



MORAL VALUE OF LOCAL WISDOM-BASED LEARNING AT UNIVERSITY OF MUHAMMADIYAH SURABAYA: INDONESIAN CASE

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Article History: Received on 20th February 2019, Revised on 24th April 2019, Published on 15th May 2019

Abstract

Purpose of Study: The development of learning model that can be used by teacher candidates and teacher's implementation thinking of national figures in learning. The goal of early-childhood as the next generation of the nation can recognize, understand and emulate the thoughts of moral values of nationality. Local wisdom is increasingly urgent to be inserted during the learning process so that early-childhood has social and environmental character. This is in line with the depletion of natural resources and the complexity of community empowerment efforts. Local wisdom is a critical element for the success of community resource development and natural resource management. As a value, local wisdom is the values or behavior of local people living in interacting within the environment in which they live wisely. Research based upon the development on the instructional design model implemented for this study is based on the instructional design developed by Dick, Carey and Carey, The Systematic Design of Instruction. Research subjects were PG PAUD students, early-childhood students.

Methodology: Research and Development (R & D) is appropriately used for innovation since it is planned, systematic and measurable for the purpose of creating novelty or innovation in all fields. The innovation can be a product innovation, model, procedure, design, work, and strategy. In this research, the concept of R & D is used as a way of creating a model of learning in order to develop a future-oriented, effective, ready-to-use and future-developed early childhood moral.

Results: The result of lecturer's ability analysis in managing the local wisdom-based learning shows the criteria of Excellent, student activity and the completeness of local wisdom-based learning is effective, and get a positive and effective responses.

Implications/Applications: The development of early childhood moral learning based on local wisdom was developed with the instructional design model implemented in this research based on the instructional design of The Systematic Design of Instruction of Dick, Carey and Carey through 10 (ten) stages. Need assessment showed that development of early childhood moral learning tools was needed and should be based on local wisdom.

Keywords: *Early-Childhood, Moral Values, Local Wisdom*

INTRODUCTION

Muhammadiyah can not be separated from its personal founder, KH Ahmad Dahlan who was born in 1285 H / 1869 in Kauman Yogyakarta. Up to now a thousands of charitable businesses owned by Muhammadiyah. One of them is Muhammadiyah University which is an institution that grows the values of Al-Quran and As-Sunnah in learning process. As the result, education organized by Muhammadiyah has been coloring national education in Indonesia.

Besides Muhammadiyah, national education is also characterized by Ki Hadjar Dewantara who argues that education should be based on the life history of its nation (cultural-national) and is intended for the necessity of life (maatschappelijk) which can raise the degree of its country and people equally and cooperate with other countries for the glory of all humanity throughout the world.

For early childhood, Ki Hadjar Dewantara uses the term "Taman or Park" as the concept of education, which means the playground: shaded, calm, and fun. The children are happy in the garden and happily spending time in the park. But the fact that there are still many teachers who are not really competent to teach and educate; have not been able to create "park" so that students can learn with pleasure in the process of fun.

National figures born in Surabaya, KH. Mas Mansur (June 25, 1896 - April 25, 1946) has a clever idea about the relationship of religious piety to the love of country and humanity, but today it is still strange among the Muhammadiyah

activists. According to Abdul MunirMulkhan, religious piety is demonstrated by the high knowledge of sharia with a master degree from Al-AzharUniversity. While the love of the homeland can be seen from his participation in various institutions and national embryo of NKRI. This figure is crown as a national hero. His humanity is seen from the prologue of the birth of PKU Muhammadiyah Surabaya hospital encouraged by the spirit of liberating the oppressed from the pain.By implementing the thought of national figures, the education can be said to be grounded in national thought or based on local wisdom. As Keraf (2006) asserts that local wisdom is a form of knowledge, belief, understanding or insight and custom or ethics that guide human behavior in life of the ecological community.

Therefore it is necessary to develop a learning model that can be used by teacher candidates and teachers in the implementation the thought of national figures in learning process. The aim is to recognize, understand and emulate the early childhood as the next generation toward the thoughts of moral values of the nation. Local wisdom is increasingly urgent to be inserted in the learning process in order to inrease their social-care and environmental characters.This is in line with the depletion of natural resources and the complexity of community empowerment efforts. Because local wisdom is a critical element in the success of community resource development and natural resource management. As a value, local wisdom is the values or behavior of local people living in interacting with the environment in which they live wisely.

RESEARCH METHOD

Research and Development (R & D) is appropriately used for innovation since it is planned, systematic and measurable for the purpose of creating novelty or innovation in all fields. The innovation can be a product innovation, model, procedure, design, work, and strategy [Baroughi, E., & ZAREI, M. H. 2013].In this research, the concept of R & D is used as a way of creating a model of learning in order to develop a future-oriented, effective, ready-to-use and future-developed early childhood moral.

DISCUSSION

[Amri, 2013] states that the learning model is a design that describes the process of details and the creation of environmental situations that allow students to interact so that changes or developments occur in students. [Joyce, Weil and 2009; Suparman, 2014] , “Models ofteaching are one way to organize intelligence-oriented education, giving our children themeans to educate themselves. The key to the effectiveness of models of teaching is toteach students to become more powerful learners”. The best learning model is a model developed on the basis of learning, communication and other appropriate theories and proven to produce effective and efficient instructional system in facilitating the process andlearning outcomes or improving learners' performance [Suparman, 2014]. The learning model that is implemented in this research based on the instructional design developed by Dick, Carey and Carey, The Systematic Design of Instruction.[Gunadi and Andi, 2015; Hakim, Writer, MembumikanPemikiran Dan KaryaPeradaban. 2017]

In the design of learning, identificationof problem and classroom are used in research process and planning to figure out an alternative solution. The problem-solving planning relates to subjects relevant to classroom and schedules, student characteristics and classroom atmosphere, learning methods or approaches, media, visual aids, and evaluation of learning processes and outcomes. Research Instrument used areobservation sheet of appropriateness or feasibility of lesson plan with its implementation, students activity, lecturer activity and students response, and the prototype of textbook developed.

In the development phase, identification of instructional goals (T1) is to determine learning achievement in obtaining graduate profile with needs assessment. Based on validator assessment of survey sheets can be used with little improvement. The resultfound is a list of students' problems: theories of universal and national moral development on the importance of early childhood such as; the character of early childhood; theory and moral concept based on local wisdom of Surabaya city; learning objectives; learning materials development; learning methods; creating learning media in the development of moral of early childhood.

The phase of Conducting a Goals Analysis (T2) is presented by a chart or diagram in the form of matrix as a reflection of learning material achievement. In the stage of Analyze Learners and Contexts (T3) Need assessment shows that 100 percent of students claim that they need theory and concept of moral value. The concepts and theories of moral values are needed by students in determining the actions for themselves, both as students and as prospective teachers and behavior that will be demonstrated as role models for early childhood.

The stage of Write Performance Objectives (T4), the learning approach used based on learning theory [Delors, 1996] in order to enter the 21st century, the education that can be expected to support the 2030 gold generation should be on the basis of Four Pillars of Education: learning to know, learning to do, learning to be, and learning to live together. The instructional material developed on the basis of argument that [G. W. 1964.] states that the value is the belief that makes a person act on the basis of his choice. [Kupperman, 1983] is a normative standard that affects humans in determining their choices among alternative means of actions. Kluckhohn defines that it is as a conception (implied or written which distinguishes the individual or group characteristics) from what is desired which influences the choice of ways, middle ways, and final ways of treatment. [Mulyana, 2004] To face the problems of life, human beings need values to guide them in making decisions or giving meaning to their life. [Rakhmat, 2011; Mulkhan, 2017; Murdiono. [Online]. 2015]. Thus the students are able to choose the relevant values that can be used as a guideline of their behaviors and also the values that are appropriate to be taught in early childhood.

Students as good and responsible citizens according to Warsono in [Martati, 2010] have responsibility to God Almighty, themselves, family and environment. Environmental responsibility can be defined as an obligation to maintain and preserve the environment, a care for the preservation of nature by maintaining the functions of nature itself. What is meant by the environment here is the natural environment and social environment and can be interpreted as a local wisdom.

Research conducted by Murdiono showed a lack of knowledge or techniques in storytelling, media used, inconsistencies made by teachers in schools with those done by parents at home and the neighborhood in which they live. The results of Ahmad Gunadi's research showed that: firstly, the educational method of reading daily prayers and short letters of the Qur'an was very effective indicated that students had already owned good morals and Islamic behavior; the second, the process of learning by teachers was directly involved the students who wanted to play or chat with schoolmates during the learning process. Research [Martati, 2014] on the development of disaster alertness characters more on the effort to teach students to have empathy and awareness of the disaster that may occur due to the absence of local wisdom.

Moralis a set of principles or ideals that help individuals to distinguish right and wrong, and act on those differences, and feel proud if they can behave well and arise guilt if they behave in violation of applicable standards [Shaffer, 1999]. Moral requires a certain capacity to behave similarly in various conditions and as a consequence that implies the ability to develop habits and needs on regularity [Muyambiri, and Chabaefe, 2018]. [Peaget, 1977] The morality contains the system of rules, and the essence of morality is where each individual must seek respects according to the rules of habit. Moral refers to the fairness of human as human. Moralis the benchmark for determining right-wrong human attitudes and actions, used as the benchmark that society uses to measure one's goodness [Suseno, 1987]. Wilson et al. expresses the moral concept of giving meaning to 'benefit', 'understanding', 'knowing what is done' [Gil, Eduardo González. 2018].

School has some principles in teaching moral values such as: (1) universal values that are mutually agreed upon and valued in a pluralistic society; (2) help students to understand, live, and act on those values. [Lickona, 2013.]. [Lickona, 2013.] in [Jihad, Rawi and 2010] there are three components of good character that need to be emphasized: moral knowing, moral feeling and moral action. Bambang Daroeso in [Syahri, 2013; Dick, Carey and Carey, 2009] morals can be understood in three ways: (1) the behavior of human life based on consciousness that he is bound by the necessity to achieve a goodness according to the values and norms prevailing in his environment; (2) a set of ideas about the behavior of life with a certain basic color held by a group of people in a particular environment; (3) the doctrine of good behavior based on a particular view of life or religion. [Yasin, 2014; Nikiforova&Ignatiev, 2016; Ghazanfarpour et al., 2013]

The meaning of local wisdom in this research is to put a broad view of K.H. Mas Mansur, related to social, political, and national issues in teaching materials because his thoughts were the values or behavior of local people living in interacting with the environment in which they live wisely. The thought of Mas Mansur was still poorly understood by activists, especially in the city of Surabaya, East Java Province. He grew up and moved in religious intellectual contact with the scholars of the Syafi'i school since in Surabaya, Madura to Haramain and later Egypt, prompting Mas Mansur to become an a priest and an intellectually mature and calculated Muslim figure.

As a man who has a strong Islamic faith, Mansur views nationalism within the framework of Islam. Tauhid or Aqidah is the philosophical foundation for nationalism and this is what distinguishes secular nationalism and chauvinistic nationalism and is certainly diametrically different from the view that rejects nationalism because it is believed to have no theological relevance. Mansur's view remains relevant that Islam is a resourceful tenet that will enrich the growth or development of nationalism and also in the management of the state or government.

Against the thoughts of Mas Mansur, Sudarnoto Abdul Hakim believes that a nationalist is someone who has a true religion, love of the nation, strong personality and noble, committed and able to solve problems faced by society, willing to sacrifice, not selfish to build the public concern, mercy, justice and peace and exemplary and simplicity.

So it can be concluded that the local wisdom-based learning is an activity conducted by educators and learners in an effort to meet the needs of knowledge, skills, beliefs, understanding or insight and customs or ethics that guide the behavior of local people living in interacting with the environment where he lived wisely in a learning environment by utilizing the ecological community as a source of learning.

The Dick & Carey procedure [18] at step 5 and 9 is integrated, both processes can not be separated, that is Develop Criterion-Referenced Test Item (T5), Develop Instructional Strategy (T6), Develop and Select Instructional Materials (T7), Design and Conduct Formative Evaluation (T8), Design and Conduct Summative Evaluation (T9) the result has been validated and tried out. Validation-1: Survey instrument got 3.05 (Very Good) and can be used for research with little improvement. Validation-2: The lesson plan got 3.22 (Very Good) and can be used for research by making improvements; Validation-3: Teaching material got 3.33 (Very Good) and can be used for research with little improvement. Validation-3: Teaching material value 3.33 (Very Good) and can be used for research with little improvement.

Reflection of implementation-1, at 15.30 class ended, then at 16.00 the researcher and the observer team re-entered into the same classroom for the post-learning discussion. This post-learning discussion is known as the reflection stage. Reflection stage begins by inviting the research lecturer to do self-reflection in the form of feelings before, during and after teaching, the achievement of the learning scenario that has been designed special conditions occurring in some students during learning, etc. Furthermore, after the self-reflection of the model lecturer is done then the observer convey comments based on the observation of learning. The following reflection results are given: (1) Revision of Lesson Plan (RPP), MFI, and THB; (2) Adjustment of learning time allocation; (3) The classroom is used less widely, although it reduces unused seats, because when students work in groups, the spaces between groups are closely related to each other and the lecturers' access to walk to each group is limited; (4) Students' stuff should be placed in front of the class, students are expected to only use writing equipment, books or learning resources brought, and (5) Lecturer paid less attention to students who did not focus during the lesson.

The ability of lecturer in managing the classroom is calculated by finding the average score of the observers, then from the average result obtained by the lecturer's ability criteria in the classroom management. Lecturer proficiency criteria was obtained from the sturges formula to obtain many classes as well as range of assessment. From the third observer showed that the level of lecturer proficiency was Very Good. From the results of the analysis it could be seen that the ability of lecturer in classroom management was effective.

In the instrument observation sheet student activity obtained student activity during the learning process. Observations done in each meeting within 2×50 minutes with intervals every 2 (two) minutes one time recording and the results were averaged. Observation data can be seen in detail in the attachment, while the data processing of observations can be seen in Table 1:

Table 1: Result of Student Activity in Implementation-1

No	Activities	O1	O2	O3	Average	Ideal time range with a 5-minute tolerance (%)	Keterangan
1	Reading the problem / main discussion	9.00	8.00	8.00	8.33	$5 \leq x \leq 15$	Effective
2	Actively involved in group discussion and lesson	27.00	28.00	27.00	27.33	$25 \leq x \leq 35$	Effective
3	Taking note	8.00	8.00	9.00	8.33	$5 \leq x \leq 15$	Effective
4	Focus on lecturer's explanation	30.00	24.00	26.00	26.67	$25 \leq x \leq 35$	Effective
5	Conducting an observation, experiment,	24.00	30.00	23.00	25.67	$20 \leq x \leq 30$	Effective

No	Activities	O1	O2	O3	Average	Ideal time range with a 5-minute tolerance (%)	Keterangan
	work						
6	Asking questions to lecturer or schoolmates	15.00	16.00	15.00	15.33	$15 \leq x \leq 25$	Effective
7	Giving an opinion, presentation, listening to discussion	37.00	38.00	38.00	37.67	$35 \leq x \leq 45$	Effective
8	Acting Irrelevant behaviours	4	0	0	1.33	$0 \leq x \leq 5$	Effective

Based on table 1 and the ideal time range, the students' time during the lesson for each activity is described: a) The time students use in reading the subject matter is 8.33 to be in the range of $5 \leq x \leq 15$, so that the activity is effectively performed; b) The time students used in active activities (group discussion, lesson) is 27.33 in the range of $25 \leq x \leq 35$, so that activity is effectively done; c) The time students take to record is 8.33 in the range of $5 \leq x \leq 15$, so that the activity is effectively performed; d) Time used by students in paying attention to lecturer's explanation (introduction/closing, motivation, a warm up activity / apperception, learning objectives, subject matter, material samples) is 26.67 in the range of $25 \leq x \leq 35$, so the activity is effectively done; e) Time used by students in doing observation, experiment, work is 25.67 in the range of $20 \leq x \leq 30$, so the activity is effectively done; f) Time used by the student in asking the lecturer / schoolmates is 15.33 in the range of $15 \leq x \leq 25$, so that activity is effectively done; g) Time used by students in giving opinions, presentation in front of class, listening to discussion is 37.67 in the range of $35 \leq x \leq 45$, so that activity is effective; h) Time used by students in acting irrelevant behavior (speaking alone, joking, etc.) is 1.33 in the range of $0 \leq x \leq 5$, so the activity is not effectively done by students.

Research lecturers in the analysis of students' completeness, lecturer provided a Pre-test to determine the initial ability of students about learning development of local wisdom-based learning. In addition to the initial capability information, the pre-test value is also used to determine the differences before and after the learning process.

Graph of pre and post-test grades of PG-PAUD students on Implementation-1 is given in figure 1.

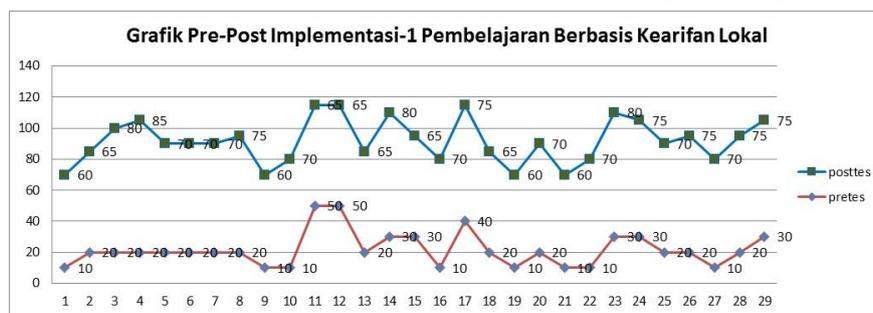


Figure 1. Pre-Post Implementation-1 Local Wisdom-Based Learning

Table 2: Recap on students Pre-test score in Implementation-1

KKMM	Score of Post-test 1		Average score
	Number of students	Percentage	
Minimum mastery score (KKMM ≥ 65)	0	00.00 %	21.72
Failed (KKMM < 65)	29	100.00 %	
Total	29	100.00%	

The recap of student pre-test results in Table 2 shows that almost all (100%) students did not meet the KKMM score of more than equal to 65 (KKMM ≥ 65). The average grade is also very low at 21.72, this is in line with the need assessment that has been done, indicating that the students have not understood about the development of moral values based on local wisdom.

Student completeness test followed by 29 students, 4 students did not attend because 1 student returned to the village, 1 student was absence because he has to deliver his mother to hospital and 2 other students were sick. Student mastery test data in the course of Moral Development of AUD Based Local Wisdom with the subject of Indonesian Moral Values, obtained as seen in table 3.

Table 3: Recap on Students Mastery of Learning Implementation-1

KKMM	Score of Post-Test 1		Average score
	Number of students	Percentage	
Mastery of Learning (KKMM \geq 65)	25	86.21 %	70.17
Failed (KKMM < 65)	4	23.79 %	
Total	29	100.00%	

In table 3, it can be seen that the minimum student completeness criteria determined by the lecturer as a researcher is more than equal to 65 (KKMM \geq 65). The determination of KKMM \geq 65 because the the local wisdom-based learning is new for the students and considering the students' ability to answer the description problem because many students in answer tend to "to the point" can not elaborate the answer with words. In the implementation-1 obtained the result of completeness percentage of learning equal to 86.21% with the average grade value of 70.12.

Based on the results of research in implementation-1, it can be concluded that KKMM has exceeded the target determined by the researcher that 80% of students reached KKMM \geq 65, although in research and development that the indicator was not necessarily determined, but the indicator for researcher as a reference in conducting research in view of progress or process of student mastery improvement in comprehending material presented by lecturer. Furthermore, based on evaluation and reflection from stage 1 to 9, then Revice Instruction (T10) was done. This research will continue to grow along with the development of information and technology and globalization.

CONCLUSION

The development of early childhood moral learning based on local wisdom was developed with the instructional design model implemented in this research based on the instructional design of The Systematic Design of Instruction of Dick, Carey and Carey through 10 (ten) stages. Need assessment showed that development of early childhood moral learning tools was needed and should be based on local wisdom.

The result of lecturer's ability analysis in managing the local wisdom-based learning obtained the average point of 3.63 which indicated the level of lecturer's ability criteria was Very Good.

The results of students' activities analysis in the local wisdom-based learning within the ideal time range, it means that students' activities in the local wisdom-based learning were effective.

The stage done was until the development excluded the dissemination. The dissemination stage needs to be done specifically at the level of Muhammadiyah University and other universities in general. The modification and revision can be done to in some aspects of research.

REFERENCES

- A. Gunadi and R. Andi, "Portal Garuda," [Online]. Available: <http://download.portalgaruda.org/article.php?article>. [Accessed 27 April 2015].
- A. Jihad, M. M. Rawi and N. Komarudin, Pendidikan Karakter Teori dan Implementasi, Jakarta: Direktorat Jenderal Manajemen Pendidikan Dasar dan Menengah, 2010.
- A. M. Mulkhan, "Jalan Sunyi Kiai Mas Mansur: Dalam Perkembangan Muhammadiyah," Seminar Centre For KH, Mas Mansur Studies (MMS). Universitas Muhammadiyah Surabaya, 21 Maret, Surabaya, 2017.
- A. M. Suparman, Desain Instruksional Modern: Panduan Para Pengajaran Inovator Pendidikan, Edisi keempat, Jakarta: Erlangga, 2014.
- B. Joyce, M. Weil and E. Calhoun, Models of Teaching (Model-model Pengajaran Edisi Kedelapan), Yogyakarta: Pustaka Belajar, 2009.
- B. Martati, "Penerapan Hak Asasi Manusia Melalui Model Pembelajaran Siaga Bencana," in Prosiding FKIP Universitas Terbuka. ISBN- 978-979-011-923-9, Seminar Nasional Temu Ilmiah Guru Nasional (TING) VI, 29 November 2014, Tangerang Selatan, 2014.

- B. Martati, *Metodologi Pembelajaran Pendidikan Kewarganegaraan: Strategi Penanaman Nilai*, Jilid I, Bandung: Genesindo, 2010.
- Baroughi, E., & Zarei, M. H. (2013). The Ranking of Effective Factors on Efficiency of Commercial Ads In Attracting Viewers In Tehran, Iran. *UCT Journal of Management and Accounting Studies*.
- D. R. Shaffer, *Developmental Psychology : Childhood And Adolescence* , Fifth Edition, Pacific Grove, USA: Brook/Cole Publishing Company, 1999.
- F. M. Suseno, *Etika Dasar: Masalah-Masalah Pokok Filsafat Moral*, Yogyakarta: Kanisius, 1987.
- G. W. Allport, *Pattern and Growth in Personality*, New York: Holt, Rinehard & Winston, 1964.
- Ghazanfarpour, H., Pourkhosravani, M., & Mousavi, S. E. (2013). Geomorphic systems affecting the Kerman, *UCT Journal of Social Sciences and Humanities Research*, 1(1): 6-11.
- Gil, Eduardo González. "Modelo institucional de gestión universitaria: Universidad Santo Tomás de Colombia." *Opción* 34.86 (2018): 259-285.
- J. Delors, "Learning: The Treasure Within," UNESCO Publishing The Australian National Commission for UNESCO, 1996.
- J. Kupperman, *The Foundation of Morality*, London: George Allen & Unwin, 1983.
- J. Piaget, *The Moral Judgement of The Child*, London: Cox & Wyman Ltd, 1977.
- J. Rakhmat, *Psikologi Komunikasi*, Bandung: PT Remaja Rosdakarya, 2011.
- M. Murdiono. [Online]. Available: <http://staff.uny.ac.id/sites/default/files/132304487/B1-JURNAL%20KEPENDIDIKAN-LEMLIT%20UNY.pdf>. [Accessed 27 April 2015].
- M. Syahri, *Pembangunan Berkelanjutan Berbasis Green Moral*, Bandung: Widya Aksara Press, 2013.
- M. Yasin, *Indonesia Menanti Harapan 2030: Generasi Emas dan Semoga Bukan Generasi Cemas dalam Bunga Rampai "Tantangan Pendidikan Indonesia dalam Membangun Generasi Emas"*, Jakarta: Program Pascasarjana Universitas Negeri Jakarta, 2014.
- Muyambiri, B., and Chabafe, N. N. (2018). The Finance – Growth Nexus in Botswana: A Multivariate Causal Linkage. *Dutch Journal of Finance and Management*, 2(2), 03. <https://doi.org/10.20897/djfm/2634>
- Nikiforova, E. P., & Ignatiev, V. P. (2016). Issues of Professional Training for Russian Language Teachers in the Conditions of a Multicultural Environment. *International Electronic Journal of Mathematics Education*, 11(10), 3425-3433.
- R. Mulyana, *Mengartikulasikan Pendidikan Nilai*, Bandung: Alfabeta, 2004.
- S. A. Hakim, *Writer, Membumikan Pemikiran Dan Karya Peradaban KH. Mas Mansur*. [Performance]. Seminar Centre For KH. Mas Mansur Studies (MMS). Universitas Muhammadiyah Surabaya, 21 Maret, 2017.
- S. Amri, *Pengembangan & Model Pembelajaran dalam Kurikulum 2013*, Jakarta: PT. Prestasi Pustakarya, 2013.
- T. Lickona, *Pendidikan Karakter: Panduan Lengkap Mendidik Siswa Menjadi Pintar dan Baik*, Bandung: Nusa Media, 2013.
- W. Dick, L. Carey and J. O. Carey, *The Dick and Carey Systems Approach Model for Designing Instruction*, 7th ed, New Jersey: Pearson, 2009.