Jurnal Maritim Malahayati (JuMMa)
Vol 4, No 2, Juli 2023, 109-112

INTERACTIVE LEARNING MEDIA DESIGN MARITIME ENGLISH

Vega Andromeda Fonsula[1*]

[1]Program Studi Nautika, Politeknik Ilmu Pelayaran Semarang, Semarang, Indonesia
*Email: vega.meida@pip-semarang.ac.id

ABSTRACT

This research was conducted to design an English learning media with the aim of developing the cadets' cognitive abilities in pronunciation and memorization of maritime English. So that this interactive learning media fosters elaboration in learning because it is accompanied by graphic and audio elements. This study uses a Design and development research (DDR) approach. Richey & Klein 2014 a systematic study of the design, development, and assessment process with the aim of providing an empirical basis for the production of instructional and non-instructional goods and tools, as well as new or improved development models. Design includes analysis, design and coding with animation maker software. The design of interactive learning media includes storyboard designs, environment designs for maritime learning and menu designs. The design of the storyboard contains the storyline of the interactive learning media delivered using animated images and audio. In this interactive media, there are several options and level facilities. Meanwhile, the environmental design is the background of the illustration focusing on the case method of learning English in maritime. The menu design describes learning interactions with the Things Around Us, Part of Maritime, Environment, Quiz, and Back to the previous menu facilities. At a deeper level in the "Things around us" facility, there are interactive learning activities such as work safety, environmental maritime, maritime activity. The Quiz option facility is used to test the cadets' ability to learn interactive media outcomes. The design of this learning media and the sound effects available when answering it, can improve the pronunciation and understanding of English for the cadets.

Keywords: interactive learning media, maritime English, environment design, maritime vocabulary, case study

1. Introduction

The global market has implications for the creation of international competitiveness. Not only on market products, but also the competition for human resources. Therefore, the ability of each individual to be able to survive in this global arena is a real measure of success. One of the key roles that can be played in facing these challenges is the personal ability to communicate globally. Maritime English at the Polytechnic of Maritime Sciences Semarang (PIP Semarang) is a training subject that is oriented towards the field marine/nautical/shipping. More specifically, English for the maritime world is included in the English for Specific Purposes (ESP) category. In other words, the English used is a language that has certain characters and terminology which is only intended for certain (specific) purposes. So, in learning and using English, special situations and conditions are needed so that learning provides a learning experience that is at least close to or almost similar to the actual situation.

The cadets' ability to identify parts of the ship and the accompanying components, especially English, is an absolute must in this lesson. therefore, learning vocabulary is specifically studied. Marine Communication is a standard in communicating in maritime activities, especially if we work on ships which contain how to pronounce orders, requests for help, informing the distress conditions on board to rescue teams or other ships so that they are easy to understand in accordance with English rules and regulations. IMO standard as an International Maritime organization. This gives researchers ideas in designing maritime English learning that is easy to use and directly in accordance with the rules of ESP needs and its orientation in the marine/shipping/shipping sector at PIP Semarang.

Maritime English or English Maritime is English that is used as a means of communication in the international maritime world to secure navigation and maritime trade (Trenkner, 2000). English in the maritime field is related to various

things, such as vocabulary and special terms related to navigation, cargo handling, reading and understanding machine manuals). Therefore, it is important for seafarers to understand and master English to prevent accidents on board ships, accidents between ships, as well as maintain shipping lanes and maintain productivity and efficiency in the logistics business.

The learning approach is a theory or learning assumption that is the learning goal (Richards & Rodgers, 2014). The learning approach is a belief about how language should be taught. Several learning approaches in teaching foreign languages are the oral approach and the communicative approach. The teaching method is a plan of systematic teaching and learning activities designed and applied by the teacher to achieve the planned learning objectives (Natsir & Saragih, 2022). The learning method will determine the learning techniques, learning objectives, syllabus, and the material being taught.

In addition to learning methods, usingmedia in learning is a pedagogical introduction to complete the teaching and learning process (Beckman et al., 2014). Supporting the above statement (Bulfin et al., 2013, p. 343) through a literature review, its review reveals that to design a good learning media, it is necessary to master mature theories, ideas, concepts, and frameworks contained in a good syllabus. So it can be concluded that media design requires a clear concept in its implications and development. The goals of designing this interactive learning media include; 1) Knowing the achievement of the cognitive aspects and intellectual abilities of cadets in the use of English Interactive Learning Media "Safe Working Practices". 2) Get a picture of the perception of the use of English Interactive Learning Media "Safe Working Practices" in improving the intellectual abilities of cadets.

2. Research Methods

Vocabulary in Maritime learning media at PIP Semarang which is a product that is used as a solution to the problems in this study is designed using a model adapted from the Waterfall model proposed (Eason, 2016). The use of the Waterfall model as a design and development model for learning media in this study refers to the suggestion of using one of the models from the System Development Methods for novice researchers (Ellis & Levy, 2009, p. 112). The Waterfall model is a model that was coined by Winston Royce, this model is usually referred to as the classic life cycle. The Waterfall model is a series of continuous software development procedures, meaning that if a procedure has not been carried out, it cannot continue to the next procedure. The procedure of the Waterfall model according to Pressman begins with (1) communication, (2) planning, (3) modeling, (4) construction, and (5) deployment (Pressman, 2005, p. 39). Media experts also assess the stages of media development researchers use, namely the Waterfall development model according to Pressman.

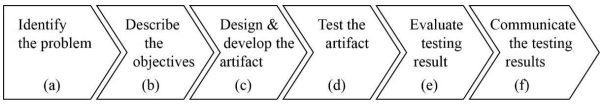

Figure 1. D&D model research procedures according to Ellis dan Levy (Ellis & Levy, 2009, p. 112)

Vocabulary in Maritime learning media at PIP Semarang which is a product that is used as a solution to the problems in this study is designed using a model adapted from the Waterfall model proposed (Eason, 2016). The use of the Waterfall model as a design and development model for learning media in this study refers to the suggestion of using one of the models from the System Development Methods for novice researchers (Ellis & Levy, 2009, p. 112). The Waterfall model is a model that was coined by Winston Royce, this model is usually referred to as the classic life cycle. The Waterfall model is a series of continuous software development procedures, meaning that if a procedure has not been carried out, it cannot continue to the next procedure. The procedure of the Waterfall model according to Pressman begins with (1) communication, (2) planning, (3) modeling, (4) construction, and (5) deployment (Pressman, 2005, p. 39).

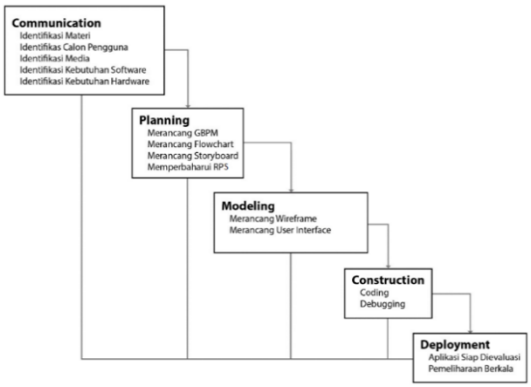

Figure 2. Application development procedures (Pressman, 2005, p. 39).

Jurnal Maritim Malahayati (JuMMa)
Vol 4, No 2, Juli 2023, 109-112

3. Results and Discussion

Applications that are easy to use and no problems when used make users feel comfortable using them. The software created and developed must be high quality, so software quality testing is needed. Software quality can be tested using the ISO 9126 model (Sutanti, 2016). In 2011, ISO 25010 was released, replacing ISO 9126, and became a well-known software standard (ISO, 2011). In this study using the ISO 25010 standard in software testing. ISO 25010 has eight standard criteria, namely: functional suitability, reliability, performance efficiency, usability, maintenance, security, compatibility, and portability (ISO, 2011). The following is an explanation based on each criterion:

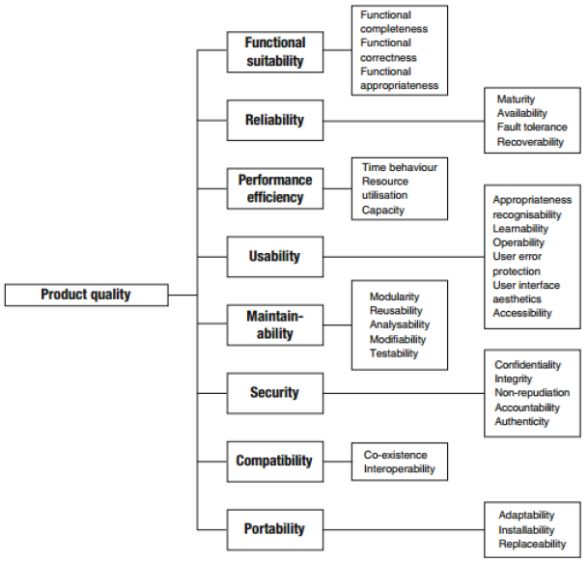

Figure 3. ISO 25010 Standard Criteria and conducted to waterfall with ddr approach

Design Results

Figure 4. opening splash

Figure 5. Start Menu

Figure 6. The picture that explains the meaning

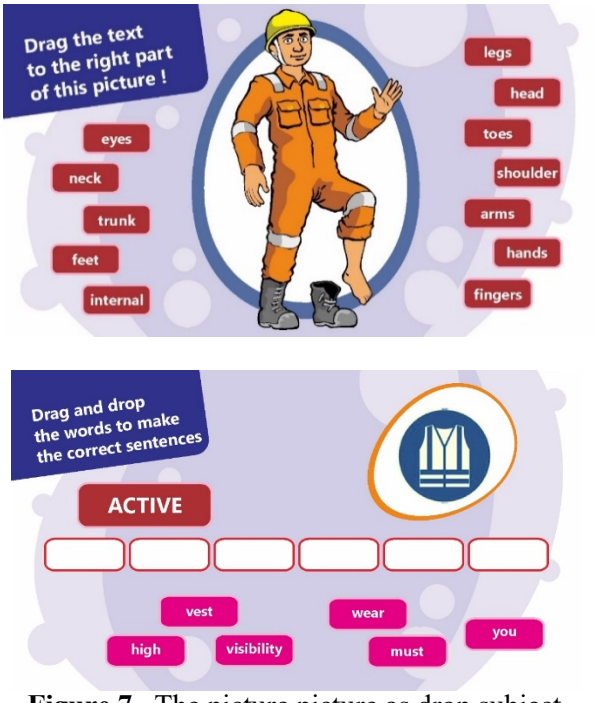

Figure 7. The picture picture as drop subject

4. Conclusion

The design with the storyboard needs to be designed by the syllabus and learning planning tools by taking into account the instructional objectives of this media design already referring to this so that the application of the Waterfall development model by reference to the theory according to Pressman.

Furthermore, the design results are developed in a package ready to be tested based on the functions and benefits of the media using a perception test which will be continued in the next development research.

References

Beckman, K., Bennett, S., & Lockyer, L. (2014). Understanding students' use and value of technology for learning. *Learning, Media and Technology*, *39*(3), 346–367.

Brydges, C. R. (2019). Effect Size Guidelines, Sample Size Calculations, and Statistical Power in Gerontology. *Innovation in Aging*, *3*(4), igz036. https://doi.org/10.1093/geroni/igz036

Bulfin, S., Henderson, M., & Johnson, N. (2013). Examining the use of theory within educational technology and media research. *Learning, Media and Technology*, *38*(3), 337–344.

Eason, O. K. (2016). *Information systems development methodologies transitions: An analysis of waterfall to agile methodology*.

Ellis, T. J., & Levy, Y. (2009). Towards a Guide for Novice Researchers on Research Methodology: Review and Proposed Methods. *Issues in Informing Science & Information Technology*, *6*.

Kodrle, S., & Savchenko, A. (2021). *Digital educational media in foreign language teaching and learning*. *273*, 12018.

Pressman, R. S. (2005). *Software engineering: A practitioner's approach*. Palgrave macmillan.

Richards, J. C., & Rodgers, T. S. (2014). *Approaches and methods in language teaching*. Cambridge university press.

Richey, R. C., & Klein, J. D. (2014). *Design and development research: Methods, strategies, and issues*. Routledge.

Susanty, L., Hartati, Z., Sholihin, R., Syahid, A., & Liriwati, F. Y. (2021). Why English teaching truth on digital trends as aneffort for effective learning and evaluation: Opportunities and challenges: Analysis of teaching English. *Linguistics and Culture Review*, *5*(S1), 303–316.

Natsir, M., & Saragih, B. (2022). Implementation of Content-Based Instruction Approach in Teaching English for Maritime at Vocational High School Pelayaran Buana Bahari. Randwick International of Education and Linguistics Science Journal, 3(3), 488–496.

Trenkner, P. (2000). Maritime English. *An Attempt at an Imperfect Definition. Dalian: Dalian Maritime University*.