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## **READLINESS LEVEL OF MOBILE-BASED MINI ENGLISH-INDONESIA-KOREAN DICTIONARY APPLICATION IMPLEMENTATION IN IMPROVING THE TOURISM SECTOR**

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### **Abstract**

The tourism sector has the advantage that it is currently undergoing continuous expansion and diversification compared to the manufacturing sector. Current tourism development in various regions offers innovative services through the application of information and communication technology. Currently, the application of mini dictionary applications is more widely applied in city tourism areas that have complete basic infrastructure, adequate availability of information and communication technology and a comprehensive service system. In the tourism sector in Indonesia has considerable potential and attractiveness in the natural and cultural tourism sector, in the development of tourism the central government through The Ministry of Tourism and Creative Economy/Tourism and Creative Economy Agency in each province has the aim of increasing the number of visits and services. This research will examine each tourist attraction, which in its development has developed as an urban area with the availability of supporting tourism facilities / infrastructure that has been fulfilled. The purpose of this study is to identify the level of readiness of tourist attractions in implementing mini dictionary applications in terms of the availability and quality of basic infrastructure services and ICT and tourist support facilities. This research uses the waterfall process method used to describe the research approach to the analysis process. The results of the analysis show that the level of readiness of the application of mini dictionaries at tourist attractions is stated to be against ready. The readiness of the application of the mini dictionary in terms of the availability and quality of basic infrastructure services and ICT and tourist support, based on the results of a review of all components in its application that can be reviewed from infrastructure, facilities and service systems shows that almost all tourist attractions have shown readiness in basic infrastructure and for ICT infrastructure and tourist support facilities are still in a somewhat ready position. This is due to the inadequate quantity and also ICT that has not been applied in tourism management.

**Keywords:** Mini Dictionary App, Mobile, Tourism, Readiness Level

## 1. INTRODUCTION

Indonesia has a wealth of natural and cultural potential that has been developed and utilised as a tourist attraction. In tourism development has a development plan consisting of coastal and cultural tourism destinations, in the tourism sector which is a superior tourist destination. With geographical conditions making this marine tourism destination very suitable and safe to carry out various activities. With natural and cultural conditions in Indonesia, it is an attraction that is always in demand by domestic and foreign tourists, because it is able to provide memories and a sense of wanting to return to travel. The diversity of culinary and art in Indonesia adds to the uniqueness and richness of the nation's culture which is able to attract many people who come to travel. Seen from the National Tourism Development Master Plan document 2010-2025 [1] and The Ministry of Tourism and Creative Economy/Tourism and Creative Economy Agency Strategy Plan 2020-2024 [2] which has increased tourism competitiveness and increased the contribution of the tourism sector to the national economy. This makes business people and the government or industry to develop the tourism sector.

Reporting from KoranKaltim.com about the lack of preparation of qualified and qualified human resources to support the improvement and attractiveness of tourism, especially the need for tour guides or tour guides who are good and proficient in English [3]. This shows how important tourism development in terms of language is used to increase the selling value in the tourism sector. Therefore, currently various countries are trying to increase competitiveness in the tourism sector by actively developing tourism through the use of more modern information technology. One way to improve the tourism sector is to utilise advances in information and communication technology, such as: Internet of Things, Big Data, Cloud Computing and Artificial Intelligence.

In developing the problems that occur and increasing tourism today, various tourist attractions offer advanced and innovative services for tourists. In the application of the mini dictionary application, it can be used to improve services by integrating information and communication technology that has an impact on the economy. Therefore, the application of mini campus applications is needed considering that nowadays travelling has become a necessity for many people and it is time to optimise the tourism sector by increasing the commercialisation of tourism areas through more modern tourism alternatives. Currently, the application of dictionary applications is more widely applied in city tourism areas or areas that already have basic infrastructure completeness and have adequate infrastructure availability and a comprehensive service system. In this study examines the level of readiness of the application of mini applications on all tourist attractions, with sufficient tourism potential for the development of tourist attractions.

Therefore, this research is important to do in order to determine the level of readiness of tourist destinations in implementing mini dictionary applications in terms of the availability and quality of basic infrastructure services and ICT and tourist support facilities. Through this mini dictionary application, it is hoped that it will be able to provide convenience for tourists to be able to access the application, improve the quality of tourism services and expand the tourism market more widely.

## 2. LITERATURE REVIEW

**Table 1.** Literature Review

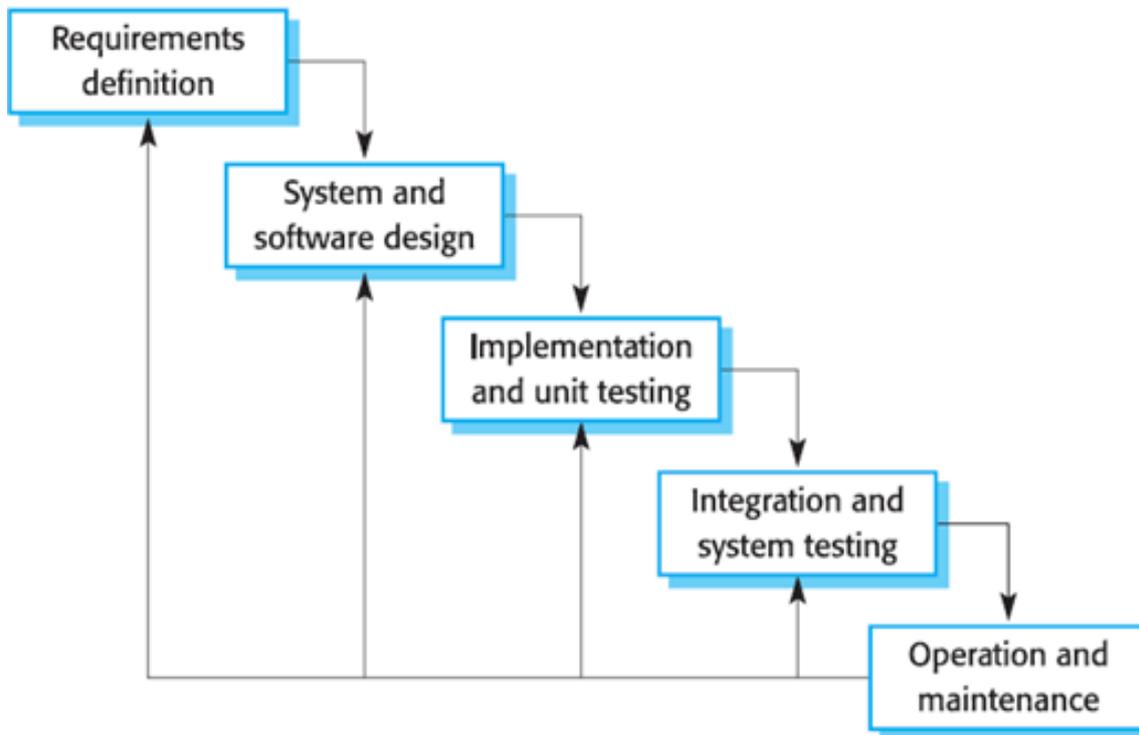
Author & Title	Focus	Method
Ratmini, Dahlia. 2019. Dampak Penggunaan Aplikasi Online Dictionary Pada Pembelajaran Bahasa Inggris Di MA Al-Hidayah Muara Telang	Knowing students' perceptions in using online dictionaries in English learning	The research method used in this paper is a qualitative method to analyse the data.
Maulida Almas Fadhilah. 2021. Analisis Karakteristik Aplikasi Kamus Arab-Indonesia	Describe the scope of an Arabic-Indonesian dictionary	Qualitative method with descriptive analysis technique with library research by making the world of text as the object of research.
Angga Aulya, Entik Insannudin. 2016. Perancangan Aplikasi Berbasis Mobile Kamus Bahasa Indonesia Berbasis Android	The design of the application to meet the needs of these users is an Android-based Indonesian dictionary application.	The design of the application to meet the needs of these users is an Android-based Indonesian dictionary application.
Trinada, Muhammad Haikal. 2019. Penerapan <i>Smart Tourism</i> dalam Meningkatkan Sektor Pariwisata Pesisir di Kawasan Wisata Terintegrasi Teluk Lampung	Readiness of coastal tourism destinations in the integrated tourism area of Lampung Bay in implementing smart tourism	Deductive research with case study method, using purposive sampling. Qualitative inductive analysis and quantitative scoring

Source: April, 2023

The thing that distinguishes this research from other studies is that researchers will examine the application of mini dictionaries for the tourism sector. In its application, which is related to the completeness of basic infrastructure, the availability of adequate ICT infrastructure and services, and a comprehensive service system, the application of mini dictionary applications is currently more dominantly applied to tourism development in urban tourist attraction areas. This will be the focus of this research, namely the tourist attraction area which has great tourism potential but the problem is the lack of internet network and the capacity of the community in communication. The final thing that is expected is the suitability of elements in the mini dictionary application that can be applied in tourist objects that can support the development process so that the application of mini dictionary applications can increase the number of visitors, facilitate communication and get other needs in tourism activities and can expand tourism promotion more widely.

## 3. RESEARCH METHODS

This research explains the research approach, research object, research definition, data collection methods and analysis techniques. The following is a description of the research method on the Readiness Level of the Application of the Mobile-Based Mini Dictionary of English - Indonesia - Korea in Improving the Tourism Sector. The method used in this research is the waterfall method as a basis for collecting data and up to the maintenance stage [4].



**Figure 1.** Metode Proses Waterfall  
Source: Software Engineering, Sommerville, Ian, 2001

## **4. FINDINGS AND DISCUSSION**

### **4.1 Socio-Cultural and Economic of Communities and Travellers**

Provide an overview related to the socio-cultural characteristics of the community with the traditions/customs/customs of the community related to life in the tourist area. In addition, this will also provide an overview of the role of the community in the development of the tourism sector. The characteristics of the community around the tourist attraction are a combination of characteristics of urban and rural communities. The majority of people who live in coastal tourism objects have jobs as fishermen, service providers, lifeguards, traders and others. While people who live in tourist attractions other than beaches or one of them is a cultural object have jobs as farmers, traders, labourers, office workers and others. The location adjacent to technology that has undergone development makes many people understand the importance of following IT developments. In the application of technology, people who are in tourist attractions have used smartphones as one of the media to communicate and carry out an activity. However, the application of technology in the development of the tourism sector is still quite low.

### **4.2 Analysis of Readiness Level of Mini-Dictionary Implementation**

This analysis explains the characteristics of the area with the availability of basic infrastructure, ICT infrastructure and tourism support facilities on the object. In the basic infrastructure, namely the electricity network that has the availability of electricity and energy sources and the distribution network is one of the facilities that is a vital part to be able to support all the needs and tourism activities in each destination. Each tourist attraction has the characteristics of an area dominated by population settlements and tourist attractions with quite dominant community activities. Furthermore, ICT infrastructure has an important function of its availability to be able to provide ease of

access and improve the quality of information services. Knowing the importance of the function of telecommunications networks to be able to facilitate communication and access information. The availability of ICT infrastructure and good service quality in telecommunications is done by using telecommunication indicators, namely:

- a. Has BTS and service radius up to the tourist attraction area.
- b. Speed pf accessing the internet.
- c. Development of telecommunication towers.

The availability of ICT infrastructure in each tourist attraction location is available to support tourism activities in each region and support the application of e-tourism recommendations in tourism sector development efforts. Assessment of tourist attraction services can be seen from the availability and quality of services at each object. With the mini campus application that can optimise tourists in communicating with the community around the object. In the application of ICT to support various tourism activities at this time is still quite minimal. In the development of the mini dictionary application, it aims to make it easier for tourists to fulfil the smart tourism element.

### 4.3 Infrastructure Readiness of Tourism Objects

Study findings are an analysis process carried out by researchers, based on the results of field findings from the theory used as a reference in finding data and the process of compiling analyses. Based on the results of observations and analyses conducted by researchers both in the field and the process after field implementation, the following study findings are related to the readiness of the application of the mini dictionary.

**Table 1.** Readiness Study Findings for Mini-Dictionary Application Implementation

Component	Study Findings
Basic Infrastructure and ICT	The electricity network in tourist attractions with remote locations still does not have readiness in the electricity network Telecommunications in several tourist attractions that have been built by several operators and internet services
Tourist Support Facilities	Availability of ICT in the operation of tourist support facilities: NOT READY because most of the tourist attractions do not yet support sufficient infrastructure

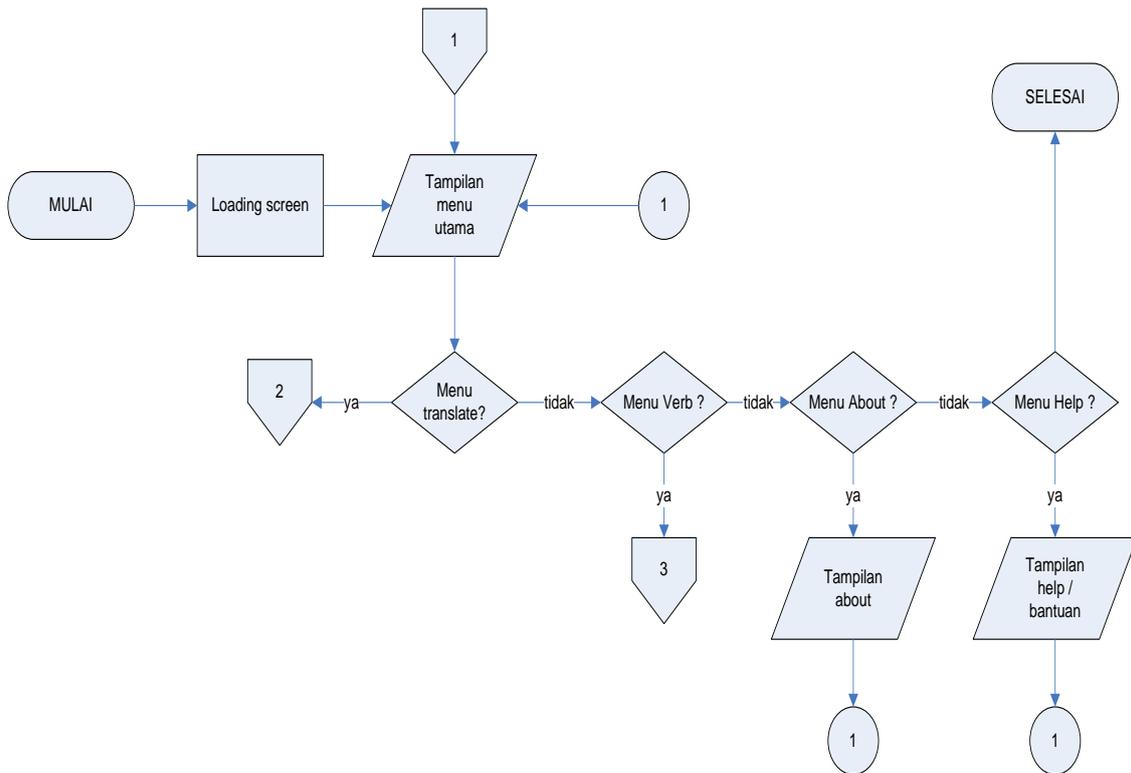
Source: April, 2023

From the results of the analysis carried out the level of readiness of the application of mini dictionaries studied based on basic infrastructure and ICT and supporting facilities at several tourist attractions. The level of readiness is obtained based on the tourist attraction of the readiness level of the application of the mini dictionary.

## 4.4 Development and Design of Mini Dictionary Application

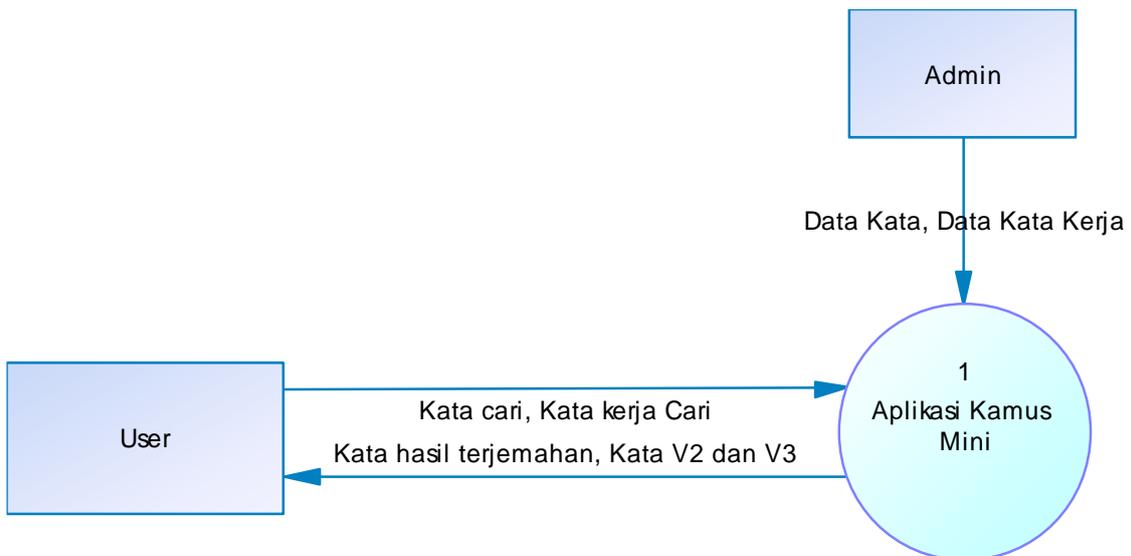
### 4.4.1 Mini Dictionary App Development

The system design is designed in accordance with the analysis carried out at the previous stage. The system design consists of making programme flowchart, context diagram and data flow diagram. The programme flowchart design for the mini dictionary application is:



**Figure 2.** Flowchart of Mini Dictionary Application Program  
 Source: April, 2023

While the context diagram design for the mini dictionary application has 2 entities, namely the user and the admin. The admin enters word data consisting of words in English, Indonesian and Korean and verb data into the application.



**Figure 3.** Context Diagram of Mini Dictionary Application  
 Source: April, 2023

Furthermore, the implementation stage is the stage where the results of the analysis and design of the application that has been made in the previous stage are implemented into code.

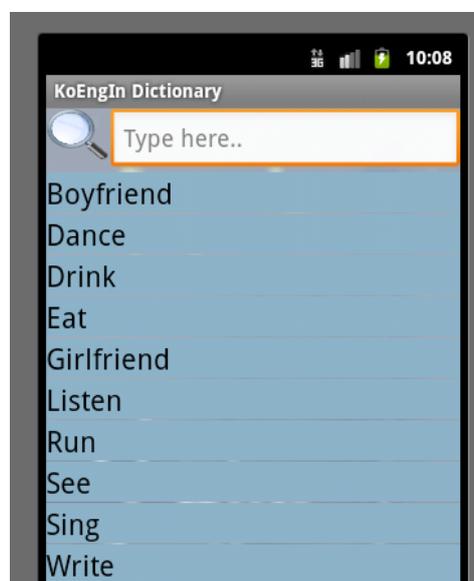
#### 4.4.2 Mini Dictionary App Design

The design of the mini dictionary application is carried out using the Eclipse IDE tool, in the java android programming language. This application programme is made for Andorid, the following are the results of the implementation of the page display design that has been made in the previous stages:



**Figure 4.** Main Menu Page  
Source: April, 2023

On the display on this page that will appear after the splash screen. In this menu page there are 5 menus, namely the translate menu to translate words, the verb menu to search for verb 2 and verb 3, the about menu which contains an explanation of the dictionary, the help menu which contains an explanation of how to use the dictionary and the exit menu to exit the application.



**Figure 5.** Translation Search Page of English Words  
Source: April, 2023

The search process for English words also uses a query. The use of queries aims to make the list of words displayed can be displayed according to the characters typed in the textbox. The search also uses a porter stemming algorithm for English text combined with a query, so that if the user types in a word with symbols, the base word will be displayed.



**Figure 6.** Translation Results Display Page for Words in Indonesian  
Source: April, 2023

The result page display for Korean words is accompanied by a reading method that can make it easier for users to learn Korean. The translation results are also equipped with a description of the type of word.

## 5. CONCLUSION

The readiness of the application of the mini dictionary on the availability of infrastructure with connections between each sub-system in the tourist area. The availability of basic infrastructure and ICT is already available. However, in improving the service system through the application of information and communication technology that has not been applied, this results in the level of readiness of the application of mini dictionaries that are assessed based on basic infrastructure and ICT and tourist support facilities are declared NOT READY. At the level of readiness of the application of mini dictionaries in tourist attractions that are ready only the availability and quality components of basic infrastructure and ICT. This is because the management and development have not implemented ICT, such as improving the quality of services through the application of mini dictionary applications. In the component of tourist support facilities that are reviewed based on the availability and application of ICT in supporting various tourism activities as a whole are stated to be AGAINST READY. Meanwhile, components that are not ready to support the application of mini dictionary applications.

For the results of the analysis of the readiness level of the application of mini dictionaries in several tourist attractions in the readiness level of its application. In the development of each tourist attraction has a superior attraction and capacity in readiness to meet the needs of tourists related to services from basic infrastructure and ICT so that it can become a tourist destination of choice for foreign and domestic tourists. When compared with precedents, the readiness of the application of mini dictionaries that include ready from the component of tourism actors and the availability of supporting facilities.

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