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Designing Contextual, Civic Education Based Teaching and Learning Resources for Seventh Grade Secondary School Students

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This study focused on developing contextual teaching and learning resources, especially in civic education. This study was aimed to design the civic education textbook for seventh grade secondary school students and examine the effectiveness of the design to enhance students' learning outcomes. The results of the implementation of contextual-based teaching textbook in two diverse classrooms, 7A and 7B, showed that there was high improvement in students' learning outcomes. In class 7A, students' marks changed slightly, from 74.67 in the pre-test to 78.00 in the post-test. While in class 7B, students had better learning outcomes, increasing from 76.00 in the pre-test to 79.17 in the post-test. Overall, students who used contextual based teaching textbook showed better learning outcomes than students who did not apply the textbook in their classroom. The learning mark of the former was 25% better than the average students' learning mark, which was under 13%.

Keywords: *contextual teaching and learning resources, contextual teaching and learning, textbook, civic education.*

INTRODUCTION

One learning approach that can encourage students' activity and is associated with real daily situations is a Contextual Teaching and Learning (CTL) approach. Contextual learning portrays a learning approach that connects learning activities with students' real world or daily activities. It describes how students can construct or build knowledge through real learning experiences, find meaningful learning concepts themselves and work collaboratively through a series of applicable learning processes. Contextual teaching and learning enables students to connect the content of the immediate context of their daily lives to discover meaning (Jayadiputra, 2018). It enlarges their personal context further by providing students with fresh experiences that stimulate the brain to make new connections. Consequently, they discover new meaning. This view supports the fact that students can use real benefits from their daily learning routines within their actual environment. Contextual learning activities focus on students' real-life context and the relationship between the context and the learning activities. Context can be defined in several ways. Very often, context is described as stories, topics, practices, problems and situations ('Contextual Teaching and Learning,' 2016; Firman, 2018; Hartatik, 2019; Nurlaily, Soegiyanto, & Usodo, 2018; Trisnawati, Sudargo, & Prasetyowati, 2019). According to one definition, contexts are described as situations that help students give meaning to concepts, rules and laws.

In the contextual learning approach, students do not develop their learning attainment mainly through memorising the knowledge or theory. Instead, they focus on learning from the real-life problem solving within their learning context (Atmawijaya, 2018). The lessons learned by students regarding the competencies needed for professional interdisciplinarity go hand-in-hand literature. This is with equal regards to challenges, obstacles and opportunities that enable development. In this sense, the project allowed the learning to be situated within a real-world context with authentic and complex situations (Hasanah, Suratno, & Iqbal, 2019; Ilyas & Liu, 2019; Madjid, Emzir, & Akhadiah, 2017). This means that students can relate all the theoretical lessons to their daily activities. When teachers design a contextual-based teaching textbook properly, by connecting the teaching materials to students' daily activities, students will learn the textbook better. They will feel that all the teaching materials are a part of their life experiences. In such a learning approach, students are encouraged to learn the teaching materials by undertaking some activities involving specific topics (Junianto & Wutsqa, 2019; Marini, 2016; Wahyuningtyas, 2017). Furthermore, Sanjaya (2014) affirmed that 'in the context of CTL, learning is not merely listening and taking notes of teachers' lectures, but learning is a process of getting involved in real-life experiences'. By using this approach, students can improve their learning capabilities successfully. Similarly, through these contextual learning practices, as expressed by Hasruddin (2015), 'students are trained to be critical thinkers in all courses when contextual learning is applied'. This is in line with another expert's statement: 'The ability to think critically is described as an active process that involves the role, played by the metacognitive thinking about thinking itself. Students become more creative in thinking' (Fisher, 2009; Hasruddin, 2015). Furthermore, Hasrudin,

et al. (2015) highlighted that 'through contextual application, students are allowed to communicate and share ideas while experiencing and working together to solve problems'. This explains that learning is not simply useful for receiving knowledge from teachers. It is a stage consisting of some learning steps, which help the gaining of new knowledge from the textbook and practical activities.

In delivering civic education, teachers can employ various teaching strategies. They can apply diverse learning models and use appropriate teaching media and assessment in their teaching practices. Teachers should pay attention to use available learning resources around the school. 'The CTL approach will certainly encourage teachers to use new teaching strategies in helping students achieve new skills and connect these skills to teachers' new teaching approaches' (Joyce et al. 2011: 454). Therefore, teachers should not implement traditional textbooks. They should support students' learning by providing real contextual learning activities and assist students to explore a deeper understanding of civic education. In this way, students achieve better comprehension of contextual based civic education textbooks and apply this in their daily activities. In the teaching and learning process, teachers need to avoid teacher centred teaching strategies that will lead students to be passive learners in the classroom. Through the implementation of contextual based teaching textbooks, students get a better understanding of the subject contents and become critical and active learners. This is supported by Joyce, et al. (2011: 7): 'Successful teachers involve students in the designed tasks that are full of cognitive and social contents and are taught how to do these tasks productively'. Therefore, teachers need to design more practical teaching strategies that promote students' active engagement in learning, so that they acquire more meaning and information from their learning successfully. This means that successful teachers implement the new teaching strategy, based on Degeng's (1998) approach . Degeng expressed that 'students experience a complex learning paradigm, in which teachers prepare some learning schemes and implications for students'. For example, teachers propose some teaching strategies that encourage their students to get new meaning and information. Learning is about enhancing knowledge through concrete experience, collaborative activity, reflection, interpretation and the implications of learning/evaluation: '...link new information to personal experience or knowledge that has been possessed by students...' (Degeng, 1998).
To improve students' learning outcomes, although teachers find some shortcomings in their teaching, they should continuously improve their teaching strategies using contextual based teaching resources. According to Damanik and Pakpahan (2014: 50), 'theoretically and practically, using contextual based teaching materials will also improve the quality of education in general'. This means that teachers should take serious action to implement theoretical and practical resources in their teaching. Teachers can use both technological and practical teaching materials in their classroom to promote their students' learning motivation.
Ideally, teachers should encourage their students' active engagement in learning by designing an appropriate teaching textbook. 'Learning is an effort to train a learner and a learning process is a way to connect the learner's new knowledge to the learner's cognitive skills'

(Degeng, 2013: 4). This indicates that there is a strong relationship between teachers and students' actions and reactions. When teachers apply systematic teaching strategies to enhance students' learning, students will attain better learning achievements. Furthermore, students need to have strong psychological support from their teachers. When teachers do not prepare a contextual textbook, students are likely to have less active engagement in learning. In a similar way, students' active engagement in learning is the key to success in enhancing students' learning achievements. This is as expressed by Hornby in Jauhar (2016: 156), which refers to being 'in the habit of doing things, energetic'. Encouraging students to experience active learning will create students' positive learning habits. Using this learning approach, theoretically, students will be active learners. However, as they have different learning styles, students may gain different learning outcomes.

Teachers are expected to change their teaching design slowly to gain better teaching performance in their classroom. At this point, teachers need to strengthen their skills in designing a meaningful teaching textbook and plan, specifically in civic education. 'In successful teaching and learning practices, teachers should improve their understanding that a better teaching plan will develop a better teaching process' (Degeng, 2013). By designing appropriate teaching strategies, teachers will help students reach educational goals. In this way, students can understand the civic education concept independently. In addition, they gain more knowledge, since civic education does not only focus on theoretical lessons, but it also embeds practical life education into students' learning activities. This appears to be a significant rationale in developing a contextual based teaching textbook in civic education.
Contextual based teaching materials will facilitate students to practice civic education concepts in their everyday life. This means that teachers' innovations in designing teaching resources, such as contextual civic education textbooks, play a significant role in advancing students' learning achievements and improving educational quality in general. Teachers should leave their comfort zone and try their best to design creative teaching resources independently. As stated by Prastowo, 'it is necessary for teachers to create interesting and meaningful teaching resources and relate them to their students' learning context and culture as a part of teaching innovation and best efforts' (Prastowo, 2011).

The preparation of designing contextual-based teaching materials is an important part of the innovative teaching strategies that solve students' learning problems. This is necessary since students typically learn new knowledge within their environmental setting and use their experience to comprehend learning objects. Students have a chance to construct a concept from their experience and environment independently. By building new knowledge independently, students have an opportunity to expand, strengthen and apply their academic abilities in a variety of life settings by connecting their learning resources with their daily activities. Connecting learning resources to students' daily activities is an activity that promotes students' positive thinking, valuable learning actions and valuable experiences. Therefore, students will gain positive feeling when they practice many beneficial learning

practices, since they have previously experienced the practices in their daily life activities. The aims of this study are: 1) to design the civic education textbook for seventh grade secondary school students and 2) to examine the effectiveness of the design for enhancing students' learning outcomes

METHOD

This study was designed to produce more effective civic education textbooks for students. In this study, the elaboration model was applied to develop a contextual based learning resource. According to Degeng (1997, p.13), there are eight steps of learning design using a more contextual and elaborated learning model. These steps are: (1) analysis of the objectives and characteristics of the lesson goals; (2) analysis of the learning resources' constraints; (3) analysis of the learners' characteristics; (4) determining the learning objectives and contents; (5) determining the strategies for organising learning contents; (6) determining strategies for delivering learning contents; (7) designing strategies for learning management; and (8) developing some procedures for assessing the learning outcomes. The Degeng learning design will be outlined in the following diagram.

To attain efficient teaching and learning textbook development, six steps were implemented in the development process:

1) Determining the subjects for the development;
2) Designing the subject syllabus and lesson plan;
3) Preparing the development by following the procedures of the elaboration model;
4) Designing the textbook results by improving the specific prototype of the textbook
5) To gain effective learning outcomes, the textbook was collaboratively designed and evaluated formatively by some experts. This involved (1) the expert of textbook design, media expert and the textbook content expert, (2) individual experiment, (3) group experiment and (4) the experts' field studies; and

In this stage, product testing was intended to determine the effectiveness and efficiency of products through some experiments before the products were truly developed. Sugiyono (2008) stated that 'experiments could be accomplished by comparing the conditions before and after the new system was implemented or tested over a long time and by using experiment and control groups'.

The steps of designing the textbook are shown in the following parts:

a. The content expert provided an opinion and assessment of the instructional textbooks developed. After getting the evaluation outcomes, the experts could revise the content for better teaching instruction results.

b. Media experts provided opinions and assessment of the media that would be used in the draft of the teaching resources. They evaluated it and made improvements to the media.

c. Design experts provided opinions and assessment of the draft of the teaching resources' design. It could then be used as an evaluation and suggestion for developing the resources.

d. In an individual trial, some students were asked to read, search for and give a sign if there were some errors in the teaching resources draft, such as typing errors and difficult terms, so that they could have a good teaching resources design.

e. Trials in small groups were conducted to re-examine whether there were still possible errors in the individual trial. This was also done to measure the effectiveness of the teaching design.

f. In a field study, teachers and students got involved in evaluating the developed teaching materials and evaluating the effectiveness and value of the resources.

6) Evaluating the effectiveness of the textbook results.

This was to evaluate the effectiveness, efficiency and value of the textbook results. To evaluate this textbook, the researcher used statistical analysis methodology with a percentage formula. It compared the initial students' marks (pre-test) to the final students' marks (post-test). Some experiments of four student groups were conducted in this study. The groups were divided into two study groups with two different treatments, namely experiment and control classes, as illustrated in Table 1.

RESULTS

Based on the research on the contextual based teaching textbook, the content experts, media/design experts and other learning experts concluded that the developed textbook was practicable for teaching civic education in the classroom, as presented in Table 2.

The describes the summary of the results of the developed textbook validation and assessment from material/content experts, media/design experts, language experts and learning experts. They stated that in general, the developed contextual based teaching textbook was suitable to be implemented in the teaching and learning process in the classroom.

The level of attractiveness of the developed textbook in the study can be explained as follows:

After getting many experts' validation, contextual-based teaching materials were implemented for students in classes 7A and 7B as experimental classes. The control classes (7C and 7D) continued to use non-contextual teaching materials. From the implementation, the test results are as follows.

DISCUSSION

Many experts in teaching and learning, as mentioned in the previous section, concluded that the contextual-based teaching textbook in civic education was applicable and feasible to

develop student's learning achievements. However, some revisions were needed to improve the textbook. These include the accuracy of the images, graphics, illustrations, quotations, symbolic use, icon use and referral accuracy. As presented in the data findings, in general, the presentation of the teaching textbook was deemed appropriate to be a reading material and reference for students. Additionally, the experts said that in terms of the textbook's presentation, the content of the textbook, the teaching presentation and other presentation aspects, the textbook was quite complete. All aspects were good except the list of words and references, which still needed more revision. In addition, it was suggested that key answers and feedback be added within the textbook assignments to train students' understanding of the textbook contents. The experts also confirmed that all aspects in the textbook were well-designed and applicable for enhancing students' learning in the classroom. However, in the teaching and learning process, it was very important to provide more collaborative learning activities for students. The experts found some negative learning situations and suggested to enhance students' active participation involving individual and teamwork. This concerns tasks that are minds-on, hands-on, high effort and require hard work in the process of teaching and learning in the classroom. From the questionnaire findings, it was summarised that there were some positive outcomes from the developed textbook. These include good language presentation and good two-way presentation. In addition, the contents were matched with the level of students' development, the coherent contents was well-ordered and guided flowing thinking. However, it was necessary to improve the use of terms, symbols and icons that lacked consistency for better teaching and learning outcomes.

Based on the description in the table, it can be summarised that students from classes 7A and 7B who used the developed teaching textbook had better learning outcomes than students in class 7C and 7D. In addition, using the developed textbook, many students could pass the test successfully. In this test, students in class 7A achieved better learning outcomes. 25 students could pass the test completely (83.33% of students were successful in test). This result significantly improved on the 19 students that could pass the test in the beginning of the teaching phase (when only 63.33% of students completed the test successfully). In class 7B, students increased their learning outcomes greatly. 28 or 33.33% of students could pass the final test. There was a significant increase from the pre-test result in the beginning of teaching phase, when only 20 students or 66.67% of students could pass the test successfully. This showed that the effectiveness of the contextual based teaching textbook in supporting civic education teaching and learning was very high.

It was evident that the implementation of the contextual-based teaching textbook in classes 7A and 7B was successful. The textbook's contents was well-designed to encourage students' active learning involvement and collaboration. According to Gerlach (1994) and Setyosari (2009), 'Collaboration is a philosophy of interaction and personal lifestyle where individuals are responsible for their actions, including learning and respecting the abilities and contributions of their peers'. Through the activities in the textbook, teachers could identify

students' collaborative behaviours and categorise the behaviours in the appropriate order. Learners then demonstrated these behaviours (Setyosari, 2009). Collaborative activities will provide opportunities for students to share and discuss their learning problems intensely. Furthermore, Setyosari (2000) explained that students who are actively involved in an interactive and collaborative atmosphere participate in learning activities with mutual respect, responsibility and willingness to sacrifice. Moreover, the textbook was useful in promoting students' critical and creative thinking. This also encouraged students to participate and contribute more in meaningful learning activities, which immediately increased their cognitive skills and strategies. Degeng (2013: 84) stated that cognitive strategies played an important role in strengthening students' performance. Strategies assisted students to develop new knowledge construction by connecting students' new knowledge to their previous background knowledge. Bloom in Degeng (2013: 202) highlighted that cognitive skills are skills that influence students' skill development and intellectual capabilities.

The study findings showed that students in two classes, 7A and 7B, achieved higher learning outcomes than two other study groups, class 7C and 7D. Student groups who used the developed textbook gained better test results that were 27% higher than the other two student groups who did not employ the developed textbook in their learning process. It is evident that the modified textbook has potential to improve student learning outcomes. Furthermore, students' different learning achievements were influenced by the different textbooks in the experiment and control groups. Students with the treatment tended to build their own understanding of the lesson by linking the current lesson to their prior background knowledge and their personal experience. This learning development followed the constructivist learning approach. In this approach, deep experience was developed through meaningful learning experiences. Students obtained the opportunity to actively build their own knowledge, especially through (a) exploring phenomena or ideas, 9b) discussing hypotheses with friends, (c) predicting and giving reasons for their predictions and (d) revising previous opinions/thoughts (Sani, 2013). And according to Rusman (2014), learning would be more meaningful if lesson design was directly or indirectly correlated to students' daily experiences. This was also mentioned by Trianto (2013) in a process of inquiry where the knowledge and skills acquired by students were not a consequence of remembering the facts. Instead, they were a consequence of exploring and finding the knowledge independently.

Furthermore, another finding was also explored. Some experts and students stated that the developed textbook was more interesting than the traditional textbook without modification. The experts commented on the interesting things of the developed textbook. This textbook was categorised as a better teaching resource as it incorporated better contextual based subject materials, teaching delivery, language and teaching practices. In another respect, students were impressed with the developed textbook. They said that they could comprehend the textbook more easily. On the other hand, the experts confirmed and asserted that the textbook had good content, delivery and language. The scale result was 3, which is

categorised as a good result. In particular, the subject delivery score was 3.07, the language presentation score was 3.2 and the score of contextual based textbook implementation was 3.14.

CONCLUSION

Based on the data analysis in the discussion section, it could be concluded that the contextual based civic education teaching textbook for seventh grade students was practicable to be implemented for seventh grade students. It was effective in improving the seventh-grade students' learning outcomes in civic education.

Based on the study results, the writer suggests that teachers develop contextual civic education teaching textbooks because they are proven to be able to improve learning outcomes. Besides that, teachers should strive to develop a textbook with suitable and appropriate characteristics for students. Thus, they can activate students and their involvement in the teaching and learning process. This study recommends what it may become a reference for teachers who want to develop a contextual textbook even if it is not for civic education.

Figure 1

The elaboration model for designing the teaching and learning textbook

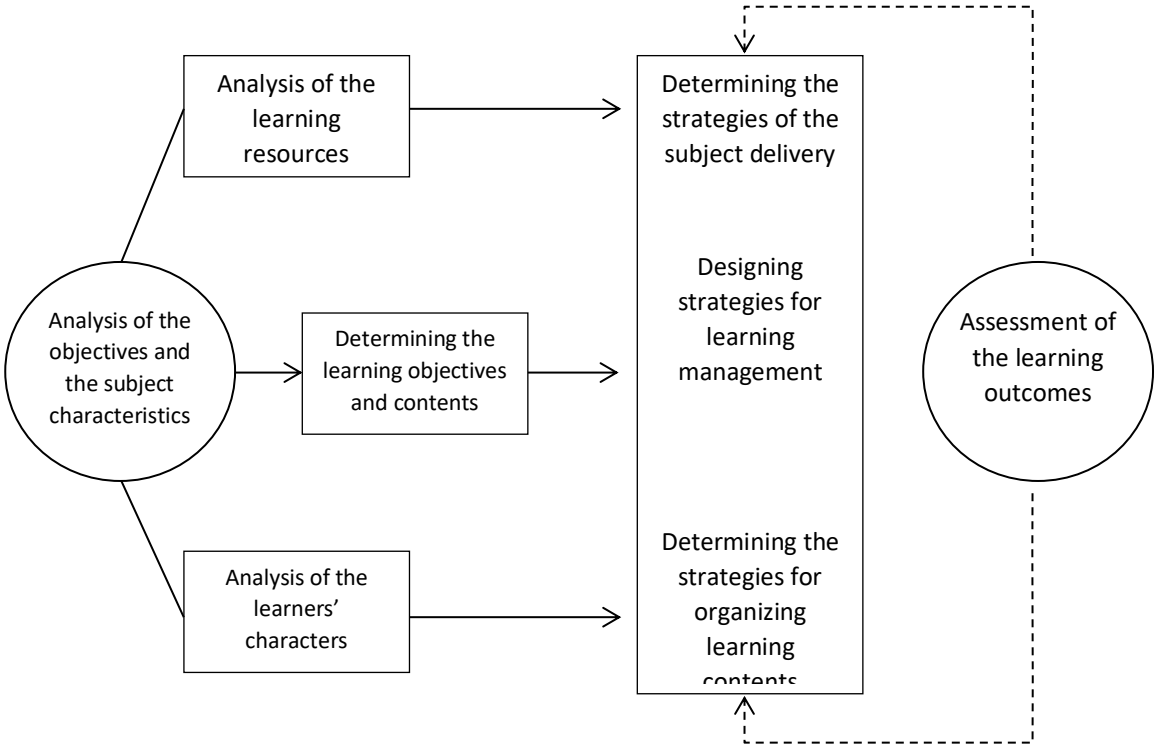

Figure 2

Research framework

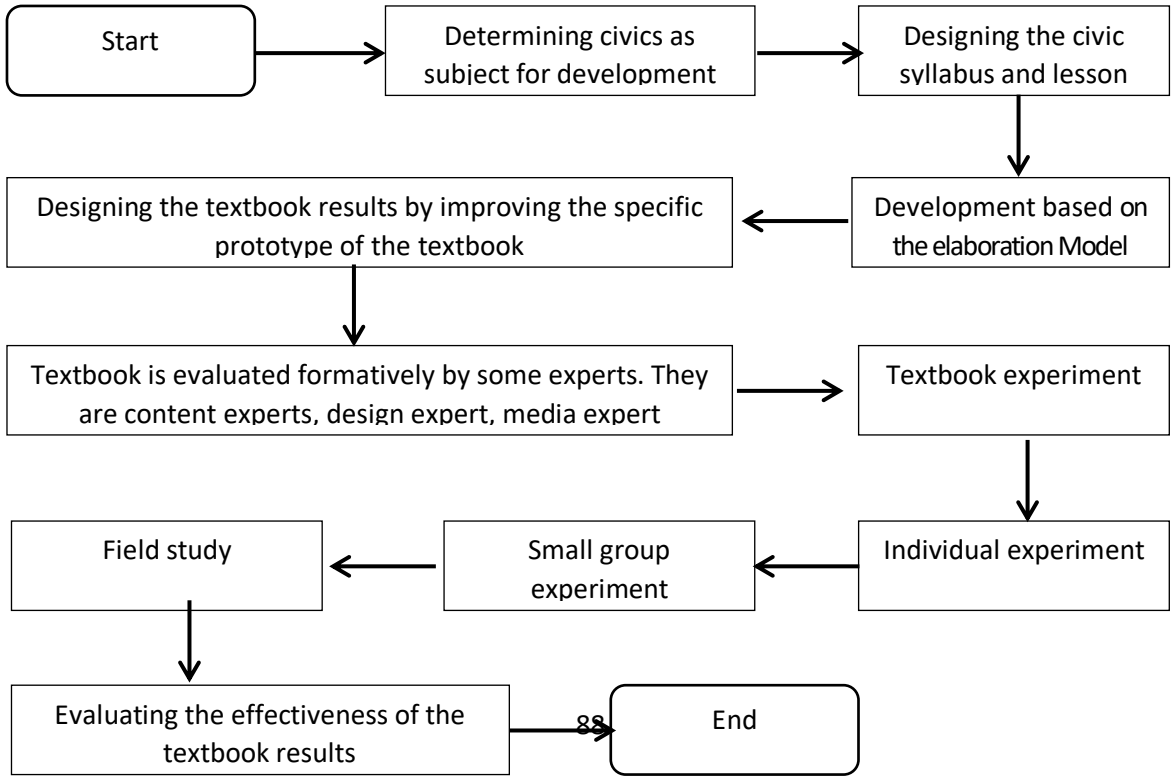

Table 1

The study groups in the study

Study group	Class type	Note
Class 7A and Class7B	Experiment class	Applying the modified contextual-based teaching textbook
Class 7C and Class 7D	Control class	Applying the local textbook without modification

Table 2

Recapitulation of content review results

Aspect	Average Score	Note
Material/content feasibility	3.07	Good/feasible
Feasibility in presentation	3.07	Good/feasible
Feasibility/language assessment	3.2	Good/feasible
Contextual learning	3.14	Good/feasible
Feasibility of design	3.0	Good/feasible

Table 3

Recapitulation of attractiveness review results

Aspect	Average score	Note
Front page/face/cover	3.2	Good/interesting
Density and suitability of content/material	3	Good/interesting
Evaluation questions	3	Good/interesting

Table 4

Results of the recapitulation of textbook teaching effectiveness

Class	Pre-test		Post-test		Percentage of learning outcome improvement
	Mark/ score	Test effectiveness	Mark/ score	Test effectiveness	
Experiment classes					
Class 7A	74.67	63.33%	78.00	83.33%	20.00%
Class 7B	76	66.67%	79.17	93.33%	26.67%
Control classes					
Class 7C	75.33	73.33%	76.83	83.33%	10.00%
Class 7D	75	73.33%	77.50	86.67%	13.33%

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