### INTERACTIVE-MULTIMEDIA READING COMPREHENSION PACKAGE (IMRCP)



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## 1. Letter of Report Submission

Prof Dr. Abu Bakar Bin Abdul Majeed Assistant Vice Chancellor (Research) Research Management Institute (RMI) Universiti Teknologi MARA 40450 Shah Alam

17 December 2012

Dear Professor,

 

 Research Title:
 INTERACTIVE-MULTIMEDIA READING COMPREHENSION PACKAGE (IMRCP)

 Project Code:
 (600-RMI/SSP/FRGS 5/3/Fsp (23/2010)

The above matter is referred.

I hereby submit our final report of the FRGS 2010 research as stipulated above. The research has successfully been completed and all information regarding the research process, results and recommendations are provided in the report.

Thank you.

Sincerely

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### 5.2 Enhanced Executive Summary

#### (Abstract of the research)

This research project is based on an FRGS grant awarded for the design, development and production of an Interactive Multimedia Reading Comprehension Package (IMRCP), geared towards enhancing learners' reading skills. Two development stages were undergone before the completion of this research project. The FIRST stage of the project involved the development and customization of the English reading materials into becoming interactive multimedia learning resources. An instructional system design (ISD) approach - using Gagne Nine Events of Instruction, has been closely followed in the development of the IMRCP. Instructional System Design (ISD) models have constantly been referred to in the development of effective instructional activities (Dick & Carey, 2009). Many ISD models - such as the ADDIE and ASSURE models (Clayton, 2006), Dick & Carey, Morrison & Kemp (Morrison, Ross & Kemp, 2004) and Gagne Nine Events of Instruction, provide clear guidance and systematic principles that facilitate effective instructions. With proper execution of these ISD systematic principles, effective and interactive multimedia teaching and learning packages (i-MIP) can be developed and produced. Planned needs analysis, achievable learning outcomes, careful selection of media and materials, active engagement of participants, frequent practices with immediate feedbacks and reinforcement are some of the ISD systematic principles that must be carefully considered and executed to ensure meaningful learning experiences can be achieved. By using authoring software such as the Adobe Director, and other third party multimedia applications, this research project shall illustrate how traditional teaching and learning materials are translated into an interactive multimedia elanguage production. The SECOND stage involved testing out the effectiveness of the IMRCP CD with UiTM L2 fulltime and distance learners taking Introductory and Intermediate English reading courses. In understanding a text, reading strategies deployed by the readers play a significant role. These reading strategies include creating mental images, guessing intelligently, drawing linguistic schemata, drawing content schemata, translating from L1 to L2 and predicting (Levine & Reeves, 1998). Findings on the investigation of L2 learners' perceived motivation after they had used the IMRCP. The findings reveal that the majority of the students indicated either "Agree" or "Strongly Agree" that their levels of motivation -Attention (95.7%), Relevance (99.3%), Confidence (100 %) and Satisfaction (94.9%), were improved after they began using the IMRCP. Motivation is an important ingredient to ensure learners' learning success. Students' motivation can also be heightened with the utilization of interactive media in their learning experiences. Enabling easy creation of personalized and customizable interactive e-learning materials will also invite more 'non-tech savvy' educators to participate in producing their own e-learning contents.

### 5.3 Introduction

This research project is based on an FRGS 2010 grant awarded for the design, development and production of an Interactive Multimedia Reading Comprehension Package (IMRCP), geared towards enhancing learners' reading skills. Two development stages were undergone before the completion of this research project. That is, the first stage of the project involved the development and customization of the English reading materials into becoming interactive multimedia learning resources; and, the second stage involved testing out the effectiveness of the IMRCP CD with UiTM L2 fulltime and distance learners taking Introductory and Intermediate English reading courses.

Instructional System Design (ISD) models have constantly been referred to in the development of effective instructional activities (Dick, Carey & Carey, 2009). Many ISD models - such as the ADDIE and ASSURE models (Clayton, 2006), Dick & Carey, Morrison & Kemp (Morrison, Ross & Kemp, 2004) and Gagne Nine Events of Instruction, provide clear guidance and systematic principles that facilitate effective instructions. With proper execution of these ISD systematic principles, effective and interactive multimedia teaching and learning packages can be developed and produced. Planned needs analysis, achievable learning outcomes, careful selection of media and materials, active engagement of participants, frequent practices with immediate feedback and reinforcement are some of the ISD systematic principles that must be carefully considered and executed to ensure meaningful learning experiences can be achieved. Gagne Nine Events of Instruction is one of the many ISD models that can be utilized in designing and developing an interactive Multimedia Instructional Package (i-MIP). Gagne proposes the following Nine Events - gain attention, inform learners of objectives, stimulate recall of prior learning, present the content, provide learning guidance, elicit performance (practice), provide feedback, assess performance and enhance retention and transfer to the job (Faryadi, 2007).

Computer technology has paved its way in our classrooms as early as 1980's. Many research studies have indicated that the use of technology in classroom instruction is overwhelmingly positive. In a study by Almekhlafi (2006), he reported that there was a significant difference between Computer-Assisted Language Learning (CALL) users' achievement (f=94.79, p<.01) in English for Foreign Language (EFL) classes when compared to nonusers. Through the new media technology, learners are able to work independently as well as collaboratively. A study conducted by Neo, Neo and Teoh (2010) on using Gagne Nine Events of Instruction in teaching a computer class showed that students' perceptions and performances increased when multimedia environment is included in their learning. Similarly, Albalooshi and Alkhalifa (2002) reported that students' cognitive thinking skills improved when they were constantly taught and provoked using multimedia elements such as graphics, animations, audio and video clips. The applications of computer assisted learning also led to students' improved