International Journal of Science and Research (IJSR)
ISSN: 2319-7064
Index Copernicus Value (2016): 79.57 | Impact Factor (2017): 7.296

Develop Self-Directed Instructional Media for Wushu Training

Jarudin[1], Nurdin Ibrahim[2], Suyitno Muslim[3]

[1, 3]Education Technology, College Student, Universitas Negeri Jakarta, Indonesia

[2]Education Technology, Professor, Universitas Negeri Jakarta, Indonesia

Abstract: ***This study aims to develop self-directed Instructional media that are effective in improving martial arts wushuskill.In developing self-directed Instructional media using the ADDIE instructional model. Instructional media were tested with one to one evaluation and small group evaluation with instructors, athletes, and trainees. The results of interviews with instructors, athletes and trainees showed a positive response that in improving skills required independent learning. At the evaluation stage used 3 instruments to collect data in this study. Pre-test and post-test are designed to identify participants' initial skills, questionnaires with instructors, linguists, and media experts, to validate content from instructional materials, and posttest to see the effectiveness of media in improving learning. The results of a large group evaluation and field trials involving 30 trainees suggested that the module was very effective. as an independent learning for wushu martial sports training. The results of this study indicate that the development model of ADDIE is a model of instructional design based on an effective and efficient system approach and the process is interactive in the evaluation of each phase can bring the development of instructional to the next phase. The end result of a phaseis the starting product for the next phase.***

Keywords: Development, Self-directed, Instructional, Media, Model ADDIE

1. Introduction

The instructional process should be based on principles, centered on the trainees, developing the creativity of trainees, creating fun and challenging conditions, developing a variety of value-rated capabilities, providing a diverse learning experience, and learning through doing.

The development of self-directed instructional media is based on the perception that instructional will be good, effective, and fun if supported by instructional media that can attract the interest and attention of trainees. Therefore, developers need to understand the concepts, models, principles, design, and evaluation of instructional materials.

The results of BAVA (British Audio-Visual Aids) research revealed that instructional outcomes that do not use the media only absorbed 13% of the total material that has been given. By using the instructional media, the acquisition of the permeable materials can be increased up to 86% (Rusman, 2014).

The process of instructional with the media has a tremendous effect on improving test participants' outcomes and expanding their innovation skills. Experimental results show that the use of media technology canimprove the efficiency of teaching. Beginners have the opportunity toselectively receive various demonstration techniquesfrom wushusports training. The results show that the media not only produces a teaching effect but also improves the participants' self-directed learning ability (Zhengmei, 2017).

Web-based instructional media provides instructional materials for trainees to learn independently. Self-directed learning based on training materials can be improved with multimedia such as video and animation. Instructional media can be used to guide trainees in self-directed learning on training materials. The use of instructional media in training can guide participants in self-directed learning (Steve et al., 2015).

Instructional media is designed to provide realistic images and substitute experience to reach curriculum experiences. The media is considered the most efficient facilitators in the education set up. This media is not a substitute for the teacher. Its utilization, however, calls for an imaginative approach by the teacher who needs to constantly be on the alert for new ideas and techniques to make the lessons presented with different instructional media achieve effective outcomes (Talibi, 2014)

The use of visual media supports vocabulary acquisition and helps increase achievement scores. In particular, results lead one to conclude that an effective way to improve the learning of English vocabulary is to offer graphics to illustrate the definition. Students were likely motivated to success and achievement in vocabulary learning when a visual text was presented with graphics because text alone did not usually translate in a manner that is meaningful to the learners, while graphics allowed them to visualize the definition in a more meaningful way (Kim & Gilman, 2008).

Instructional design is an interactive process of planning performance objectives, selecting instructional strategies, choosing media and selecting or creating materials, and evaluations (Branch, 2009). ADDIE is an acronym for Analyze, Design, Develop, Implement, and Evaluate. ADDIE is a product to develop a concept. The ADDIE concept is being applied here for constructing performance-based learning. The educational philosophy for this application of ADDIE is that intention learning should be student-centered, innovative, authentic, and inspiration...(Branch, 2009).

2. Theoretical Approach: Instruction Media for Training Wushu

Wushu is the wellspring of all Asian martial practices, not just a simple attack and defense system but a way to grow the body, mind, and soul in a positive way that benefits all those who practice it (Burr, 2014). Wushu is a modern sport, where its focus is learning technical skills rather than cultural and spiritual ethics (Theeboom, Dong, and Vertonghen, 2012). Wushu is a martial art to protect itself from the dangers of animals and humans and is used for combat in war (Roy, 2007). Wushu is a performance-oriented Chinese martial art and has nothing to do with war games (Judkins, 2014). Wushu is a modern martial art that emphasizes performance, maintaining health, self-defense, discipline, leisure search and competition (Kumar and Mishra, 2015).

Information systematically arranged with specific methods in a field of science presented and packed in print or non-print media form as a source of information in learning or learning by learners and learners to achieve a goal of learning or learning (Sitepu, 2006). "... In using the term instructional materials, such as the instructional instructor, the student reading lists, the power point presentation, the case studies, the video, podcasts, the computer-based multimedia format, and the web pages for distance learning. .. "(Dick, Carey, and Carey, 2015).

Instructional materials or instructional materials include instructional components such as lesson modules or electronic media from technological engineering. Electronic media that can be used as instructional materials are the programs related to learning materials of a subject (Munir, 2012). Learners learn without the presence of teachers but do the learning process by following or utilizing the services of educators or education providers. The types of instructional materials can be either one or a combination of media programs, ie print materials, films, radio programs, slides, video programs, television, CDs, learning materials based on information and communication technology, and others (Suparman, 2015).

The independent instructional is a concept that exists in the 21st century as a learning framework and is essential for personal learning experiences (Mishra, Fahnoe, and Henriksen, 2013). Independent learning is a practice to study topics with little or no direction from formal education, learners decide and organize all aspects of learning as needed (Haworth, 2016). Self-directed learning is characterized by a proactive approach in which individuals are responsible for identifying the necessary learning resources and implementing strategies appropriate to their goals (Francis and Flanigan, 2012). Self-learning package provides a form of learners an opportunity to workindividually according to their special needs. The advantage of a self-learning package is attractive to the self-motivated learner who has already self-identified knowledge gaps with a planned approach of gaining the missing knowledge (Fathy, 2015).

Video media is anything that allows audio signals to be combined with sequential motion pictures. The video program can be utilized in the learning program because it can provide an unexpected experience to the trainees, but also the video program can be combined with animation and speed settings to demonstrate from time to time (Daryanto, 2015). Video media is aform of multimedia that conveys information through two simultaneous sensory channels ie aural and visual. Frequent use of several fashion presentations, such as verbal representation and illustration in case of screen printsand closed captions (Mayer, 2009). This diversity means that the video communicates the same information to the trainee through simultaneous learning modalitiesand can provide trainees with multiple entry points into the content. The wealthof this form offor information (images, motion, sound, and sometimes text) benefits the trainees, to learn both through oral and visual means, in view of real objects, realistic scenes, view sequences of moves, and view difficult perspectives or impossible to observe significantly.

The video media is visual media, and optimal use capitalizes on the strength of the visual material. This includes providing visual demonstrations or evidence, dramatizing events and concepts, and attracting emotions (Lin, 2003). Video media is an effective medium forteaching/learning at school (Isiaka, 2007). Video media is a viable tutorial tool for online courses (Devaney, 2009). Video media is as a screen display of content files with added audio narration (Cuban, 2001). The video media is a step-by-step detailed explanation of the material presented in a limited time available in the classroom, paused and repeated thereby can be learned by students at their own learning speed, in addition, a more focused learning experience than learning through textbooks (Dunn, 2000).Developments and Trends in Learning with Instructional Video examine how to design effective instructional videos. An important practical justification is that instructional video is becoming increasingly used in education and training, from formal online courses to informal videos on YouTube (Fiorella and Mayer, 2018)

3. Goalsand Methods of The Research

The availability of self-directed learning materials ie video media for training wushu martial arts:

1) Developing procedural self-directed instructional materials for wushu martial arts training for beginner and intermediate classes at Perguruan Rajawali Sakti Indonesia branch of MAG North Jakarta.
2) Produce physical self-directed instructional materials for wushu martial arts training for beginner and intermediate classes at Perguruan Rajawali Sakti Indonesia branch of MAG North Jakarta.
3) Produce independent instructional materials that are effective in improving the skill of Wushu martial arts for beginner and intermediate class at Perguruan Rajawali Sakti Indonesia branch of MAG North Jakarta.

Characteristics of instructional materials developed are self-directed instructional materials for wushu martial exercise training that can be utilized by instructors and trainees. Independent instructional is developed based on the principles of learning with the use of video media. This is in

accordance with the results of surveys that have been conducted on preliminary research are:

a) The instructional process of Wushu martial arts does not yet have the raw learning materials based on the instructional design that can be used in learning.
b) Independent instructional materials are needed as a guide in doing exercises to improve the skills of trainees.
c) Instructional materials are expected to increase the number of trainee class and athletes.
d) Instructional materials are expected to provide an instructional package of instructional design that meets the requirements of instructional development design.

The research method used in this research is research and development method or Research and Development (R & D) with a qualitative approach. A mixed methods research design is a procedural for collecting, analyzing, and mixing both quantitative and qualitative methods in a single study or a series of studies to understand a research problem (Creswall, 2012). Educational research and development is a and validates educational product (Gall, 2002).

4. A Review and Analysis of The Results

4.1 Analysis

In the analysis carried out preliminary research which is the initial stage to make observations on instructional activities in identifying problems and potential that exist in the field. Identification is done through observation and interviews of trainees and instructors who become the object of research. Observations were made to the training participants' activities and facilities available at the training venue. Based on the observations can be seen in table 1 below.

Table 1 : Records of observations of training facility activities and facilities

No.	Indicator	Observation	Descriptions
1	Condition	1. Building area and comfort in the training room	Limited but comfortably equipped with air conditioning
		2. Transportation access to the training site	Easy to access
		3. Safety and cleanliness of the training place	Guaranteed and maintained
		4. Capacity	Limited
		5. Equipment	Trainees must have
		6. Supporting facilities	Limited
2	Communicatio	1. Interaction between trainees	Communicative
		2. Interaction between trainees and instructors	Communicative
		3. Information	Clear
3	Activity	1. Instructional process in class	Done
		2. Training support equipment in the classroom	Available and Trainees must have
		3. Training process	Done
		4. Instructional media	Not yet available
4	Facilyties	1. Number of rooms	Limited
		2. Library	Not yet available
		3. Lobby	Limited
		4. Canteen	Available
		5. Training equipment	Available
		6. Internet connection	Not yet available
		7. Parking	Available

Based on the above table can be concluded that the problems seen from the survey results are instructional support facilities such as instructional media, learning resources, and internet connection is not yet available.

In the next stage of conducting interviews with trainees and instructors, as for the result, many trainees have difficulties in performing independent learning because of the lack of instructional media and learning resources as a guide in self-directed learning. The result of the interview with instructor result is in improving skill and ability of wushu training needed self-directed learning because if only training in training place, time is very limited so that the result will not maximal because in learning wushu routine training is needed that is by self-directedlearning so that trainee will be able to increased competence.

Based on the data above can be concluded that the instructional strategy used still using conventional methods not supported with the instructional media so that the instructional process has not been effective and efficient. For that, we need a renewal in the instructional strategy so that the learning process becomes effective, efficient, and interesting.

4.2Design

This stage is also known as the making of the design (blueprint). Like the building, then before the image is built, the design (blueprint) on paper must exist first. First formulate the instructional objectives of the SMAR (specific, measurable, applicable, and realistic). In setting our goals for the two general and special goals.

A special purpose to bridge the achievement of a common goal. In formulating this specific objective, use the ABCD format (Audience, Behavior, Condition, Degree). Subsequently develop a competency and test map, where the competency and test maps should be based on the instructional objectives that have been formulated. Then Determine appropriate instructional strategies to achieve these objectives in accordance with the expected output in a cognitive, affective, or psychomotor scope. In this case, there are many choices of combinations of methods and media that we can choose and determine the most relevant. All contained in a document called blueprint is clear and detailed.

4.3Development

Development is the process of realizing the blueprint design or had become a reality. That is, if the design required a product in the form of instructional media, then the media must be developed. Similarly, other learning environments that will support the instructional process should all be prepared in this stage. One important step in the development stage is the trial before it is implemented. This pilot phase is indeed part of one of the ADDIE steps, which is to conduct an evaluation. More precisely formative evaluation, because the results are used to improve the instructional system we are developing.

4.4 Implementation

Implementation is a real step to implement the learning system we are creating. That is, at this stage all that has beendeveloped installed or set in such a way in accordance with the role or function to be implemented. In the arrangement of the environment must be adapted to the learning environment in the training site. Only when the product is implemented according to the scenario or initial design.

4.5Evaluation

Evaluation is a process to see if the instructional media being built is successful, in accordance with the initial expectations or not. Actually, the evaluation stage can occur in each of the four stages above. Evaluation occurring in each of the above four phases is called formative evaluation, as it aims for revision needs. In this stage, the researchers involve experts, including material experts, media experts, and linguists. The instrument grille can be seen in the table below.

5. Research Results and Discussion

The results of this study produce innovative instructional media that can improve the competency results of trainees by using systematically and systemically designed instructional media for independent learning participants, the media used has been revised based on the expert team's assessment and tested through the One to One stage, Small group try-out and field trial. The results of these trials can be described as follows:

5.1 One to one Try-outs

One-to-one try-outs were conducted between instructional developers and 3 trainees individually. The selected trainees were the beginner and middle-class trainees who were of moderate ability, above moderate and under moderate. This trial aims to identify and reduce errors that are actually contained in the instructional media, besides that this evaluation is intended to get responses from trainees about the contents of instructional media, material and the feasibility of empirical instructional media. The developer gives each instructional media training participant along with a response sheet to provide information and responses freely about instructional media in wushu training. The provision of media and response sheets are carried out to each trainee separately in order to make a response in accordance with the opinions of each individual. In the One to one test concluded the results of the responses given to improve overall instructional activities.

At the end of the one to one trial, a test will be given to be able to measure the level of understanding of instructional media that is seen and practiced, while the results of the trial data on 3 trainees are presented in table 2.

Table 2: Results of One to one Test Assessment

No.	Responden	Score	Alphabet
1	Responden 01	78,06	B
2	Responden 02	79,95	B
3	Responden 03	82,45	A
	Average	80,15	A

The results of individual trials illustrate that the average value of 80.15 means that the quality of trials in this range is in the feasible category. Based on the average value it can be said that the instructional media developed can be used as instructional materials to achieve competence and understanding of wushu training material

At the end of this one to one trial, getting input notes and responses from trainees that felt happy to have a practical study guide that can be used at any time and can assist in independent instructional. Instructional media can help independent instructional in practicing all the skills that have been learned at the training site so that it is easier for trainees to improve their competence in wushu training. This opinion is supported by Lewis's research that instructional media can improve students' competence (Lewis, 2013). Also supported by the research of Steve et. al., that the use of instructional media in training can guide participants in independent learning (Steve, et. al., 2015) and is also supported by Zhengmei's opinion that the media not only produce learning effects but also enhance the participants' independent learning abilities (Zhengmei's. 2017)

5.2Small Group Try-outs

Small group evaluation aims to get the information used to improve the product in the next revision. The trial phase was conducted for 8 beginners and middle-class trainees. This small group is representative of the actual target population, and among them is not included in the training participants who have participated in the one to one trial. Expected input in addition to instructional materials, as well as the instructional process.

This stage begins with gathering trainees in the classroom and then informing the intent and purpose of conducting a small group trial. The information conveyed in the form of responses from trainees to the activities that took place included evaluating the quality of instructional media both regarding the material and the instructional process as well as the tests that will be carried out at the end of this trial.

The distribution of media and comment sheets to training participants was carried out after the purpose and purpose of the trial were informed. Then give training participants time to see and train the instructional media and fill out the comments sheet that has been shared.

At this stage, the respondent was given one day to study the instructional media. From the results of the evaluation of small groups, most training participants did not experience difficulties in understanding the material displayed in the instructional media. For instructional purposes, the trainees commented very clearly, because each style was equipped with narration. As for the exercises and the results of the

tests listed at the end of the material as well as the tests conducted at the end of the small group trial the trainees did not experience many difficulties.

The time given to study the material on the instructional media is very short so that there are two answers namely yes and no, so the trainees are very easy to answer all the questions asked in the response sheet. So the conclusion for the results of the small group trials did not experience much change in the instructional media both material and instructional. The following are the results of the tests conducted after the end of the small group trials which can be illustrated in the following table 3:

Table 3: The result of Assessment os Small Group Trials

No.	Responden	Score	Alphabet
1	Responden 01	77,02	B
2	Responden 02	79,03	B
3	Responden 03	82,12	A
4	Responden 04	79,3	B
5	Responden 05	81,05	A
6	Responden 06	80,2	A
7	Responden 07	79,87	B
8	Responden 08	81,7	A
	Average	80,04	A

From the data from the test results of the small group test with the acquisition of the value of the training participants on average 80.04% with good criteria, it illustrates that the instructional media is very feasible for major trials or field trials. It's just that as a constant consideration the developer coordinates with the wushu training instructor.

5.3Field Trials

From the input and suggestions from the previous trials, then further field trials were carried out. The field trial aims to see the effectiveness of instructional media in achieving the predetermined instructional goals. In addition, it is also to obtain information about instructional components, material components, and display components.

The trial was conducted with 19 trainees, adjusted for the number of trainees who entered the beginner and middle class, namely for the yellow belt and orange belt in the 2018 school year. The main trial process was carried out like a small group trialit's just that the population or number of trainees is more than the small group trials.

The training participants are given instructional media, and the opportunity to learn about this is done because to identify deficiencies or weaknesses in the instructional media both material, instructional objectives and instructional outcomes. In accordance with the main purpose of developing instructional media to improve the competence and skills of wushu training.

In addition, the criteria for field trials are conducting tests to see the results of wushu training instructional by conducting initial tests and final tests. Likewise with the response of the training participants who learned to use instructional media following the instructional instructors according to the instructional material that had been done starting from the initial step.

The comparison of the results of the initial and final test results of this field trial can be seen in the following table 4:

Table 4: Pre Test Results and Post Test Field Trials

No.	Responden	Pre Test	Alphabet	Post Test	Alphabet
1	Responden 01	80,12	A	91,3	A
2	Responden 02	74,2	B	82,3	A
3	Responden 03	60,45	C	78,2	B
4	Responden 04	59,46	D	71,12	B
5	Responden 05	66,73	C	79,2	B
6	Responden 06	63,65	C	76,68	B
7	Responden 07	72,78	B	80,15	A
8	Responden 08	78,3	B	85,67	A
9	Responden 09	68,4	C	77,35	B
10	Responden 10	67,4	C	77,5	B
11	Responden 11	69,23	C	79,99	B
12	Responden 12	78,54	B	81,25	A
13	Responden 13	77,67	B	80,97	A
14	Responden 14	70,35	B	79,99	B
15	Responden 15	73,78	B	81,13	A
16	Responden 16	67,5	C	78,99	B
17	Responden 17	68,79	C	79,8	B
18	Responden 18	78,5	B	81,22	A
19	Responden 19	75,89	B	80,1	A
	Average	**67,01**	**B**	**80,15**	**A**

Based on table 4 above, the presentation of the results of the field trial pre-test can be seen in Figure 1 below.

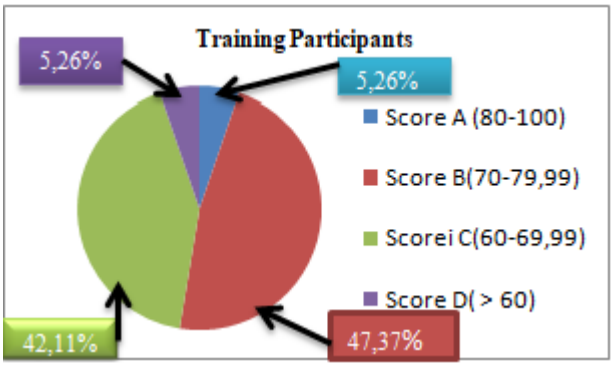

Figure 1: Pre Test Results Field Trials

Based on the picture above, the results of the field trials on 19 wushu training participants showed that the training participants scored 80-100 (A) as much as 5.26%, training participants who scored 70-79.99 (B) as much as 47.37%, training participants who gained 60-69.99 (C) were 42.11% while those of 50-59.99 (D) was 5.26%. It can be concluded that almost 50% of the training participants got the C value of this result indicating an incomplete understanding of the material.

Based on table 4 above, the presentation of the results of the post-test field trials can be seen in Figure 2 below.

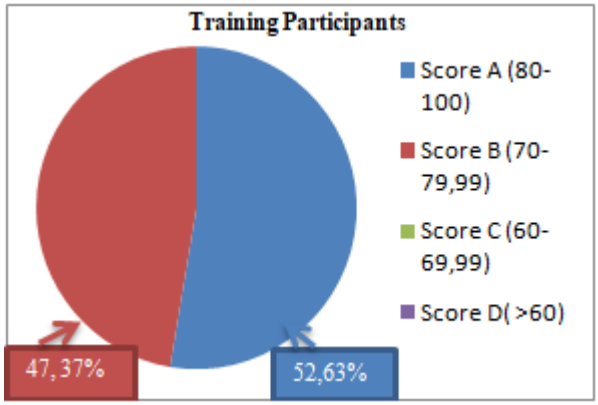

Figure 2: Post Test Results Field Trials

Based on table 4 above, the results of the field trial test for 19 training participants showed that the training participants who scored 80-100 (A) were 52.63%, the trainees who received 70 - 79.99 (B) were 47.37%, training participants who obtained 60-69.99 (C) as much as 0%, and training participants who gained> 59.99 as much as 0%, it can be concluded that all 100% training participants found that the A and B values showed a complete understanding of the material.

Based on the results of the pre-test and the test post on the field trials showed an increase in the results of the test post, so it can be concluded that learning with instructional media can improve the skills of trainees and the feasibility of instructional media to be used in Rajawali Sakti wushu training branch MAG Jakarta. Research is supported by researchers Bajrami and Ismaili by using the appropriate video material that teachers can improve and ensure student centeredness, have students interested and engaged in activities, active activities, motivated and confident in their communicative language competence (Bajrami and Ismaili,2016). Also supported by researchers Layona, Yulianto, and Tunardi to increase students understanding of the material (Layona, Yulianto, and Tunardi,2017), and supported by Chan (2010) video instructions for learning is positive(Chan, 2010). Generally, believe students that videos help them with their learning and are able to hold their attention. Results are shown that see a mixed perspective of enhanced students' ability to subsequently reproduce the procedure on a simulated mannequin (Fiorella and Mayer, 2018)

6. Conclusions

The results of this study can be concluded that the development of independent instructional media for wushu training shows an increase in the skills of wushu training participants using independent instructional media.

It is suggested to other researchers, to develop further, so that development does not only produce instructional media products but also provides another significant contribution to instructional.

Socialization is held to other instructors in using instructional methods using media as a support for the training instructional process so that they can develop appropriate and innovative instructional media to facilitate training participants.

7. Acknowledgments

I would like to express my gratitude to my team research. Also, I would like to thank the participants in my survey, who have willingly shared their precious time during the process of collecting data. Thank you, my wife, for their endless love.

References

[1] Rusman.*Instructional Models, Developing Teacher Creativity.*(Jakarta, PT Raja Grafindo Persada, 2014)
[2] Jin,Zhengmei. A Constructivism-based 3D Scene Display Teaching System for Wushu Teaching.iJET,**12**, (2017)
[3] Steve et. al.,Twelve tips for improving the effectiveness of web-based multimedia instruction for clinical learners. New York,University School of Medicine, USA,**37**, (2015)
[4] Talibi, in Journal Education.Utilization of Instructional Media For Quality Training In Pre-Primary School Teacher Training. Grase Ngurai et. al. Research Journal Education, **2**, (2014)
[5] Kim, Daesang dan David A. Gilman.Effects of Text, Audio, and Graphic Aids in Multimedia Instruction for Vocabulary Learning. Educational Technology & Society, **11**, 3, (2008)
[6] Branch, Robert M. *Instructional Design: The ADDIE Approach.* (New York,Springer, 2009)
[7] Branch, Robert M. *Instructional Design: The ADDIE Approach.* (New York,Springer, 2009)
[8] Burr,Martha.Official Publications On Of the International Wushu Federation. Publication of the International Wushu Federation, (2014)
[9] Theeboom, Marc. Zhu Dong.dan Jikkemien Vertonghen. "Traditional Asian martial arts and youth: Experiences of young Chinese wushu athletes. Archives of Budo Science of Martial Arts, **8**, (2012)
[10] Roy, Garry, Kuan and, Jolly.Goal Profiles, Mental Toughness and its Influence on Performance outcomes among Wushu athletes. Journal of Sports Science and Medicine,**6**, (2007)
[11] Judkins, Benjamin. Inventing Kung Fu. Journalism, Media, and Cultural Studies, (2014)
[12] Kumar, Dharmender *dan* Sakti Ranjan Mishra.Introduction to Chines Martial Art Wushu. International Education & Research Journal, **1**, (2015)
[13] Sitepu, B.P. *Preparation of Textbooks, Indonesian Textbooks, Study Materials, Needs Analysis, Curriculum Analysis, Development Procedures for Learning Materials, Self-directed Learning Materials, Books Elektronik*. (Jakarta, Verbun Publishing, 2006)
[14] Dick, Walter. Lou Carey and James O. Carey. *The Systematic Design Of Instruction, Eight Edition*. (NewJersey, Parrson, 2015)
[15] Munir. *Multimedia,Concepts and Applications in Education.*(Bandung, Alfabeta, 2012)
[16] Suparman,M. Atwi.*Design Instructional Modern4th edition*. (Jakarta,Penerbit Erlangga, 2014)

[17] Mishra, Punya. Chris Fahnoe.dan Danah Henriksen.Creativity, Self-Directed Learning and the Architecture of Technology Rich Environments Journal TechTrends, **57**, (2013)
[18] Haworth, Ryan.*Personal Learning Environments: A Solution for Self-DirectedLearners*. (Association for Educational Communications & Technology, Springer, 2016)
[19] Francis, Alisha dan Abraham Flanigan.Self-Directed Learning and Higher Education Practices: Implications for Student Performance and Engagement, The International Journal of the Scholarship of Teaching and Learning,**7**,(2012)
[20] Fathy, Naglaa, Mahmoud.The Effect of Self-Learning Package Versus Lecture Method on Students' Intended Learning Outcomes. World Journal of Nursing Sciences,**1**, (2015)
[21] Daryanto.*Instructional Media Its Role is very important in Achieving Instructiona Objectives*. (Yogyakarta, Gava Media, 2016)
[22] E. Mayer, R. *Multimedia learning, Second Edition*.(Cambridge University Press, 2009)
[23] H. Lin, C. *Literacy instruction through communicative and visual arts.*(ERIC Digest, No 186. Bloomington, 2003)
[24] B. Isiaka.The effectiveness of Video an Instructional Medium in Teaching RuralChildren Agricultural and Environment Sciences.International Journal of EducationandDevelopment, **3**, (2007)
[25] A.Devaney, T.Impact of Video Tutorial in an Online Educational Statistics Course.Journal of Learning and Teaching,**5**, (2009)
[26] L.Cuban.*Computers in the Classroom*.(Cambridge, M.A. HarvardUniversity Press, 2001)
[27] R.Dunn.*Capitalizing on College Students' Learning Style: Theory, Practice, and Research*.(Westport CT Praeger, 2000)
[28] Fiorella, Logan and Richard E. Mayer, What Works and Doesn't Work with Instructional Video, 015 Computers in Human Behavior, **89**, (2018)
[29] Creswell, John W., *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research*. (Boston, Pearson Education, Inc, 2012)
[30] Borg, Walter R and Meredith Damien Gall, Educational Research an Introduction. (New York, Longman Inc, 1983)
[31] Lewis, Fred.Introduction to Self-Directed Learning. *William Carey* International Development Journal**, 2**, (2013)
[32] Steve et. al.,Twelve tips for improving the effectiveness of web-based multimedia instruction for clinical learners. New York,University School of Medicine, USA,**37**, (2015)
[33] Jin,Zhengmei. A Constructivism-based 3D Scene Display Teaching System for Wushu Teaching.iJET,**12**, (2017)
[34] Bajrami, Lumturie, and Merita Ismaili, The Role of Video Materials in EFL Classrooms, Procedia Social and Behavioral Sciences **232**, (2016)
[35] Layona, Rita, Budi Yulianto, dan Yovita Tunardi, Authoring tool for interactive video content for learning,Procedia Computer Science,**116**, (2017)
[36] Yuen May Chan, Video instructions as support for beyond classroom learning, Procedia Social and Behavioral,**9**, (2010)
[37] Fiorella, Logan and Richard E. Mayer, What Works and Doesn't Work with Instructional Video, Computer-Human Behavior, **89**, (2018)