# Development and Impact of English Learning Courseware "EzE" to Diploma Students At KPM Bandar Penawar

Norhasnah Bt Mohd Nordin hasnah@kpmbp.edu.my Department of Educational Foundation and Social Science, Faculty of Education, Universiti Teknologi Malaysia, Johor Bahru, MALAYSIA.

Norazrena bt Abu Samah norazrena@utm.my Department of Educational Foundation and Social Science, Faculty of Education, Universiti Teknologi Malaysia, Johor Bahru, MALAYSIA.

#### Abstract

Multimedia courseware is one of the media to improve the teaching and learning process. The principles of multimedia learning should be viewed as instructional methods with its primary goal to foster meaningful learning. Therefore, the objectives of this study are to design an English courseware based on Cognitive Theory Multimedia Learning approaches to help students nurture their knowledge on types of basic tenses .In addition, this study also evaluates the impact of using courseware in the teaching of basic tenses among the average diploma students. A quasiexperimental method will be used in this study. The study sample involves 80 students of semester 1 from KPM Bandar Penawar, Johor. The sample is divided into two groups, the experimental group and the control group. Each group consists of 40 students. To identify the effectiveness of the courseware, the patterns of students' answers in both tests will be collected and analyzed through pre and post-tests in the evaluation phase. The questionnaire instrument will be used to investigate students' and teachers' perception towards the courseware. Also, in this research we will develop an English courseware for teaching basic tenses for KPM students. Hopefully, this courseware will motivate English teachers to develop their own courseware by designing, preparing content and delivering learning materials to assist students in understanding the concepts of learning English tenses using technology.

Keywords: courseware; meaningful learning; CTML, English tenses;

## 1.0 Introduction

Teaching and learning courseware is a method of teaching that uses computers in teaching and learning activities. Its use particularly important in enhancing the understanding and interest of the students towards subjects studied. Computer-assisted teaching techniques have a major impact in computer technology, and it is a major advancement in computing technology, (Chang and Tsai, 2005). The combination of technology and multimedia software beneficial, attractive and improving the method for teaching and learning apart from that, it also develop the potential of students. The principles of multimedia learning should be viewed as instructional methods with its primary goal to foster meaningful learning.

The use of multimedia software in English subject is aimed to diversify the techniques of teaching and learning English. Multimedia software developed can help in the understanding of the grammar more clearly. In addition, the results of this research can indirectly provide knowledge to teaching related to the approach and the most appropriate teaching techniques to students. According to Mayer (2001), the use of multimedia can create active learning because all the senses stimulated students to remember facts better. For learning English, a careful emphasis on the subject of English grammar must be implemented to ensure that students have able to learn correct grammatical for English subject. The use of interactive learning English media can improve the performance of students in terms of affective and cognitive aspects. (Herman & Heni ,2013; Rosmawati (2014).

According to Wendy (2012), teaching and learning techniques in grammar must diversify to ensure they have a positive impact on teachers and students. This statement also supported by Rosmawati (2014), which is carrying out a study of Mara Professional College, Indera Mahkota Pahang effectiveness teaching English grammar subjects taught by English teacher. The results of her research found that good and effective teaching make the process of learning of English it is more meaningful to students.

The fact is, like it or not, we have to accept the truth that the ability to master the English language is an obligation to university graduates. The issue of unemployment among graduates is increasing every year, for example, was linked to their failure to master the English language . Private sector put English language requirement for job applications. Similarly, in the public sector when the government vigorously bring international standards to support human capital for government sector . This assertion is supported by Latishaa & Surina (2010), which states the marketability of graduates to find jobs depend on the basic skills of graduates preparation for the world of work. In addition, the findings of surveys conducted by Ezihaslinda et al., (2011), also found that academic excellence does not guarantee graduates to get a job if graduates lack basic skills in preparation for the world of work.

Interactive courseware development in this study can provide insight to the student and teachers in more detail in connection with the grammatical structure of constructing sentences. In addition to helping students, it also can help teachers to use teaching methods and approaches using multimedia technology. Hopefully interactive courseware development can contribute to the advancement of performance of English subject to students and also the English teachers for MARA institutions across the country.

Grammar is one of the most important components in English . Without a solid grammatical basis it had a negative impact on students' skills in the production of essay writing and also in terms of speech in English. This assertion is supported by Wendy (2012), the results of her research found that the university students have problem speaks English .The results of her study were conducted with 46 respondents from public and private institutions that students are concerned with the use of incorrect grammar when speaking . While in terms of writing, the results of a study he found that it was related to the student concerned with sentence structure built with proper grammatical structure.

The findings of the Imami & Habil (2012), based on 100 respondents consisting of students graduate in the University of Technology Malaysia, said that the use of proper grammar is one of the most important criteria in the areas of language especially the essay writing skills .The outcome result found 82% of students had difficulty in structure and grammar.

According Normazidah et al., (2012), which examines the factors affecting the level of English literacy among students in higher education institutions, there are two main factors that contribute to the problem of literacy English in Malaysia, malay language greatly affect the learning sessions English in particular subject in grammar rules, morphology and syntax. The second factor is the emphasis in terms of teaching and learning of English formal and

only applied in the classroom without encouraging the application of English in socio-cultural community. According Normazidah, to solve this problem, techniques of teaching and learning English exam focused on the need to make changes for the betterment of students Apart from that, he also suggested practical learning will help students to use their interests even in English outside of academia.

Study problems related to grammatical sentences among university students in Malaysia has also been held by Groves (2013), according to his research, which was conducted on 186 students from the University Notingham branches in Malaysia, the findings of a survey conducted online found many students who continue IPT studies have failed to comply with grammatical knowledge English world standard. The results of his research found to increase the level of English students, close cooperation between students and institutions have to take responsibility in ensuring the proper use of grammar accuracy, consistent and systematic manner for the good of all.

So far, studies on the use of the software English has not been implemented in institutions especially in the MARA Institutions around Malaysia . In addition, it also can assess the extent to which the use of interactive English courseware can help students achieve better performance for English Subject. Apart from that , it also nurture understanding of grammar, can assist teachers in improving the quality and creativity in teaching English subjects using software English interactive courses developed by themselves. It can improved the method of teaching and learning session and implementing of using technology for smart education at the MARA Institutions. The differences about this research are the courseware is compatible with any platforms and it is portable and easy to access either using computer or mobile devices.

Therefore, this study was conducted to examine the effects and the perception of the use of computer-aided tutorial: Development and impact of English learning software "" to Diploma students at KPM Bandar Penawar, Johor.

## 2.0 Literature Review

The learning process will be interesting and interactive and able to attract students to study the English subject. According to Mayer (2001), which created a multimedia cognitive learning styles, a combination of images and words enable the effective study and understanding occurs. Therefore, the use of interactive multimedia software is a learning process based on e-learning and is focused on students. The variety of techniques in the production of multimedia software with a combination of multimedia elements that are appropriate can make an important contribution in the process of learning and teaching if they are used in a systematic and guided by specific strategies to impact and meet the needs of the curriculum. The ability of a computer to generate color , animation , graphics , sound , responded quickly and the ability to process data quickly and accurately , so as to improve the effectiveness of student learning and facilitating teaching (Kamarul & Ab . Halim , 2010 )

## 2.1 Interactive Courseware Development

The process of developing an interactive courseware materials is a complicated and critical process. To develop a courseware, there are many matters which need to be considered to ensure the quality and level of effectiveness for the learning process of students .In the context of the design and development of interactive courseware, special attention needs to be monitored and involve planning and an orderly and perfect, before and during the development process is essential to ensure quality results. Generally, in designing a learning software, a designer should

follow the steps as a guide. Guides are very important to avoid getting lost and disoriented during the development process, thus resulting in large errors in the build prototypes (Jamalludin & Zaidatun, 2000).

The development of interactive materials require deep knowledge of teaching theory, psychology theory, information science, knowledge about cognitive style as well as other matters related to computer technology .Along with sorting materials and a combination pf pedagogical principles and multimedia material to produce an effective interactive and user-friendly.

The interfaces play a role in in the development of interactive software to attract students to use the software. This statement are also agreed by Norfadillah (2010), and (Wan Malini et al, 2010) about the importance of a software interface. Researchers developed a material that combines interactive courseware in teaching and pedagogical principles-based multimedia learning styles. In addition, the researchers produced an interactive courseware materials that are portable and convenient to carry it anywhere and can be used easily on any type of computer operating system.

# 2.2 Multimedia Component In Software

To develop an effective interactive multimedia software, other than factors related to pedagogy and learning style .One of the principles of good educational software development is to divide the courseware interface with blocks like animation block, text block, etc. The layout of the blocks on the interface should be clear and uncluttered .The isolation block titles, animation block, block and block numbers of the control buttons display must be specific to each part of the interface. Thus, the layout of the blocks on the interface will look more composed. Layout factor should also be consistent in each display a different interface. The elements - elements that are used should be taken into account to ensure it complies with the subject in the multimedia software. The combination of elements such as text, graphics, animations, video and animation in a software button. The relationship of these elements in the interface known as the layout. The concept of a layout will help improve indoor interface information presented in a balanced and establish a good interaction between user and computer courseware and these actions can maintain focus when the user courseware learning sessions take place.( Hofstetter, 2001; Ahmad Zamzuri et al., 2010; Kulasekara, Jayatilleka & Coomaraswamy, 2011).

The use of audio visual learning have a positive impact if used at the right time and the right. By using the software elements of video clips and music elements in learning, it is effective for students' understanding of grammar. It help students achieve realistic information and enhance students' understanding (Keskin, 2011; Zehra & Aynur (2013); Fui-Theng & Mai ,2014)..

For multimedia components in software, specification and multimedia elements include text type, color, type control buttons, graphics, audio and animation strategy that are suitable for the courseware. The multimedia elements that are often used in the production of a courseware: -

## i) Text

According to (Rozinah,2005) and (A.Zamzuri et al., 2013),the definition of a text referring to the arrangement of letters that make up a clear expression and thus lead to a point. It also refers to some combination of symbols such as letters, numbers, font type, punctuation and style of the font. Text can be categorized into three main groups, namely the type of serif, sans serif, and decorative. Selecting and applying decorative font types will be very difficult to read; on the contrary fonts legible and placed in the appropriate size is recommended for the development of a multimedia application (Vaughan, 2007). Accordingly, the concept of a concise text should be incorporated in the design of multimedia (Ahmad Zamzuri et al., 2013; Jamalludin & Zaidatun, 2005).Justification concise text that is preferably less than half the size of the screen used (Rozinah, 2005). Bold font type can be used to accentuate the idea of a concept, but should avoid the text from looking like a link or hypertext (Vaughan, 2007).Apart form text, appropriate colors must be noted, text color and background color courseware must be counter to get clarity on text. (Faridah, et al., 2012),

In the software development for this research, the text type Arial (Sans Serif) will be used for the entire software except in certain parts which require different visual effects. This is supported by Vaughan (2010) states that the text of this type is suitable for display on a computer screen because it's easier and faster to read. Meanwhile, the choice of text and colors also must be consistent throughout the courseware.

## ii) Color

Color selection is also important for giving effect to the impact of the interest of students to use the software. Use lots of color is not suitable in designing a good software products. The choice of color not exceeding 5 colors are better (Peck, 2003).In addition, the color is able to provide a special visual effect is more obvious, in accordance with the graphics and images used (Kemp and Smellie, 1997) and color selection should also create the impression of great appeal in Information Visualization Theory (Norasikin et al., 2011). The concept of selecting a different color and contrast between an object with another object in the software will be adapted in a combination of colors on the display of animation software developed by the researchers. According Norasikin et al., (2011), should all have the display color matching in the context of tones, identification is made difficult by the students and this will disrupt the process of receiving information and potentially eliminate student focus. While according Faridah et al., (2012), color combinations cons will also allow users of software considering the contents of the study. In addition, a relatively dark color category also appropriate to use as background. In the development of this software, the blue color will be used as the background color .

#### iii) Type Navigation

The type of navigation is often adapted in a software development is made up of a display button, the display menu and links All three forms of navigation is used either with the mode control using a mouse or keyboard (Kemp and Smellie, 1997). The control buttons on the label is often the words or icons to indicate the purpose and direction of navigation (Hillman, 1998). The role of the control button is to show the movement from one display to the other display, play a video or audio and a selection of options to a wide range of questions (Alessi & Trolip, 2001; Baharuddin et al., 2002). According to Alessi and Trolip (2001), the control buttons are always visible on the display screen, and it can help students to what to do during the use of the software .In the development of this software, navigation buttons will be placed in the same position in all the interface software. With this, it becomes more formal and easier for users to use the navigation used in the courseware developed.

#### iv) Graphic

The graphics are key elements in multimedia software to process visual information delivery. Information received through the graphics processing is faster and quickly accepted by the students, as compared to the conventional method (Chandler, 2009). Good graphics quality and efficient work to improve motivation and stimulation for students to continue to focus on learning sessions. The combination of all these graphic elements seen to produce a complete set of multimedia and quality (Ahmad Zamzuri et al., 2010). In this study, a simple graphical component with a combination of image and animation segments is use to stimulate the minds of students to continue to explore the software .According to (Hegarty, Canham, and Fabrikant, 2010), it is due to activation of the scheme so that occur during the process of learning .

# v) Animation

Animation refers to the display of graphics and images dynamically (Mayer, 2001) .Animations is a moving and still images that look as if there is movement and interactive. It can also be created with a combination of special effects to make it more striking (Baharuddin et al., 2002).In addition, animation is also able to give emphasis to the students to be focused learning sessions (Norasikin et al., 2011).In this study, design animation segmented with various control functions will be developed. The rationale of this study was to determine the influence of control functions in the animated segment on student achievement.

## vi) Audio

The effect of music can improve motivation among students to be more interested to explore and understand the contents of the courseware (Gagné et al., 1992).

Special audio effects or music in the animation program to stimulate students' interest to continue to explore the contents of the animation (Baharuddin et al., 2002; Likai, Qiang, and Yuanyuan, 2013).Based on the results of the reading literacy of researchers used, there are some improvements that can be made for this study to develop an interactive multimedia software. The use of multimedia elements such as text, graphics, animation, video and audio with the appropriate characteristics play an important role in the production of software that is effective and attractive to students.

## 2.3 The use of e-learning materials in Teaching & Learning

The use of e - learning materials in teaching and learning leads to change pedagogical strategies adopted by teachers and improve the skills and teaching techniques according to the changing times. According to Huawei (2012), there are many advantages of using e - learning materials in teaching and learning. It can give positive effects on students and teachers in terms of teaching and learning in the classroom environment. Huawei (2012) opinion is supported by Omar, Daw & Qais

(2013) which states the use of e - learning is an effective impact on students in terms of changing the implicit knowledge to greater knowledge. The use of e - learning in teaching and learning, levels can build higher-order thinking skills in a learning session. The level of creativity is also enhanced by the production of an effective e - learning for the students while they are using a variety of sensors in the process of learning the subject. (Suh, 2011; Indira & Suman, 2013).

According to Mohamad Zaid et al .; (2013), teachers need to use multimedia teaching materials in order to provide a positive impact on students, particularly to students whose academic performance is low. Mohamad Zaid statement is appropriate with the study conducted by the researchers, because the test sample of the Diploma students have average academic performance.

According to Wiley (2000), learning Objects include multimedia content, instructional content, learning objectives, instructional software and software tools, and persons, organizations, or events referenced during technology-aided learning. It is a digital learning platform (resource) that can be used to assist in learning. These include digital images, video or audio clips, animations, and also whole web page or a comprehensive events. The technology can speed up the transfer of information efficiently.

Researchers also need to ensure there is no excessive use of multimedia in the production of training materials, this is because it can also lead to no increase in the effectiveness of learning. This assertion is supported by Singh (2003), which states that the use of well-designed multimedia efficient suitable for students who have a lower knowledge, and the students have low motivation.

# 2.4 Effects interactive courseware for learning and teaching

The use of interactive multimedia software effectively and improve the performance of students in the subject being studied. The above statement is supported by Awaatif & Norizan (2011), which found that the use of multimedia software can help students to organize the concepts studied in a more orderly in their minds, and it allows students to understand and remember the topic. The use of computers in a learning session topics have a positive impact in improving student achievement more effectively. The use of the software had a positive impact in terms of student participation compared with using a traditional classroom sessions. (Nor Ilyani, Ahmad Fauzi & Fazillah ,2012; Fauzi & Fazillah 2012; Shayeshteh & Ahmad Fauzi 2014).

According to Zamri & Nur Aisyah (2011), the strategy adopted in the software can help students master the learning independently without depending entirely on the teacher. This shows that, with the help of the media, students are able to learn actively, independently and elastic. Through active learning strategies, teaching actively engage students through the courseware. According to Ab. Halim and Nik Mohd Rahimi (2010), the use of teaching aids in accordance with students' cognitive level can facilitate learning based on their learning needs. In addition, the strategy adopted flexible learning allows students to take the time to explore the teaching content appropriate time to add to the knowledge they want with the software. The use of teaching and increase the percentage of school performance in English language subjects. With the use of interactive courseware, it also involves thinking and the reactions of members of the student body simultaneously to the software used by student. This statement is supported by A. Ragheb, M.Sabri &

Rahmah (2013) which states that the use of interactive teaching materials reflect the efficiency and play a unique role in encouraging academic progress and improvement in throughput on learning mind and cognitive improvement among students.

Thus, the course material for the production of this study, it is necessary to give a good impact on the energy outlook of the students and the students as well as increased performance subject English and long-term impact on students.

# 2.5 Perception interactive courseware for learning and teaching Session .

According to Samira, Faiza & Marzila (2013), their findings indicate that teachers for English subject in Malaysia have been using the technology and have a positive attitude toward using technology in the classroom, they feel it is important for them to undergo training in this aspect. The time constraints and access to equipment as a major obstacle to implementing technology in the classroom. The study concluded that although teachers in Malaysia are faced with several problems in implementing technology in the classroom, they see value in technology and want to use technology in the classroom. While for students perception , according to Nur Aisyah et al., (2012), the results from their research showed that students agree that the software used to meet their needs in the learning process. Students can follow the instruction as a whole without depending on the teacher. The researcher hope that with the use of this "EzE" courseware it is also can increase the motivation to master the learning outcomes and improving their understanding of the subjects being studied.

# 3.0 Objective

The objectives of this study are to design an English courseware based on Cognitive Theory Multimedia Learning approaches to help students nurture their knowledge on types of basic tenses and review the impact of the multimedia software .In addition, this study also analysis and review the students' and the teachers' perceptions of learning English grammar using multimedia software " EzE " .

# 4.0 Methodology

The study was conducted among students in the first semester of KPM Bandar Penawar, Johor. For the purposes of the study, four classes have been selected to serve as a sample. Ratings for this software is made by using a quantitative approach with survey method. This evaluation examines the perceptions of students and teaching staff on various aspects of the software. The raw data obtained from the survey were put in tables and discussion findings made in the form of frequency, percentage and mean.. As for the pre-test and post it using pure experimental methods -full group pre-test and post-test and were analyzed using paired and independent sample t-test.

# 4.1 Research Design

The study was conducted using a quantitative approach using questionnaires and pre-test post -testing group to obtain information from respondents.

# Table 1 Research Design

Research Design	Method	Respondent / sample	Data Type
Experimental	Pre Test	Semester one Students	
Survey	Questionnaire	Semester one Students	Quantitative
Survey	Questionnaire	English subject teacher	Quantitative
Experimental	Post Test	Semester one Students	

The formulation of the objectives of the study was based on responses given by respondents to all statements contained in the questionnaire and the findings of the results marks through pre test and post test.

Appropriate survey method was used to explain the situation or the relationship between two variables. The selected design review can get the pattern of a phenomenon clearly passing on a clear decision and the validity and reliability (Mohamad Najib, 2003). -full Pure experimental method of group pre-test and posttest was used to ascertain the impact of processed or 'treatment' independent variable on the dependent variable. With the aim to provide a meaningful interpretation of research findings.

This study involves a total of 80 students from semester one of KPM Bandar Penawar ,Johor. Using data from this survey , statistical analysis is used to analyze the reliability of the questionnaire using Cronbach Alpha internal consistency . Through the collection of data is used to obtain the frequency , mean, standard deviation and percentage of the perception of the semester one diploma students and the teachers of the English subject of KPM Bandar Penawar ,Johor using this "EzE" courseware . For pure experimental methods -full group pre-test and post-test also it is an experimental basis, where it will look at the impact of the courseware based on the result of the post test by the experimental group. The study was conducted over three weeks in each group through 9 meetings with an average of two meetings a week.

Group	Pre Test	Method	Post Test
Treatment	01	X1	O2
Controlled	01	X2	O2

## Table 2 Experimental Research Design

✓ involve two groups are distributed randomly

- $\checkmark$  Pre- test (O1) was given to both groups
- $\checkmark$  X1 is the new method ( preparations ) for the treatment group
- $\checkmark$  X2 is existing or traditional methods
- $\checkmark$  O2 is post test for both groups

Researchers have selected the design of survey and experimental design. It is the best method to get the results of the study coincide with the main objective of the study to design

an English courseware based on Cognitive Theory Multimedia Learning approaches to help students nurture their knowledge on types of basic tenses and review the impact of the

Population	Sampel								
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346

multimedia software.

The study included respondents from students take the subject English first stage diploma. The respondents were selected using purposive sampling procedure (sampling) where a group of subjects that have certain characteristics were selected as respondents.

In this study, a population study is the first semester students studying at Mara Professional College, Bandar Penawar with a total of 100 students. To determine the sample size of the study, opinion of Krejcie and Morgan (1970) was adopted. According to Table 3.3 to determine the sample size, sample Krejcie and Morgan (1970) shows a sample of the population of 100 people is equivalent to 80 people.

Table 3 Schedule and size of the sample by Krejcie Morgan.

## 4.2 The instruments

The instrument covers the provision of lesson plans, interactive courseware, two sets of written test and questionnaires.

## 4.2.1 Lesson Plan

There are two sets of lesson plans that are available to implement the tenses topic for teaching English in this study. To ensure the validity of this lesson plan, the researcher refer to the experienced English teachers for validation of the lesson plan construct for this research.

# 4.2.2 Interactive Courseware

Interactive courseware developed by the researchers will be used by the teacher of English subject to students of semester one of KPM Bandar Penawar, Johor. To ensure the validity of content and software, the researcher refer to experienced English teacher to verify the contents of the courseware and to verify the technical parts related to the development of the courseware, researcher refer to UTM Lecturers' specialized in Educational Technology.

For this study, the use of Articulate Storyline software used in the production of interactive software subject researchers. This software is a new software introduced in Malaysia and also in the organization of MARA. In addition, a key factor in selecting software Articulate Storyline as an intermediate between the subject and the students as the advantages inherent in the sessions of this software can be implemented on any type of computer operating system, either Windows or Macintosh, without the need to install this software on the computer .It can be downloaded and portable as it can be stored in the pen drives and easy to carry anywhere .

## 4.2.3 Set written exam

Pre and post test for the control and treatment groups is a set of objective questions and fill-in the blanks .The question set are same for both groups of samples. This test aimed to detect pre -existing knowledge of both groups before the study began . The validity of a written test set is also referred to experienced English subject teachers.

# 4.2.4 Questionnaire

Two sets of questionnaires designed to assess the perception related to the interactive courseware. Set questionnaires given to a sample of students in the first semester and another set to the teachers assigned to teach the English subject semester one of the diploma of KPM Bandar Penawar, Johor. Based on Mohamad Najib (2003), a questionnaire widely used to measure concepts related to attitudes, perceptions and views apart from the background information.

Tunkmen (1998), said the questionnaire is an instrument frequently used in research .According to Fogelman (2002), the questionnaire is an instrument which is used to obtain information on the facts, the information attitude or a combination of both of the respondent. This is due to the cooperation of the respondents are easily available and they are free to make the selection and evaluation according to the questionnaire. Elections answer is to use a five-point Likert scale from 1 to 5 representing the level of agreement of respondents .Likert scale was chosen for use because it is easy to prepare and according to a study based on empirical (Azizi et al., 2007). Respondents could choose whether they Strongly Disagree (STS), Disagree (TS), Not Sure (TP), Agree (S) and Strongly Agree (SS) according to their level of agreement to items given in the table below.

# 4.3 Pilot Test

A pilot study was conducted to test the validity and reliability of the questionnaire that was constructed in this study. It is a research experiment before conducting the actual survey. Cronbach Alpha statistical test was used to test the internal consistency of the questionnaires. This pilot study used a sample that have characteristics similar to the population. For the purpose of the pilot study, 20

students from semester two were randomly selected from the KPM Bandar Penawar, Johor. A pilot study is analyzed using the SPSS 17.0 (Statistical Package for Social Science) for the coefficient of internal consistency of the questionnaire.

Reliability Statistics				
	Cronbach's Alpha Based on			
Cronbach's	Standardized			
Alpha	Items	N of Items		
.904	.916	31		

**Baliability** Statistics

 Table 3
 Student Pilot Test Result

# 4.4 Data Collections Method

In this study, researchers selected a descriptive approach to analyzing the data collected. Researchers compare the results of pre and post tests for each respondent group. Then, the results were analysis using the SPSS 17.0. Data obtained from tests achievement tests analyzed using independent sample t-test (independent samples t-test) because the sample is not same although the population is under one main group.

Analysis of the questionnaire was made using scores on the Likert scale that has been given. SPSS software was used to obtain the frequency, percentage and mean results from data obtained from the questionnaire. Before the data were analyzed, the questionnaires are reviewed in advance to ensure all questionnaires answered by the respondent in accordance with the instructions provided. Inferential statistical methods used to analyze data obtained from the questionnaires . This analysis is used to make assumptions about their perception of the students towards interactive multimedia courseware that has been developed by the researcher. Information obtained from questionnaire is developed based on a specific aspect that have been converted into dependent variables and independent variables. The data for testing the perception of students and teachers were used as dependent variables and other aspects of content, design presentation, interaction design and the technical aspects become independent variable.

The statistics are used to determine the relationship between variables is the Pearson correlation. Data was analyzed with descriptive approach to the relationship that exists between variables using correlation coefficient r. The value of the correlation coefficient r will determine the strength of the relationship that exists in the dependent variable of user satisfaction and the independent variables, namely the content, presentation design, interaction design and technical aspects. The relationship that exists dependent variable with independent variables showed satisfaction over the courseware developed depending on the content, presentation design, interaction design and technical aspects.

## 5.0 Conclusion

This study will give importance to all parties involved directly or indirectly in the educational system. The insights of this study seeks to help teachers to prepare lesson plans, preparation methods and learning strategies that can improve performance and the

understanding of English grammar proficiency among students, The researcher also hopes that with this study, it can create a pattern of grammatical learning methods more effective to the students. It is hoped that this study will assist MARA organization to improve the quality of learning for students with identified needs and emphasis should be brought in learning English grammar. Hopefully, this courseware will motivate English teachers to develop their own courseware by designing, preparing content and delivering learning materials to assist students in understanding the concepts of learning English tenses using technology.

#### References

- Ab. Halim Tamuri & Nik Mohd Rahimi Nik Yusoff (2010). Kaedah pengajaran dan pembelajaran pendidikan Islam. Bangi: Penerbit Universiti Kebangsaan Malaysia.
- Ahmad Zamzuri, M. A., Siti Norbaizura, R., & Syamsulaini, S. (2010). Mengkaji Jujukan Tumpuan Pelajar Terhadap Antaramuka Koswer. *Proceedings of The 4th International Conference on Teacher Education*: Joint Conference UPI & UPSI, 8–10.
- Ahmad Zamzuri, M. A., Rahani, W., Khairulanuar, S., & Mohammad Zaffwan, I. (2013). Reading on the computer screen: Does font type have effects on web text readability? *International Education Studies*, 6(3), 26-35. doi:10.5539/ies.v6n3p26.
- Aliakhbar Imani & Hadina Habil (2012). NNS postgraduate –solving strategies and grammatical features. *Procedia Social and Behavioral Sciences* 66 (2012) 460 471.
- Alessi, S. M., & Trollip, S. R. (2001). *Multimedia for learning: Methods and development* (3rd ed.). Boston, MA: Allyn & Bacon.
- A.Ragheb, M.Sabri & Rahmah (2013) Integration of an Interactive Program in Learning Arabic Language for Non-Native Speakers via Virtual Tutor. *GEMA Online*® *Journal* of Language Studies 117 Volume 13(3), September 2013 ISSN: 1675-8021.
- Awaatif Ahmad & Norizan Esa (2011). Kesan penggunaan perisian kursus (courseware) dengan peta konsep terhadap pencapaian pelajar. *Asia Pacific Journal of Educators and Education*, Vol. 26, No. 1, 51–70, 2011.
- Azizi Yahaya et. al (2007). *Menguasai Penyelidikan dalam Pendidikan*. Kuala Lumpur: PTS Professional Publishing Sdn. Bhd.
- Baharuddin A., Rio Sumarni, S., & Manimegalai, S. (2002). *Rekabentuk perisian multimedia*. Johor Bharu: Universiti Teknologi Malaysia.
- Chandler, P. (2009). Dynamic visualizations and hypermedia: Beyond the "Wow" factor. *Computers in Human Behavior*, 25(2), 389-392.doi: 10.1016/j.chb.2008.12.018.
- Chang, Chun-Yen and Chin-Chung Tsai The interplay Between Different Forms Of CAI And Students' Preferences Of Learning Environment In The Secondary Science Class. *Science Education.* Volume 89 (5). Article first published online: 30 Jun 2005
- Ezihaslinda Ngah, Noor Raha Mohd Radzuan, Wan Jumani Fauzi, Noor Azlinda Zainal Abidin (2011). The need for competent work ready English language learners. *Procedia Social and Behavioral Sciences* 29 (2011) 1490 1499.
- Faiola, T., & DeBloois M. L. (1988). Designing a Visual Factors-based Screen Display Interface: The New Role of the graphic technologist. Educational Technology, 28(8), 221. Retrieved from
- http://www.medvet.umontreal.ca/techno/eta6785/articles/screen\_design\_guidelines.pdf
- Faridah, I., Tika, N., Fauziah, A., Chang, P. K., & Normah, M. (2012). Bahasa Komunikasi Visual dan Pengantaraan Produk: Satu Analisis Semiotik. *GEMA Online Journal of Language Studies*, 12(1), 257-273. Dimuat turun daripada http://journalarticle.ukm.my/3274/1/pp\_257\_273.pdf

- Ferit KILIÇKAYA & Gölge SEFEROĞLU (2013). The impact of CALL instruction on English language teachers' use of technology in language teaching. *Journal of Second and Multiple Language Acquisition* JSMULA Vol: 1 Issue: 1 20-38, 2013.
- Fui-Theng Leow & Mai Neo (2014). Interactive multimedia learning: innovating classroom education in a malaysian university. TOJET: The Turkish Online Journal of Educational Technology – April 2014, volume 13 issue 2.
- Gagné, R. M., Briggs, L. J., & Wager, W. W. (1992). *Principles of Instructional Design* (4th ed.). Fort Worth, TX: Harcourt Brace Jovanovich.
- Groves, M. (2013). An Investigation of Students' Grammatical Ability in an International University Branch Campus *Malaysian Journal of ELT Research*, Vol. 9(1), pp. 29-42.
- Hegarty, M., Canham, M. S., & Fabrikant, S. I. (2010). Thinking about the weather: How display salience and knowledge affect performance in a graphic inference task. *Journal* of Experimental Psychology: Learning, Memory and Cognition, 36(1), 37-53. doi: 10.1037/a0017683.
- Herman Dwi Surjono & Heni Rita Susila (2013). Pengembangan multimedia pembelajaran bahasa inggris untuk SMK. *Jurnal Pendidikan Vokasi*, Vol 3, Nomor 1, Februari 2013.
- Hofstetter, F. T. (2001). Multimedia literacy (3rd ed.). New York, NY: McGraw-Hill.
- Huiwei Cai (2012). E-learning and English Teaching. IERI Procedia 2 (2012) 841 846.
- Indira Dhull & Suman Beniwal (2013). Role of Multimedia in Teaching Learning Process. *Advanced International Research Journal of Teacher Education*, Vol. 1, No. 2, Sep. 2013, ISSN: 2320-4559, E-ISSN: 2321-7995.
- Ismail Zain (2002). *Aplikasi Multimedia Dalam Pengajaran*, Utusan Publications & Distributors Sdn. Bhd.
- Jamalluddin Harun & Zaidatun Tasir. (2000). *Pengenalan kepada multimedia*. Kuala Lumpur: Venton Publishing.
- Jamalludin, H., & Zaidatun, T., (2005). Animasi dari helaian kertas ke skrin digital. Kuala Lumpur: Venton.
- Krejcie, R. V., & Morgan, D. W. (1970). *Determining sample size for research activities*. Dimuat turun pada 14 Jun 2015 p 607-610.
- Kamarul Azmi & Ab. Halim Tamuri, (2010). *Pendidikan Islam Kaeadah Pengajaran dan Pembelajaran* : Edisi Ketiga. Skudai, Johor Darul Takzim: Universiti Teknologi Malaysia.
- Kemp, J. E., & Smellie, D.C. (1997). *Perancangan penerbitan dan penggunaan media pengajaran* (6th ed.). Skudai, Johor: Universiti Teknologi Malaysia.
- Kulasekara, G. U., Jayatilleka, B. G., & Coomaraswamy, U. (2011). Learner perceptions on Instructional design of multimedia in learning abstract concepts in science at a distance. *Open Learning Journal: The Journal of Open, Distance And e-learning*, 26(2), 113-126. doi:10.1080/02680513.2011.567459.
- Latisha Asmaak Shafie & Surina Nayan (2010). Employability Awareness among Malaysian Undergraduates. *International Journal of Business and Management* Vol. 5, No. 8; August 2010.
- Likai, L., Qiang, T., & Yuanyuan, Y. (2013). Animation Design And Exploration of Experimental Teaching in Analog Electronic Technology. *Applied Mechanics and Materials*, 239-240, 1619-1623. doi: 10.4028/www.scientific.net/AMM.239-240.1619
- Mayer, R. E. (2001). Multimedia learning. Cambridge, UK: Cambridge University Press.
- Meltham Hury Baturay & Aysegul Daloglu (2010).Languange Practice with multimedia supported web-based grammar revision material.ReCALL 22(3): 313-331(2010).
- Mohamad Najib Abdul Ghafar. (2003). *Reka bentuk tinjauan soal selidik pendidikan*. Skudai: Universiti Teknologi Malaysia.

- Norfadillah,(2010).Challenges of Malaysia Developers in creating good interfaces for interactive courseware *.The Turkish Online Journal Of Educational Technology* ,9(1),pp. 37-42
- Norhashim, Mazenah & Alinda Rose. (1996). *Pengajaran Bantuan Komputer*. Kuala Lumpur, Dewan Bahasa dan Pustaka & Universiti Teknologi Malaysia.
- Nor Ilyani, Ahmad Fauzi & Fazillah (2012).Keberkesanan penggunaan komputer dalam pengajaran dan pembelajaran tatabahasa.*Jurnal Pendidikan Bahasa Melayu*, ISSN: 2180-4842,vol 2 Bil 1,(Mei 2012) 31:42.
- Normazidah Che Musa, Koo Yew Lie & Hazita Azman (2012). Exploring English Language Learning And Teaching In Malaysia. *GEMA Online™ Journal of Language Studies*, Volume 12(1), Special Section, January 2012.
- Nur Aisyah, Zamri Mahamod & Afendi Hamat (2012) Persepsi pelajar terhadap aplikasi perisian multimedia dalam pembelajaran komsas bahasa melayu tingkatan 1. *Jurnal Pendidikan Bahasa Melayu 1 Malay Language Education Journal* (MyLEJ) Universiti Kebangsaan Malaysia.
- Omar Ibrahim Massoud Hammza ,Daw Abdulsalam Ali Daw & Qais Faryadi (2013). Using Multimedia Instructional Design to Teach the Holy-Quran: A Critical Review. *International Journal of Humanities and Social Science* Vol. 3 No. 6 [Special Issue – March 2013].
- Roblyer, M. (2003). *Integrating Educational Technology into Teaching*. Columbus, Ohio : Person Education.
- Rosmawati bt Daud (2014). Teachers' practices & beliefs of grammar instruction in second language classroom .*Tesis Sarjana* . Universiti Teknologi Malaysia.
- Rozinah, J.(2005). Multimedia dalam pendidikan. Kuala Lumpur: Utusan.
- Peck, W. (2003). Great web typography. New York, NY: Wiley.
- Rohana Hamzah & Kamarudzaman Md Isa (2010). The effectiveness of interactive multimedia courseware in developing student's selfenlightening. *Jurnal Teknologi*, 52 Mei 2010: 29–43.© Universiti Teknologi Malaysia.
- Samira Nikian, Faizah Mohamad Nor & Marzila A. Aziz (2013). Malaysian Teachers'
- Perception of Applying Technology in the Classroom. *Procedia-Sociala Behavioral Sciences* 103 (2013) 621-627.
- Shayeshteh Hashemyolia & Ahmad Fauzi Mohd Ayub (2014). The Effects of Utilizing English Language Courseware on Secondary School Students' Performance in Iran. *Journal of Educational and Social Research*. Vol. 4 No.3 May 2014.
- Singh, V. K. (2003). Does Multimedia really improve learning effectiveness? .Paper presented at the Asia Pacific.Conference on Education, Re-envisioning Education: Innovation and Diversity, Singapore.
- Suh,H.(2011).Collaborative Learning Models and Suupport Technologies in the Future Classroom.*International Journal for educational Media and Technology*,5(1), 50-61[On-Line].Available:http://jaems.jp/contents/icomej/vol5/IJEMT5.50-61.pdf.
- Tunkmen, W.B. (1998). Conducting Education Research.
- Wan Malini et al.; (2010) Development and innovation of Multimedia Courseware for Teaching and Learning of KAFA subjects. 2<sup>nd</sup> International Conference on Computer Technology and Development (ICCTD 2010).
- Vaughan, T. (2007). *Multimedia : Making it work* (6th ed.). Barkley, KY: Osborne/McGraw Hill
- Vaughan, T. (2010). *Multimedia : Making it work* (8th ed.). Barkley, KY: Osborne/McGraw Hill

- Wendy Hiew (2012). English Language Teaching & Learning Issue In Malaysia : Learners' perceptions via facebook dialogue journal. *International Refereed Research Journal* Vol.– III, Issue –1,Jan. 2012 [11].
- Wiley, D.A. (2000). Connecting learning objects to instructional design theory: A definition, a metaphor, and a taxonomy. In D.A. Wiley, Ed., The Instructional Use of learning Objects: Online Version. Retrieved on May 20, 2015, from the World Wide Web: http://reusabality.org/read/chapters/wiley.doc.
- Zehra Ezgi Kara & Aynur Semerci Aksel (2013). The effectiveness of music in grammar teaching on the motivation and success of the students at preparatory school at Uludag University. *Procedia –Social and Behavioral Sciences* 106 (2013) 2739 2745.

# Author(s):

Norhasnah Bt Mohd Nordin hasnah@kpmbp.edu.my Department of Educational Foundation and Social Science, Faculty of Education, Universiti Teknologi Malaysia, Johor Bahru, MALAYSIA.

Norazrena bt Abu Samah norazrena@utm.my Department of Educational Foundation and Social Science, Faculty of Education, Universiti Teknologi Malaysia, Johor Bahru, MALAYSIA.