The Needs for Development of Flash-based Learning Media on Civics Education Study in the Junior High Schools

Tijan, A Suhardiyan, Suprayogi and Y A Abdilah
Faculty of Social Science, Semarang State University, Indonesia

Abstract. Civic Education is designed as a way to develop citizen skills of 21st century. For this reason, Civic Education teachers are required to be creative and innovative in managing and developing their learning. One effort in the development of learning is done by developing flash-based learning media. This study aims to determine the needs of the Civic Education teachers at Junior High Schools in Semarang related to the development of Flash-based learning media. This study uses descriptive quantitative and qualitative methods that collect and analyze data using web-based applications. The results showed that Civic Education teachers desperately needed flash-based interactive learning media. The teacher's needs are related to these indicators: first, the teacher still has difficulty in determining Flash media that is easy to use, according to the development of students and supports the achievement of competencies, and encourage students to be involved in active learning; second, flash media designed contextually and in accordance with the needs of students, cheap, and easy to make; third, the development of flash-based learning media that can build collaboration between students, be easily accessed individually and in groups, and can be used for learning in schools and independent assignments at home.

1. Introduction
Civic Education as value-based education emphasizes the realization of good citizens, who have holistic competencies in knowledge, skills, and attitudes based on national character (the values of Pancasila or the Five Principles of Indonesia) [1]. For example, this national character of Bhineka Tunggal Ika (Unity in Diversity) reinforces the ability of people to reject intolerance, racism, xenophobia, and violence. That way, people are expected to be able to work together to survive global competition in the 21st century.

The Indonesian government has implemented civic education as a special subject at school curriculum. Thus, civic education teachers can pay more attention on the character development of students. Character development can be done through education which combines the following ideas: (1) teaching students knowledge and critical thinking skills necessary to develop their minds; (2) teaching students with care, understanding, and compassion in order to foster these in them; and (3) enabling students to participate in activities both within and beyond the school in which they can engage in humanity-building activities, as well as sample its intrinsic rewards [2].

Those educational ideas can be implemented in active learning. Active learning relies on the learner depending on him/herself in obtaining information and gaining skills. Active learning helps students understand the subject through investigation, collecting and analyzing data to solve high-level cognitive problems [3].

Activities in learning certainly need to be adjusted to the characteristics of students. This is because student characteristics are the most significant factors of learning outcomes [4]. The characteristics
include cognitive development and prior knowledge, background and social status, and personality differences such as attitudes, feelings, interests, etc. [5]. Alignment between learning activities and student characteristics is expected to increase student learning motivation.

The communication technologies allow students to engage in cooperative learning. Cooperative learning is one of the best ways to develop core virtues, such as personal responsibility, and respect, by fostering a classroom environment where social skills are practiced and nurtured [6]. Therefore, technologies can be used to enhance character development. For example, through the use of online platforms to promote community projects [7].

Teachers of citizenship education are expected to develop their own learning multimedia. Thus, content in multimedia can be adjusted to the curriculum and characteristics of their students. This research was conducted to identify the teacher's perceptions of Flash-based learning media on civic education and their difficulties in developing the media.

2. Method
This study uses descriptive quantitative and qualitative methods that collect and analyze data using web-based applications. This study involved 13 civic education teachers who are all members of Civic Education Teacher Forum in Semarang. Data collection is done in two ways, paper and web-based questionnaires. Collection of data by paper questionnaires means that researchers had face to face meetings with the respondents. While the online questionnaire can be found at the page http://pkn.unnes.ac.id/?page_id=3158.

![Online questionnaire](http://pkn.unnes.ac.id/?page_id=3158)

3. Findings and Discussion
Respondents of this study experienced using multimedia for learning, such as pictures, videos, and Power Point presentation. Based on this experience, they have adequate level of knowledge about characteristics of learning multimedia. Unfortunately, they faced difficulties while trying to develop interactive multimedia.

3.1. Teachers’ difficulties of learning media development
Lack of spare time was the biggest constrain in developing learning media as stated by 84.6% respondents. Based on teachers’ competencies, 23.1% of respondents found difficulties to do programming and access to resources. It was because they never been taught in college. Meanwhile, there were only 7.7% of respondents that stated of lacking facilities and infrastructure. This data shows that in addition to time constraints, the ability of teachers to develop media is still lacking.
3.2. Characteristics of learning media needed by civic education teachers

All of respondents state that learning media should promote active learning. 84.6% of respondents stated that the learning media must help students achieving Basic Competencies. 76.9% stated that it should attract students’ attention and enthusiasm. The following table shows the degree of teachers’ expectations about civic media characteristics.

Teachers believe that the media need to be more adaptive to students’ needs (84.6%) compared to their competencies (53.8%) and interests (46.2%). Contextual learning contents were also preferable by 84.6% respondents. In addition, the same number of respondents (61.5%) prefered that learning media is cheap, easy to get, and easy to use.

### Table 1. Basic characteristics of learning media needed by civic education teachers.

| Adjustment to Civic Education Characteristics | Adjustment to Students’ Characteristics | Additional Characters |
|----------------------------------------------|----------------------------------------|-----------------------|
| Supporting active learning                   | Adjusted to students competencies      | 53.8%                 |
| Helping achievement of competencies          | Adjusted to students interests         | 46.2%                 |
| Attracting students’ attention and enthusiasm | Adjusted to students needs             | 84.6%                 |
| Contextual                                   |                                        | 84.6%                 |

Beside those characters, teachers explained that learning media should have beneficial features. Teachers expected that learning materials contain motivation, apperception, bridging to learning material, learning material, examples, ice breaker, practices, description of learning goals, and description of learning activities.

Beside the learning materials, learning media should have these menus: introduction, guides, interactive evaluation with automatic scoring, and closing. The language used should be easy to understand, systematic, interactive, and communicative. Last but not least, standard language should be used.

Teachers believe that students should not only read and listen instructions from learning media. There should be more beneficial activities, such as observing, discussing, working individually or in groups, learning, playing games, practicing, asking and answering, social activities, and activities that support achieving learning goals.

Another important thing is navigation. Preferred by teachers that media navigation follow these rules: easy to operate, visible, menus in title page, navigation buttons located at bottom of layout and well organized and provide direct access to last seen page.
### Table 2. Learning media features preferred by teachers

| Learning Contents | Menus | Languages | Activity | Navigation |
|-------------------|-------|-----------|----------|------------|
| • Motivation       | • Introduction | • Easy to understand | • Observing | • Easy to operate |
| • Apperception     | • Learning materials | • Using standard language | • Discussing | • Visible |
| • Bridging to      | • Guides | • Systematic | • Working individually or in groups | • Menus in title page |
| learning material  | • Interactive evaluation with automatic scoring | • Interactive | • Learning | • Navigation |
| • Learning material| • Closing | • Communicative | • Playing games | buttons located at bottom of layout and well organized |
| • Examples         | | | • Practicing | • Have direct access to last seen page |
| • Ice Breaker      | | | • Asking and answering | |
| • Practices        | | | • Social activities | |
| • Description of   | | | • Activities that support achieving learning goals | |
| learning goals     | | | | |
| • Description of   | | | | |
| learning activities| | | | |

3.3. Teachers’ perception of cooperative learning in learning media

It is best when a learning media can be used both individually and cooperatively (92.3% of respondents). Meanwhile, there were only 8% of respondents for cooperative use only and 0% for individual use only.

![Figure 3. Teachers’ perception of cooperative use of learning media](image)

Beside the personal space, learning media of civic education should have space where students do cooperative learning. Personal space such as personal tasks is important to measure individual achievement and develop intrapersonal communication skills such as interpersonal and intrapersonal skills. Besides, students can develop their interpersonal communication skills in cooperative space. The interpersonal communication skills is beneficial so that students are able to explain, to inform, to teach, and to inquire.

Teachers believe that peer teaching is the most beneficial cooperative learning, followed by peer discussion and peer assessment. The number of respondent were 77%, 15%, and 8% respectively. The reason for this can be inquired in the future study.
Figure 4. Teachers’ perspective toward cooperative learning models for civic education using learning media.

4. Conclusion
The need of developing own learning media of civic education is indicated by 3 factors. First, learning media can foster learning efficiency to develop students’ characters. Second, teachers found difficulty to find learning media which is suitable for their students characteristics. The last, teachers are able to update learning material and activities to adjust current contexts.

The development of learning media for civic education should have 3 characters. Firstly, learning media should be adjusted to civic education’s characteristics and curriculum such as supporting active learning, helping achievement of competencies, and attracting students’ attention and enthusiasm. Secondly, learning media should be adjusted to students’ characteristics such as their competencies, interests, and needs. The last, learning media should promote cooperative learning, especially peer teaching.

This research suggested that it is necessary to hold learning media development training in order to develop teacher pedagogical and professional competencies by involving various parties, such as the ministry of education, educational institutions, and educational media developers. The training should consider the learning media characteristics mentioned and technological developments.

References
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