User Manual for Addie-Based Model of Malay Language Learning Package

Nor Aziah Abdul Aziz, Mohd Taufik Haji Ahmed, Hasnah Awang
Institut Pendidikan Guru Kampus Ipoh, Malaysia

Abstract
The National Education Policy upholds the Malay language (BM) by making it the official language and the language of instruction in schools and higher education institutions, including the Teacher Education Institution (IPG). Problems of using the Malay language exist among IPG students in particular the learning package used as teaching aids during the teaching practice in schools. To overcome these language errors, a user manual on the use of learning package is required. This study included two objectives: to identify the proficiency level of Malay language and develop a user manual on the use of BM learning packages based on the ADDIE Model. This method of preparing the user manual was guided by the ADDIE Model with five phases: Analysis, Design, Development, Implementation and Evaluation. The methodology employed was a qualitative method and involved 33 students majoring in the Malay language. The data were collected through analysis of language errors in learning packages and also questionnaires. The findings indicated that the students had committed 28 morphological errors. After the respondents used the user manual for the learning package, morphological errors indicated a decrease of 10 morphological errors. The improvement percentage for morphology was 64%. The Cohen Kappa index analysis for expert validation of the user manual was on a very good scale, K = 0.86, and the percentage of experts agreement was 93.3%. In conclusion, the user manual improves the understanding of the Malay grammar among the Teacher Education Institution students.
Keywords: ADDIE Model, Morphology, Cohen Kappa Index Analysis, User Manual for Learning Package, IPG.

Introduction
In Malaysia, the Malay language is the national and official language in schools and higher institutions. The concept of BMMK is focused more on the aspect of using quality BM as a distinguished and dynamic medium of instruction to achieve the goals of effective teaching and learning in the school curriculum. Knowledge of the language alone is not enough; the proficiency of the language must also be achieved. There are several efforts need to be done and utilized to improve the quality of BM proficiency in schools. Among the efforts is the process of standardization of BM that has changed rapidly in the spelling system, lexicography, grammar and terminology of knowledge so that the use of BM is not left behind in this modern age. IPG students need to be concerned about the use of quality BM and

always be alert to the changes in terminology. In addition, IPG students should be alert in the use of language among students in schools. They should correct language errors or inappropriate use of the language through the knowledge conveyed. This era of globalization has brought the education in Malaysia to the world-class level with the existence of the Information Technology Integration. Accordingly, the future teachers of IPG should be provided with the knowledge of the Information and Communication Technology (ICT) to uphold the Malay language as the Malaysia national language. Therefore, the knowledge of ICT can be implemented in preparing the teaching aids (BBM) when IPG students undergo their teaching practice. The learning package used must be accompanied by a high level of ICT knowledge so that presentations are more interesting and effective as Teaching Aids (BBM). In conclusion, the findings have proven the ability and capability of teachers themselves are actually very important in developing their perceptions on the use of ICT-based BBM in their schools.

Problem Statement
The Malay language is a language that is widely used inside and outside the country. However, linguists often have a debate on the occurrences of errors in using BM as if the errors are unavoidable. The fact, these language errors are not only frequently committed by IPG students, but also committed by language teachers as well as teachers of other subjects. There are two aspects in language errors: spoken and written language errors. In writing, grammar is important because messages are not conveyed directly or face-to-face to readers. The use of grammatically correct Malay language in the learning package texts is one of the planning components assessed. This aspect is often seen as lacking because IPG students generate learning package as their teaching aids with errors in teaching the Malay language. It is evident that there is a need to conduct a study to investigate the language errors problems in the learning package as teaching aids among IPG students. Errors in the morphological aspects and confusion of using correct grammar are common errors conducted. Based on the discussion before, it is evident that there is a need to conduct a study to investigate the problem of mastering the BM grammar in the learning package. The learning package used as teaching aids by IPG students undergoing their teaching practicum in primary schools. Therefore, some views were presented to improve the grammatical weaknesses in the learning package texts used by the IPG students. This is further strengthened with the findings of several studies conducted by local and international researchers that evidently indicating IPG students still have problems in mastering some aspects of grammar in writing to build a learning package. Previous studies also did not develop a user manual suitable for learning the Malay language grammar. This therefore, provides opportunities to the current study to develop a Malay language user manual for the learning package used by IPG students during their teaching practice.

Research Objectives
This study was conducted to achieve the following objectives:
1.   to identify the level of BM proficiency and morphological errors in the learning package used as teaching aids produced by the IPG students,
2.   to develop a user manual for the BM learning package based on the ADDIE Model.

Literature Review

Karaazmak (2018) conducted a study on error analysis in grammar tests. A total of 64 high school students were involved as the research sample. The quasi-experimental pre-test post-test was employed involving the experimental and control groups. A grammar test was conducted simultaneously among the students in the data collection procedure. A study on the mastery of the Malay language grammar among foreign students in universities was conducted by (Nasir, 2015). There were many grammatical errors identified in the essays written by these foreign students, particularly in the aspects of words, phrases, sentences, orthography and affixes. Therefore, the main objective of the study is to identify the level of grammar mastery among students in terms of grammatical errors performed, problems encountered and the effectiveness of learning strategies used to improve students' mastery of grammar. Based on several studies related to the language proficiency among IPG students conducted in sharing ideas to other researchers on the implementation of studies whether they have been conducted or need to be conducted so that the studies can be used in the world of education. It is obvious that a study to develop a user manual in the Malay language learning package as teaching aids has not been explored.

ADDIE Model

Ghani (2018) used the ADDIE model as a guide to develop an Arabic language-related educational web. The web developed made it easier for students to review and support the use of technology in teaching. This ADDIE model is the most suitable for preparing language teaching materials. This is supported by (Nasohah et al., 2015; Unsiah et al., 2016; Miswani and Adnan, 2017; Harahap, 2018). This ADDIE model is very popular because its approach is systematic and not too strict to adhere to and flexible based on the needs of the study. In the analysis phase, other necessary procedures can be included. This indicates the flexibility of the model. The model used must be structured and filled with appropriate content. This ADDIE model helps a lot in developing websites and students' academic achievement. Most researchers focus only on software and materials. Since there is lack of studies in developing a suitable user manual, the interest to develop a Malay language user manual in the learning package texts is developed.

Methodology

Developing a user manual for the BM learning package based on the ADDIE Model employed qualitative and quantitative methods to collect the data systematically (Creswell, 2009). The data collection was conducted through document analysis: learning package, questionnaires, and the Cohen Kappa Analysis, looking at the expert consent units. Developing the user manual was arranged according to the five phases of ADDIE directed system development design model: the analysis phase, design phase, development phase, implementation phase and evaluation phase. The findings were based on group activities for each phase. This study also analysed the Malay language proficiency among IPG students and language errors in the language learning package texts used as teaching aids during the practicum teaching. The goal is to identify the proficiency level of the Malay language among the IPG students and language errors performed in developing the learning package texts. After identifying the grammatical errors in the learning package, the errors were analysed critically by categorizing them according to the aspects of morphology. The data obtained was used as the source to develop the user manual on the use of the Malay language learning package. The user manual was developed using the ADDIE Model. In this study, the research subjects were IPG students aged

between 19 and 22 years old with a total number of 33 students who are Malay language major in the in the Teacher Education Institution, Ipoh. The information about this study was obtained from the learning package and questionnaires. The data obtained were analyzed according to the relevance of the research objectives.

Analysis Phase
In this analysis phase the issues and problems faced by the respondents were identified. These issues and problems were related to the first and second research questions. The issues identified were the proficiency level of Malay language among IPG students who are majoring in the Malay language.

Table 1.0
Knowledge and Proficiency Level of the Malay Grammar among IPG Students

Item	Subject	Scale (%)					Min
		SD	D	U	A	SA	
B1	I know there is a grammar topic in the major course of Malay Language.	4 12%	7 21%	15 46%	2 6%	5 15%	2.9
B2	I am interested to learn the Malay grammar.	3 9%	6 18%	19 58%	4 12%	1 3%	2.81
B3	I know the benefits I would get if I study the Malay grammar.	5 15%	6 18%	15 46%	4 12%	3 9%	2.81
B4	I understand phonology, morphology and syntax of the Malay language.	4 12%	7 21%	15 46%	5 15%	2 6%	2.81
B5	I believe that understanding the grammar can help me in the teaching and learning of Malay language in schools in the future.	5 15%	6 18%	16 49%	5 15%	1 3%	2.72
B6	I am confident that understanding grammar can help me in developing the teaching aids like a learning package as a teaching aid.	5 15%	6 18%	15 46%	5 15%	2 6%	2.78

In Table 1.0, Item B1 has the mean of 2.9. Many students were unaware that the grammar topics existed in the major course of the Malay language with the percent of 46% because students were not concerned about the topics. The mean for Item B2 was 2.81 and the percentage of students interested in learning the Malay language grammar is only 12%. Those who were very interested were 3%. Many students were unsure whether they were interested or not to explore the field of Malay grammar because the topic is easily understood. Next, Item B3 recorded an average of 2.81. The highest was 46% indicating that students were unsure of the benefits of learning the Malay language grammar. For Item B4, the average was 2.8. Many students were unsure that they understood phonology, morphology and syntax of the Malay language as the percentage of unsure was 46% that was 15 students. This issue indicated that morphology and syntax courses were studied while they were in the Undergraduate Preparatory Program with Honors. Item B5 also revealed a minimum score in the average group of 2.72. A total of 15% (5 students) strongly disagreed with the statement that by only understanding the grammar can help them in the teaching of Malay language in schools. The findings revealed that only 18% (6 students) stated that they disagreed with the statement that only understanding the grammar because a high level of knowledge is needed to help them in the TnL process in schools later on. As for Item B6, the

mean score recorded was 2.78. The mean for this item was average. A total of 15 students (46%) were unsure whether it was necessary to understand the Malay grammar or not to develop the teaching aids such as the learning package in teaching the Malay language.

The grammatical errors performed by each respondent were analyzed according to the morphology aspects before and after using the user manual. The percentage total of the errors among the respondents in terms of morphology was 100% that were 28 errors. However, after 33 respondents used the user manual, only 10 errors were committed with 36% of errors. The difference of errors performed was only 18. The percentage of improvement was 64%. These findings indicated that the user manual can minimize the errors. These findings also revealed positive perceptions among the respondents towards the user manual.

Design Phase
The second phase in the development of the user manual on the use of Malay language learning package based on the ADDIE model was the design process. This design phase is the process of determining the theme and developing the user manual to be used. In this phase, the first process is to determine the grammatical errors of the learning package by the 33 IPG Ipoh Campus students. The findings of the grammatical errors analysis in the learning package texts were used to determine the themes of language errors based on the Generative Transformation Grammatical theory. The findings of the analysis of grammatical errors determined a theme to be used in developing the user manual that is Morphology. The grammatical errors identified were categorized according to their respective themes. The themes were mapped along with the required content descriptions. The process of developing the content of the user manual was based on three themes identified. The data collection method used in this design phase was theme analysis. The findings answered the second research question: identifying the grammatical errors in the Malay language learning package texts used as teaching aids based on the Generative Transformation Theory.

Development Phase
Next, the development phase was a process of both the analysis phase and the design phase. The purpose was to produce the Malay language user manual for the learning package as teaching aids for IPG students. After identifying the background of grammar mastery and analyzing the grammatical errors, this phase described a detailed process in developing the user manual on the use of the Malay language learning package used as teaching aids for IPG students. Basically, the user manual was developed according to the needs of students' mastery of the Malay grammar among IPG students. In this phase, the theme framework was formed, the content was written, the pages and information were formed. In this development phase one theme was identified to develop the user manual on the use of the Malay language learning packages. The theme identified was Morphology.

Implementation Phase
Implementation in the context of ADDIE MODEL refers to the development and design of the teaching materials prepared and implemented according to the needs of IPG students. The implementation phase involved the implementation of the Malay language learning package as real teaching aids. In this context, the implementation of the user manual involved the

framework of themes established and was expected to successfully use the Malay language in the learning package as effective teaching aids. In other words, the implementation involved the application of the user manual on the use of the Malay language learning package as the teaching aids for IPG students in real-world contexts. The purpose is to deliver or implement the teaching efficiently and effectively.

Evaluation Phase
This phase involved an ongoing process or activity in all the phases after each stage and reviewing and analyzing the feedback and evaluating outcomes from students. In the first phase, the evaluation analysis determined problems and interesting solutions, and in the objective design phase evaluates the type of project. In the development phase the requirements were evaluated. In this evaluation phase the process of gathering information in obtaining a more accurate findings about the user manual on the use of the Malay language learning package was conducted. The evaluation process shaped the quality of an element evaluated based on the needs of the development design and the development of a quality user manual. The user manual of the learning package developed should meet the objectives of the development of the user manual. To ensure that this user manual well fulfill the needs of users, the evaluation process is an important aspect in the development of the user manual. The main purpose of the evaluation process is to obtain feedbacks from users on the effectiveness of the user manual. This evaluation process helped to fulfill the needs and preferences of the respondents. The focus of the evaluation is on the user-friendliness of the user manual to IPG students. The next factor is the evaluation of the user manual must have complete documentations. The evaluation was also from the aspect of usability: the user manual has a clear user guide. The last evaluation factor was that the user manual developed must be able to be used perfectly. The evaluation process was not only conducted after the user manual was developed but also will be conducted according to different phases during the next process that is the development process.

Percentage-Based Expert Consent Assessment
In the context of this study, three experts were needed to evaluate the effectiveness of the user manual developed. Table 2.0 is a summary of expert agreement based on percentage.

Table 2.0:
Summary of Expert Consent Percentages

Title and subtitle categories	Expert 1	Expert 2	Expert 3	Percent (%)
Titles of the Content in the user manual Morphology - 20 subtitles Total - 20 subtitles	20	20	20	100
Number of consent	18	19	19	56
Percentage of consent	**90**	**95**	**95**	**93.3**

Table 2.0 illustrates the expert agreement based on the percentage rates. The validation of this expert revealed that the user manual developed can be used by the respondents in preparing learning packages as teaching aids. The consent percentage of the three experts

was 93.3 percent. All the three experts agreed on the titles and subheadings developed in the user manual. In the spelling system there was a morphological subheading of 20 subtopics related to the Malay grammar accordig to DE3 (2015).

Expert Consent Assessment Based on the Cohen Kappa Analysis
In this study, the expert consent calculations were based on the Cohen Kappa formula. This is to determine the validity and reliability of the subheadings identified; therefore the value of the Cohen Kappa analysis agreement coefficient was calculated. The subheadings used in preparing the user manual for the learning package consisted of 20 subheadings. Based on the Cohen Kappa index analysis, three experts were consulted to evaluate the level of user manual agreement on the use of the learning package.

Table 3.0:
Cohen Kappa Analysis Agreement

CALCULATION STEPS			
Step 1 Calculation formula $K = \dfrac{fo - fc}{N - fc}$	fo – Consent unit fc - 50 percent expectation of agreement N - Number of subtopics (themes) tested for consent value		
Step 2 Calculation Method			
Expert 1	Expert 2	Expert 3	Mutual consent
fo = 18 fc = 10 N = 20	fo = 19 fc = 10 N = 20	fo = 19 fc = 10 N = 20	$K= \dfrac{0.80 + 0.90+ 0.90}{3}$
$K = \dfrac{fo -fc}{N-fc}$	$K = \dfrac{fo -fc}{N- fc}$	$K = \dfrac{fo-fc}{N-fc}$	
$K = \dfrac{18-10}{20-10}$	$K = \dfrac{19-10}{20-10}$	$K = \dfrac{19-10}{20-10}$	$K= \dfrac{2.6}{3}$
$K = \dfrac{8}{10}$	$K = \dfrac{9}{10}$	$K = \dfrac{9}{10}$	
$K = 0.80$	$K = 0.90$	$K = 0.90$	$K= 0.86$

Based on Table 3.0, the Cohen Kappa Formula used the consent information unit, 50% consent expectation and number of subtitles tested were based on the consent values of three experts in the field. After calculating the consent value of the three experts, the Cohen Kappa coefficient index level was 0.86: a very good scale level for the morphological title in the user manual. The findings indicated that the user manual for the learning package developed fulfilled the needs of the respondents and confirmed the suitability of the content used as a reference in the development of the learning package.

Suggestions for Further Study
This study analyzed the morphological errors in the learning package prepared by IPG students used as their teaching aids during practicum. The errors were corrected using the user manual on the use of the learning package prepared based on the ADDIE Model.

Therefore, there were definitely disadvantaged and weaknesses need to be improved to obtain satisfactory results. The study only identified the Malay grammatical errors among IPG students in a relatively small scope. As explained before, this study only focused on a small group of students from IPG Ipoh Campus. Therefore, the findings and analysis only related to the knowledge among IPG students in the Institute of Teacher Education, Ipoh Campus. The differencenes in findings and issues if the study is conducted in other IPG that offers the Malay language course to IPG students are possible.

Conclusion

Based on the discussion of the findings for all the research objectives, it indicated that there are morphological errors in the learning package used by the respondents during their practicum. The analysis of the errors was used as the basic information to develop the user manual on the use of the Malay language learning package based on the ADDIE model. The findings evidently indicated that the ADDIE Model is a design model that can be used by the respondents and comply with the user manual on the use of the learning package determined. In addition, the model has five main phases: starting with the analysis, then followed by the design, development, implementation and evaluation. These five phases cover the process of preparing the user manual determined. The morphological error analysis using the Language Error Analysis Approach was used in the Analysis Phase, Design Phase and Development Phase. The results of this analysis are the gist of the user manual on the use of learning packages prepared using the five phases of the ADDIE Model. Overall, the findings indicated the occurrence of Malay grammar errors in the learning package used as teaching aids for the respondents. However, performing these language errors is considered as a learning process that must be experienced by all respondents in the language learning process. As a conclusion to all the issues discussed, it is hoped that this study is meaningful to improve the grammatical knowledge of the Malay language among IPG students and in particular in the field of language education research. Accordingly, all parties involved must always give full commitment to realize the hopes of the Malay language to take over its responsibility as a language of knowledge. This hope will not be a dream if all efforts are conducted seriously.

Acknowledgement

Main Author

Nor Aziah Binti Abdul Aziz PhD
Institut Pendidikan Guru Kampus Ipoh, Malaysia.
Email: noraziah @ipgmipoh.edu.com

References

Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (3rd ed.). California: Sage Publications, Inc.

Harahap, H. J. P. (2018). The Increase of Writing Ability Through The Development of Learning Media. *Proceedings of the 1st International Seminar on Foreign Language Teaching, Linguistics, and Literature (ISFLATEL-1),* 2018.

Ghani, M. T. A. (2018). A Conceptual Framework for Mobil Application in Learning Arabic Language Proficiency. *The Journal of Social Sciences Research*, *Academic Research Publishing Group*, 66–70.

Karaazmak, F. (2018). The Effects of A Grammar Error Correction Session Language Learners' Success. *International Journal of Curriculum and Instruction, 10*(1), 61–70.

Karim, N. S. (2015). *Tatabahasa Dewan Edisi Ketiga*. Kuala Lumpur: Dewan Bahasa dan Pustaka

Miswani, M., & Adnan, H. M. (2017). Pembangunan Aplikasi Peranti Mudah Alih untuk Kemahiran Membaca Kanak-Kanak: Aplikasi Literasi Linus (LILIN). *Malaysian Journal of Media Studies, 17*(2), 64-78.

Nasir, Z. M. (2015). *Penguasaan Tatabahasa Melayu dalam Kalangan Pelajar Antarabangsa Di IPTA* (PhD Tesis). Serdang: Universiti Putra Malaysia.

Nasohah, U. N., Gani, M. I. B. A., Shaid, N. B. M. S., & Shaid, M. (2015). Model ADDIE dalam Proses Reka Bentuk Modul Pengajaran: Bahasa Arab Tujuan Khas. *Proceedings of the International Seminar on Language Teaching ISeLT, 4*(1), 23-35.

Unsiah, F., Degeng, P. D. D., & Kusumawardani, I. N. (2016). A Video for Teaching English Tenses. *Journal of English Language and Education, 2*(2), 96-109.