DESIGNING HTML-BASED INTERACTIVE LEARNING MEDIAFOR INDONESIAN HIGH SCHOOL ENGLISH LESSONS

Sugeng Susilo Adi[1], Willibrordus Surya[2]

[1]*Department of Language Education, Faculty of Cultural Studies, University of Brawijaya. Indonesia*
[2]*Willybrordus Surya. State Denpasar 3 Vocational High School, Bali*
Corresponding author: Sugeng Susilo Adi

Abstract

This paper aims to explain the application of html-based interactive learning particularly media and activities to improve the English language skills appropriate for Indonesian high school context. HTML-based interactive learning is a learning strategy that utilizes the internet network as a media to support the English learning process. This learning strategy is expected to increase students' interactivity in English which is facilitated by interactive learning media. This paper wants to explain the benefits, strategic learning, and the role of teachers in utilizing html-based interactive learning media, especially for students of Indonesian high school students. The use of internet-based learning media can support learning principles, especially in providing opportunities for students to actively participate in various forms of language skills.

Introduction

In this digital era, people are highly dependent on the internet. If in the past the use of the internet was only limited to finding information, now the internet has been used for the benefit of almost all of our life needs. Ifin the past internet use had to be assisted by a computer, nowadays smart phones or smartphones, or also knownas gadgets, have become the main tool in operating the internet. The use of gadgets which cover almost all of our lives has changed all life processes in today's society, including the educational process, more specificallythe learning process.

The process of learning English in High Schools is currently in need of interactive learning media based on theuse of the internet. In this paper, the internet-based learning media developed is html-based. There are two reasons why internet-based interactive learning media is urgently needed as a medium for English subjects at SMKN 3 Denpasar High Schools, Indonesia. First, students of SMKN 3 High School Denpasar are quite familiar with internet-based learning so that they have no problems in utilizing html-based learning media. During the last two years, namely during the Covid-19 pandemic, learning has been carried out in an online mode, so that both teachers and students are familiar with internet-based learning media. Thus, it is assumed that the use of html-based interactive learning media will not experience significant obstacles. Second, html- based interactive learning media will provide an interesting meaningful learning experience for students because in this type of learning media students will have the opportunity to actively interact in learning English.In this media, students are given the opportunity to use English actively and interactively to improve their English skills.

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HTML-based interactive learning media in English subjects is one of the learning media that can be used in the world of education. In essence, learning media is everything that able to assist the teaching and learning process and serves to clarify the message conveyed so as to achieve the learning objectives that have been planned (Surayya, 2012). In addition, learning media can be understood as anything that can transform information from information sources to information recipients (Falahudin, 2014). Thus, learning media is something that is used in the teaching and learning process which has a function as an intermediary for information from learning sources.

The use of html-based interactive learning media to improve English language skills for Indonesian high schoolstudents is expected to support the implementation of the enhanced 2013 (K-13) curriculum. In the curriculumsyllabus it is stated that the core competence of KI-3 Class XII Semester 1 and 2 (knowledge) is understanding,applying, analyzing, and evaluating factual, conceptual, basic procedural, and metacognitive knowledge in accordance with the field and scope of English studies at the level technical, specific, detailed and complex, with regard to science, technology, art, culture and humanities in the context of developing one's potential as part of the family, school, world of work, national, regional and international citizens.

From the explanation above, this paper will explain strategies for learning English subjects with the help of interactive-based learning media to improve high school English language skills.

The essence of instructional media
Learning media, or academically is often defined as instructional media is needed to be able to make students excited in learning. Learning media is one of the tools used in the teaching and learning process. This is done to stimulate learning patterns in order to support the success of the teaching and learning process so that the activities can be effective in achieving the desired goals. The function of learning media is to attract students' interest in learning material presented. The definition of media refers to something that can transmit information between the source and recipient of the message. The role of the media in the communication process is as a sending tool that transmits messages fromthe sender to the recipient of the message or information (Elisa, 2016).

The practical benefits of using instructional media in the teaching and learning process according to Kustandiand Sutjipto (2013:23) are:
1. Learning media can clarify the presentation of messages and information so that it can expedite and improvelearning outcomes.
2. Learning media can increase and direct students' attention so that it can generate motivation to learn, direct interaction between students and their environment, and allows students to learn on their own according to their abilities and interests
3. Learning media can also overcome the limitations of the senses, space and time
4. Learning media can provide students with similar experiences about events that occur in their environment, and allow direct interaction between students and teachers, the community and their environment.

Internet-based learning media
Along with technological developments, learning media in schools are more advanced, namely those based on the internet. Internet-based learning is learning by means of smartphones or gadgets that are currently familiarto all members of the community. There are

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various types of internet-based learning media including e- learning, namely online learning whose implementation is supported by an internet network. Advances in information and communication technology (ICT) have become a means of online learning via the internet and electronic media. The concept of internet-based learning like this is more widely known, especially during theCovid-19 pandemic.

The use of the Internet as a learning medium can be considered as something that is widely used among students. For this reason, schools can use the Internet as a means for learning other than books and to be able to be a solution to overcome problems that have occurred, for example the lack of books in the library, the limited number of experts, the distance between homes and educational institutions, high costs and limited study time. In every teaching and learning activity, the teacher is someone who provides guidance to their students, and also a teacher must also have high professionalism in his expertise. In addition, teachers must also have other expertise in the field of information technology, especially the Internet, because nowadays teachers are required to be able to use the Internet because they can dig up more information.

For students, the use of the internet as a tool in gathering information in the form of material related to lessonscan trigger and increase motivation in their learning process. The use of the internet in learning is important. Each component within the scope of education can easily utilize various internet applications and make it easier to obtain various knowledge information

Internet-based learning media for English subjects. In his research entitled "Integrating Internet-based applications in English language teaching: Teacher practices in a Thai university", which was published in thejournal Issues in Educational Research, Ulla, Perales & Tarrayo (2020) stated that one of the most important problems in teaching English is the integration of various Internet-based applications into ELT, especially in the context of EFL. The practice of teaching seven English teachers when integrating various Internet-based applications into classroom teaching shows that cell phone applications for language teaching have proven to be effective in increasing language interaction inside and outside the classroom. Meanwhile, research conducted by Ahmad (2012) concluded that almost all students and teachers studied supported the use of technology in learning English. Ahmad (2012: 928) further states

> *"Almost all the students and the teachers strongly supported the use of technological devicesfor teaching English. They were of the view that media technology increase learners' enthusiastic participation and hence turn the whole learning process learners centered andhence exciting. The students learn tremendously by trial and error process. But teacher's role in learning process is still central. It is the teacher who gives proper guidelines as to how tomake the best use of media technology for acquiring language skills".*

From the quotation above, it can be assumed that technology-based learning media, especially internet networks, can increase student participation and enthusiasm in learning English.

HTML Based Media (Hypertext Mark-Up Language)
HTML or Hypertext Markup Language is a markup language used to structure website pages so that they canbe displayed in a web browser. This html file is also known as a web page. So this html-based media is a file created using computer software that is displayed using a web browser.

Html-based media in this article are web-based instructional media. Suriaman, Rahman, & Noni (2018) say that the development of web-based English instructional materials oriented to promote independent learning is effective and responded positively both teachers and students. With the flexible learning atmosphere and methods of delivery, the web-based English instructional materials are effective to promote students' independent learning. Yusof, N.A., & Saadon, N. (2011) adds that web-based language learning materials havebeen among the favorite materials to be used by English teachers since they are abundant, easily accessed, user-friendly and most importantly, they are provided for free.

Hussin, S. (2004), Omar, Nawi, & Shahdan (2020), Muftah, M.Y.A. (2018), and Chena, et.al (2013) explainsthat interactive language learning activities are able to overcome problems pertaining to communicative in language classroom. They improved the learners' English language speaking ability. Interactive web-based instruction such as html-based is becoming a progressively more impressive apparatus for language learning resource delivering around the world.
Olson & Wisher (2002) argues that web-based instruction offers learners unparalleled access to instructional resources, far surpassing the reach of the traditional classroom. It also makes possible learning experiences thatare open, flexible, and distributed, providing opportunities for engaging, interactive, and efficient instruction.Montalvo (2019) highlights some criteria for interactive language learning activities, they should have the following characteristics:

- Allow interaction between two persons or more.
- Catch students' interest
- Activities should have a clear goal
- Activities in which students are asked to solve a problem, make decisions, or create something like apresentation, picture.
- Activities in which students can put into practice their communicative abilities, gambits and phrases thatthey have learned
- Activities in which students try out new language functions, for example: opening and closing aconversation, polite ways of interrupting, making a request comment, or defending an argument.

There are several advantages of this HTML-based media, including such as; it has an attractive appearance; apart from containing subject matter in the form of pure text, it can also be inserted with pictures, videos, or flash animations. Besides, html-based materials are flexible that can be operated offline or online so that it can be accessed via the internet everywhere.

Learning Procedures with HTML-Based Interactive Media for English Lessons
The stages of implementing learning strategies with html-based interactive media for English

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subjects can beexplained as follows:

First, determine the theme and learning materials (text, images, audio, video, etc.). In this stage the teacherchooses the theme and learning material that will be delivered in the teaching and learning process. The formatof learning material can be in the form of reading text, images, video and audio. For example, the learningmaterial that will be given in class is reading text or reading. In the reading text the teacher can provide detailedmaterial about vocabulary, pronunciation, grammar and understanding of reading content (comprehension).

Second, prepare supporting software (PowerPoint, iSpring, OBS, Audacity, etc.). In this stage, the teacherprepares software tools that will be used in designing learning materials, namely:

a) PowerPoint, is an application from Microsoft that is intended as a media presentation
b) iSpring, is a tool that converts presentation files into flash form and SCORM / AICC form, which are forms commonly used in learning with e-learning LMS (Learning management System). iSpring software is available in free and paid versions
c) OBS Studio, is a popular, free and open source video recording and live streaming application. Free means that this application is free to download and use. In making learning materials, the OBS studio application is useful if the teacher needs a video recording process in learning media.
d) Audacity, is software that is specifically produced to process audio-based files. Audacity processes audioby cutting, multiplying, merging tracks with one another, recording sound or providing special effects.the resulting files are in the form of WAV, AIFF, MP3, and Ogg Vorbis.
e) Microsoft Notepad, is a lightweight application in Microsoft that can be used to create a simple documentwith the functions of opening, editing and neutralizing text files
f) Microsoft Paint is basically an application program intended for drawing or painting. However, this application can also be used to reformat image media taken from the internet to be applied in PowerPoint.

Third, make learning material designs with PowerPoint. In this stage, the teacher makes a learning media designby combining text, image, audio and video media as planned using the PowerPoint application. There are several basic skills in the PowerPoint application that teachers must have in order to design or produce more interesting learning media. Picture & media tools, particularly picture editing features in the PowerPoint application could function optimally that depends on the teacher's creativity. However, under certain conditions the teacher can use a supporting application to help with the image editing process with the Microsoft Paint application.

The initial stages of the process of creating a layout or image editing can be seen in the following figures:

Figure 1. Layout stage

Hyrperlink, which is one way to link one part of a program with another program or a web page with a program.In this case, the teacher designs an interactive process in a learning media. The teacher's accuracy is needed inadding and managing hyperlinks according to the planned flow. The following figure shows the stages of setting up hyperlinks which are enabled to help students to display the pronunciation and meaning of each word displayed on the slide.

c) iSpring, which is an application used to add quizzes and practice questions in learning media. iSpring provides a wide selection of Quiz models that teachers can use to complete the process of evaluating student learning outcomes. The quiz models currently available in the iSpring application are; Multiple Choice, Multiple Response, True/False, Short Answer, Numeric, Sequence, Matching, Fill in the Blanks, Select from Lists, Drag the Words, Hotspot, Drag and Drop, Likert Scale and Essay. In addition, iSpring is also equipped with a feedback feature for students and reporting of learning outcomes which are automatically sent to the teacher's and students' email.

Figure 2. Inserting hyperlink stage.

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The image below shows that the iSpring application has been added or integrated with Microsoft PowerPointused by the teacher.
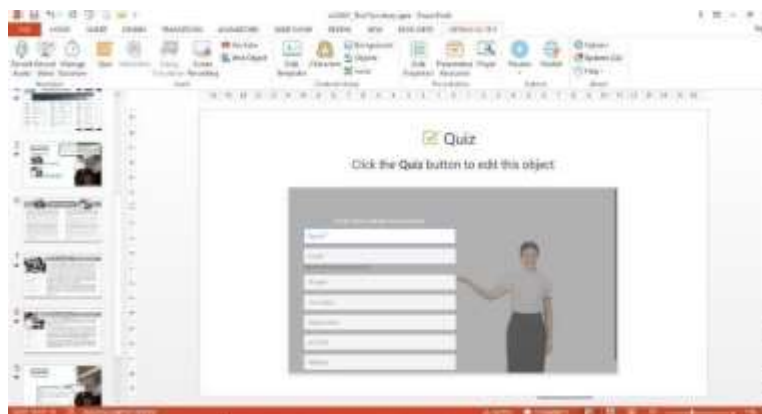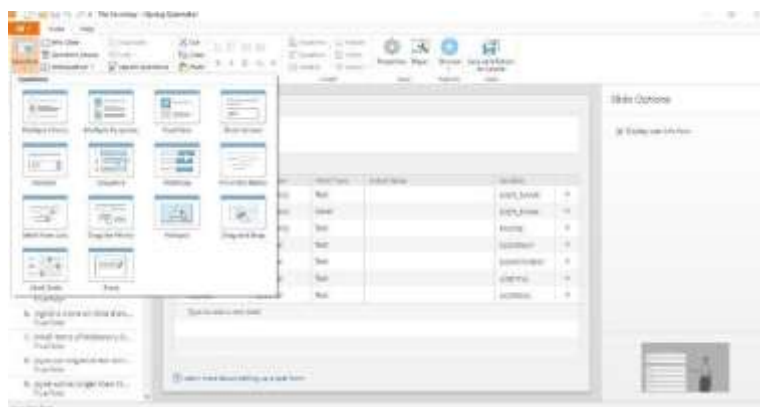
Figure 3. Designing Quiz

Figure 4. Quiz model in iSpring

4. Publish material in html format, at this stage the teacher uses a feature in the iSpring application to export PowerPoint files in html format. Apart from the html format, iSpring can also be used to export PowerPoint files into several other formats, namely; videos, iSpring Learn and LMS SCROM.

In the next stage, the teacher prepares the html files that have been generated through the iSpring applicationto be used as online access for students.

Figure 5. Publishing process

5. Create a link (access link) for students, at this stage the author uses a GoogleDrive account to save the htmlfile that has been generated. The next process is to add the DRV.TW plugin to a Google account to activate interactive learning media links. Then the link is ready to be shared with students.

Conclusion

HTML-based learning media is one of the learning media that can be used in managing the English learning process. Several references indicate that technology-based learning media, especially the internet, can increasestudent learning activity, participation and enthusiasm. HTML-based interactive learning media is expected toincrease the interactivity of learning English for students in communicating actively. Activeness and participation in language classes are needed because it will increase students' confidence in learning. This activity and participation is in accordance with the principles of learning a foreign language, namely the activeinvolvement principle.

The author suggests teachers use internet-based learning media in managing English learning. Currently, thereare quite a number of internet-based learning media formats available that can be used to support learning. Themedia has varied greatly in various formats ranging from audio media, visuals, multimedia, and even media inthe form of games.

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References

Chena, Y. C., Yehb, R. C., Louc, S. J., & Lin, Y.C. (2013). What Drives a Successful Web-Based Language Learning Environment? An Empirical Investigation of the Critical Factors Influencing College Students' Learning Satisfaction. The 13th International Educational Technology Conference. Social and Behavioral Sciences, 2013. [DOI: 10.1016/j.sbspro.2013.10.463]

Cong-Lem, N. (2018). Web-Based Language Learning (WBLL) for Enhancing L2 Speaking Performance: A Review. Advances in Language and Literary Studies. Vol. 9, No. 4. July 2018. [http://www.journals.aiac.org.au/index.php/alls/article/view/4638]

Edi Elisa , 2016. Pengertian Media Pembelajaran https://educhannel.id/blog/artikel/pengertian-media- pembelajaran.html

Ely Surayya, S.Ag.M.Pd. Pengaruh Media dalam Proses Pembelajaran. At-Ta'lim; Vol. 3, Tahun 2012 English Language Teaching (ELT) and Integration of Media Technology, Dr.Jameel Ahmad Procedia – Social and Behavioral Sciences 47 (2012) 924 – 929

Hajebi, M. (2017). Web-Based Language Teaching: An Investigation into Iranian EFL Stakeholders' Perceptions and Practices of Vocabulary. Proceeding of Annual Conference on Research in the Humanities and Social Studies. December 2017. [https://www.researchgate.net/publication/329372538]

Hatay, O. E. (2020). The Path to Digitalisation in ELT Classes: an Insight into the Social Nature of Web-BaseLanguage Learning. Handbook of Research on Digital Learning. [DOI: 10.4018/978-1-5225- 9304-1.ch010]

Hussin, S. (2004). Web-Based Language Learning Materials: A Challenge. Internet Journal of e-Language Learning & Teaching, 1(1), January 2004. [https://www.researchgate.net/publication/229036373]

Iwan Falahudin (2014). Pemanfaatan Media dalam Pembelajaran. Jurnal Lingkar Widyaiswara, Edisi 1 No. 4,Oktober – Desember 2014, p.104-117

Kustandi dan Sutjipto, Bambang. 2013. Media Pembelajaran Manual dan Digital Edisi Kedua. Bogor: GhaliaIndonesia.

Mark B. Ulla, William F. Perales, & Veronico N. Tarrayo (2020). "Integrating Internet-based applications in English language teaching: Teacher practices in a Thai university." Issues in Educational Research, 30(1). 2020.

Montalvo, Y. E. (2019). Interactive Language Learning Activities that Enhance the Oral Skill. Unpublished thesis. Benemérita Universidad Autónoma de Puebla, Mexico. [https://repositorioinstitucional.buap.mx/bitstream/handle/20.500.12371/15529/289619TL.pdf?sequ ence=1]

Muftah, M.Y.A. (2018). Web-Based Language Learning and Students' Satisfaction. Conference: The First Scientific Conference on Humanities & Social Sciences (SCHSS). February 2018.

Olson, T.M. & Wisher, R. A. (2002). The Effectiveness of Web-Based Instruction: An initial inquiry. International Review of Research in Open and Distance Learning. Volume 3, Number 2, October, 2002. [DOI: 10.19173/irrodl.v3i2.103]

Omar, S.O., Nawi, H.S.A., & Shahdan, T.S.T. (2020). Interactive language learning activities for learners' communicative ability. International Journal of Evaluation and Research in Education (IJERE). Vol. 9, No. 4, December 2020. [DOI: 10.11591/ijere.v9i4.20605]

Suriaman, A., Rahman, A. & Noni N. 2018. Developing Web-based English Instructional Material Oriented to Promote Independent Learning at Indonesian University Context. Journal of Language Teaching and Research. Vol. 9, No. 2, March 2018. [DOI: http://dx.doi.org/10.17507/jltr.0902.15]Tululi, I. (2022). 6 Macam-macam Media Pembelajaran Serta Contohnya, Tingkatkan Semangat Belajar Siswa. https://www.imrantululi.net/berita/detail/6-macammacam-media- pembelajaran-serta-contohnya- tingkatkan-semangat-belajar-siswa

Yusof, N.A., & Saadon, N. (2011). The Effects of Web-Based Language Learning on University Students' Grammar Proficiency. Proceeding of The 3rd International Conference on e-Learning ICEL2011, 23-24 November 2011, Bandung, Indonesia. [https://www.sciencedirect.com/science/article/pii/S187704281205330X]

Author Information

Sugeng susilo adi
Department of Language Education
Faculty of Cultural Studies
Univesitas Brawijaya
Indonesia
sugengadi@ub.ac.id

Willybrordus Surya
SMKN 3 Denpasar High School
Bali
Indonesia
wahanabahasa@gmail.com

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