Developing Media Module Proposed to Editor in Editorial Division

A Kristanto¹, Mustaji¹, A Mariona¹, Sulistioватi¹, and D W Nuryati¹

¹ Department of Educational Technology, Universitas Negeri Surabaya, Indonesia
Email: andikristanto@unesa.ac.id

Abstract. In this era of technology in Indonesia, various publishers introduce themselves and participate in advancing the quality of education through the publication of various books as the learning sources. One of the publishers is PT. JP Press. In compiling the learning sources, we found some problems that are left unresolved by the editor. The purpose of this research is to overcome the problems that exist in PT. JP Press by developing media module. This development research uses the ADDIE model. The types of data used in this study are qualitative and quantitative data obtained based on the results of structured interviews with material experts and media experts, as well as the editorial response questionnaire provided for individual try-out and small group try-out. Therefore, it can be concluded that the medium of elementary school supplementary module proposed to the editors of PT. JP Press is valuable to be used in the teaching and learning activities.

1. Introduction
Publishers are the people in the industry that concentrate on producing and reproducing a literature and information or an activity of making information publicly available. Publishers on its systems are distinguished as public (conventional) publishing and self-publish system or indie publishing system if the author is the publisher.

In the development of the technological era in Indonesia, various publishers introduced themselves and participated in advancing the quality of education through the publication of various books as a source of learning. One of the participating publishers is PT. JP Press. JP Publisher became one of the book publishers for elementary to senior high school. The books published by PT. JP Press are the result of the performance of the editors and the author with various educational background. The editor is the party that represents the publisher and is obligated to ensure that the printed text becomes a book. The editor at JP publishers also has task of compiling books according to their respective fields.

The editor at JP has the following tasks: First, the editor is assigned as a team that has to compile the book based on the script. Second, the editor must check the content of the text whether it is in line with the applicable educational curriculum. Third, the editor need to be able to finish writing the book based on the specified time. Fourth, the editor must compile the book to be in production stage based on the quality control.

Based on the results of interviews with the editor-in-chief of PT. JP Press, Mr. Fifkaindi, the researchers found some difficulties in book production activities, especially the production of elementary school supplementary materials. The editorial division has 15 editors in total. Among them, 11 people have the task of preparing primary school supplementary materials. Given that number, nearly
50% of the editors, six editors have difficulty in preparing primary school supplementary materials. The editor has some difficulties such as, determining the structure of the supplementary arrangement, determining the contribution of the item test, and writing the word structure. It makes the elementary school supplementary materials that have been drafted by the editors to be re-edited through the quality control and editing activities takes longer time.

The impact is that the elementary school supplementary materials production is delayed, so the distribution of primary school supplementary materials decreases. Primary school supplementary materials cannot be produced and distributed on time. The impact of production delay is that the editorial’s decision in decreasing the quantity of production that later on will cause losses to the company.

Based on the background description, the media needed to overcome the existing problems. Educational Technology is a study and practice to facilitate learning and improve performance through three domains of educational technology areas: creating, managing and using, technology-appropriate processes of resources. To solve learning problems, educational technology comes with one way to facilitate learning and improve performance through creating domains. In the related field, creating refers to research, theory, and practice in the making of learning materials, learning environments, and learning systems in different settings including formal and non-formal ones.

The appropriate media to overcome the above problems is the module. It is because the module is in the form of printed material designed for the learners is that the learners are able to study it independently. There are some advantages of using the module in the learning process. Because the module focuses on the individual capabilities of the editor, there is control over the learning outcomes of the editor through the use of competency standards in each module done by the editor. From that point, the editor is able to know the relationship between learning and learning outcomes obtained.

The module developed by the editor can be used for learning, according to the editor's needs. Based on the interview with the chief editor of PT. JP Press, it is known that there is no module that presents the basic school supplementary module. Therefore, the researchers considered it is needed for editor to develop elementary school supplementary module in the editorial division of PT. JP Press.

2. Context and Review of Literature

2.1. Media

A medium, conceived is any person, material or event, that establish condition which enable the learner to acquire knowledge, skill, and attitude [1]. Media is anything that can be used to channel the message (learning materials), so it can stimulate the attention, interest, thoughts, and feelings of students in learning activities to achieve learning objectives [2].

2.1.1. Media utilization. Generally, the media has a usage to clarify the message which is not conveyed verbally. In other words, it is knowing the message without knowing its meaning. It is also used to overcome the limitations of space, time, energy, and sense power; which cause passion of learning as well as direct interaction between editors with learning resources. Moreover, it allows self-study editors according to their visual, auditory, and kinaesthetic talents and abilities. Lastly, it provides the same stimulus, equate experience, and generate the same perception [3].

2.1.2. Media classification. The types of media are divided based on three main elements, namely: sound, visual, and, motion. Based on the three elements, the media is divided into several groups, namely: audio media, print media, silent visual media, visual media motion, semi-motion audio media, semi-motion media, silent audio-visual media, audio-visual media motion [4].

2.1.3. Media selection. The selection of media should pay attention to several principles, namely clarity of intention and selection of media, in which for the purposes of entertainment, general information, learning, and so forth are involved. In addition, the media relation, which involves knowledge of the
nature and characteristics of the media to be selected are also accounted. A number of media can be compared because of some options that are more appropriate to the learning objectives [5].

2.2. Media module
A module is a systematically organized resource with an easy-to-understand language by the editor according to the knowledge level and age of the editor. Thought that way, the editors can learn independently with the help or minimal guidance from the tutor [6]. A module is a complete measuring tool and a unity of a program that can measure goals [7]. The module is a unified overall item consisting of a series of learning activities and has actually resulted an effective learning outcomes in achieving clearly defined specific objectives [8].

2.2.1. Module superiority
A module has the upper hand and advantage when it is used in learning activity. The use of module is focusing on individual editor skill. There is also control on every result achieved by the editor using the competency standard on each module that should be attained by them. The curriculum relevancy is showed by the goals and the way to achieve it, so that the editor can know the relation between learning activity and the results that have been achieved [9].

2.2.2. Module outlining process
Module is a learning media that works the same way as a teacher in a direct learning activity. Thus, module-drafting needs to be standardized based on the learning principles, the way the teacher/tutor teaches, and what the editor learns. The principles of the module outlining are explained based on the learning principle. Learning is the process of behaviour changing which is caused by stimulus coming from the environment [10].

2.2.3. Media module eligibility
Media feasibility of the module carried out by conducting a feasibility test by media experts, material experts, and editors. Material experts and media experts examine media modules before the media is tested or tried out to the editor. Meanwhile, the editor feasibility tests are performed on individual try-out and small group try-out. Individual try-out is conducted to determine the response of the editor as a user before it is tried out to users in small groups [11].

3. Method
The development model used is the ADDIE developmental model. The ADDIE developmental model has several stages: Analysis, Design, Development, Implementation, Evaluation.

![Figure 1. Developmental Phase of ADDIE Model](image)

3
The stages of the development of the ADDIE model:

**Table 1. Developmental Stages of the ADDIE Model**

| Phase Development | Activity                                      |
|-------------------|-----------------------------------------------|
| Analyze           | Performance analysis and needs analysis.      |
| Design            | Design and manufacture of draft modules.      |
| Develop           | Turning design specifications into physical form that produces prototype products. |
| Implement         | Implementing the module and carrying out try-out in writing activities for editors. |
| Evaluate          | Carrying out assessment by using formative evaluation and summative evaluation. |

The subjects of this study were material experts, media experts, and writer editors used in the try-out consisting of 11 people. The data collection methods used in this research and development are structured interviews, questionnaires, and documentation. The data analysis technique used is module validation analysis and module feasibility test. The module is analyzed by using rating scale with four optional answers: "very appropriate", "appropriate", "less appropriate", and "inappropriate". The level of eligibility of the module is measured using the criteria of the validity of teaching materials. It can be seen in Table 2.

**Table 2. Criteria of material validity**

| No. | Percentage (%) | Criteria | Level of validity |
|-----|----------------|----------|-------------------|
| 1.  | 85.01% - 100.00% | Very valid | Very valid or usable but needs to be revised. |
| 2.  | 70.01% - 85.00% | Valid | Valid or usable but needs to be revised. |
| 3.  | 50.01% - 70.00% | Less valid | Less valid and recommended not to be used because of large revisions. |
| 4.  | 01.00% - 50.00% | Invalid | Invalid or cannot be used. |

(Adapted from [12])

4. Discussion
The developmental stages of the ADDIE model:

4.1. Analyze
Stage analysis is a process of defining what will be learned by the editor, that is to analyze needs and identify problems. Based on the result of interview with the editor-in-chief of PT. JP Press namely Mr. Fifkaindi, the researchers found some difficulties in the book production activities, especially the
production of elementary school supplementary materials or modules. The editorial division has totally 15 author editors. Among them, 11 people have the task of preparing primary school supplementary materials. Given that number, nearly 50% of the editors or around six editors have difficulty in preparing primary school supplementary materials. The editor has some difficulties such as determining the structure of the supplementary arrangement, determining the contribution of the item, and writing the word structure. It makes the elementary school supplementary materials that have been drafted by editors to be re-edited by quality control and editing activities takes longer time.

4.2. Design
This stage is done to design the design. The researchers compiled the material to determine the supplementary structure of the structure, determining the contribution of the item, and writing the word structure.

4.3. Development
Development is a process for making the designed design into reality. In this step, it is related to the compilation of the module material up to the printed modules that suit your needs. One important step in this development stage is the validation to the material experts and media experts before being implemented.

4.4. Implementation
Implementation is a tangible step to implement the created media. It means that, at this stage, the module is implemented according to the scenario or initial design. Once the product is ready, it can be piloted through small groups then evaluated and revised. Then, the test can be done in a large group then re-evaluated and revised.

4.5. Evaluation
The evaluation stage can occur in each of the four stages. Evaluation occurring in each of the above four stages is called formative evaluation because the evaluation objective aims at the need of revision. The type of evaluation assesses the overall effectiveness of the material or product.

This development produces a product in the form of media module that can help the authorized editor in PT. JP Press for preparing elementary school supplementary materials. After going through several stages of developmental and try-out usage, this media module is considered feasible to be used in learning activities. Here is a discussion based on the data obtained from the try-out and revision results obtained, including:

The data obtained through the material expert gets a percentage of 73.75% from the material expert 1. Based on the criteria of the validity of the teaching materials, the percentage is categorized valid because the media is feasible although it needs some parts to be revised. While the material expert 2 gets a percentage of 90%, based on the criteria of the validity of teaching materials, the percentage is in very valid category, so the media is worth using. The revisions made to refine the module medium include providing an overview of the supplementary elementary school composition and adding some sample questions based on the basic competency translation form.

The data obtained through media experts obtained a percentage of 88, 64% from media experts 1 and 86.53% for media experts 2. Based on the criteria of the validity of teaching materials, the two percentages fall into the very valid category, so the media is feasible to be used and ready to be utilized in the related field for learning activities. The media produced is feasible to apply but there are some things that need to be revised to improve it. The revision is about changing the colour of the cover and module layout in accordance with the identity of JP, adding Unesa logo, adding the author's name, biography, and module summaries, changing the location of the target audience, changing the shape of the cover image, creating the companion, and improving the systematics of module writing. Therefore, based on the results of the combined validity between media experts and material experts, it obtained a
percentage of 84, 69% which is included in the valid category. Therefore, the media produced is feasible to be used but some parts still need to be revised.

The data obtained from individual try-out have a combined percentage of eligibility of 80, 21%. Based on the criteria of the validity of instructional materials, the percentage is in valid category, so the media is feasible to be used but still needs to be revised. The data obtained from small groups try-out have a combined percentage of eligibility of 85, 61%. Based on the criteria of the validity of teaching materials, the percentage is in very valid category. Therefore, the media produced is feasible to be applied in the learning activities. The data obtained on a large group try-out have a combined percentage of eligibility of 88, 91%. Based on the criteria of the validity of teaching materials, the percentage is in very valid category. Therefore, the media produced is feasible to be applied in the learning activities.

Based on the data obtained above, the primary school supplementary module media for the editor of the author in the editorial division of PT. JP Press that has been developed can solve the problem exposed in chapter I, that is, developing elementary school supplementary media module for the editor in the editorial division of PT. JP Press which is important for the editors of PT. JP Press.

5. Conclusion
Based on the results of research and media discussion of basic school supplementary module for the authorized editor in the editorial division of PT. JP Press can be concluded that the elementary school supplementary module is developed by following steps of developmental research from ADDIE model which is done by using five steps of development of ADDIE model that includes 1) analysis, 2) design, 3) development, 4) implementation, and 5) evaluation. Therefore, the final product design in the form of elementary school supplement module for the editor of PT. JP Press, which is in accordance with the needs, is proven to be valuable to be used in the teaching and learning activities.

Acknowledgments
Thanks to Prof. Dr. Mustaji, M.Pd who gave the first review for this paper, Dr. Yuni Sri Rahayu who gave the chance to participate in scientific writing training.

References
[1] Gerlach V S and Ely D P 1980 Teaching and Medias: A Systematic Approach (New Jersey: Prentice-Hall, INC, Engliwood Cliffs)
[2] Kristanto A 2016 Media Pembelajaran (Surabaya: Bintang Surabaya) p 5
[3] Susilana R and Riyana C 2008 Learning Media (Bandung: Curriculum and Technology Education, FIP, UPI)
[4] Warsita B 2008 Learning Technology, Platform and Its Application (Jakarta: Rineka Cipta)
[5] Mahnun N 2012 Learning Media: A Study of Media Selection Measures and Its Implementation in Learning" Journal of Islamic Thought Vol 37 No 1 pp 27-33
[6] Prastowo A 2012 Creative Guide Creating Innovative Instructional Materials (Yogyakarta: Diva-Press)
[7] Sukiman 2012 Development of Learning Media (Yogyakarta: Pedagogia)
[8] Mbulu J 2001 Pengajaran Individual (Malang: Yayasan Elang Emas)
[9] Mulyasa E 2007 Competency Based Curriculum: Concepts, Characteristics, and Implementation (Bandung: PT. Remaja Rosakarya)
[10] Asyar H R 2012 Creative Developing Learning Media (Jakarta: Reference Jakarta)
[11] Ratnasari A 2016 Development of Interactive Learning Media Occupational Safety and Health (K3) in Electricity Study Program at Vocational High School E-Journal Yogyakarta State University Vol 6 No 1 pp 83-91
[12] Pambudiono A and Suarsini E 2016 Development of Research-Based Biotechnology Textbooks Bioremediation of Heavy Metal Cadmium For Undergraduate Students of Biology State University of Malang Journal of Education: Theory, Research and Development 1 pp 1077-1085
