

## Socio-Cultural Based Learning Module for Critical Thinking Ability in Elementary School: Systematic Search

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Received: March 5, 2020; received in revised form: April 13, 2020;  
accepted: April 15, 2020

### **Abstract:**

**Introduction:** The purpose of this article is to examine the use of socio-cultural based learning modules for developing critical thinking skills in elementary school children.

**Methods:** This article is a systematic review that collects data from relevant indexed journals.

**Results:** The findings are discussed in theoretical studies so as to produce conclusions. Well-structured socio-cultural modules can provide many benefits for students, namely for students who are actively involved in learning activities, and they can also attract students' to be involved in learning activities.

**Conclusions:** The application of socio-cultural learning helps students in learn about their own culture, which can develop students' character. These findings provide input for future research needed to develop socio-cultural based learning modules for the critical thinking needs of elementary school children.

**Key words:** elementary school, learning, module, socio-cultural, student, thinking.

### **Introduction**

The ability to think critically is always important and has become a vital need for the society in the 21st century. Every generation needs more education than ever before as the world is increasingly technical and complex (Wijaya, Sudjimat, & Nyoto, 2016). The ability to think critically is the ability to think at a higher level. This ability affects the decision making process of individuals, which determines the outcomes of their later actions. Therefore, there is a need to promote students' critical thinking skills, which enable them to learn about problems or challenges in an organized way.

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Conducted studies (Trilling & Fadel, 2010) show that graduates from high schools and higher education institutions are still less competent in terms of: (1) oral and written communication, (2) critical thinking and problem solving, (3) work ethics and professionalism, (4) working in teams and collaboration, (5) working in different groups, (6) using technology, and (7) project management and leadership. In the seven conditions that need to be improved, critical thinking skills are included. This shows that students are still unable to critically analyze problems when learning. Students should be taught how to develop critical thinking skills from their childhood so that later they can think logically and identify problems, which can be useful for them in the world of work.

In the study by Novikasari (2009), the obtained data show that critical thinking skills are still low. It is visible in students who have difficulties when working on a problem, the solution of which requires thinking skills. This fact is caused by a lack in understanding the problem by students, in associating a concept with other concepts, especially in mathematics, which in turn results in inaccuracies in solving problems. A problem in critical thinking skills can also be seen in students' disability to develop their ideas in solving problems. There are students who can solve problems only if the questions are similar to those asked by the teacher.

Other problems occur in the potential of teaching materials in schools that are still minimal. The scope of texts in teaching materials is also not broad for students' knowledge. Teaching materials in the form of handbooks approved the government are still not based on local socio-cultural knowledge, which should be developed in students from an early age. Especially currently, when students who are more familiar with technologies than their own culture.

## **1 Methods**

This article is a systematic review that collects data from relevant indexed journals. These findings are discussed in this theoretical study so as to produce a conclusion.

## **2 Results and discussion**

### *2.1 Learning module*

A module is one of the available learning materials in the form of an independent package book. Modules are also a supporting learning resource for students that helps them understand learning materials. The content of a module includes a series of learning experiences covering various activities, information, experiments and even practice questions (Pramantik & Burhaein, 2019; Purwahida, 2018). Modules are complete small units that stand alone, designed so that students can learn independently.

The learning module is a learning unit consisting of several complete components designed for one individual or a group of learners without the presence of a teacher (Nilasari, Djatmika, & Santoso, 2016). As there is no teacher, students can learn independently through their own modules. The teacher is there only to monitor students' activities. It is expected that without the presence of the teacher, students' learning with the modules can run well.

Learning by using modules as independent teaching materials is designed to achieve the set educational goals. Modules are not only a learning format; they can also involve a set of learning materials which complement each other during the learning process. Modules are a set of materials based on learning objectives focusing on behavior, containing a series of learning activities and there are certain requirements based on which the realized activities can be evaluated (Burhaein, 2017b; Redhana, 2013).

Modules as a type of unit for planned learning activities are designed to help students to complete specific goals. Students often play a passive role in the learning process, but with the application of learning using modules they get into the centre of the learning process and more and more teachers act as learning facilitators. In other words, currently, the emphasis is placed on the student-centered approach. To promote effective learning, there is a need to develop learning materials that are useful for both teachers and students. They must be encouraged to perceive development as an ongoing process. Each module should contain activating learning activities and meet variety of students' needs resulting from individual differences (Rahman, 2014). More time can be given to students to carry out activities and complete assignments. By using the module as a learning resource, students can learn independently and acquire educational content at their own pace at each student in achieving their own learning objectives.

Learning modules that have a positive impact on students must have the proposed design approach to be the basis for developing educational activities and strategies in order to increase awareness and change the attitudes of elementary school students positively. Based on some opinions about the module, it can be concluded that the module is a set of teaching materials consisting of a series of activities arranged in an interesting and systematic way to achieve the learning objectives so that students can learn independently both without or with the guidance of the teacher. The complete content of the module must be arranged in such a way that students do not miss the teacher delivering the teaching content to their students.

## *2.2 Socio-cultural learning*

Human development as a process of cultural development requires an explanation of culture. Most researchers who try to define culture agree that this refers to a lifestyle shared by a group of people and describe it as a set of attitudes, values (including knowledge and techniques), goals, and practices that

characterize institutions, organizations, or groups. Vygotsky's constructivist approach emphasizes students' constructing knowledge through social interactions with others. The content of this knowledge is influenced by the culture in which the student lives, which includes language, beliefs, and expertise or skills (Yohanes, 2010). Social interactions allow students to shape their cognitive knowledge. The development of material or teaching materials for students are based on socio-cultural contexts. Teaching materials are adjusted to the social and cultural conditions of students as learning resources that are close to the environment in which they live.

Socio-cultural learning, as a precondition for the manifestation of ingrained behavior and modes of perception, is very important in a particular entity or group as it shapes the character of the surrounding community related to social culture. The following ways of socio-cultural learning can be applied (Dongyu, Fanyu, & Wanyi, 2013): 1) finding out about the background of students's lives from the social and the cultural aspects by teachers; 2) using a variety of social and cultural backgrounds in developing learning curricula in schools; 3) teachers should try out various teaching models in order to lead students with a range of background - including the socio-cultural potential that is around schools or students - towards success; 4) providing opportunities for students to get to know one another by arranging learning in a way, which can optimize collaboration between students; 5) teachers should associate social and cultural aspects that exist in the environment around students in fostering meaningful learning. Based on the above, it can be stated that socio-cultural based learning can be applied well if teachers also implement some local socio-cultural knowledge in their teaching. Currently, problems stemming from the absence of local socio-cultural based modules can be observed.

### *2.3 Critical thinking ability*

Students' thinking skills must be developed from an early age when they should be taught how to use higher-order thinking skills in solving problems and when facing challenges. One of the important thinking skills to be developed is the ability to think critically (thinking includes basic thinking, critical thinking, and creative thinking). Critical thinking belongs to higher order thinking skills (Redhana, 2013). Students' critical thinking skills can be observed based on students' critical thinking behavior. According to another points of view, critical thinking is reflective and productive thinking and involves evaluating evidence (Santrock, 2017). In agreement with that, we can state that critical thinking is the ability and tendency to make assessments based on evidence.

In the 21st century, critical thinking is one of the most important skill for citizens (Wijaya et al., 2016). Critical thinking is defined as a set of intellectual thinking skills, such as analyzing, reasoning, problem solving, creative thinking, making good judgment and decision making. Critical thinking involves evaluating the thought process – what the outcome of the thought process is,

how good a decision is, how well a problem has been solved or what is the reasoning process that comes to the conclusion reached or which factors are considered in decision making. Critical thinking is sometimes called directional thinking because it focuses on achieving the desired results.

Critical thinking is an active, coordinated, complex process, such as reading and writing, speaking and listening, which involves thinking processes that begin with an active accumulation of information and results in reasonable decisions. Critical thinking is the art of analyzing and evaluating thoughts with a view to improving them. So, the critical thinking ability - which is a thought process - can be developed by a construction of thinking as a result of analyzing and evaluating effectively. There are eight steps leading to becoming a critical thinker (Brahler, Quitadamo, & Johnson, 2002, the following questions must be answered: 1) What exactly is the issue, problem, decision, or activity being considered? 2) What is the point of view? 3) What are the reasons proposed? 4) What assumptions have been made? 5) Is the language clear? 6) Are the reasons based on convincing evidence? 7) What conclusions are offered? 8) What are the implications of the conclusions? Based on the eight steps by Johnson above, the process of critical thinking leading to problem solving can be shortened to the following four questions: 1) What is the problem? 2) What is being sought? 3) What is the solution? and 4) What are the conclusions?

#### *2.4 Socio-cultural based learning module for the development of the critical thinking ability in elementary school children*

Learning at elementary schools is very different from learning in secondary schools. This is because the characteristics of elementary school students are different from middle school students. The differences in characteristics between elementary and middle school students are striking. Significant difference occurs in the students' level of thinking and age. The age of elementary school children is in the range of 7-11 years. Piaget suggested that middle and late childhoods were at a concrete operational stage which took place at the age of children from 7 to 11 years (Burhaein, 2017a; Santrock, 2017). Children in the third grade of elementary schools are at the concrete operational stage of cognitive development. Students at this stage can reason logically, they already know mathematical symbols, but are still not able to deal with abstract things. At this stage, it comes to a decrease in children's self-centeredness, and they are becoming more socio-centric.

A thematic integrated curriculum makes it easier for teachers to plan units of the curriculum. They are able to cover more content and help students make connections to everyday life. Problems related to daily life are fully integrated in the learning process, students are required to think critically in solving problems related to the everyday life. In order to solve problems, students must choose and re-arrange the knowledge and learning experiences they have. The flow of constructivism sees first-hand the experiences of students as a key element in

learning (Subadrah & Malar, 2005). In this case, learning adapted to socio-cultural life can enable students to construct their knowledge and apply it.

In this context, learning is a process, which involves the social and cultural characteristics of students so that after the learning process is implemented, students are able to reconstruct their socio-cultural knowledge (Arwansyah, Suwandi, & Widodo, 2016). For example, the teacher is seen as a source of knowledge and students as passive recipients. This method is opened for students to accept information without being criticized based on the knowledge they have already gained. The learning process must be related to socio-cultural features in the environment surrounding the students. The issues dealt with during socio-cultural based learning are close to the daily life and so, it can be also characterized as contextual learning. Such learning can improve students' abilities or knowledge - including their critical thinking abilities.

## **Conclusions**

For quality learning, clear learning methods must be applied. The application of learning methods will be more effective if supported by appropriate learning media. Learning media aim to help students to make it easier to understand the concepts being taught by the teacher. One of the learning media in question are learning modules.

Problems such as an exclusive use of textbooks approved by the government, where there is a limited variety of questions, cause that students fail to understand concepts. Throughout the learning process, students often have difficulties in understanding and solving problems. Therefore, critical thinking skills need to be developed in the process of learning, so students are able to solve problems occurring in the context of the educational content. Students need teaching materials that facilitate them to learn independently, which are well structured, stimulate learning, lead to understanding, promote critical thinking skills, develop their character and help them achieve their learning goals.

Teaching materials can be developed in the form of sociocultural-based learning modules. A learning module is an independent learning package that can promote students' learning experiences. They must be planned and systematically designed to help students achieve their learning goals. Students should be taught about the social culture in their environment, so they can better understand problems and solve them. The application of socio-cultural based learning modules into the learning process can encourage students to study hard and understand local culture.

Well-arranged sociocultural-based modules can provide many benefits for students, namely students active involvement in learning activities, as well as attracting students' attention to be involved in the learning activities. Students can measure their own abilities, there is feedback for exercises, which motivates students, so students can learn independently, integrate their local socio-cultural

knowledge, become more mature as students can manage their own time, they are provided with more learning opportunities and their moral qualities are developed, too. The application of sociocultural learning is also very much needed because students in fact still do not know a lot about their own culture, which can even develop students' characters. These findings provide input for future research, namely in the field of the development of sociocultural-based learning modules needed for the development of primary school children's critical thinking skills.

## References

- Arwansyah, Y. B., Suwandi, S., & Widodo, S. T. (2016). Revitalisasi Peran Budaya Lokal dalam Materi Pembelajaran Bahasa Indonesia bagi Penutur Asing (BIPA). *Makalah*, 1, 915-920.
- Brahler, C. J., Quitadamo, I. J., & Johnson, E. C. (2002). Student critical thinking is enhanced by developing exercise prescriptions using online learning modules. *American Journal of Physiology - Advances in Physiology Education*, 26(1-4), 210-221. <https://doi.org/10.1152/advan.00018.2001>
- Burhaein, E. (2017a). Aktivitas Fisik Olahraga untuk Pertumbuhan dan Perkembangan Siswa SD. *Indonesian Journal of Primary Education*, 1(1), 51-58. <https://doi.org/10.17509/ijpe.v1i1.7497>
- Burhaein, E. (2017b). Aktivitas Permainan Tradisional Berbasis Neurosainslearning Sebagai Pendidikan Karakter Bagi Anak Tunalaras. *Jurnal SPORTIF: Jurnal Penelitian Pembelajaran*, 3(1), 55. [https://doi.org/10.29407/js\\_unpgri.v3i1.580](https://doi.org/10.29407/js_unpgri.v3i1.580)
- Dongyu, Z., Fan, Y., & Wanyi, D. (2013). Sociocultural theory applied to second language learning: Collaborative learning with reference to the Chinese context. *International Education Studies*, 6(9), 165-174. <https://doi.org/10.5539/ies.v6n9p165>
- Nilasari, E., Djatmika, E. T., & Santoso, A. (2016). Pengaruh penggunaan modul pembelajaran kontekstual terhadap hasil belajar siswa kelas V sekolah dasar. *Jurnal Pendidikan - Teori, Penelitian, Dan Pengembangan*, 1(7), 1399-1404. <https://doi.org/10.17977/jp.v1i7.6583>
- Novikasari, I. (2009). Pengembangan Kemampuan Berfikir Kritis Siswa melalui Pembelajaran Matematika Open-Ended di Sekolah Dasar. *Jurnal Pemikiran Alternatif Kependidikan*, 14(2), 346-364. Retrieved from <https://media.neliti.com/media/publications/72862-ID-pengembangan-kemampuan-berpikir-kritis-s.pdf>
- Pramantik, I. A. D., & Burhaein, E. (2019). A floor time approach to improve learning outcomes of the body roll to the side in adaptive physical education learning : Classroom action research study on two cerebral palsy students. *International Journal of Disabilities Sports and Health Sciences*,

- 2(2), 45-53. <https://doi.org/10.33438/ijdshts.652061>
- Purwahida, R. (2018). Problematika Pengembangan Modul Pembelajaran Baca Tulis Anak Usia Sekolah Dasar. *AKSIS: Jurnal Pendidikan Bahasa Dan Sastra Indonesia*, 2(1), 127-137. <https://doi.org/10.21009/aksis.020108>
- Rahman, B. (2014). Kemitraan Orang Tua Dengan Sekolah Dan. *Jurnal Pendidikan Progresif*, 4(2), 129-138. Retrieved from <http://repository.lppm.unila.ac.id/213/1/>
- Redhana, I. W. (2013). Model Pembelajaran Berbasis Masalah Dan Pertanyaan Socratic Untuk Meningkatkan Keterampilan Berpikir Kritis Siswa. *Jurnal Cakrawala Pendidikan*, 3, 351-365. <https://doi.org/10.21831/cp.v0i3.1136>
- Santrock, J. W. (2017). *Educational psychology*. New York: McGraw-Hill Education.
- Subadrah, N., & Malar, M. (2005). Penggunaan Model Konstruktivisme Lima Fasa. *Jurnal Pendidik Dan Pendidikan*, 20, 21-41.
- Trilling, B., & Fadel, C. (2010). 21st Century Skills: Learning for Life in Our Times. *Choice Reviews Online*, 47(10). <https://doi.org/10.5860/choice.47-5788>
- Wijaya, E. Y., Sudjimat, D. A., & Nyoto, A. (2016). Transformasi Pendidikan Abad 21 Sebagai Tuntutan. *Jurnal Pendidikan*, 1, 263-278.
- Yohanes, R. S. (2010). Teori Vygotsky dan implikasinya terhadap pembelajaran matematika. *Jurnal Widya Warta*, 34(2), 127-134.