DEVELOPMENT AND EVALUATION OF A WEB-BASED FUN READING ENGLISH RESOURCE FOR PRIMARY LEARNERS- AN EXECUTIVE REPORT

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ABSTRACT

This study aims to develop and evaluate a Web-based Fun Reading resource known as the English Primary Fun (EPFun). The Web-based resource helps young learners, especially in rural schools, who display a low level of interest in reading English language. Based on the research framework, a questionnaire was developed to measure: (i) usefulness; (ii) ease of use; (iii) ease of learning and (iv) the satisfaction level of primary learners working with the English Primary Fun resource. The expert reviews were sort to confirm the content validation of the questionnaire. Cronbach's alpha was employed to state the reliability of the instrument and the Rasch Model was for the overall reliability analysis. Data collected from 250 primary learners in Year 5 were tested with confirmatory factor analysis using AMOS 18.0 to obtain two best-fit measurement models from the two latent variables namely the *Learner's Fun Factors* and the *EPFun resource*. The findings from the actual study confirmed that: (i) primary learners showed positive responses when acquiring a reading habit through the Web-based resource; (ii) teachers demonstrated a high level of agreement concerning the Web-based resource; (iii) experts agreed that the Web-based resource met the specifications set; (iv) 96% of respondents expressed satisfaction with the Web-based resource; (v) evidence for a three-factor measurement model, which are *usefulness, ease of use* and *ease of learning* for Web-based resource, hence, explaining the learners' acceptance of the resource; vi) there is a significant relationship between the satisfaction level of primary learners and the Web-based resource. Subsequently, the gathered data from the evaluation phase was triangulated with semi-structured interviews, observations and open-ended questions to gain in-depth feedback after the respondents filled in the survey evaluation form. Based on the findings, the Web-based Fun Reading resource is expected to educate and engage the learners to read English meaningfully and promote various kinds of fun learning in and outside the classroom.

Keywords: English Primary Fun (EPFun); Web-based learning; Fun learning; Young learners

INTRODUCTION

Rapid technological advances, especially with the Internet, have contributed to a growing impact on learning; particularly collaborative learning that can be assessed anytime, anywhere, and has received overwhelming worldwide response. The World Wide Web, a system of interlinked hypertext documents accessible via the Internet, has become the great multimodal medium of information that ensures messages are disseminated and read all over the world. As the content and language used are real and authentic, the Internet is clearly a useful source for language teachers and learners (Mitra, 2013; Mitra, 2014; Mohamed Amin Embi & Azmi, 2008). Despite technological advancements and increased literacy practices, students show a lack of reading comprehension in academic performance, particularly at institutions of higher education. Thus, they could be severely handicapped due to their poor reading proficiency and inability to acquire the required contents and skills (David & Govindasamy, 2006; Faizah et al., 2002; Nambiar, 2007; Seng, 2007; Seng & Hashim, 2006; Sidek, 2010). This alarming statement reflects an obvious gap between available technology and current classroom teaching methods that should be tackled as early as the learning stage of primary school. Given the students' tendency toward digital technologies, can reading proficiency and comprehension, be enhanced by integrating more technology into literacy instruction? In fact, technological advancements should allow educators to reach more students on differentiated levels, promoting thought-provoking and critical engagement during reading instruction. The availability of digital technologies influences today's primary learners. They bring to school a rich and diverse set of literacy practices and background that is often unacknowledged or underused by educators.

The Web-based learning resource of this study is developed in a holistic manner and included a variety of aspects for learning English that focuses on reading skills which is interesting, flexible, authentic, constructive and intentional within the 21st learning environment that has been design for the primary or young learners. It highlights the concept of fun learning to promote engaging learning contexts, interesting and uses rich, up-to-date and real world materials. Besides, this resource is systematically designed in an interactive manner that is user-friendly with relevant Web-based links of the related resources. It is based on Fun learning concepts, pedagogical approaches and second language learning strategies. The new multimodal online resource is expected to be the getaway of paradigm shifted from the spoon-feeding teaching method, working their way boringly through the textbook, reading the text word by word and too much focusing on detail information and structural analysis. Many students are tired of this pattern of teaching and learning classes and no longer have enthusiasm or motivation to read English. In relation, teaching and learning could not be confined within the classroom walls (Mukundan, 2010). It is desirable for the researcher to develop and evaluate an appropriate learning resource that suits the needs of primary learners, thereby energising and fostering their interest in reading English (Awani et al., 2013).

Specifically, the objectives for this study are: (i) identifying the three instructional design components used: learning theories, learning strategies and cosmetics in the development of the EPFun resource; (ii) examining the primary learners' response towards the EPFun resource; (iii) examining the teachers' response towards the EPFun resource; (iv) examining the experts' response towards the EPFun resource; (v) empirically test the probability of EPFun factors which contribute to primary learners' satisfaction; (vi) empirically test the probability of primary learners' factors which contribute to their satisfaction; and (vii) examining the relationship between the satisfaction of primary learners and the EPFun resource.

METHODOLOGY

The purpose of the present study is to develop and evaluate a reading English resource for primary learners (EPFun) according to users' needs to instill their reading habit. Specifically, the purpose is to develop a resource known as English Primary Fun or EPFun.

Research Sample and Location
The location of the research on the development of the EPFun resource involved 51 national type primary schools (*Sekolah Kebangsaan*-SK), which is a mainstream co-educated Grade A type, in the district of Muar in Johor. Stratified random sampling was used instead of simple random sampling in the implementation phase of the research, which involved 30 Year 5 primary learners, aged 11 for the pilot study around the same region. Since stratified random sampling is a probabilistic sampling option, it is expected to produce criteria of respondents relevant to the research interest. The evaluation stage involves the same population but employs the simple random sampling for another 250 respondents of Year 5 learners and three English teachers as this procedure is meant to be an unbiased representation of the respondents. The scope of the study is limited to investigating reading English for students' aged 11, particularly in the National Type schools (*Sekolah Kebangsaan* or SK). The Year Five students were purposely selected as not to be interfered with exams class of UPSR (*Ujian Pencapaian Sekolah Rendah*) and lower level students. The contents were based on the reading skills as outlined in the English Language curriculum for primary school. In addition, the study was specifically limited to the population of Grade A daily school in SKs in the District of Muar in Johor. The chosen samples were from the coeducational mainstream primary school. The selected sample size might not be able to provide conclusive findings but might be directly representative of the greater Malaysian student population. Despite limitations, the results obtained from the selected sample in this study can provide some useful insights for encouraging the use of reading English and the EPFun resource among the primary learners. The EPFun resource was designed for the focused group and developed based on the integration of relevant, effective and innovative Fun learning concepts, pedagogical approaches, second language learning strategies and instructional designs. This study employs the Type 2 model research in which it focuses on the development and evaluation of the resource besides, validate the use of model (Richey & Klein 2005, 2007).

Data Collection
This study adapts the ADDIE model that takes into account the generic stages (Sumarni, 2009), which are: (i) Need Analysis; (ii) Design; (iii) Development; (iv) Implementation; and (v) Summative Evaluation of the EPFun resource. Figure 1 shows the framework of research methodology.
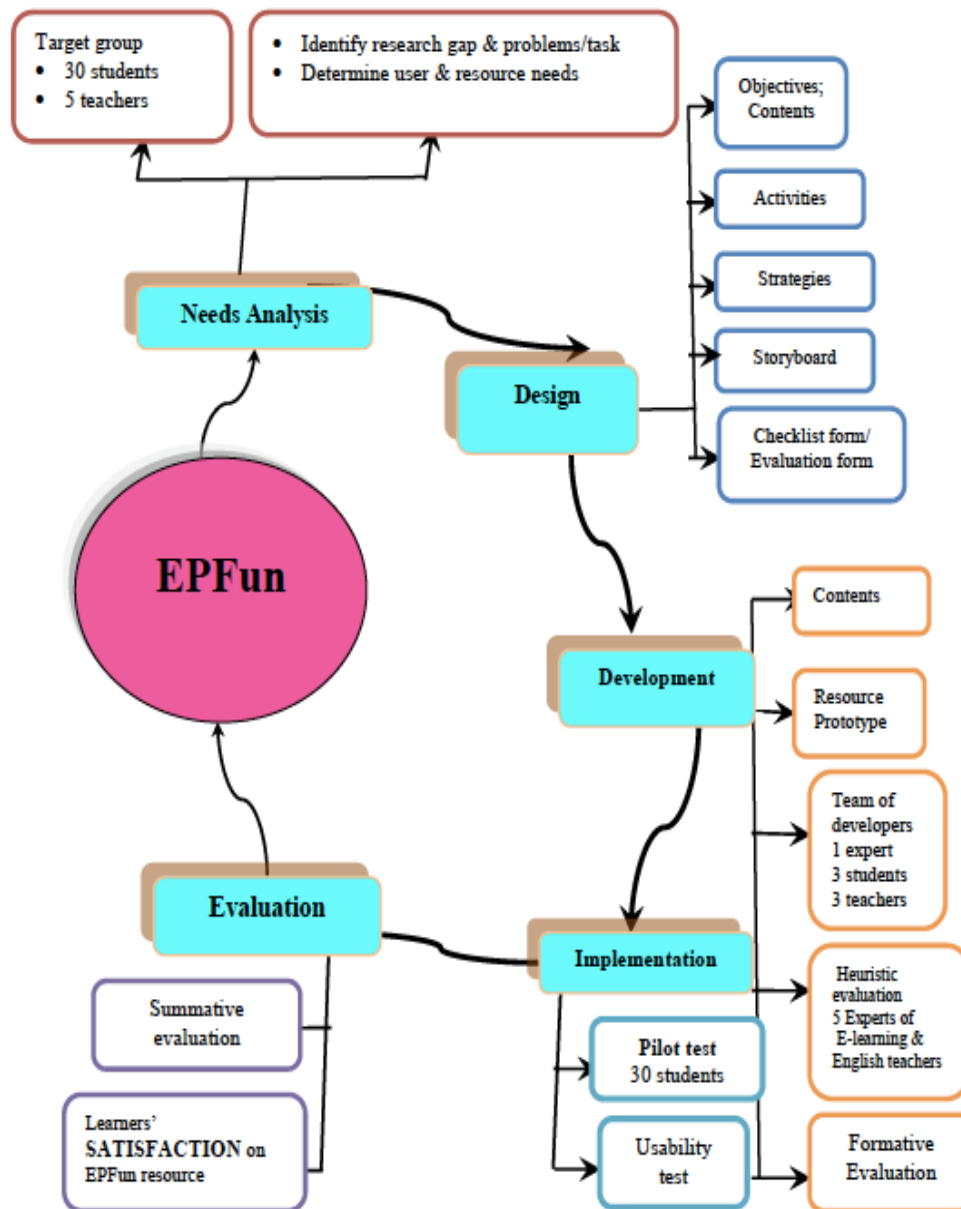
Figure 1. Framework of research methodology

To derive desirable and appropriately justified findings, this present study adopted the Type two design and development research, focusing on the study of model development, validation and use of models (Richey & Klein, 2007). To proceed with the data processing, the study took into account aspects of validity and reliability of the measured constructs in the instrument.

A semi-structured interview protocols adapted from previous studies were performed to seek detailed responses and in-depth information concerning respondents' feedbacks of evaluation from the questionnaire. In fact, through a questionnaire, the purpose of a question might not be apparent, while through interviews; various meanings could be explained (Richey & Klien, 2007). On this basis, the interview has the potential to produce a greater rate of answers. The use of semi-structured interview protocols can maximise the quality of information obtained from the respondents involved and avoid unintentional suggestion and thus the possible effects. Items selected in the interview were adapted from related literature reviews (Mark, 2005) and also added by the researcher. Semi- structured interview protocols were conducted after respondents answered the questions of the questionnaire given during the survey. The semi-structured interview protocols were administered within the two separate sessions of respective- Needs Analysis phase

and Evaluation phase. Respondents (Year 5 learners) for this interview were randomly selected by the English teachers from the schools involved in the study. The samples selected were representative of a mainstream ESL classroom in a Malaysian context. Their proficiency in English ranges from good to fair and these primary learners were able to respond appropriately during the course of the study. In actuality, only n= 5, i.e. 10% of the total number of 51 Grade A mainstream primary school learners from SKs in the District of Muar in Johor were randomly selected (Hollinshead, 2012). During the first session, a total of (n=10) students from 12 respective classes in which (n=2) students were engaged in each class and teachers total of (n=5), and (n=1) per school were involved. Each respondent was asked separately on the same field of interest as appeared in the interview protocols that took between 15 to 20 minutes to complete. The sessions were conducted either in the computer lab or the selected room as intended.

Upon completion of the scripted section, all respondents were asked the same open-ended questions either with or without guidance to initiate the substantive phase of the interview, namely; *"How do you feel about computers being used and more in learning?"; "The good thing about learning things using computers and the technology is…… (Say what you think….)"*. The other examples; *"Overall, what is your opinion about the blog?"; "What are your suggestions to improve this blog?"*. The second session of the same protocols was conducted in the Evaluation phase and the same procedure was repeated for both respondents of learners and teachers involved. To establish and complete the interviewed conducted, the interviews were transcribed using the taxonomy scheme of analysis that can be categorised into two dimensions: (i) w*hat benefits can EPFun contribute to the users?* and (ii) w*hat are the shortcomings of EPFun to the users?* In order to analyse the interview data, several steps were undertaken. Right after each interview session, the researcher transcribed the recorded interviews and referred to the notes to avoid losing any important data, which might become substantial to the findings of the research.

As this present study dealing with the primary learners, focused observation supported by interviews, in which the participants' insights guide the researcher's decisions about what to observe. The observation is used to assist in triangulation the data gathered beside semi-structured interview protocols. This method is used to develop a holistic understanding of the phenomena and way to increase the validity of the study during the process of formative and summative evaluation respectively. It is another alternative method to assess in-depth of body language, behaviours, intentions, situations, and events of the respondents during the study conducted (Kawulich, 2005). An adapted set of questionnaires from (Din, 2010) and (Jamalludin et al., 2001) was given to experts in order to gain feedback on a prototype version and final version of the developed reading English resource. Each expert was given a file that came with an evaluation form and a Reviewer Information Sheet (forms that contain information related to the blog evaluated. The task is essential to maintaining the reliability and validity of the contents of the resource developed.

According to (Hair et al., 2006), the validity and reliability refers to the stability and consistency of the instrument when the instrument is able to answer the research questions as formulated. Although the researcher adapted the items of the instruments from several related studies, several measures were taken into consideration to ensure that the instruments used in each phase would have a high validity and reliability. The items used in the questionnaire were adapted from related past studies as well as some developed by the researcher. Several precautions as well as pilot testing were performed. Nevertheless, to ensure strong validity and after the overall analyses as well as further consultation with experts, they suggested that the instruments need to be analysed using the Rasch model and should take into consideration both, persons and item measures (Bond & Fox, 2007; Din, 2010).

A pilot study was performed to ensure the validity and reliability of the instrument used in this study. The pilot study for this research involved randomly stratified selected respondents (n=30) and has features that are common with the actual respondents in the needs analysis phase. A stratified survey is claimed to be more representative of the population than a survey using simple random sampling or systematic sampling. In relation, according to (Gall et al., 2003), a pilot study is a small-scale study conducted in the early stage of a research study in order to develop and test measurements or procedures that would be used in the actual study. The pilot study was carried out after revision of instruments with a panel of experts appointed during the implementation phase. In addition, the pilot study was conducted to determine whether the procedures used are appropriate or needs revision. Cronbach's alpha coefficients were used to confirm the reliability of the questionnaire. Having analysed using SPSS18.0, the Cronbach's alpha for the instrument during the pilot study ranged from 0.5 to 0.7 and the values of these indices are within the acceptable internal consistency (Hair et al., 2006). Based on the findings of the Cronbach's alpha for the pilot study, the researcher retained all items to be used in the actual study. This is because the questionnaire used for the task was conducted based on an established set of questionnaires from related literatures (Din, 2010; Rashidah, 2013; Small &

Arnone, 1999c), and because the respondents were primary school learners. There were some setbacks and obstacles encountered during the process. Due to that, the researcher addressed the need for careful guidance for the respondents during the survey process to reduce the threshold of the setbacks.

Data Analysis

A number of circumstances must be taken into consideration for a significant level of measurement to be established. First, the measurement process must use valid items that can be applied to address the measured construct. The second circumstance is to have a clear conception and definition of the construct before the measurement takes place. The items used must consistently define the measured construct with the theoretical expectations. The third circumstance is to ensure that the items, when administered to appropriate respondents, would lead to consistent outcomes that suit the purpose of measurement. This relates to the ability of the items to be replicated consistently by the person ranking or ordering the relative measures if the same sample of respondents is given another set of items measuring the same construct. The fourth circumstance indicates the use of valid response patterns (Bond & Fox, 2007; Din, 2010). Without valid response patterns, respondents cannot be accurately located on the measured construct (Wright & Stone, 1979) nor can the construct be accurately defined.

In regard to rating scale analysis, the effective functioning of the rating scale categories is another significant aspect that needs to be investigated (Bond & Fox, 2007). To evaluate the adequacy of the EPFun measures, the data were analysed using WINSTEPS 3.69.1.11 (Linacre, 2003), a computer program for the Rasch Model. In this analysis, WINSTEPS 3.69.1.11 calibrates the agreeableness of a respondent against the difficulty respondents demonstrated when expressing agreement with particular items (i.e. statements) by taking into consideration the Rasch Model for polytomous data. Rasch addresses the five principles of a measurement model, which enables it to provide linear equal scale, overcome missing data, estimate precision, detect misfits or provide reliability and replicability. Hence, "… by complying with all the principles, a more meaningful and accurate inferences can be made from the data" (Azrilah, 2010: 33). The model is expected to demonstrate a logistic equation in which the probability of choosing a particular category in the scale is an exponential function of the difference between the respondents' ability to agree ('agreeableness') and the item's difficulty in allowing agreeable responses ('disagreeableness').

The study addresses the two-stage Structural Equation Modelling (SEM) using the AMOS (Analysis of Moments Structures) version 18. After the researcher had addressed the issues of unidimensionality, reliability and validity of the measurement models in this study, the next step was to model all the constructs into SEM for further analysis. The measurement model was employed to answer the fourth research question in this study. It is related to the relationship between the learner's fun factors and the design of the EPFun resource concerning learner's satisfaction when using the developed resource. SEM was chosen because this technique can simultaneously model and analyse the multiple relationships among the constructs. In addition, a statistical technique of SEM is considered better than that of path analysis or regression analysis (Din, 2010; Hair et al., 2006; Saemah, 2004; Zainudin, 2012). Given the similar magnitude, SEM has two sub-models: the measurement model and structural model. Initially, the researcher needs to analyse the measurement model before modelling the structural model. The measurement model is used to measure the relationship between observed and unobserved (latent) variables. The findings of this measurement model can provide information on the reliability and validity of the latent variables studied. Thus, the structural model describes the relationship that exists between the latent variables being studied (Byrne, 2010; Din, 2010; Saemah, 2004; Zainudin, 2012). In the SEM, there are a series of goodness-of-fit indexes but (Hair et al., 2006) and (Zainudin, 2012) recommend the use of at least three fit indexes by including at least one index from each category of the model fit. The three fitness categories are absolute fit, incremental fit and parsimonious fit. These are shown in Table 1 below.

There are two techniques that can be used in the SEM, which is the one-step and two-step approach. According to (Hair et al., 2006), in the one-step approach, the estimate is done simultaneously for both the measurement model and structural model. This approach can be used if the model has a strong theoretical foundation and the measurement has high reliability (Hair et al., 2006). Separate testing of the measurement model via the two-step approach is viewed as essential if the valid structural theory tests cannot be conducted with bad measures (Hair et al., 2006: 848). Procedure for the GOF (Goodness of Fit) for CFA and SEM analyses performed is shown in Figure 2.

Table 1. The assessment of goodness of fit

Name of Category	Name of Index	Level of Acceptance	Literature	Cut-off
1.Absolute Fit	The Root Mean Square Error of Approximation	RMSEA ≤ 0.08	(Browne & Cudeck, 1993)	Range 0.05 to 1.00 acceptable
	Goodness of Fit	GFI ≥0.90	(Joreskog & Sorbom, 1984)	GFI= 0.95 is a good fit
2.Incremental Fit	Comparative Fit Index	CFI ≥0.90	(Bagozzi & Yi, 1988)	CFI, TLI = 0.95 is a good fit
	Tucker-Lewis Index	TLI ≥0.90		
3.Parsimonious Fit	Chi Square/ Degree of Freedom	CMIN/df	(Gefen, 2000)	The value should be below 5.0

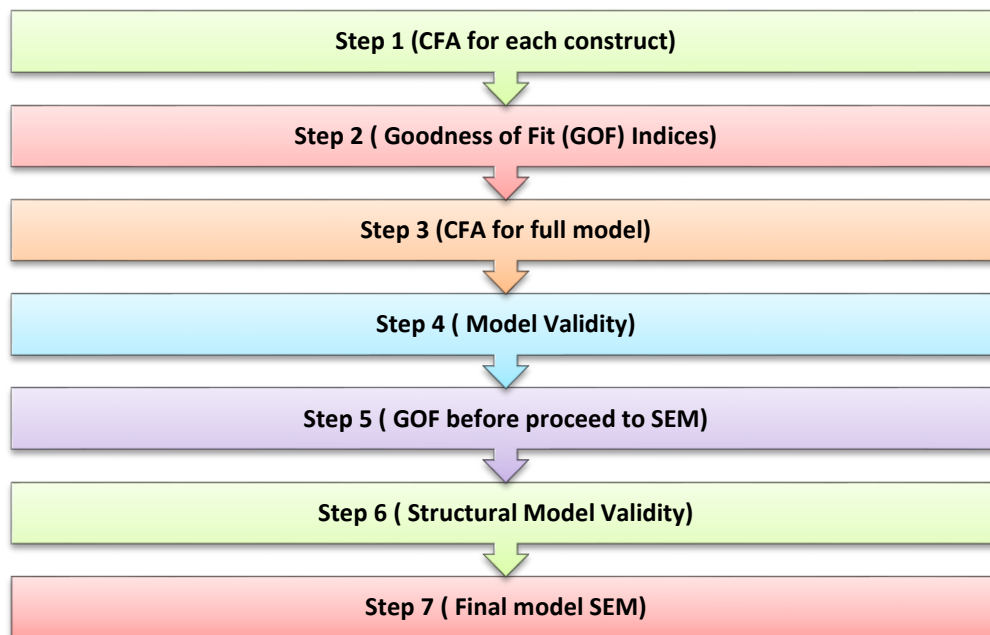Source: Byrne, 2010; Ernest, 2008; Hair et al., 2010

Figure 2. Procedure: GOF before proceeding to CFA and SEM

To illuminate this study and its findings, a summary of data collection is presented in Table 2.

Table 2. Summary of data collection

Research Question	Phase	Method
1. Does the EPFun resource development fulfil the three instructional design components used: learning theories, learning strategies and cosmetics?	Development	Descriptive statistic) Formative Evaluation with Development Team Members (DTM) Focused observation
2. What are the primary learners' responses towards the EPFun resource?	Need Analysis	Survey & Semi-structured interview protocol; Descriptive statistic
3. What are the teachers' responses towards the EPFun resource?	Need Analysis	Descriptive statistic
4. What are the experts' responses towards the EPFun resource?	Need Analysis, Design, Development	Evaluation with Development Team Members (DTM) Descriptive statistic Formative evaluation by expert
5. Does the EPFun resource contribute to primary learners' satisfaction?	Design, Development, Implement, Evaluation	AMOS: CFA Second Order for EPFun & CFA First Order for Learner's Factors was conducted Focused observation
6. Can primary learners' acceptance of EPFun resource be explained by the following factors: usefulness, ease of use and ease of learning?	Design, Development, Implement, Evaluation	AMOS: CFA Second Order for EPFun & CFA First Order for Learner's Factors were conducted (Appendix M)
7. Does a relationship exist between satisfaction of primary learners and EPFun resource?	Evaluation	AMOS: Final stage of SEM (Appendix M) Focused observation

FINDINGS AND DISCUSSION

Findings

The findings of the pilot and real studies confirmed the reliability of the instrument in which Cronbach's alpha was computed to establish reliability coefficients and internal consistency of items in the domains, while the Rasch model justified the validity of the measured constructs used. For this study, the two-step approach was utilized prior to running the full SEM. Hence, it used systematic planning and this affected the learning resource developed.

The findings presented based on the research questions and responses from respondents comprising of Year 5 learners, teachers as well as experts during the actual study. The findings of the demographic analysis of the respondents during the actual study were tabulated by five methods, namely: (i) descriptively using frequencies and percentages; (ii) the inferential validity of the confirmatory factor analysis (CFA) and (iii) the structural equation modelling (SEM). All the research objectives mentioned earlier are subsequently answered. Figure 2 presents the final model for the study, showing the empirical results of the level of satisfaction between the two dimensions of the learner's fun factors and the EPFun resource. In addition, the findings also indicate the significant relationship between these two factors and satisfaction. It revealed a significant relationship between the learner's factors and the EPFun resource regarding level of satisfaction. "The correlation between the original variables and the factors, and the key to understand the nature of a particular factor" is known as factor loadings (Hair et al., 2006: 102) are 0.27 (Learner's Fun Factors (LFF) → Satisfaction), 0.75 (EPFun → Satisfaction) and 0.77 (Learner's Fun Factors → EPFun and vice versa). There are various views on how to gauge the strength of the correlation. (Cohen, 2001) provides three levels of strength, e.g. small, medium and large. The result indicates that the learner's factors have a moderate strength relationship with satisfaction, whereas the EPFun resource has a very strong relationship with satisfaction. Moreover, the learner's factors also have a strong relationship with the EPFun resource.
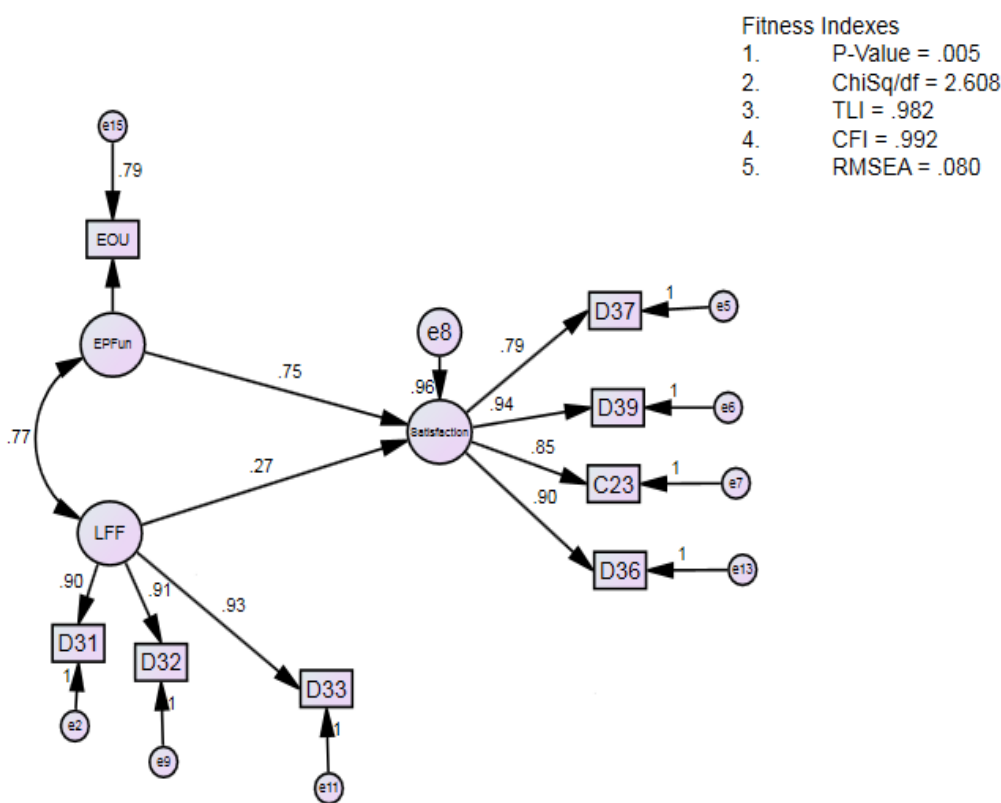

Figure 2. Final stage of SEM for the EPFun, learner's fun factors and satisfaction

Discussion
In relation, Web-based learning can be clustered into two categories which are: (i) Web-based usage profile in which it clarified the disciplines of study in Web-based and how learners or instructors used Web-based learning and (ii) Effects of Web-based learning on performance outcome and effects of Web-based learning on affective outcome. In relation, several studies which were highlighted (Kerawalla et al., 2008; Kuzu, 2007; Makri & Kynigos, 2007; Nackerud & Scaletta, 2008; Wang & Hsua, 2008) fortified and verified the present study in which the focus group (selected Year 5 learners) portrayed an impressive and high level of satisfaction with the EPFun resource. Several criteria as highlighted by (Nokelainen, 2006) for example; understandability, learner-control, interactivity, multi modal presentation, motivation, collaboration and flexibility were also tested and proved to support the present study. The findings revealed that learners perceived Web-based learning as a supporting factor to scaffold the process of learning both from the teachers/ facilitators and their peers involved in the study.

Contrary, significant highlighted studies were mainly focused on either the adult learners or namely teachers and students from the tertiary level of institutions. Only a few were on the young learners. Some studies have proved that inadequate implementation of teachers' competency and ICT literacy are some of the factors that determine why teachers choose not to use technology as an instructional resource (Bagci & Naci-Coklar, 2010; Nokelainen, 2006; Prensky, 2008). Others clarified on the adult learners' characteristics such as their satisfaction, involvement and participation, cognitive engagement, level of self-confidence, technology self-efficacy, generic skills, initiative and motivation regarding the acceptance of online learning programmes. Hence, this present study is a mutual accomplishment to complete the research gap especially for the local research regarding young learners' involvement in the Web-based learning resource that focuses on reading in the target language. Hence, findings indicate that the 250 primary learners were satisfied with aspects found in the EPFun resource and thus showed a high level of satisfaction (96%) when using the EPFun resource. Inferential analysis helped the researcher to conclude that the assumptions about the interrelations between the dependent variables (learner's fun factors and the EPFun resource) and independent variables (learner's satisfaction) were answered with strong evidence through the SEM process. Thus, it proves that there is a significant relationship between the satisfaction obtained by primary learners and using the EPFun resource. The results of a semi-structured interview also provided strong support when determining the existence of a relationship between the two variables.

The study revealed that a majority of students involved have the requisite level of readiness for Web-based learning. Analysis of learner's readiness to engage in online learning was done with respect to three aspects and the results show that: (i) a majority of respondents favoured playing online computer games and considered this as their favourite hobby; (ii) respondents expressed a clear psychological readiness to read the English reading resource; and (iii) they showed willingness to use ICT to read in English. The findings were based on responses from daily primary school respondents (n=30) selected in Muar, Johor. The data indicates that of interest in reading, 30% of respondents (n = 9) were interested in reading and enjoyed reading, 30% (n = 9) had very few problems with reading, 20% (n = 6) had a little trouble with reading, while the remaining 20% (n = 6) stated that they had other problems to focus than to proceed with the activity. In terms of hobbies, 30% (n = 9) of respondents expressed their preference for an interest in reading, playing games and they loved cycling, and the balance showed an interest in drawing and other areas. The findings from this present study facilitates the previous study by (Shahabuddin & Rohizani, 2003), that highlighted readiness in terms of cognitive, affective, psychomotor and maturity in all aspects which later allows students to participate in the teaching and learning process and achieve optimal outcomes.

The EPFun resource underwent a series of iterative formative and summative evaluations with the developer team members (DTM), the Web-based learning experts, the experienced English teachers and the Year 5 learners selected in the pilot study. Descriptive and inferential analysis helped the researcher to develop a clearer picture of the level of learner satisfaction and aspects that affect satisfaction. Discussions also took into account the findings obtained using quantitative and qualitative methods that proved statistically significant. Findings on the evaluation of the three aspects (*usefulness, ease of use and ease of learning*) of the EPFun resource showed positive results. The learners expressed a very high level (96%) of satisfaction using this EPFun resource. The qualitative findings were triangulated to support the quantitative findings on learner's satisfaction with the EPFun resource. In addition, the selected learners who participated in the interview sessions also agreed that this EPFun resource sparked a sense of fun and understanding, and facilitated their interest and ability to learn to read in English. The provided resource is more presentable when supplemented by interesting graphics, interactive exercises and sharing online; this provides a different paradigm of cyber learning experiences compared to the use of customary printed materials such as textbooks and worksheets.

The findings of this evaluation showed that the design of a Web-based learning resource plays an important role in ensuring learner's satisfaction. As stated by (Bostwick, 2010), the design flexibility of time, location, method, and commitment to access material resources affects the level of learner's satisfaction. (Al-Fahad, 2010) supported this view, stressing that a flexible Web-based learning resource increases the learner's satisfaction when using the resource. Learners in this study explored the resource in a simple way through whatever technology they had available, such as desktops and laptops, at any time and in any way; consequently, location was not a salient factor. In addition, the quality of the resource developed also plays an important role in ensuring learner's satisfaction (Rashidah, 2013; Sher, 2008).

This study utilised the measurement model in Confirmatory Factor Analysis (CFA) regarding the aspects of learner's factors and the EPFun resource and showed that learner satisfaction can be explained by a one-

dimensional construct in learner factors and three-dimensional constructs, such as: (i) usefulness; (ii) ease of use; and (iii) ease of learning, in the EPFun. This finding indicates that the model derived from the learner's satisfaction as measured by the two dimensions (the learner's fun factors and the EPFun) using adapted instruments, is valid and reliable for measuring learner's satisfaction. To summarise from several previous empirical studies (Dziorny, 2007; Gee & Shaffer, 2010; Groff & Cranmer, 2010; Heritage, 2010), the fun concept highlighted in the study is related to both cognitive and affective elements. Although highly abstract, it is simple and serves to integrate several underlying processes. The element of fun is empirically proven to be an important factor in the determination of the two-dimensional salient aspect in connection with the satisfaction of using the resource, namely the learners' fun factors and the EPFun resource. The learners displayed a sense of positive impact regarding the fun learning aspect, since they stated that they required a number of interesting games in order to sustain their interest towards reading and playing. The respondents' statements highlighted this when the data was triangulated during the semi-structured interview protocol and focused observations. For them, the fun is sustained in their mind as well as in their actions as they use the EPFun resource to read and play. The discipline of human-computer interaction that the learners underwent through in fun learning is an outcome of engaging in simultaneous play and learning activities (Rashidah, 2013).

Contributions and Implications of Research

The EPFun resource is Web-based and addresses the online concept of learning that empowers learners for self-access exploration during the learning experience. This learning concept has implications for theories of learning involved in English reading and the pedagogy of teaching English as a second language. The outcomes might well enhance the positive impact that helps the Malaysian Ministry of Education to instil an enhanced interest in reading in the target language, especially pertaining to instructions for primary learners. This study is another platform for similar studies in the future related to the educational environment that is developing in the 21st century. Hence, there is a need for continuous empirical snapshots with in-depth research on analogous phenomena encompassing a range of schools and teaching ecologies and other related fields, especially where young learners are concerned. The EPFun resource is a Web-based learning platform driven by an adapted technology-assisted model (TAM) that enhanced the young learners' reading performance in English. Practically, the EPFun resource geared in producing a suitable, effective online resource that is ubiquitous for all level of young learners. This Web-based learning engaged and retained fun and the interest of young learners' process of learning and enhanced their motivation to read English as well.

Having defined and looked into several related aspects used to develop and evaluate the Web-based learning resource or known as English Primary Fun (EPFun), the insight perspective of this blog is indeed another jumpstart to the local context to make the online learning resource as the focus of teaching and learning process beyond the four walls of classroom. It may lead to the concept of exploration in a flipped learning that practises pedagogical approach in which direct instruction moves from the group learning environment to the individual learning environment. It leads to resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter (Juhaida et al., 2011b; Maslawati et al., 2011; Mohamed Amin Embi, 2014). Hence, in line with National Key Result Area (NKRA) of the Ministry of Education, the Web-based learning resources or contexts can be fully utilised to compete in the rapidly growing development of the 21st century learning environment.

Based on the findings and discussions, some suggestions are made for further needed research: (i) This study focused on the evaluation of learner's satisfaction that is restricted to the EPFun resource. It is hoped that further research would also look into the effectiveness of the EPFun resource for achievement in reading English at other levels of learner proficiency, such as for beginners and advanced learners. (ii)The study provides a variety of materials as a source of reading English. Future research can explore writing skills in English using the same blogging platform. English writing skills using the same or a similar platform and range of links is an interesting field for inquiry, since the language skill to be learned is more detailed and challenging (Mukundan, 2010). (iii) There are various other factors that affect learner's satisfaction besides the Web-based learning resource. Future research can explore the critical factors influencing other elements in the equation of learner's satisfaction, such as the role of teachers or other technological elements that could be included in the research focus, including self-organising techniques as a forefront mentioned in Mitra's (Mitra, 2013; Mitra, 2014) approach. (iv) Further research could also investigate different samples and respondent populations, such as a group of teachers or prospective teachers among educational institutions of different levels in Malaysia. (v) In terms of policy, research is needed to help policymakers decide on ways to include digital textbooks, digital learning programmes or even e-books of various kinds

for use in the classroom. The present study hopes to provide a trigger and turning point for initiating such a decision-making process at the policy formation and experimentation levels.

CONCLUSION

The importance of using technology in the form of a Web-based learning tool needs to be exploited in learning to read in English programmes in Malaysian primary schools. Knowing that, the development of online learning is possible within the context of the Malaysian primary school education system, as this study clearly showed, while efforts should be developed as a means to attract young learners toward new multimodal modes of learning. The findings from this study show that primary learners were highly satisfied with the quality and design of the EPFun resource interface, the development of the environment, as well as the approaches employed. The diverse approaches applied in the classroom should not only be based on the use of printed materials alone to achieve favourable results. Learners should not be bound solely to an examination-oriented curriculum. To promote an affective domain development and appeal to student motivation, the levels of satisfaction and excitement are equally important. It needs to be facilitated and initiated to generate curiosity in achieving the goal within the specified domain. Like any other technology application available, there is no doubt that today's digital native learner can have a significant impact on efforts to change and further modernise the current educational system. Technology is just a complex of devices for a learner to be engaged with. Yet, whether it is being used meaningfully and is appealing to the learner and consequently affect and motivate learners is a significant issue that needs to be encountered wisely, with an open eye and bolstered by empirical research. To conclude, the EPFun resource developed here springs from a desire to shed more light on the role and effects of a Web-based learning to read English resource that incorporates reading easily, high levels of interest and meaningful materials, while at the same time triggering and spurring fun learning as a whole.

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