government has embraced Aboriginal music as the national tourism product. It is significant action as it promoted about the unique value of Aboriginal music. Aboriginal tourist involvement has given many advantages to the Aboriginal. The advantages for Aboriginals utilizing the tourist industry are many potential incomes by selling traditional arts and crafts. It proved that Australian government showing the high level of respect and awareness to Aboriginal people and culture.

By relating to the efforts that has been done by Australian government, Malaysia government via Ministry of Cultural, Arts and Heritage also has managed to promote the *Orang Asli* as one of national tourism product. However, the focus is more on entertainment rather than education. For example, Kumpulan Pengsek has been sponsored by the ministry to perform in their event like Visit Malaysia Year 2007. However, there is no any recorded information regarding activity. The information that available is only resided in tacit knowledge of Kumpulan Pengsek members.

Hence, it is crucial to transform tacit knowledge into explicit knowledge to avoid loss of knowledge. For example, basic steps of playing the music instruments able to be appreciated and learned by restoring the knowledge in explicit form rather resided in mind of *Orang Asli Temuan* people only. The development of the portal also needed to be

aware on the sensitive issues within *Orang Asli Temuan* community and the associated ongoing cultural perception that characterizes our society.

4.4.1 Development of Orang Asli Temuan Music Portal towards Knowledge Society in Malaysia

The development of Orang Asli Temuan Music Portal is synchronized with one of the main objective of the project; develop knowledge based portal of *Orang Asli Temuan* music towards knowledge society. Knowledge society in this perspective focused on the researchers that become main component in social, cultural, and all other human activities towards sharing knowledge of *Orang Asli Temuan* music. By sharing experiences through their research, they can learn more from *Orang Asli Temuan* music and they can carry out more meaningful research. The portal is important as resource centre for the researchers as a tool to encourage more active in knowledge sharing activities without any hoarding action towards it. For example, they able to share their ideas thought and experiences on *Orang Asli Temuan* music through the features like forum and video gallery. The features allowed them to involve actively in promoting knowledge sharing practice.

Another important reason is the knowledge should be free for better benefit of knowledge society. The preserved knowledge of *Orang Asli Temuan* music should be recognized by Malaysian as national heritage which as the same level as other recognized traditional music in Malaysia like zapin, gamelan, and dikir barat. Based on these reason, it is crucial to develop the portal as resource centre for knowledge sharing practice among *Orang Asli Temuan* music researchers.

4.5 PROTOTYPE OF ORANG ASLI TEMUAN MUSIC PORTAL



Figure 4.4.1 Main Page of Orang Asli Temuan Music Portal

Orang Asli Temuan Music Portal is single-point-access resource centre that intended to provide easy and timely access to knowledge of *Orang Asli Temuan* music and to support knowledge sharing activities from researchers and academicians who share common goals. (Please refer to Figure 4.5 for more details) For example, the forum of the portal allowed the researchers to plan their study well on *Orang Asli Temuan* music based on recommendations from other *Orang Asli Temuan* music researchers. Hence, the researchers able to obtain more knowledge that can be shared by other *Orang Asli Temuan* researchers. They also can be the authors of the portal as part of their contribution towards community benefits. As a result, the knowledge sharing activities that have been done in the portal showed that the objective of the study on this project has been achieved and should be considered for future enhancement of its feature.

The concept of this portal is to provide most of the significant aspects about knowledge of *Orang Asli Temuan* music towards community benefits in Malaysia. It can be identified as a resource centre that provided various acknowledged information for *Orang Asli Temuan* music. The portal also contains graphical "rich media" features such as video gallery, forum and picture gallery that have been enhanced to allow the user to find the knowledge that related to the *Orang Asli Temuan* music. Elements of *Orang Asli Temuan* music such as music instruments and how to play them also have been included in the portal based on the interviews that have been done in Kampung Putra and Kampung Parit Gong. The web development also has been fully supported by President of Persatuan Kebudayaan Orang Asli Temuan Kampung Putra, Rido binti Bong due to its benefits; exposed the uniqueness *Orang Asli Temuan* music especially in her area to outside world.

It is essential to have collaboration with JHEOA and *Orang Asli Temuan* Music organizations like Kumpulan Pengsek and Kumpulan Lanok 3 with the purpose of validating the knowledge that has been captured in *Temuan Music Portal*. Through the support from these parties, it encourages the development of *Temuan* music portal as part of contribution towards community benefits. Hence, the effort of preserving *Orang Asli Temuan* music really can be meaningful to Malaysian generally.

The portal also applied Nonaka SECI Model as a guide to manage the knowledge of *Orang Asli Temuan* music properly. For example, the concept of portal which is resource centre of *Orang Asli Temuan* music is simple and organized for both end users and experts to understand it. Hence, the researchers can utilize features like forum and video gallery better for knowledge sharing purposes. The flexibility of the portal is also flexible whereby *Orang Asli Temuan* music experts able to find and share file whether in text-based or multimedia knowledge among the users of the portal.

4.5.1 Features of *Orang Asli Temuan* Music Portal

In Orang Asli Temuan Music Portal, there are seven main features – Temuan Music article, Search Module, Poll, Temuan Music Forum, Temuan Music Photo Gallery, Temuan Music Video Gallery, Temuan Music Publications and Temuan Music Archive. The Temuan Music article is the section where the researchers can view, add, edit and print the article of *Orang Asli Temuan* music. The privileges only limited to the user who are registered and approved by the administrator.



Figure 4.4.2 Temuan Music article

There are four subsections in Temuan Music Article which are; Introduction to Temuan, Temuan Musical Instruments, Kong-Kong, Tung-Tung, Bumbut, and Temuan Music Developments (Please refer Figure 4.6 for more details). On subsection called Introduction to Temuan, information and knowledge of *Orang Asli Temuan* – people, lifestyle, cultural, and beliefs has been included based on the interviews that has been done. On subsection called Kong- Kong, Tung- Tung, and Bumbut, contained text-based knowledge and information on history, how to play, myth and fact, and how to make the *Temuan* musical instruments. On Temuan Music Developments articles contained the

latest information on development of *Orang Asli Temuan* cultural group around Malaysia .The articles of *Temuan* music article allowed to be updated if the latest information is available.

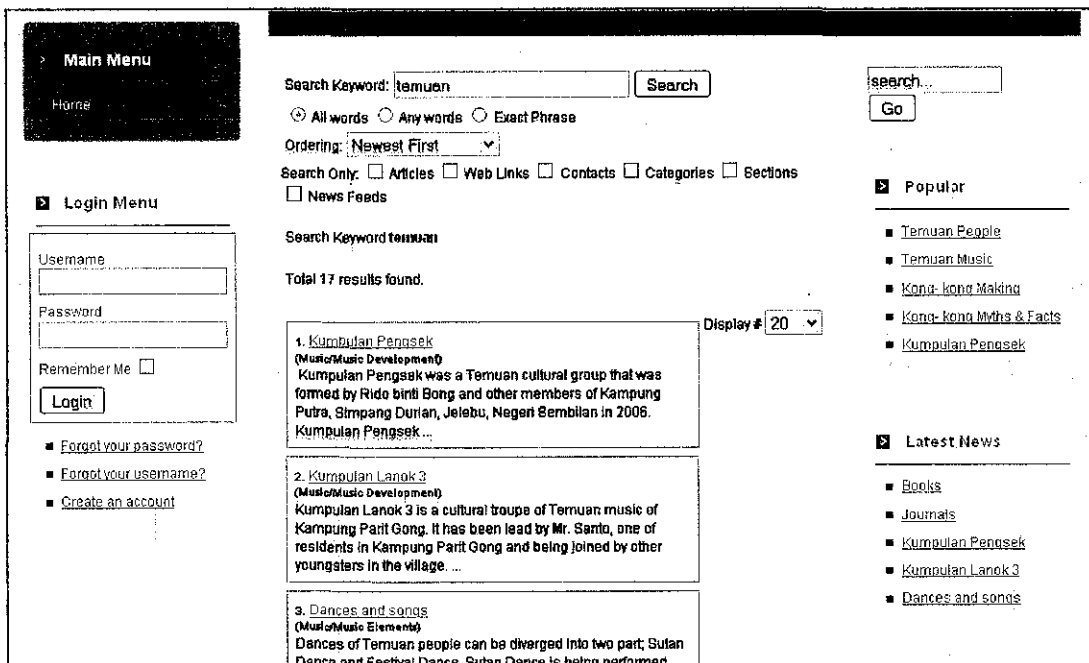


Figure 4.4.3 Temuan Music Search Engine

The portal also contained search engine that allow user to easily find the important knowledge and information that related to the portal. (Please refer Figure 4.7 Search Module for more details). The search engine allowed the user find any information and knowledge that need by entering suitable keywords. The user also specified the search by selecting the feature called 'Ordering' and 'Search Only'. The 'Ordering' feature allowed the user to sort the search whether by 'Section/Category', 'Alphabetically' and 'Most Popular'. The 'Search Only' allowed the user to speedy the searched time on finding the exact information that needed.

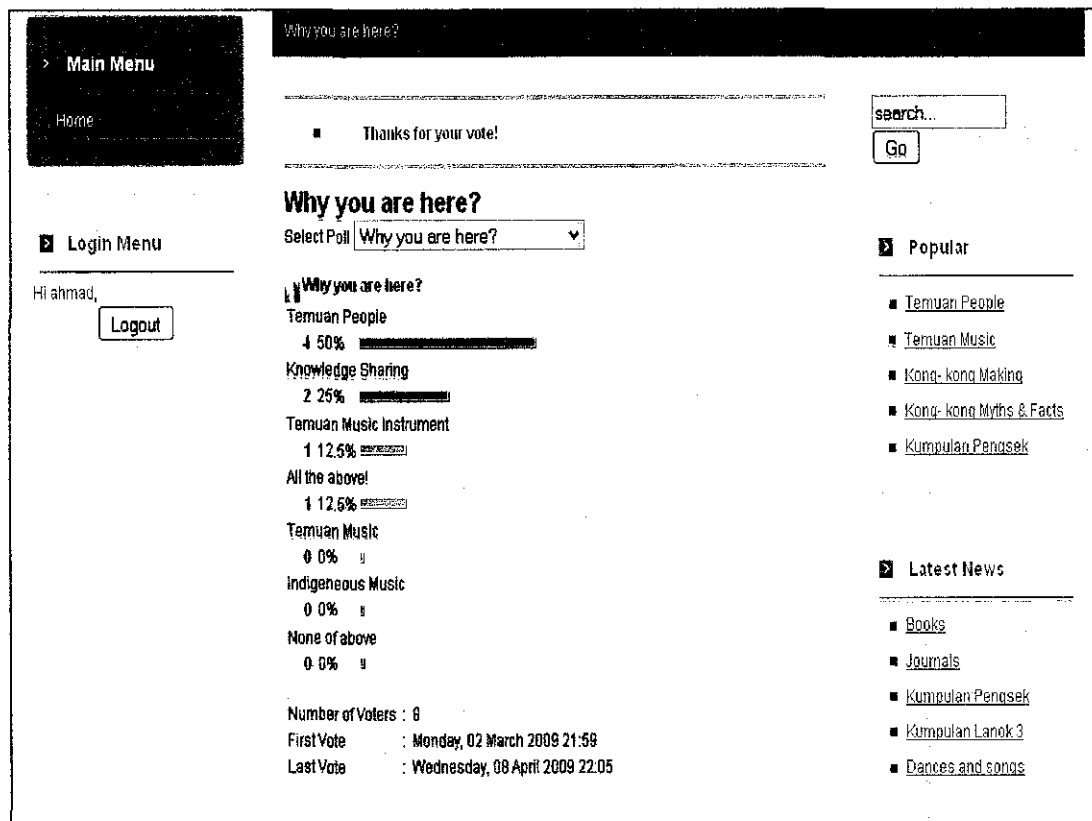


Figure 4.4.4 Temuan Music Poll

'Poll' is also one of the built-in features that contains in the portal which displays a list of all active (published or unpublished) polls on this portal that can be voted by user. In the portal, the poll is created to get a survey on their purpose of visiting the portal. From the result of the poll, the administrator able to study and enhance the portal for better resource centre of *Orang Asli Temuan* music.

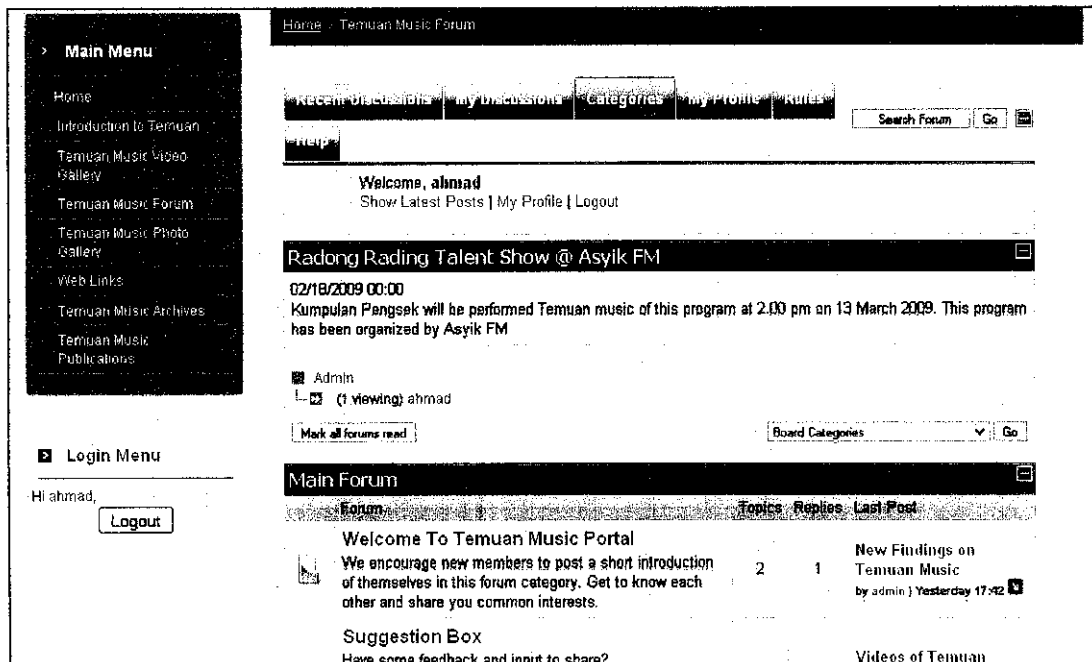


Figure 4.4.5 Temuan Music Forum

Another important feature is forum is also included in Orang Asli Temuan Music Portal. The user can build bonds with each other and interest groups will easily form around a topic's discussion, subjects dealt with in or around sections in the forum. The forum also encouraged knowledge sharing practice among them since it allowed them to share and exchange their thought, ideas and experience on any topic regarding *Orang Asli Temuan* music. The user is allowed to suggest their opinion on portal enhancement on Suggestion Box that provided in the forum.

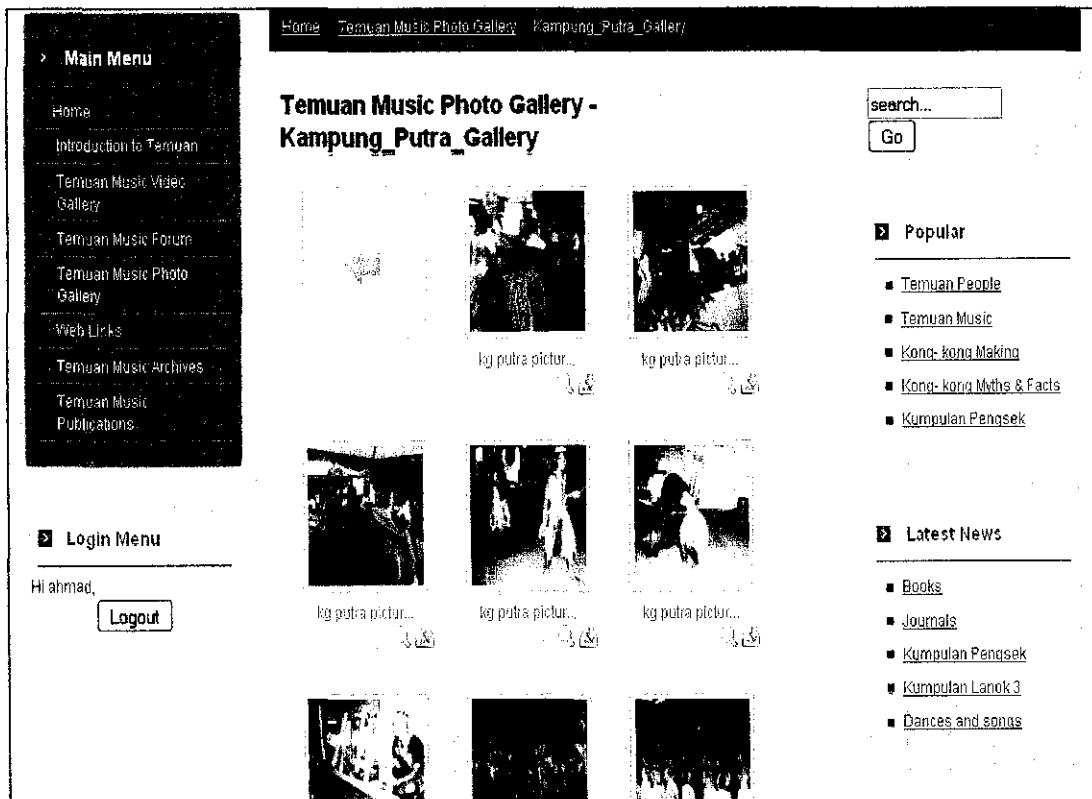


Figure 4.4.6 Temuan Music Photo Gallery

The Photo Gallery allowed the registered user to view, add, and download the picture that related to Orang Asli Temuan music portal. The feature allowed user to gain benefits of *Orang Asli Temuan* music via pictorial form. The user also can view the slideshow of the picture by clicking directly to the button called 'Image Details'. The button allowed the user to view the picture in bigger scale smoothly. The 'Image Download' allowed the user to download the pictures that available in the Photo Gallery.

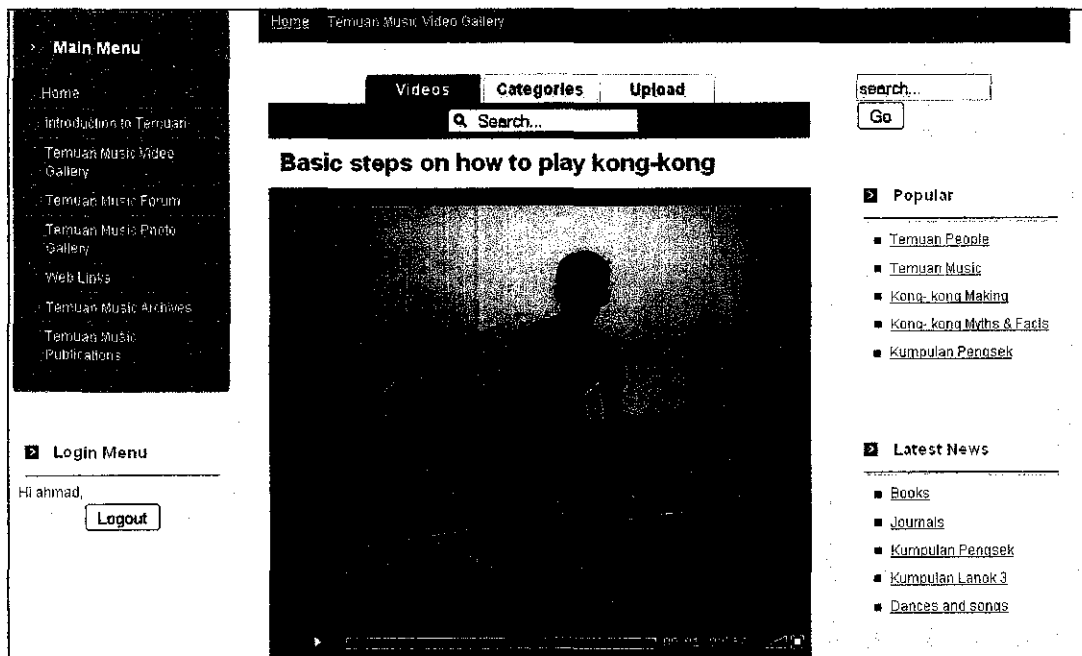


Figure 4.4.7 Temuan Music Video Gallery

The Video Gallery allowed the user to view, upload, search, and define the video of *Orang Asli Temuan* music. To upload the video, user need to format the video into '.flv' before the video can be displayed. The user also allowed to vote the video that have been viewed by rating 'Star' button that provided. 'Videos Gallery' features encouraged better capture and sharing knowledge practice among the user compare to text-based information of *Orang Asli Temuan* music.

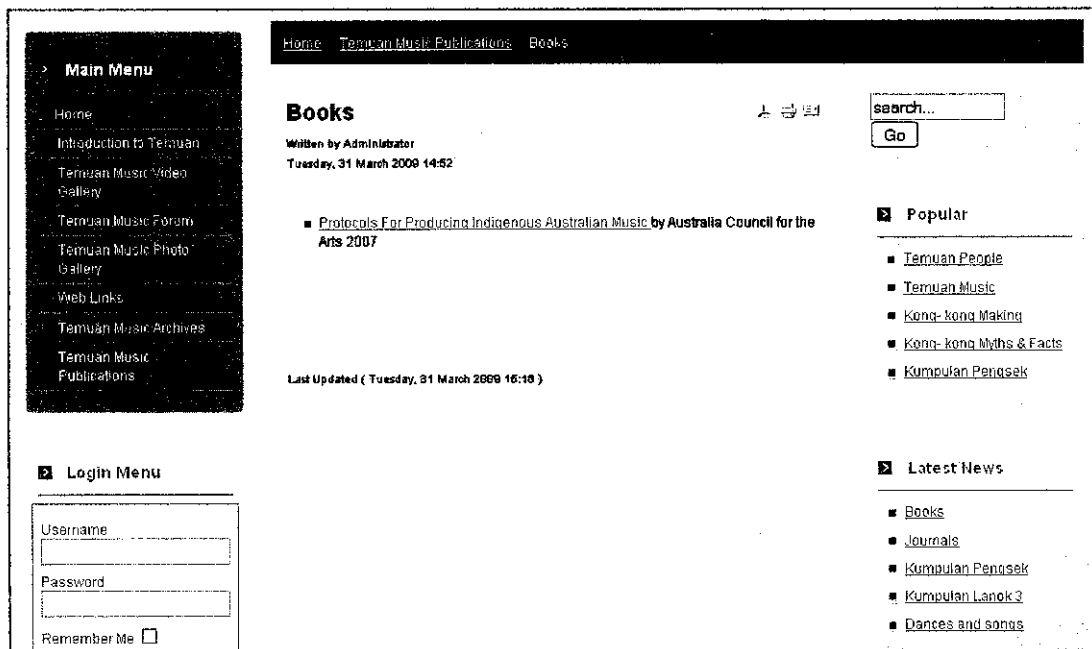


Figure 4.4.8 Temuan Music Publications

Temuan Music Publications allowed the user to view lists of journals and books that related to Temuan music. It serves as a medium for researchers and academicians to share their knowledge, views, experiences and discoveries regarding *Orang Asli Temuan* music. The entries range from opinion and views of cultural, technology and social issues to deliberations on the progress and outcomes of *Orang Asli Temuan* music researches.

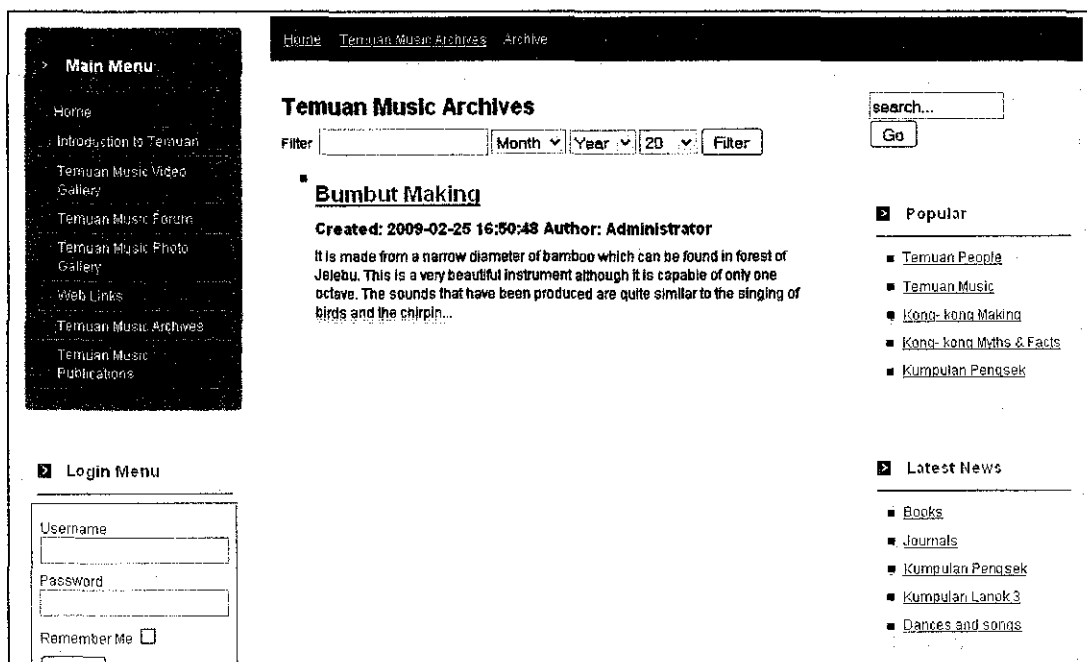


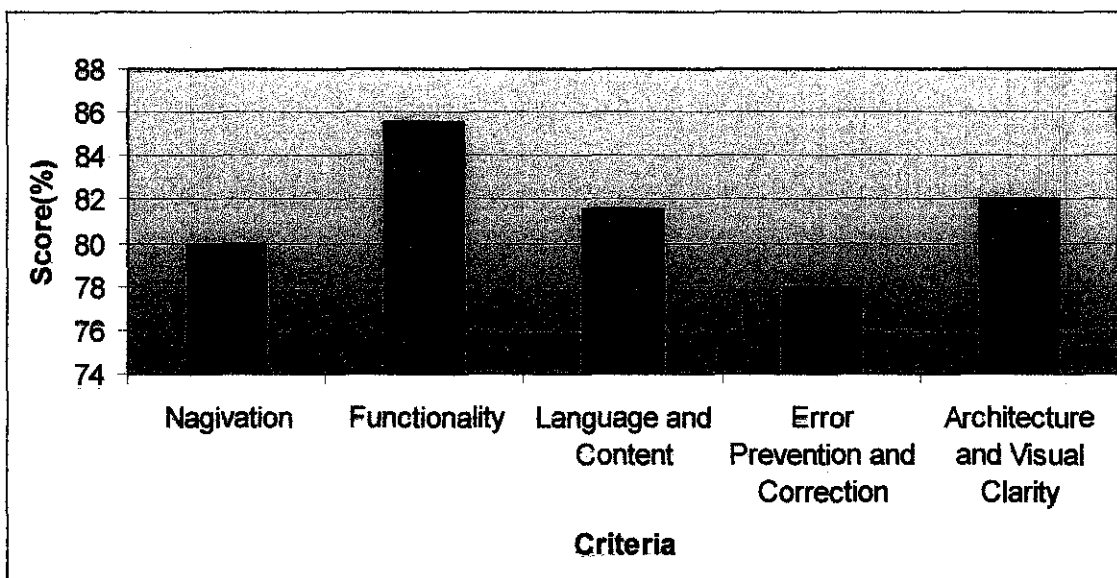
Figure 4.4.9 Temuan Music Archives

Temuan Music Archives allowed the user to view collection of articles regarding *Orang Asli Temuan* music that archived. The user also can search the archived articles based on date of the articles. It is important for researchers and academicians to review previously published articles to obtain specific information about Temuan music.

4.5.2 Usability Testing On Orang Asli Temuan Music Portal

The usability testing has been conducted in this project to test to measure human-computer interaction characteristics and identify weakness for correction in Orang Asli Temuan Music Portal. The goal of usability testing is to discover the needs and expectations of users of the portal based on the criterias that has been selected. There are 5 criterias for this testing which are Navigation, Functionality, Language and Content, Error Prevention and Correction, and Architecture and Visual Clarity. (Please refer to Appendix 4-7)

Table 4.2 Usability Testing On Orang Asli Temuan Music Portal



Result of Testing

After the survey that has done, these are the feedbacks that have been gathered (Please refer Table 4.2 for more details). The highest average score of criterias is Functionality which is 85.56%. The lowest average score of criterias is Error Prevention and Correction criteria which is 78%. On Navigation criteria, average score is 80%. On Language and Content criteria, average score is 81.61%. On Architecture and Visual Clarity criteria,

average score is 82 %. Overall average score for this usability testing is 81.43 %. The benchmark for usability of the portal for this usability testing is 80%. This means the portal can be accepted as knowledge based portal because it has exceeded the expectation by comparing it with the benchmark that has been set.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter focuses on the discussion of the study vis-à-vis the laid down aims and objectives. A recapitulation is presented before a discussion of the findings. After the discussion of the findings, suggestion for future research was given. Finally, a conclusion regarding the whole research is presented.

This project is the research-based project which is aimed to capture essential knowledge and information about *Orang Asli Temuan* music. Results from interviews with *Orang Asli Temuan* people in Kampung Parit Gong and Kampung Putra have been captured and documented in knowledge based portal. By implementing the portal as a resource centre of *Orang Asli Temuan* music, the researchers allowed to practice knowledge sharing actively as part of their role in knowledge society. Additional features like forum, picture gallery, video gallery and latest news also included in the portal to make it become a better resource centre. It also could be use as useful repository of knowledge in order to preserve the longevity of tacit knowledge from the *Orang Asli Temuan* music experts.

Lastly, prototype of Orang Asli Temuan Music Portal had been developed and for future task, testing activities and modification of the prototype will be done based on the testing results. Later, the project might be put into feasible implementation under available maintenance and support.

Throughout the research duration, interviews with *Orang Asli Temuan* music experts have been done in order to find knowledge and information on *Orang Asli Temuan* music. However, are several limitations faced during the interviews sessions to capture *Orang Asli Temuan* music. Cost of transportation to *Orang Asli Temuan* settlements need to be considered. There are no public transports that entered *Orang Asli Temuan* settlements due to the locations are too far from the main roads. Therefore, the research only can be done by having private owned transportation to enter their settlements. Another limitation is to find the experts on *Orang Asli Temuan* music among *Temuan* people. It is because there only several personals in *Orang Asli Temuan* people that involved in cultural activities able to explain details of *Orang Asli Temuan* music. Beyond possible resolving some of the limitations already highlighted in the study, several realistic avenues for research have also been identified.

5.2 RECOMMENDATIONS FOR FUTURE RESEARCH

After conduction the research, there are several recommendations have come up for the further study. The recommendation is thought to be better laid in point form to give a clearer understanding. These are the list of recommendations that suggested for future research:-

- **Complete study on music of Orang Asli in Malaysia**
 - i. Able to have specific and complete study on music of every ethnic groups of Orang Asli in Malaysia.
 - ii. Able to verify requirements to develop a resource centre of Orang Asli music in Malaysia
 - iii. Able to have deeper understanding on purpose and value of study music of Orang Asli in Malaysia

- **Malaysian Government initiatives on promoting *Orang Asli Temuan* music**
 - i. To have a collaboration with JHEOA to promote *Orang Asli Temuan* music to Malaysian.
 - ii. To create awareness among Malaysian about *Orang Asli Temuan* music through introducing *Orang Asli Temuan Music Portal* in JHEOA web portal
 - iii. Administrator from JHEOA staff will be selected to manage *Orang Asli Temuan Music Portal*.

- **Development of interactive *Orang Asli Temuan Music Portal***
 - i. Functioned as a resource center regarding knowledge and information of *Orang Asli Temuan* music in Malaysia.
 - ii. Contained complete archive and publication that included magazines, journals and newsletters of *Orang Asli Temuan* music.
 - iii. Update and enhance user friendly features in *Orang Asli Temuan Music Portal* towards better knowledge sharing sessions among the researchers and academicians.
 - iv. Encourage new ideas towards better promotion of *Orang Asli Temuan* music as part of Malaysian heritage.
 - v. More testing done to enhance better performance of the portal towards its users. For example, testing on compatibility of internet browser for the portal.

It is advised that the researchers and academicians should consider these recommendations in order to conduct further research on *Orang Asli Temuan* music and those more to come, as it would of interest to see whether research on *Orang Asli Temuan* music able to promote harmony among Malaysian trough better understanding on different cultural practice in Malaysia.

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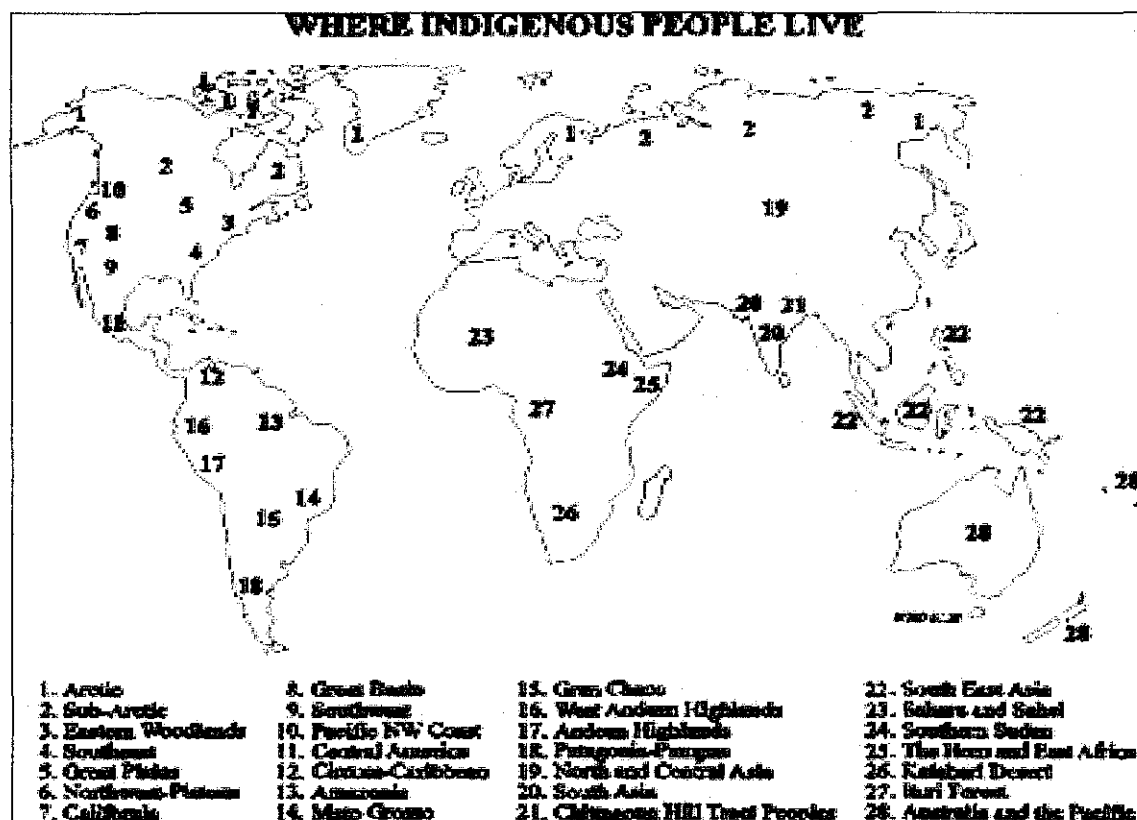
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APPENDIX 2-1

INDIGENOUS PEOPLE AROUND THE WORLD

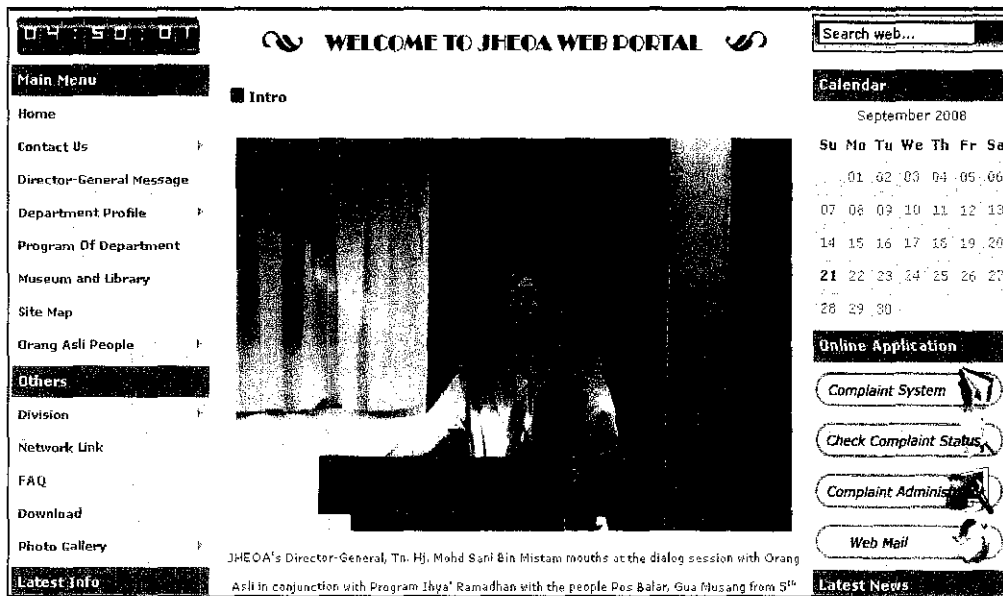


Indigenous People around the World

Source: <http://www.un.org/esa/socdev/unpfii/pfii/Datacoll%20Alderete%20eng.htm>

APPENDIX 2-2


SCREENSHOTS OF JHEOA WEB PORTAL



JHEOA Web Portal

Source: http://www.jheoa.gov.my/v2/bi/index.php?option=com_frontpage&Itemid=1

Latest Info



Kementerian Kemajuan Luar Bandar dan Wilayah

■ Perak Jamin Selesai Isu Tanah Adat Orang Asli

Menteri Besar Perak Datuk Dr Zambry Abdul Kadir berkata kerajaan negeri memberi jaminan dan komitmen bagi mencari jalan penyelesaian terbaik berhubung isu tanah adat masyarakat Orang Asli di negeri itu. Beliau berkata kerajaan negeri juga komited untuk menyelesaikan isu penerokaan secara haram dan pencerobohan oleh pihak yang tidak bertanggungjawab di tanah adat masyarakat Orang Asli.

[Read more...](#)

■ Mendidik Orang Asli prihatin kesihatan

TIDAK hanya semusin, tetapi seeloknya biarlah usaha penjagaan kesihatan gigi itu berpanjangan. Malah, amalan diet seimbang, mengurangkan pengambilan gula serta senbisa memberus gigi dengan betul yang dijadikan amalan kehidupan seharian boleh meningkatkan tahap kesihatan gigi. Bagi masyarakat perkampungan Orang Asli di Kampung Peta, Ulu Sungai Endau, Johor, baru-baru ini, program Kempen Jom Jaga Gigi dan Kesihatan anjuran Jabatan Kesihatan Negeri dan Jabatan Hal Ehwal Orang Asli nyata menyediakan pelbagai pengisian menarik.

[Read more...](#)

Poll

Do you like our new website's appearance?

Yes

No

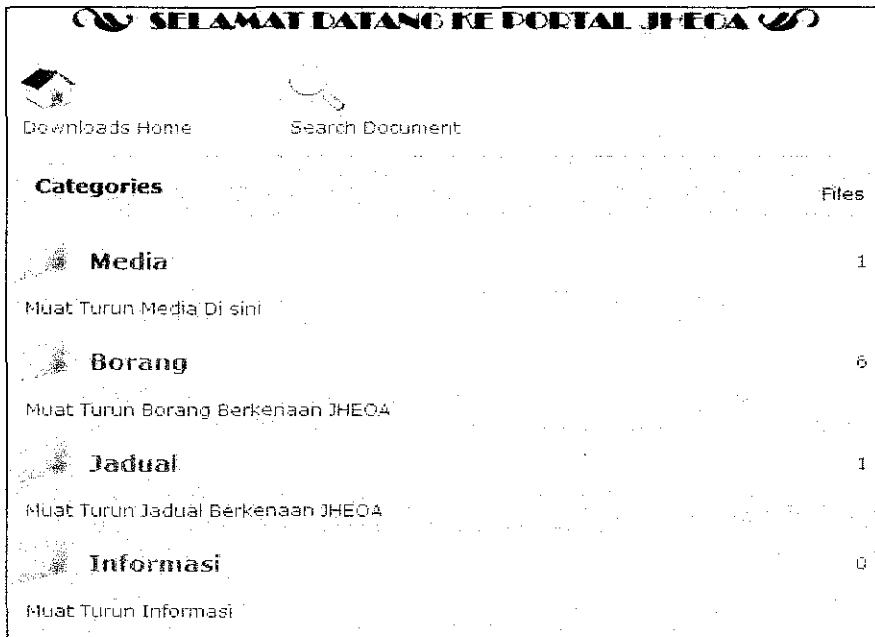
Not Sure

Same as the old one

None of above

Activities

Source: <http://www.jheoa.gov.my/v2/bm/index.php>



Download Home

Source: http://www.jheoa.gov.my/v2/bm/index.php?option=com_docman&Itemid=59

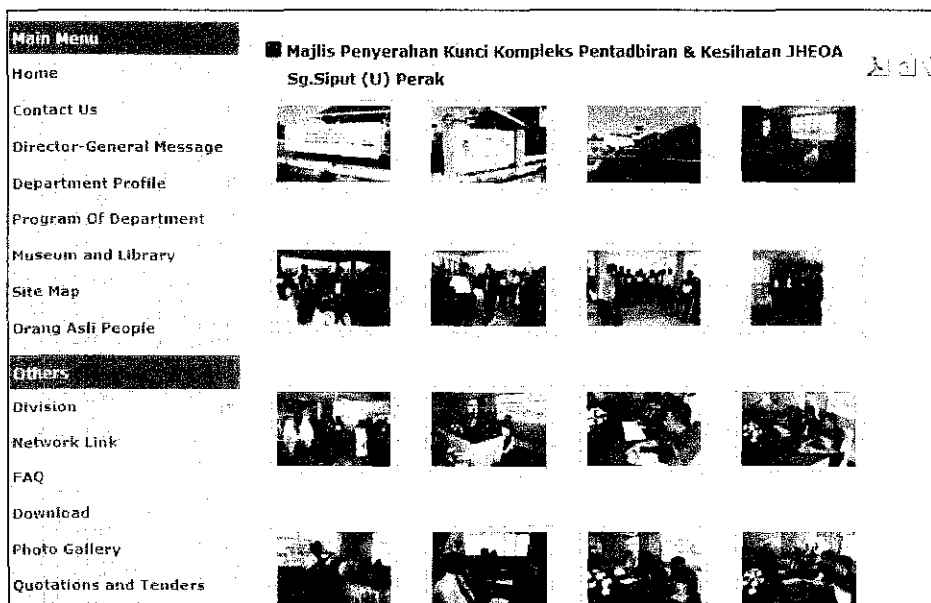


Photo Gallery

Source:

http://www.jheoa.gov.my/v2/bi/index.php?option=com_content&task=view&id=162&Itemid=193

WELCOME TO JHEOA WEB PORTAL

Pautan Rangkaian

Web Link	Hits
The Prime Minister's Office of Malaysia	19
Economic Planning Unit	
The Economic Planning Unit is the principal government agency responsible for the preparation of development plans for the nation.	18
Ministry of Education Malaysia	
To develop a world-class quality education system which will realise the full potential of the individual and fulfill the aspiration of the Malaysian nation.	27
Ministry Of Finance	16
Public Service Department of Malaysia	19

Web Links

Source:

http://www.jheoa.gov.my/v2/bi/index.php?option=com_weblinks&catid=20&Itemid=56

Latest News

Perletakan Batu Asas Projek

PPR, Negeri Johor Bagi Tahun

2009

Latest News

Source: <http://www.jheoa.gov.my/v2/bm/index.php>

Poll

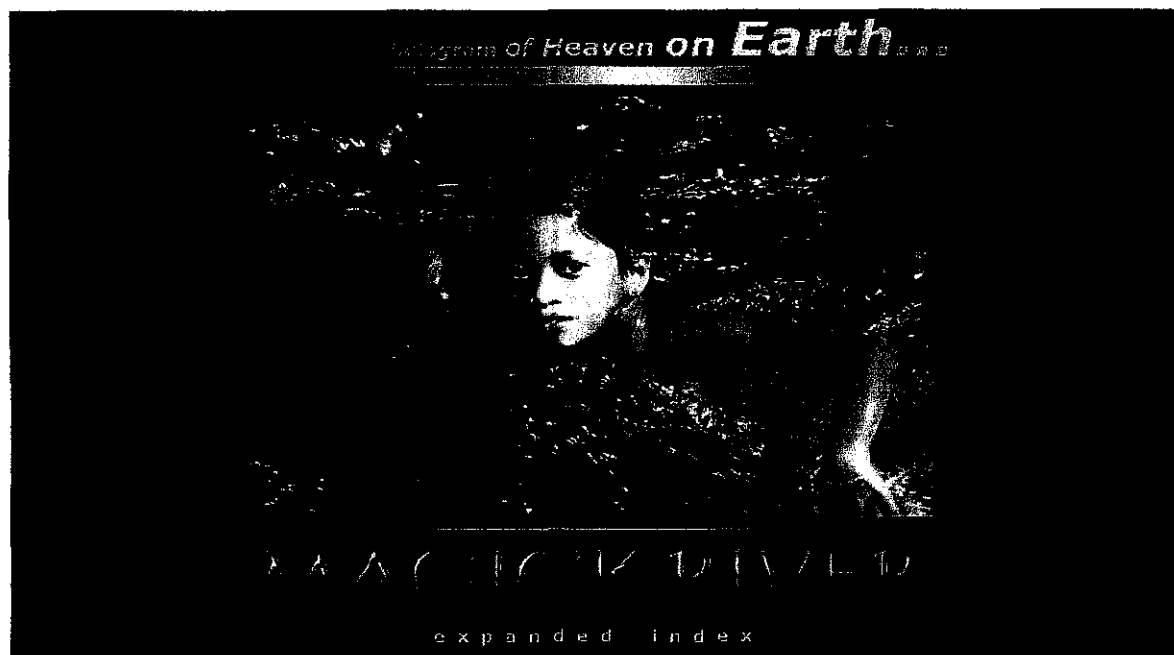
Do you like our new website's appearance?

- Yes
- No
- Not Sure
- Same as the old one
- None of above

Poll

Source : <http://www.jheoa.gov.my/v2/bm/index.php>

APPENDIX 2-3
SCREENSHOTS OF MAGICK RIVER WEBSITE



Main interface of Magick River website
 Source : <http://www.magickriver.net/index.htm>

The Rainbow Tribe Community Arts Project

<p style="text-align: center;"><u>eTemuan - The Future of the Temuan Tribe</u></p> <p style="text-align: center;">Displaced from their natural habitat by greed-driven "development," a group of young cybersavvy Temuan have opted to grab the future by the horns. I was greatly heartened to meet Mor Ajani, Shahar Koyok & Hardy who have embraced digital tech with a vengeance. Apart from maintaining their own web portal, they also produce paintings, sculpture, books, comic strips, radio programs & video documentaries. <i>Takkan Temuan hilang ditunia!</i> (The Temuan will never become extinct!)</p>
<p style="text-align: center;"><u>Guardians of the Forest ~ The Documentary</u></p> <p style="text-align: center;">Malaysia's Orang Asli face imminent cultural extinction. This beautifully filmed 52-minute documentary (which received excellent reviews following its media preview in May 2000) is an honest and moving portrayal of an indigenous rainforest tribe's last days as a free people.</p>
<p style="text-align: center;"><u>Meet the Temuan of Ulu Selangor, Malaysia</u></p> <p style="text-align: center;">A portrait gallery. Takes about 80 seconds to download but worth the wait!</p>
<p style="text-align: center;"><u>AKAR UMBI ~ Temuan ceremonial songs ~ Rainforest World Music Festival</u></p> <p style="text-align: center;">A musical collaboration with broad appeal. Akar Umbi on the World Music scene!</p>
<p style="text-align: center;"><u>Articles on Indigenous Cultures, Spirituality & the Environment</u></p> <p style="text-align: center;">Published & unpublished essays archived for online research as part of Magick River's <i>Free-Information-to-Heal-the-Earth</i> Campaign!</p>
<p style="text-align: center;"><u>MAK MINAH: A FOND FAREWELL</u></p> <p style="text-align: center;">The singing ambassador of the Temuan returns to the Spirit Realms.</p>

The Rainbow Tribe Community Projects
<http://www.magickriver.net/index.htm>

I am Antares, the entity formerly known as Kit Lee, and now sometimes called "Uncle Ant" or "HRH Antares" - simply because I am REAL.



I'm Co-Founder, Visionary and Webmaster of Magick River.

Picture of Webmaster of Magick River website
<http://www.magickriver.net/antares.htm>

Magick River Rainbow Family Album

Anyone who's ever visited Magick River & has some great pix to share, please email them to us



CLICK ON LINK TO ORDER ONLINE

The Magick River Rainbow Family Album
<http://www.magickriver.net/index.htm>

Magick River Associates & Earth-Sky Wisdom Links

MUSICIANS & FINE ARTISTS FOR WORLD PEACE

A network of musicians, artists & performers working to promote events & concerts focused on peace & raising global consciousness.

THE FEDERATION OF DAMANHUR

Damanhur was born of a dream. A dream of a society based on optimism and the idea that human beings can be the masters of their own destiny, without having to depend on outside forces. This was the vision of Oberto Airaudi (Falco) when, together with a group of fellow researchers, he founded the spiritual, human and social experience of Damanhur in the early 1970s, inspired by Atlantean memories. Today the Federation of Damanhur is an eco-society, a federation of communities - and an active member of Global Ecovillages Network.

Solara's Surf Report & The 11:11 Doorway

Solara announced the 11:11 Doorway and presided over its activation on 11 January 1992. She inspired my current User ID and has helped me develop navigational skills in hitherto unknown electromagnetic seas.

Her monthly Surf Reports are invariably spot on!

In Memoriam ~ Chief Jesse Haqq ~ Homepage & Art Gallery

Jesse, who departed the earth plane on 6 May 2002 after a two-year battle with cancer, was Magick River's Mayan navigator, storyteller, visionary painter, and connoisseur of delectable elves.

He was by nature so reticent we figured setting up a homepage for him was the only way we could share the brilliant and lovable entity with our website visitors.

Soluntra Azulea King ~ EVENSTAR CREATIONS

Books, Mandalas, Star, Gem and Flower Essences, Workshops and Initiatory Tours by a radiant multidimensional walk-in Star Priestess/Creator Goddess named Soluntra who's based in Queensland, Australia.

Gems of Wisdom

Crystals and Gems: a path to our inner wisdom?
NZ-based portal to crystals, gems and minerals, managed by a very helpful and friendly Sandy Morris.

Links of Magick River website

<http://www.magickriver.net/index.htm>

Flesh Of The Ancestress

14 Years With The Temuan Tribe



Text and Photos by Antares

The Temuan are the second most populous among 19 Orang Asli tribes scattered throughout the Malay Peninsula. There are only 144 villagers (give or take a clump babies) in Kampong Pertak, Ulu Selangor, where I've lived for the better part of 14 years. Didn't plan it that way. Got snared, was charmed by, fell in love with a demure Temuan girl half my age. When we got engaged, I asked if she minded my adding two A's to her name, so it would sound more musical. Anpoora nodded in silent agreement. She's courageous, to say the least, and actually quite cute except when she regresses into tantrum-throwing punk princess mode, which is her non-verbal way of getting my attention (her mother's a fully vocal control freak, like every cartoon mother-in-law).

An Article in Magick River website

<http://www.magickriver.net/flesh.htm>

A TEMUAN GALLERY ~ Photographed by Antares except where indicated



Temuan gallery

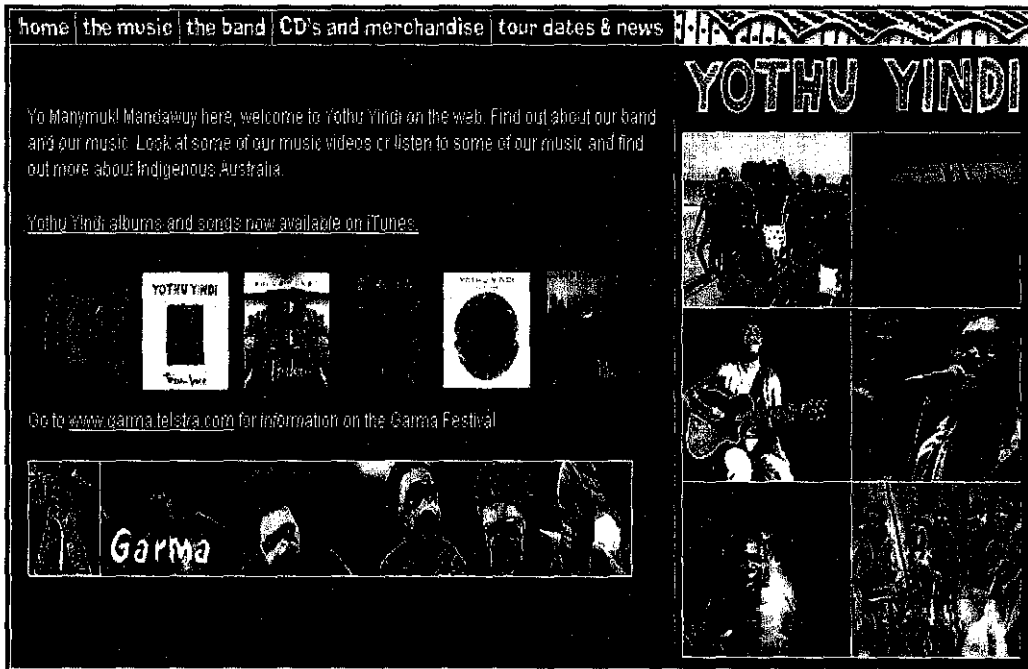
<http://www.magicriver.net/temuan.htm>

APPENDIX 2-4

SAMPLES OF WEBSITES ON ABORIGINAL AUSTRALIAN AND ABORIGINAL CANADA ANALYZED IN STUDY




Australian Government Culture and Recreation web portal
Source: www.acn.net.au
















Yothu Yindi website
Source: <http://www.yothuyindi.com/index.html>

Skinnyfish Music

Home | Traditional | Indigenous Roots | Contemporary | Extras | Contact Us | Links | Education | Search



Exciting New Releases from Geoffrey "Gurumai" Yunupingu.
order now

							
							
Namala Momo	Blues Across the River	Leah Flanagan Band	Djarrijarri	Shelle Morris - Waiting Road	I'll Be The One	Koko Bibayang	
	Sunshine	Nabarlek	B2M - Live at	On the Road	Mamoyi		

Skinnyfish Music Portal

Source:


http://www.skinnyfishmusic.com.au/index.php?option=com_frontpage&Itemid=1

Aboriginal Canada Portal

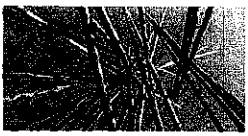
By Topic:
[National Aboriginal Organizations](#)
[Economic Development and Business](#)
[Claims and Treaties](#)
[Education](#)
[Employment](#)
[Environment and Natural Resources](#)
[Health and Social Services](#)
[Housing and Infrastructure](#)

Aboriginal Canada Portal
 The Aboriginal Canada Portal is your single window to First Nations, Métis and Inuit online resources and government programs and services.

Features



[Canadian Culture Online – Gateway Fund](#)
 The 2009-2010 call for proposals for the Gateway Fund is back! – The Gateway Fund is a component of the Department of Canadian Heritage's Canadian Culture Online.



Search this site...

Advanced Search

Feature Tools:

- Today's Aboriginal News
- Upcoming Events

Aboriginal Canada Portal (ACP) portal

Source: <http://www.aboriginalcanada.gc.ca/acp/site.nsf/en-frames/index.html>

APPENDIX 3-1

GANTT CHART FOR FYP 1 AND FYP 2

Gantt Chart for FYP I (First Semester FYP)

ID	Task Name	Start	Finish	Duration	Aug 2008					Sep 2008				Oct 2008			
					7/27	8/3	8/10	8/17	8/24	8/31	9/7	9/14	9/21	9/28	10/5		
1	Selection of Project Topic	7/27/2008	7/30/2008	.57w	■												
2	Preliminary Research Work	7/27/2008	9/14/2008	7.14w	■												
3	Submission of Preliminary Report	8/4/2008	8/4/2008	0w	◆												
4	1st Interview on Temuan Music at Kampung Parit Gong	9/20/2008	9/20/2008	.14w													
5	Seminar 1	9/24/2008	9/24/2008	0w	◆												
6	Submission of Progress Report 1	9/26/2008	9/26/2008	0w	◆												
7	Research Work Continue	9/26/2008	10/10/2008	2.14w	■												
8	2nd Interview on Temuan Music at Kampung Parit Gong	10/4/2008	10/4/2008	.14w													
9	Seminar 2	10/7/2008	10/7/2008	.14w													
10	Submission of Interim Report	10/10/2008	10/10/2008	0w	◆												
11	Oral Presentation	10/13/2008	10/13/2008	0w	◆												

Gantt Chart for FYP II (Second Semester FYP)

ID	Task Name	Start	Finish	Duration	Nov 2008		Dec 2008				Jan 2009				Feb 2009				Mar 2009				Apr 2009				May 2009				Jun 2009			
					11/16	11/23	11/30	12/7	12/14	12/21	12/28	1/4	1/11	1/18	1/25	2/1	2/8	2/15	2/22	3/1	3/8	3/15	3/22	3/29	4/5	4/12	4/19	4/26	5/3	5/10	5/17	5/24	5/31	6/7
1	Research Work Continue	11/13/2008	3/15/2009	17.57w	[Solid black bar]																													
2	Submission of Progress Report 1	2/13/2009	2/13/2009	0w	[Milestone diamond at Feb 2009]																													
3	Research Work Continue	2/13/2009	3/19/2009	5w	[Solid black bar]																													
4	1st Interview on Temuan Music at Kampung Putra	3/8/2009	3/8/2009	.14w	[Milestone diamond at Mar 2009]																													
5	Submission of Progress Report 2	3/19/2009	3/19/2009	0w	[Milestone diamond at Mar 2009]																													
6	Seminar	3/20/2009	3/20/2009	0w	[Milestone diamond at Mar 2009]																													
7	Project work continue	11/13/2008	5/14/2009	26.14w	[Solid black bar]																													
8	Poster Exhibition	4/15/2009	4/15/2009	0w	[Milestone diamond at Apr 2009]																													
9	Submission of Dissertation (soft bound)	5/4/2009	5/4/2009	0w	[Milestone diamond at May 2009]																													
10	Oral Presentation	6/1/2009	6/6/2009	.86w	[Solid black bar]																													
11	Submission of Project Dissertation (Hard Bound)	6/19/2009	6/19/2009	0w	[Milestone diamond at Jun 2009]																													

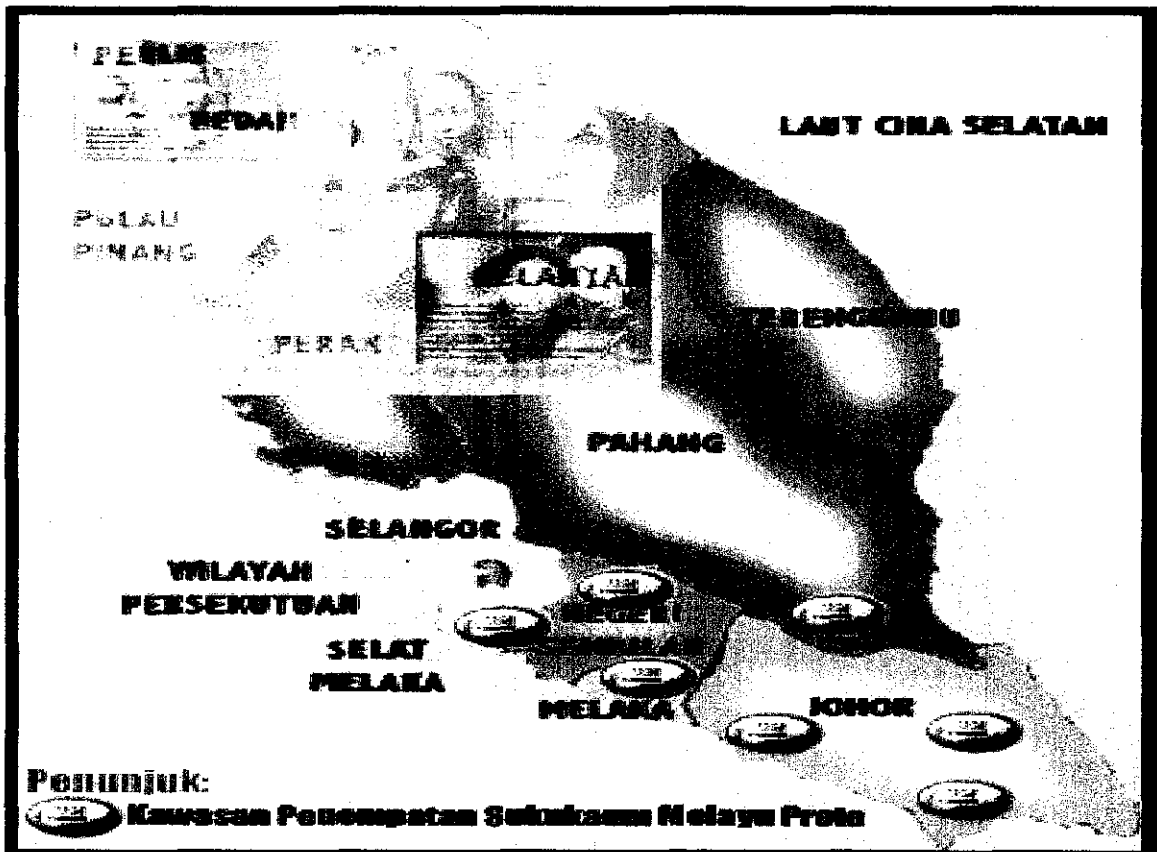
APPENDIX 4-1

INTERVIEW QUESTIONS FOR ORANG ASLI TEMUAN PEOPLE IN KAMPUNG PARIT GONG AND KAMPUNG PUTRA

1. Who are Orang Asli Temuan people and their characteristics?
2. Why music is important in lifestyle of Orang Asli Temuan people? Reasons?
3. What are the main elements of Orang Asli Temuan music?
4. How does the knowledge of Orang Asli Temuan people is been inherited by generations since thousands ago?
5. What are the main elements of Orang Asli Temuan music? Reasons?
6. When is the suitable time to play the Orang Asli Temuan music? Is it only during festival only? Reasons?
7. Who are the performers of playing Orang Asli Temuan music?
 - a. Is there any specific rule to play the music?
 - b. Is there any specific costume need to dress in during Orang Asli Temuan music performance?
8. How to make the music instruments?
 - a. What type of raw material to create music instrument that has been selected?
 - b. What are the main criteria on selecting material?
9. What is the current method or technique that applied to preserve the knowledge of Temuan music? Is it reliable and feasible?
10. What problem or inefficiency do you face to share knowledge of Orang Asli Temuan music?
11. How to play the music instruments of Orang Asli Temuan music?
12. What is the development of Orang Asli Temuan music nowadays? If yes?
 - a. Any cultural group is involved in the music development?
13. What are the functions of the Orang Asli Temuan music instruments?
14. If there any action taken by JHEOA to preserve of Orang Asli Temuan music? If any, what is the example of it?

APPENDIX 4-2

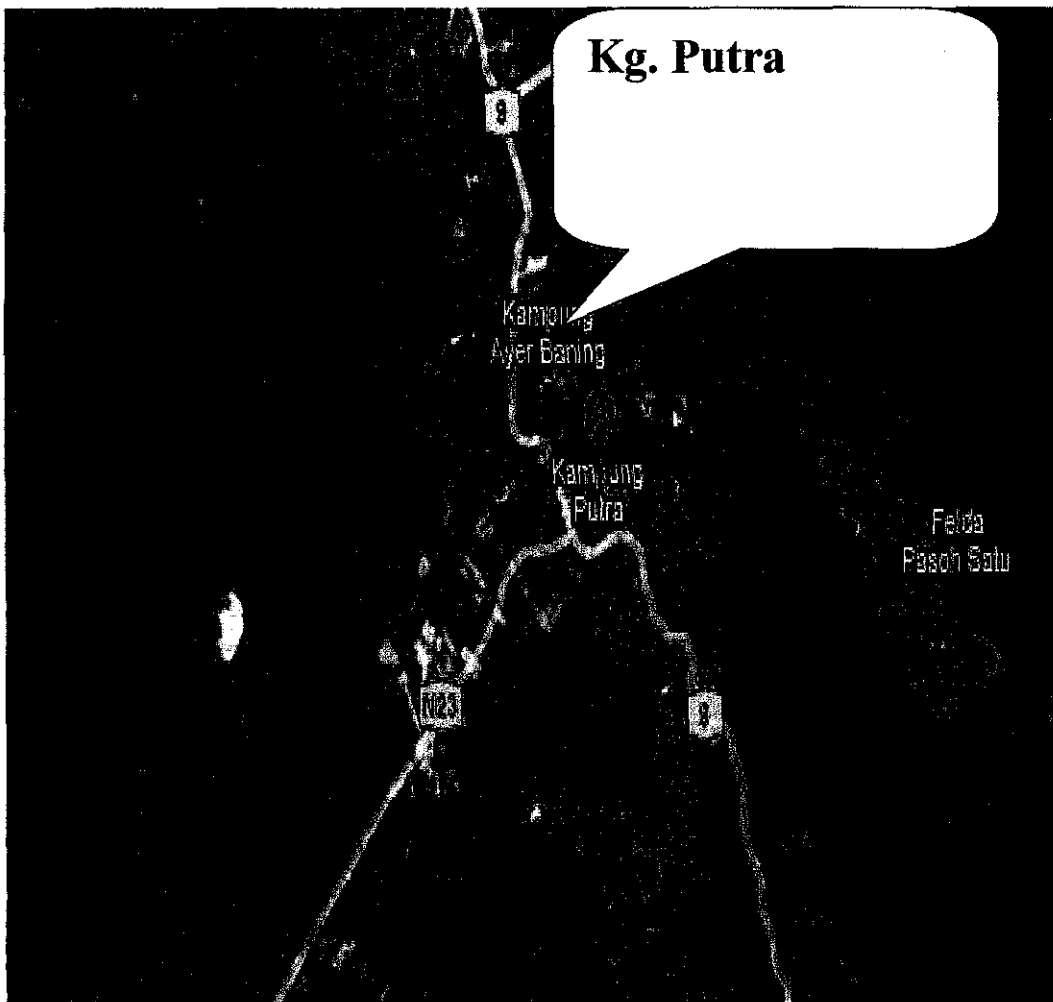
GEOGRAPHIC LOCATION OF MELAYU PROTO AND ORANG ASLI TEMUAN PEOPLE IN MALAYSIA



Geographic Location of Melayu Proto

Source:

http://www.jheoa.gov.my/v2/bm/index.php?option=com_content&task=view&id=21&Itemid=40



Geographic Location of Kampung Putra, Simping Durian, Negeri Sembilan, Malaysia

Source:

http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=kampung+putra,+jelebu,negeri+sembilan&sl=2.868979,102.399788&ssp=0.1399,0.214233&ie=UTF8&ll=3.027941,102.240486&spn=0.017485,0.026779&t=h&z=15&iwloc=addr

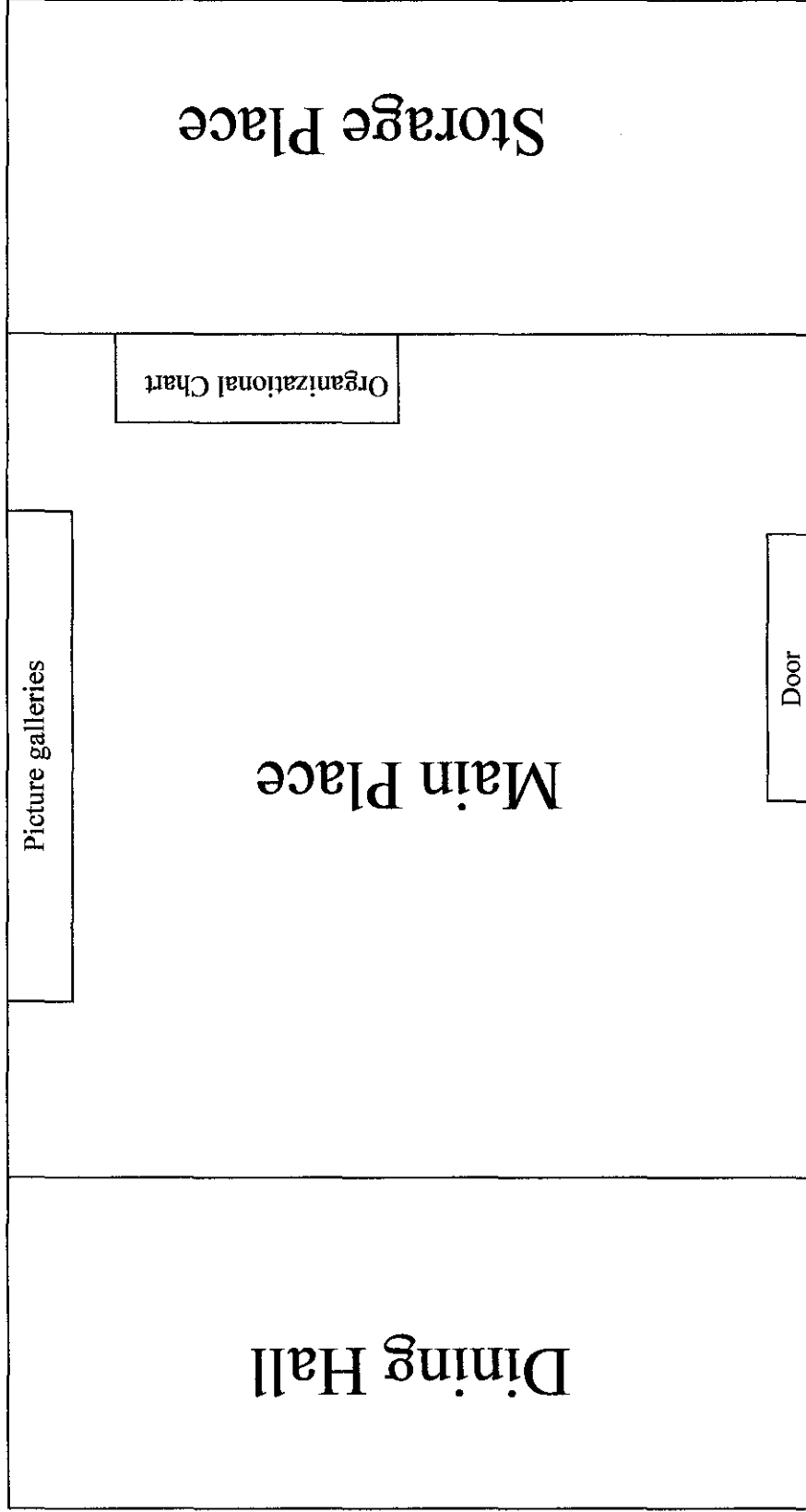


Geographic Location of Kampung Parit Gong, Simpang Pertang, Negeri Sembilan, Malaysia

Source:

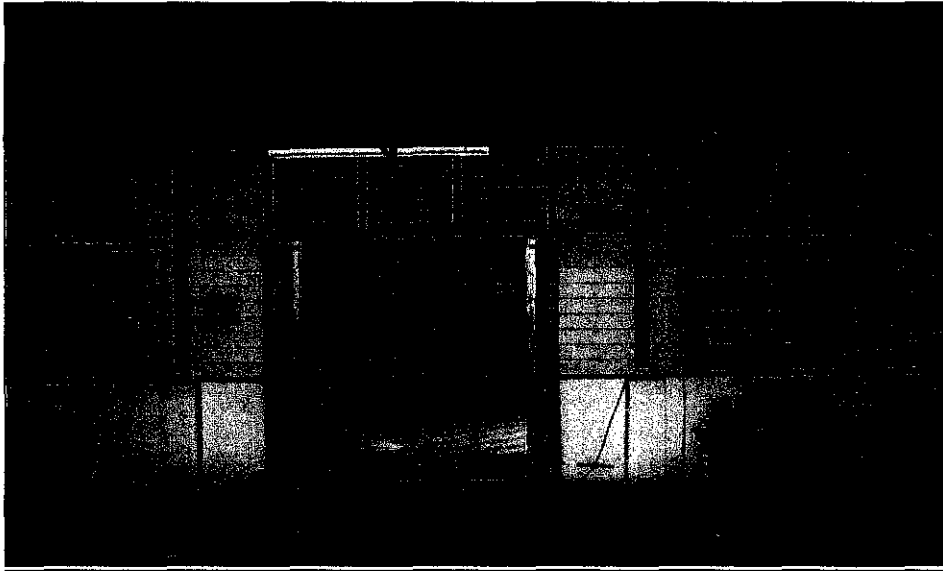
http://travelingluck.com/Asia/Malaysia/Negeri+Sembilan/_1752084_Sungai+Parit+Gong.html#local_map

**APPENDIX 4-3
LAYOUT OF BALAI ADAT OF KAMPUNG PARIT GONG**



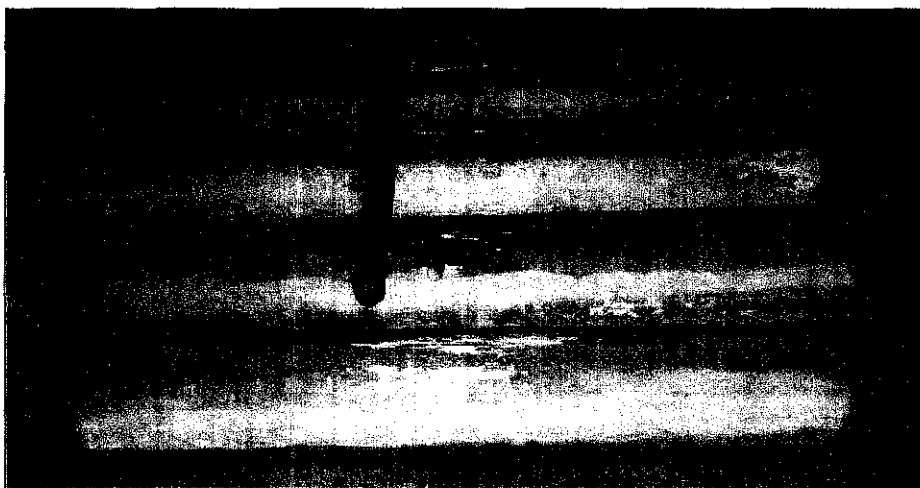
APPENDIX 4-4

**PICTURES OF ORANG ASLI TEMUAN PEOPLE IN KAMPUNG
PARIT GONG AND KAMPUNG PUTRA**



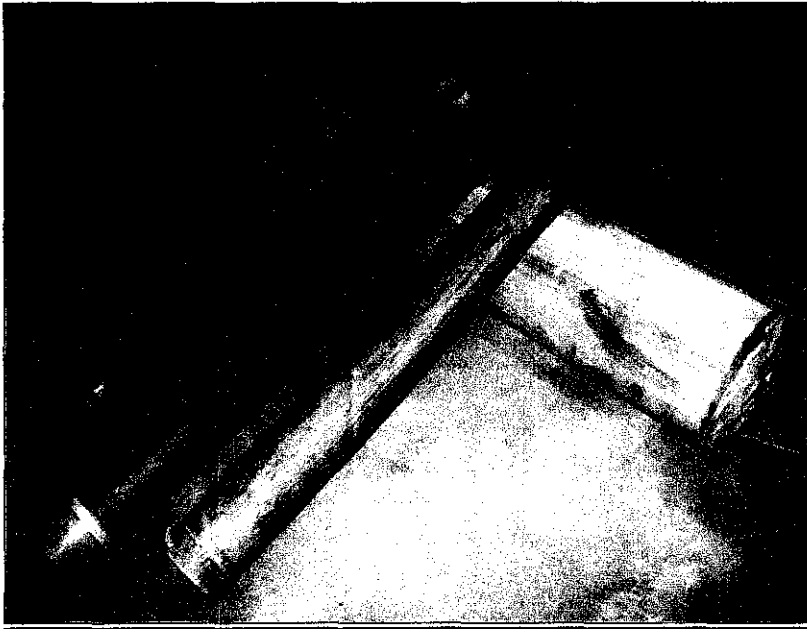
Balai Adat

Source : Photograph Courtesy of the Temuan People in Kampung Parit Gong



Kong-kong

Source : Photograph Courtesy of the Temuan People in Kampung Parit Gong



Tung-tung

Source : Photograph Courtesy of the Temuan People in Kampung Parit Gong



Bumbut

Source : Photograph Courtesy of the Temuan People in Kampung Parit Gong



Bark clothes

Source: Photograph Courtesy of the Temuan People in Kampung Putra

APPENDIX 4-5

LIST OF SONGS FROM ORANG ASLI TEMUAN MUSIC IN KAMPUNG PARIT GONG AND KAMPUNG PUTRA

Lagu Rebung Betung

Krepuk puak menyuak rebung betung,
Tinggal berdalai dalai denai sepanjang denai,
Celiew engiew mengeliew rebung betung
Manak reneh laluk hai kenyus laluk,
Manak tinggi, laluk hai pancas laluk,
Tinggal berdalai denai sepanjang denai,
Emlei mudak kasar hai cincang kasar,
Emlei tuttik halus hai cincang halus,
Ajak bikak dengan hai kawan dengan,
Sukak piyak kawan hai kawan ramai,
Petai padik papan hai petai papan,
Musim jadik makan hai nyap termakan,
Yak..Yak..Yak..

Tarian Bunga Cica

Ca.. bunga cica,
Kembang si bungak cangut, wan bentang tikar buat tempat,
Aki janggut,
Kumpul daun palas, pemungkus, Si bungak cinak,
Wan jangan marah, aki janggut nak bertanya
Ceneneng tungkat dagu, ceceneng lep-lep

Tebang Penak Tebang Manau

Mai kital kawan- kawan,
Kitak pergi dalam hutan,
Nebang kayu, kayu penak, kayu meranti,
Ape lagi, guntungungan,
Hari kitak, nyap menunggu, cari dammar, cari manau
Eee..eeh..bukan modeh
Nakeb dammar, nyampuk manau kenak duek,
Badan sakit, nyawak letih, badan sakit,
Apak lagik, gunetungungan,
Hai kitak ,nyap nunguk, kitak siap,
Haik beransu pulang

APPENDIX 4-6

SCREENSHOT OF STORYBOARD ON ORANG ASLI TEMUAN MUSIC PORTAL

Public Site

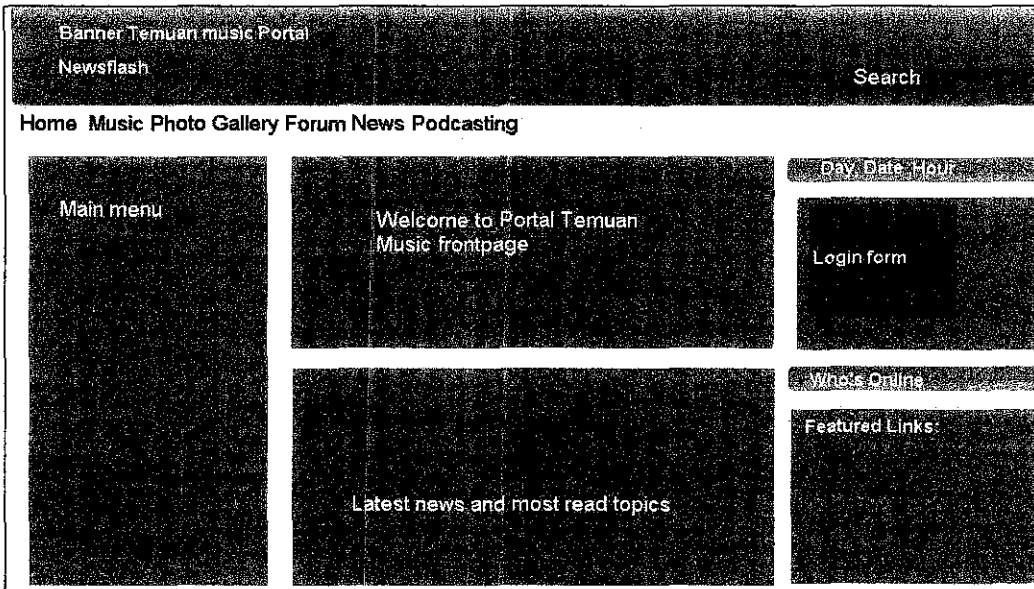


Figure 4.3.1 Public Site – Main Menu

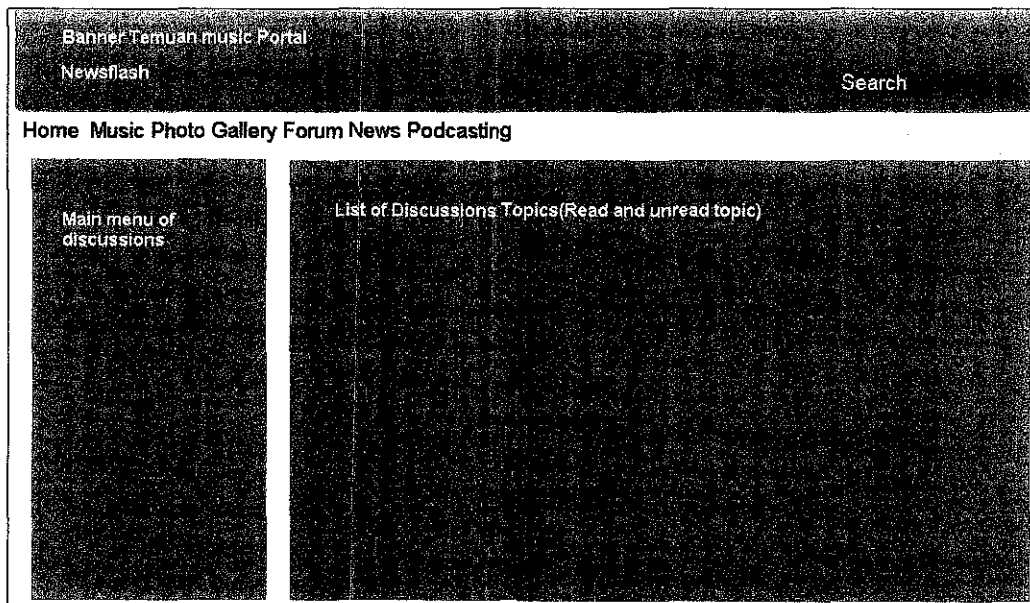


Figure 4.3.2 Public Site – Forum

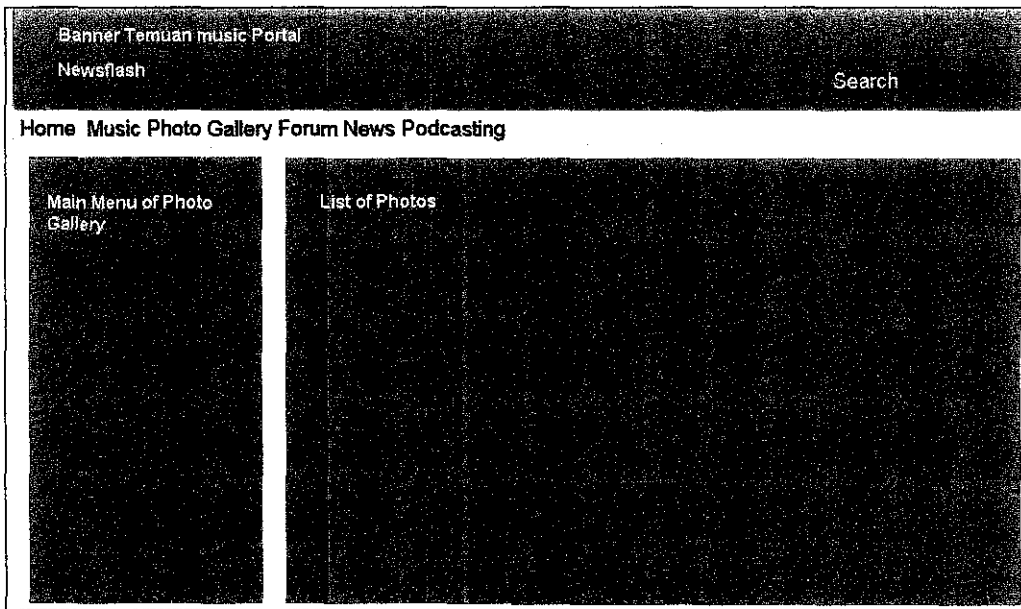


Figure 4. 3.3 Public Site – Photo Gallery

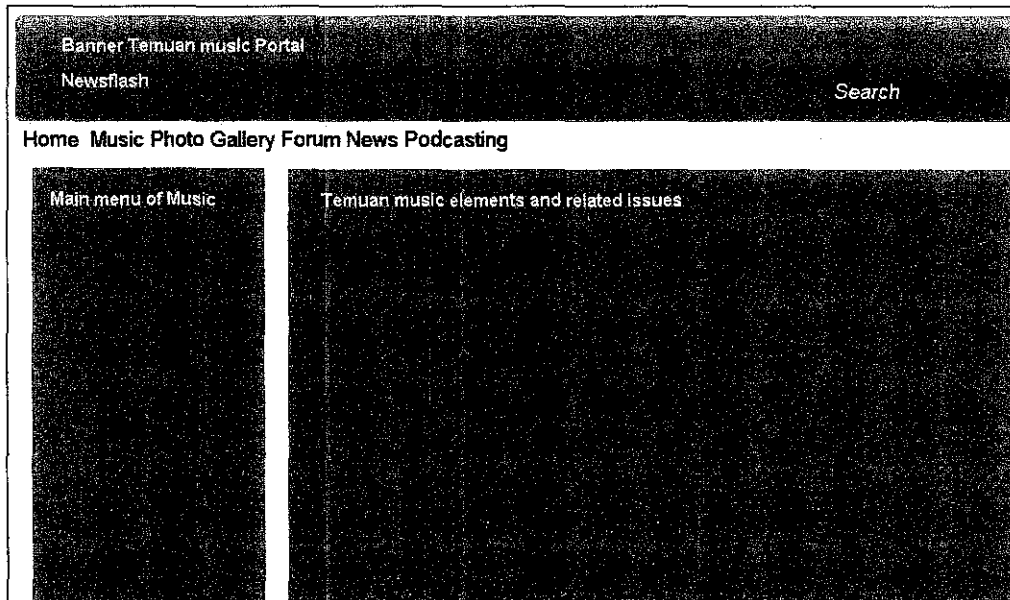


Figure 4.3.4 Public Site – Music

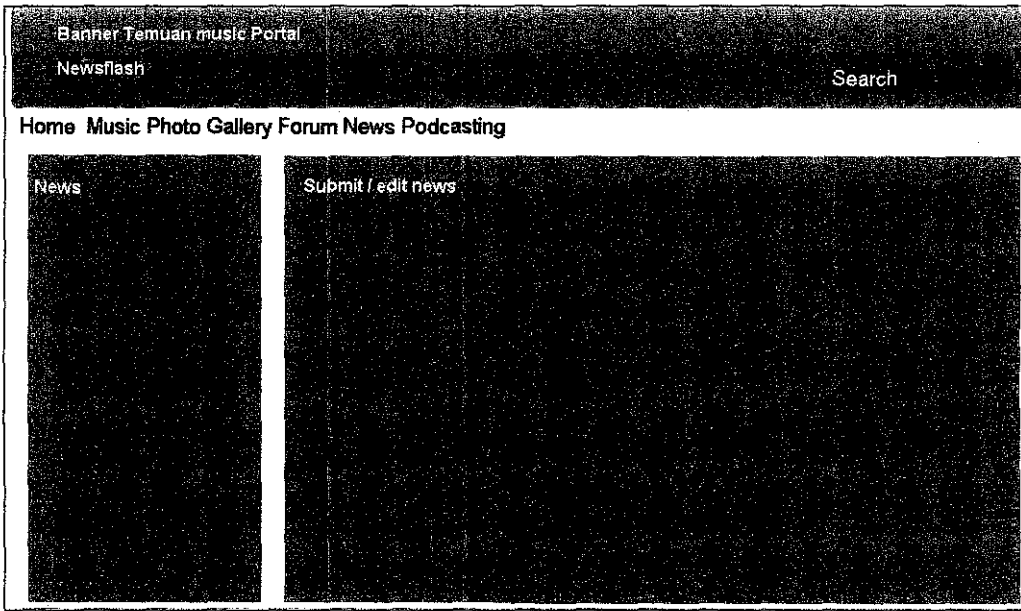


Figure 4.3.5 Public Site – News

Admin Site

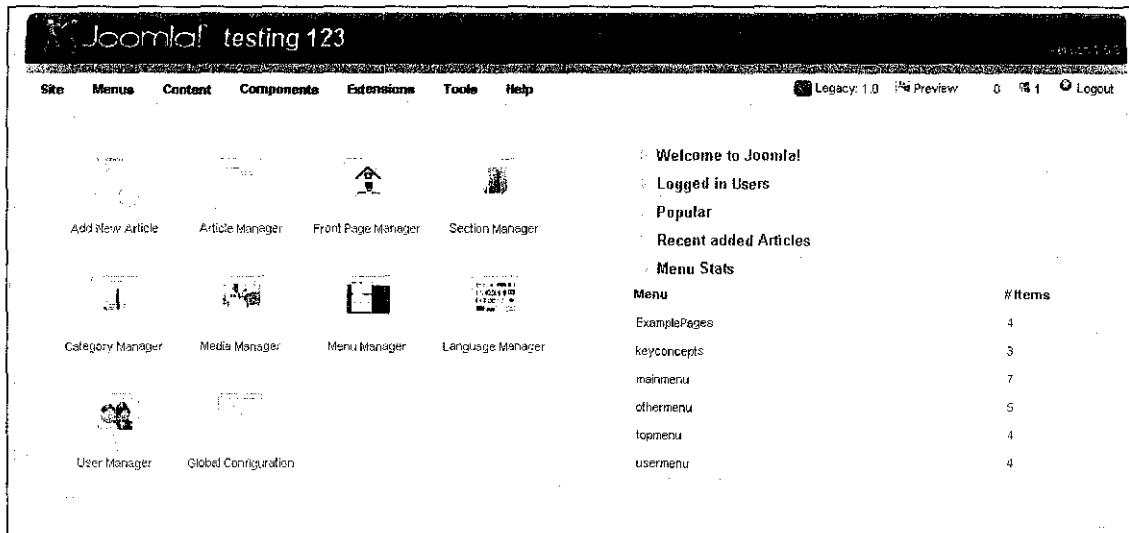


Figure 4.3.6 Admin Site – Control Panel

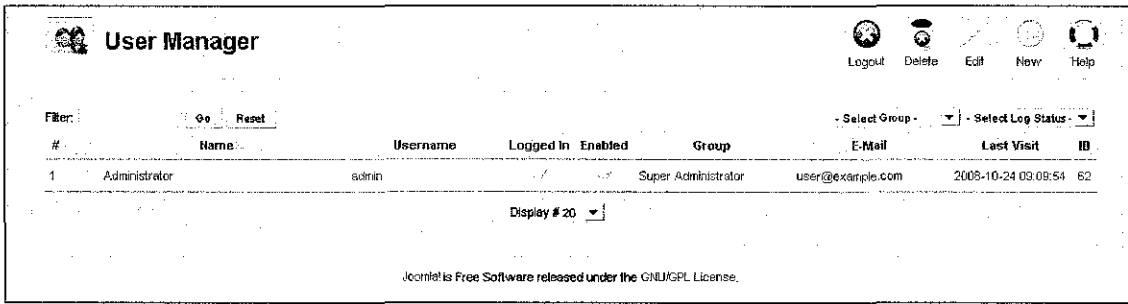


Figure 4.3.7 Admin Site – User Manager

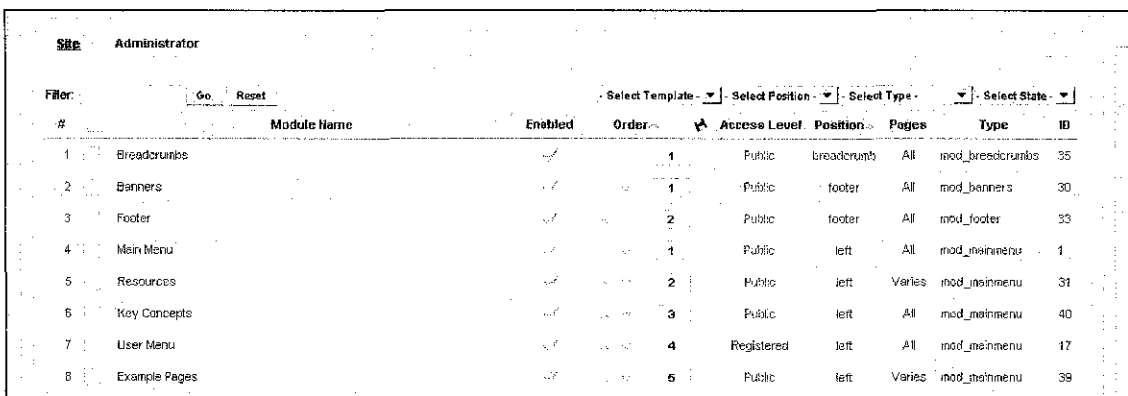


Figure 4.3.8 Admin Site – Module Manager

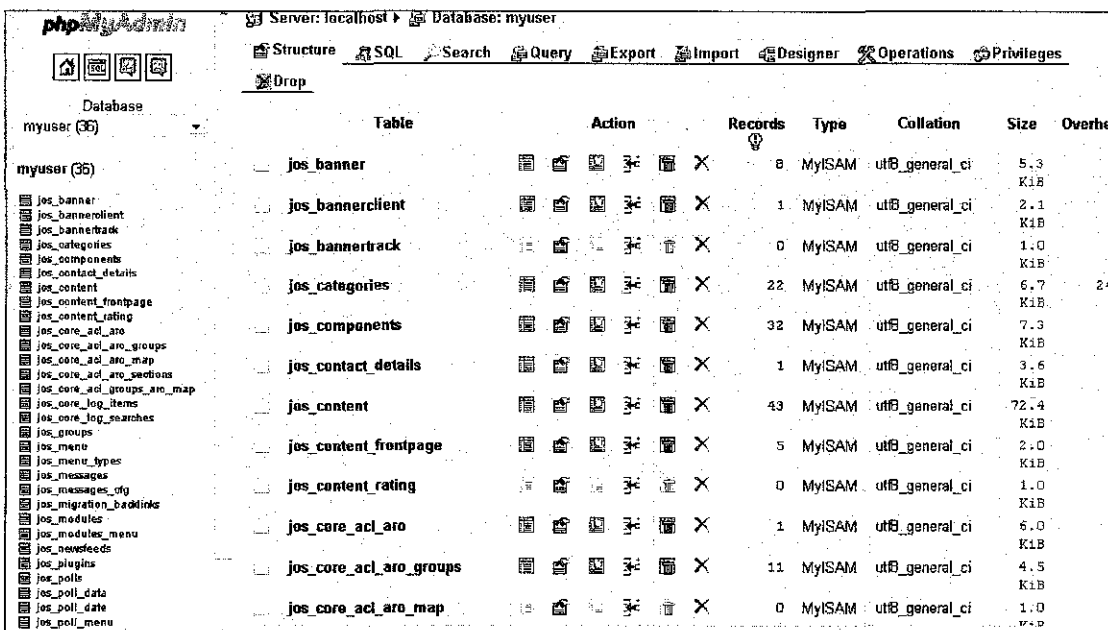


Figure 4.3.9 Admin Site – Stored Database of the Portal

APPENDIX 4-7

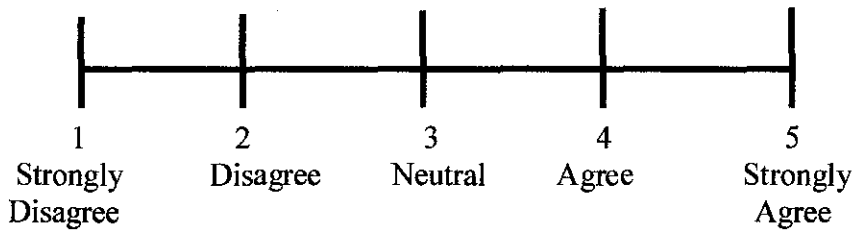
**USABILITY TESTING ON ORANG ASLI TEMUAN MUSIC
PORTAL**

Test Facilitator: _____ **Test Subject:** _____

Test Date: _____ **Test Location:** _____

USABILITY TESTING

Rating:-



Navigation	Rating (1-5)	Explanation for Rating & Recommendations
Current location within the site is shown clearly		
Link to the site's main page is clearly identified		
Major/important parts of the site are directly accessible from the main page		
Site map is provided for a large, complex site		
Easy to use Search function is provided, as needed		
Functionality	Rating (1-5)	Explanation for Rating & Recommendations
Site accommodates novice to expert users		
Functions are clearly labeled		
Essential functions are available without leaving the site		
Site can cancel any operation		
Clear exit point is provided on every page		

All appropriate browsers are supported		
Language and Content	Rating (1-5)	Explanation for Rating & Recommendations
Important information and tasks are given prominence		
Important of low relevance or rarely used information is not included		
Related information or tasks are grouped : - on the same page or menu - in the same area within a page		
Language is simple, without jargon		
Paragraph are brief		
Links are concise, expressive and visible—not buried in text		
Error Prevention and Correction	Rating (1-5)	Explanation for Rating & Recommendations
Users can rely on recognition, not memory, for successful use of the site		
Site provides concise instructions for user actions, including entry format		
Error message are visible, not hidden		
Error messages describe actions to remedy a problem		
Error messages provide a clear exit point		
Architecture and Visual Clarity	Rating (1-5)	Explanation for Rating & Recommendations
Site is organized from the user's perspective		
Site is easily scannable for organization and meaning		
Site design and layout is straightforward and concise		
Site design and layout are redundant only when required for user productivity		
White space is sufficient; pages are not too dense		

Thank you for your time.

Appreciate your feedback on the questionnaire and the testing technique that we have used if any:
