Analytical Exposition Materials on WordPress for Eleventh Grade Students of Senior High School (a Research and Development Research)

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Article Info	Abstract
	The objectives of this research were: first, to determine students' learning needs for Analytical Exposition materials; Second, to figure out the process of product development of Analytical Exposition Materials on Word Press; Third, to investigate the content quality of the developing product based on 2013 curriculum. Research and Development design was used in conducting the research. Six steps of R&D cycle by Gall & Borg was employed in product development. The steps were: first, research and data gathering; second, planning; third, developing preliminary form of product; forth, preliminary field testing; fifth, revising main product; sixth, main field testing. Accordingly, this research revealed that first, ICT – based teaching learning media was needed for Analytical Exposition lesson. Second, the processes of product development through the sixth steps of R&D cycle were run well. Third, the content quality of the product was good and in lined with 2013 curriculum. By all means, the developed product proved to be suitable as ICT-based teaching-learning media and meet the standard requirement of 2013 curriculum. © 2019 English Education Department, University of Sultan Ageng Tirtayasa

INTRODUCTION

In a modern life, people live amongst technology. The use of technology varied in its function. The technology influences our daily life including part of school life either teaching or learning. In teaching learning process in class, a media could bridge the distance between instructor and students in effective and innovative ways. Additionally, an educational paradigm shift is inevitable. The shift is occurred following the ages to respond to new theories in education. Tapscott (2008: 25) captured the essence of the educational paradigm shift.

Teaching and learning is changing from "linear to hypermedia...; from instruction to construction and discovery; from teacher-centered to learner-centered education; from absorbing material to learning how to navigate and how to learn; from school to lifelong

learning; from one-size-fits-all to customized learning; … and from the teacher as transmitter to the teacher as facilitator." (Tapscott, 2008)

In response to the paradigm shift, The point of discovery, learner-centered education, learning how to navigate, lifelong learning, customized learning, these highlights the important role of the media in teaching and learning process. The role of media is vital in this era. According to Mateer (2012) media can be a component of active learning strategies such as group discussions or case studies. The example of the media could be a film clip, a song you hear on the radio, podcast of a lecture or newspaper article. Hence, developing a complete package of media is a very good idea. Moreover, combining media which can be accessed anytime and anywhere will optimize the output of good teaching and learning media.

In production and development industry open source as a development model promotes universal access via an open-source or free license to a product's design or blueprint, and universal redistribution of that design or blueprint, including subsequent improvements to it by anyone (Lakhani & Hippel, 2003). To put media such as videos and images in one place is one of the advantageous of website. Therefore, this research and development is trying to develop an open source website for teaching and learning media through WordPress platform.

Furthermore, based on curriculum 2013 in Indonesia, eleventh grade students learn about analytical exposition text. Analytical exposition text is a text which has a form of an essay or an argumentative text. Its social function is to persuade readers or listeners that the issue being discussed is important (Derewiaka, 2004). Hence, it is also called a persuasive text. Analytical exposition text is a type of text which conveys information and explains ideas in logical reasoning. Due to the wide range of text options, this open source website was only intended to design a media aid that is needed for teaching and learning analytical exposition materials.

THEORETICAL FRAMEWORK

Concept of the Website Development

The concept of the product is based on 10 Top Principles of Effective Web Design by Woods (2014). The 10 top principles of effective web design are first, purpose; the purpose of the website should be clear and specific, both for the content and the target users. Second, communication: make the content easy to

read and digest. Third, typefaces: choose the font that is easy to read online. Fourth, colors: use a contrast color between text and background to make reading easier to the eye. Fifth, images: a picture can represent the whole page; put some images or video to make effective communication. Sixth, navigation: use a logical page hierarchy so people can move easily on your website. Seventh, grid-based layouts: arrange content into section so it looks well organized. Eighth, 'F' Pattern Design: eye tracking studies have identified that people scan computer screens in an "F" pattern. Most of what people see is the top and left of the screen, so maximize it that way. Ninth, load time: optimizing the size of the images and videos, do not put a heavy one. Tenth, mobile-friendly: make your website in a responsive layout (this means your website will adjust to different screen widths).

Analytical Exposition Text

There are a lot of types of texts; one of the types is exposition text. Expository writing is any form of writing that conveys information and explains ideas (Nordquist, 2016). In addition, expository writing may include elements of narration, description, and argumentation. Hence, expository writing may not only have one element but it may also have a combination of elements depend on the needs of its writing.

Analytical exposition text is one types of exposition. It is a composition of writing which displays or using analysis or logical reasoning (Nordquist, 2016). Based on 2013 Curriculum for English subject of grade XI, the Standard Competence of Analytical Exposition Text is to analyze the social function, the generic structure, and language feature in some analytical exposition text spoken and written by giving and asking information regarding an actual issue based on context. In this case, the social function of analytical exposition is to persuade the reader or listener that the idea is important mater. Then, the generic structure of analytical exposition text is consisting of a thesis, argument and conclusion named reiteration. Furthermore, the dominant language features which are used in analytical exposition are such modals, action verbs, adverbs, adjective, technical terms, general and abstract noun, and connectives or transition.

Open Source Website Platform

WordPress was the open source website platform that was used in this research and development. WordPress is an open-source content management system which can be used as a self-hosted blogging tool. (Kerner, 2016). The choice was made due to by early December 2016 the *Open Source CMS Market Share* concluded that WordPress enjoyed the greatest brand strength of any other open-source content management. So we can say that WordPress is the number one open-source website which is used nowadays (Kerner 2016). Moreover, WordPress proved that their platform keeps moving forward to an advance. The 2017 theme provides users with a number of interesting attributes including the large feature image as well as the ability to have a video as part of the header image (Kerner, 2016). The display of the website will be more advanced than before. These are good reasons to choose WordPress as the open source website platform for this research.

ICT Based Teaching Learning Media

Media is a combination of what the theory is and how it is applied or visualized. According to Mayer (2001) media refers to the presentation of material using both words and pictures. He also states that learners can better understand an explanation when it is presented in words and pictures than when it is presented in words alone. According to several researchers, media can be defined as all the methods and material that can be used to support the learning process (Dugger et al., 2001, Perraton, 2000). Media is used to help a teacher to deliver materials and to help students to absorb the material easily. Mateer (2012) said media can be a component of active learning strategies such as group discussions or case studies. The example of the media could be a film clip, a song you hear on the radio, podcast of a lecture or newspaper article.

Furthermore, a media is a tool which can intrigue our verbal and visual sense. An interesting question was proposed by Willingham (2009) to prove that. The question is "Why do students remember everything that's on television and forget what we lecture? It is because visual media helps students keep concepts and ideas. Thus, in this digital era, Information and Communication Technology (ICT) is playing an important role in educational purpose, ICT is capable of improving the quality of teaching-learning media. As Patil (2012) said that advances in computer and communication technologies enable to store, process and transmit huge amounts of information easily and quickly. Internet connection

as one of the most interesting manifestation of ICT interconnection advances (Nair, 2000) was the reason why a website-based teaching media was chosen. It is expected that the media can enhance students' learning experience.

RESEARCH METHODOLOGY

 Borg & Gall's, (1983) Research and Development (R&D) research design was employed in this research. The research was held in Senior High School One, Located in Serang City of Banten Province, Indonesia. The research started from March – June 2017 with 60 students of eleventh grade as the participants. Semi-structured Interview, open-ended questionnaire and close-ended questionnaire were used as research instrument of this research.

Model Development Procedure

Due to the need of this research, only sixth from tenth steps of Borg & Gall's, (1983) Research and Development model were used, they were:

1) Research and Data Gathering

Research and data gathering was the first step of developing the product. Data were collected to find out the weakness of teaching and learning media and learning's need in analytical exposition text chapter. The data were gathered firstly from the teacher of English subject by using interview method and secondly from students by using open-ended questionnaire. All the questions were referred to the teaching and learning media and students' learning needs for analytical exposition text in eleventh grade.

2) Planning

After analyzing the needs for teaching and learning media for analytical exposition text, the product was planned to adjust the need and maximize the effort to cover the weaknesses. There were fifth steps in planning the product. The first step of the plan was to make an account in WordPress platform. WordPress platform was used due to its navigation control. So, users can access and explore the product easily.

Second, after making an account, a layout was chosen. The layout was chosen based on layout suitability. Third, the materials were categorized into subsection to make it more simply chosen. Forth, the materials were organized based on the subsection. Finally, the plan was set; the product was ready to develop its preliminary form. The material put was already been synchronized with

the course material which set by the government.

3) Developing a Preliminary Product

Developing a preliminary product was the third stage of product development. After the initial planning has been completed, the product was ready to be filled with the materials that have been prepared before. The product was designed to look brief and simple. The materials were arranged into good sequences to help simplifying the wide coverage of materials.

The product might appear casual but the materials that were put were still an implementation from the syllabus that has been set by the Government. Based on Standard Competence of the subjects of English grade XI in 2013 Curriculum, the Standard Competence of analytical exposition text are to analyze the social function, the generic structure, and language feature in some analytical exposition text spoken and written by giving and asking information regarding an actual issue based on context.

Furthermore, there were validations from experts. The validation was done by a material expert and an online media expert. The material expert is an experienced XI grade English teacher and the online media expert is a professional computer program developer. They were requested to assess the quality of the media in term of its material quality and the web site quality. Based on the inputs and evaluation from the experts, then the product was revised to further quality improvement on the main product revision stage.

4) Preliminary Field Testing of the Product

The preliminary field testing was conducted to obtain an initial evaluation of the product. Preliminary field testing of the product was tested in a small group of eleventh-grade students due to the feasibility of this study. After that, the students were requested to score the product based on their trial experienced by using a questionnaire that has been prepared.

5) Main Product Revision

Main product revision stage was the fifth stage of model development. There were two phases in the main product revision. The first phase was analyzing the experts' questionnaire validation by calculating the percentage score. The result determined the validation of the product by using the validation criteria scale. Also, the compilation of experts' comments was used directly as an input to improve the quality of the product.

In the second phase, the students' questionnaire was analyzed by calculating the percentage score. These results were first counted and tabulated before the total score was calculated. The questionnaire showed the number of students' satisfaction towards the product. Then, the product was revised and prepared for main field testing.

6) Main Field Testing of the Product

The main field test in the R&D cycle was to determine whether the product under development met its performance objectives or no. The main field testing was done in a larger group of students. The students were given the same questionnaire as the students in the preliminary test of the product. Finally, the product was evaluated from the main field testing result using a similar technique.

Data Collection Technique

There were two data collection techniques employed in this research, i.e interview and questionnaire. The data to answer the first research question were collected through interview and closed-ended questionnaire. Interview and closed-ended questionnaire were employed to collect data about students' learning needs of analytical exposition text for eleventh-grade students. A class teacher was interviewed and sixty students were asked to fill out the open-ended questionnaire.

The data to answer research question number two were collected through the process of product development; step by step processes were described on model development procedure. Then, the data to answer research question three were collected through questionnaires. There were two types of questionnaires. The first type of questionnaire was a questionnaire validation for experts. The questionnaire form for experts was added with the comment box below the questions. This questionnaire was intended to determine whether the product is valid or not. Then, the validity score represents the content quality of the product (Borg & Gall, 1983). In addition, for the input which was written in the comment box, was used for the improvement of the product in the process of developing the product. Furthermore, the second type of questionnaire was a questionnaire for students. The questionnaire was given twice in the preliminary field testing and main field testing to see the improvement of product development.

Data Analysis

According to data collection techniques, the data were analyzed as follow:

The qualitative data which were collected from semi-structured interview and the comment part of the closed-ended questionnaire were analyzed qualitatively by using Miles, et. al's, (2014) qualitative data analysis; data condensation, data display, and drawing and verifying conclusions. The data were firstly transcribed then analyzed by using qualitative data analysis method. The quantitative data gained from the closed-ended questionnaire were analyzed quantitatively (Hatch & Farhady, 1982) using some statistical formulas and were calculated to see the validation score of the product. The data was arranged and tabulated based on each item. The results of these questionnaires were written statistically to see the improvement of product in its developing process (Borg & Gall, 1982). Furthermore, the data was counted by calculating the average score to compare the responses within two tests. The calculation of product validity was categorized using the validation criteria which shown in the table below.

Table 1. Validation Criteria

Percentage (%)	Validation Criteria
76 – 100	Valid
56 – 75	Valid Enough
40 – 55	Less Valid
0 – 39	Invalid

DISCUSSION

Data analysis of this research revealed that there were three things that should be highlighted in this research. First, student's learning needs; second, the product development process; third, content quality of the product.

Students' Learning Needs for Analytical Exposition Text

The data analysis of interview in Research and Information Collecting step showed that media took part on the success of teaching-learning process for both teacher and students. As confirmed by the following statement from the teacher.

> Media certainly takes part on teaching and learning process in class and the role actually quite big. (Teacher)

Additionally, teaching media that were commonly used by the teacher was

power point because it was easy to use. The choices of media commonly focused on bridging the gap between learning resources and activities. The choice of perception should be made for a set of functionalities and dysfunctionalities which were adequate to support the learning activities to perform (Vernooij, 2001). Thus, the choice of teaching aids should be mainly based on feasibility reasons. In the context of EFL teaching, the teaching learning process is overwhelmed with countless techniques and methods in EFL classroom (Syafrizal, Rohmawati. 2017). Hence, the choice of teaching media should be in line with the lesson which functionally optimizes the expected outcomes or even more. With Regard to the topic of the lesson, both teacher and students agreed that the topic of the lesson also influenced the choice of the media. In the interview the teacher confirmed by saying:

Yes, the media used depends on the topic of the lesson. (Teacher)

Specifically, in Analytical Exposition Text lesson, the teaching and learning process in class ran well but long due to its wide scope of context. The teacher confirmed that:

Something that relates to actual topics starts from newspaper, TV news and or radio news can be teaching and learning media in Analytical Exposition Text class. (Teacher)

From the teacher response, it can be inferred that authentic and actual topic taken from newspapers, news from TV and radio can be used as the teaching media in the class.

Furthermore, based on 2013 Curriculum of English subject grade XI, the Standard Competence of analytical exposition text is to analyze the social function, the generic structure, and language feature in some analytical exposition text spoken and written by giving and asking information regarding actual issues based on context. Hence, the text might vary due to its context to be taught. This was the main reason why the product seemed to fill the gap of the time spent on presenting this various examples of text.

Product Development Process

The preliminary product development was executed as planned, started with making an account, choosing the layout and filling out the website of the lesson that has been adjusted and standardized based on the 2013 Curriculum. Furthermore, the preliminary form of the product has been validated by material

expert and online media expert within 10 validation criterion. The product received good feedback but the experts concerned about the preview of the post in the product and left a note about it. The feedback given was used directly for product improvement.

In addition, after the product was tested twice to students in preliminary and main field testing step, both steps gave good responses to the product. In the preliminary field test, 10 students tested the product and five times more students for the main field test. From preliminary to main field testing step the responses turned out to be well achieved based on responses score improvement towards the product, from 73.2% to 83.04%. Hence, there was 9.84% increase in product response. Whilst for the product validation, the validity was in the category of valid enough as online media product and in the category of Valid as content material based on experts validation score (Borg & Gall, 1983). The product not only success in the development process but also well achieved with regards its validity.

The Content Quality

The content quality of the product was determined from the validity score given by the material expert. It is important to be done to measure the quality of the developed product (Borg & Gall, 1983). In addition, the validity score from the online media expert needed to determine the product's validity for an online media product (Borg & Gall, 1983). Each expert got 10 criteria to score by using five-point Likert Scale: 1 means very poor; 2 for poor, 3 as fair, 4 for good, or 5 means excellent. Each criterion has been written to represent the category of validity (Hatch & Farhady, 1982). For the content materials, the material experts make an assessment based on the direction of 2013 curriculum. Hence, the criteria also are written correspondingly to the content that is in line with the 2013 curriculum. The 10 criteria involved in the assessment are: (1) The content material of product (Based on the Core Competence and Basic Competence in terms of the determination indicator); (2) the materials arrangement in product; (3) the images and videos in product; (4) the text examples in product; (5) the language used in product; (6) the font used in product; (7) the course design of product; (8) the practice section in product; (9) the instruction given in practice section in product; (10) the test item composition in practice section in product.

On the other hand, for the online media expert, the assessment of the product was based on the universal criteria of how the website to be displayed.

Ten top principles of effective web design from Woods (2014) were used to narrow down the points. The 10 criteria involved in the assessment are: (1) the language used in the product; (2) the content arrangement in the product; (3) the images and videos in the product; (4) the instruction on each section of the product; (5) the front page (home) display of the product; (6) the course design of the product; (7) the font used in the product; (8) the color used in the product; (9) the access to the product; (10) the navigation of the product.

Furthermore, the experts' feedbacks on the comment column were used to help to improve the product. The result from both validity score concluded that the product was valid and suitable to use. The material expert gave 80% while online media expert gave score 66%. According to the validity category that has been set, the product was in the category of valid for content material and valid enough as an online media product. Moreover, students gave good responses for the final product; students gave 83.04% in total percentage from 50 students that were tested the product. By all mean, the product was suitable to be the media aid for teaching-learning process in Analytical Exposition Text lesson.

CONCLUSION AND SUGGESTION

This research found that: the availability of Information and Communication Technologies (ICT)-based learning media was students' learning needs for Analytical Exposition material in eleventh-grade of Senior High School One in Serang City. Second, the processes of product development went through the sixth steps of Borg and Gall's R&D cycle and they run well. Third, the content quality of the developed product for eleventh grade students of SMAN 1 Kota Serang was good and compatible with on 2013 curriculum. Therefore, it can be concluded that the developed product met the standard requirement of 2013 curriculum and can be an alternative ICT-based teaching learning media for teaching analytical exposition text for senior high school level.

The product can be accessed at www.exposenglish.wordpress.com

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