IMPLEMENTATION OF DIVERGENT THINKING IN EXPLORATION OF STUDENTS' CREATIVE EFFORTS IN READING HISTORICAL SOURCES FROM THE INTERNET

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Abstract:
In the digital era, learning history is more directed at reviving students' divergent thinking power. By applying this different way of thinking, teachers can use historical resources available on the internet. This research uses a Systematic Literature Review (SLR) to examine the idea of divergent thinking in exploring students' creative efforts in reading historical sources from the internet. Based on the results of the concept of developing different ways of thinking about historical sources, this is a form of student creativity to imagine the work of historians in using and evaluating historical sources to write history. Students can already see how ideas, especially initial ideas, that students share with historical sources shared by the teacher can lead to creative actions. And these results can be used as a benchmark for teachers on how to teach history based on the level of thinking ability and the way students learn.

Abstrak:
Pada era digital, pembelajaran sejarah lebih diarahkan untuk menghidupkan daya berpikir divergen siswa. Penerapan Cara berpikir berbeda ini guru dapat menggunakan sumber sejarah yang tersedia di internet. Penelitian ini menggunakan Systematic Literature Review (SLR), untuk mengkaji gagasan divirgen thinking eksplorasi usaha kreatif siswa dalam membaca sumber sejarah dari internet. Berdasarkan hasil konsep pengembangan cara berpikir yang berbeda dalam sumber sejarah ini adalah sebagai bentuk kreativitas siswa dalam rangka membayangkan karya sejarawan dalam menggunakan dan menilai sumber sejarah untuk keperluan penulisan sejarah. Siswa sudah dapat menampilkan bagaimana gagasan, gagasan awal yang siswa ceritakan dengan sumber sejarah yang dibagikan oleh guru sebagai tindakan kreatif. Dan hasil tersebut dapat dijadikan sebagai tolak ukur dari guru bagaimana seharusnya mengajar sejarah yang sesuai dengan tingkat kemampuan berpikir dan cara siswa belajar.

Keywords:
Divergent Thinking, Creative Exploration, Reading Historical Sources, Internet

INTRODUCTION

The teacher must make all efforts to design a good learning process and provide benefits, especially for learners. One of the key aspects to develop is the cognitive aspect. According to Tan in Supriatna & Maulidah (2020), four cognitive aspects can be developed by teachers to foster creativity in learning: the effective-motivational domain; systematic-strategic thinking; analytic-analytical-inferential; and divergent thinking.

Supriatna & Maulidah (2020) established the concept of divergent thinking as the development of creativity in cognitive aspects, which emphasizes the thinking skills possessed by those who face, analyze, and make decisions in ways that are different from many other thoughts and tend to be contrary to what is commonly done by most people. The difference occurs because of the ability to imagine something different as an alternate choice or to decide something. Divergent thinking, as one aspect of cognitive cognition, is an action that combines the results of analysis or initial decisions to find a new decision (Sun, Wang, & Wegerif, 2020).

According to Haryanto (2015), there are several characteristics of divergent ways of thinking: (a) Lateral thinking means that the problem is not viewed from one side only but from different perspectives; (b) divergent thinking is a way of thinking that spreads in various directions to find answers to the problems faced; (c) holistic-systemic, comprehensive-global: (d) intuitive-imaginative, more using measured imaginations; (e) independent; and (f) not maximized ("unpredictable").

Divergent thinking is also related to the stimuli received by the human brain from the range of stimuli obtained from the outside, one of which is motivation. Clark (1988) and Gowan (1989), as quoted by Supriatna & Maulidah (2020), say that the human brain consists of the left and right brain. Each of these brains has the potential to be developed and stimulated simultaneously and become a pedagogical realm. The left hemisphere of the brain tends to focus, or converge, based on reality, whether procedural, what it is, or realistic. On the other hand, the right brain tends to lead to divergent or diffuse thinking that is undirected and random. The right brain is a center of creativity that can be developed.

In the context of historical learning, the problem of saturation and boredom is often heard, both through research results and personal opinions, not only from teachers but also from students. Consequently, the problem must be ended immediately, and history learning must be made fun of (Wahdaniyah & Alrianingrum, 2020). The other problems faced, especially in historical learning in school, are the dependence of students and teachers on one source only, namely textbooks. As a result of the official historiographical work issued by the government, textbooks have gone through scientific steps in their extension (Darmawan, Sjamsuddin, & Mulyana, 2018; Darmawan & Mulyana, 2016). Textbook narratives are a source for connecting the past with the present and will give more meaning to learners' learning of history (Supriatna & Maulidah, 2020). Hence, alternatively, the texts and books available in schools are used as sources of history learning in school, but they still must be strengthened with other sources to meet the needs of historical learning for students and the community. Thus,

creative efforts must be made, and teachers remain the spearhead to find the sources (Supriatna & Maulidah, 2020). Giving students the freedom to access various sources to understand the numerous historical events studied will also make students have an open mind and be able to assess the sources of history that are read as the work of historians and not rule out the possibility of making students more open to any differences about the interpretation of the past if the sources read are objective or substantive (Barca, 2005; Sledright & Afflerbach, 2005).

The problem of student creativity in learning history is described in the research of (Adzandini & Ma'mur, 2019). Specifically, when asked why students were not interested in learning history, the majority of them answered that history was perceived as being solely about memorizing events and dates. As a result, students' ideas and creativity are not properly optimized. Learning models such as discussions, lectures, problem-based learning, and others hone students' critical thinking but do not hone students' creativity. Meanwhile, Supriatna (2019), in his research, suggested that students' creative and imaginative thinking abilities would be formed if the learning process provided space for them. On the other hand, this ability will not be formed if learning history contains more facts, focuses on the past, ends at a certain period, and is unrelated to contemporary problems. In the era of information and communication technology, where historical learning resources are abundant, teachers and students have the chance to teach and learn history creatively. From the two studies, our article provides one way to increase students' creativity in learning history.

Creative history learning is always open and flexible (Supriatna & Maulidah, 2020). It is emphasized that learning history always has to follow the times. It is a matter of historical reading sources. The era of globalization demands speed and accuracy in acting without making decisions. One of the sources for historical learning needs is the availability of internet access that can be accessed and read quickly anywhere and anytime as a basis for technology and information. According to Ridianto in Elisva, Umamah, & Sumardi (2019), learning based on information and communication technology is the primary need of learners in the era of the Industrial Revolution 4.0. Also, in order to face Society 5.0, information and communication technology have become increasingly essential as learners play a central role in the technological civilization. In the era of the Industrial Revolution 4.0, technology was used as the basis of education. Technology-based learning needs to be applied to meet the needs of learners to achieve goals. The problem is whether the sources on the internet, as the basis of technology and information, can all be used as a source for learning history. This article explores how the provided historical learning resources facilitated by the internet can be explored by using a different way of thinking.

RESEARCH METHOD

This research uses a Systematic Literature Review (SLR). A systematic literature review (SLR) is a process for identifying, evaluating, and interpreting all available research relevant to the problem formulation or topic area studied (Calderón & Ruiz,

2015). It is defined as the process of identifying, assessing, and interpreting all available research evidence to provide answers to specific research questions (Kitchenham, Brereton, Budgen, & Turner, 2009). SLR research is conducted to identify, evaluate, and interpret all relevant research results related to research questions, topics, or phenomena of concern (Kitchenham, 2004). The purpose of this SLR, or Systematic Literature Review research, was to find a strategy that would help overcome the problems encountered, identify different perspectives related to the issues under investigation, and uncover theories relevant to the cases in this research that examined more deeply the theoretical studies in describing ideas related to divergent thinking; exploration of students' creative efforts in reading historical sources from the internet.

RESULTS AND DISCUSSION

In the current digital era, particularly during the COVID-19 pandemic, we are forced to adapt. COVID-19 requires us to use digital technology to its fullest, particularly in education. We are not accustomed to using the internet for learning and must learn quickly and adapt. Teachers and students are also required to have the ability to use technology in the same way that it is used in defense (Firmansyah & Minandar, 2021).

For instance, historical learning, which deals with past events, is difficult to convey through lectures alone. Teachers must find ways to use digital sources to deliver these materials effectively to their learners. This change requires teachers and students to think differently than usual. Through this change, we hope to continue to answer questions such as "What is the purpose of learning about history?" or "Why do humans study history?" (Gruner, 1971).

In the classroom, history lessons can often be dull and limited to the transfer of knowledge (Hamid, 2014). However, the essence of teaching history is not merely to impart knowledge but to teach learners the values of life based on various past events. With the hope of strengthening their character, this enables students to learn from the past and their predecessors (Sirnayatin, 2017). Schools contribute significantly to implementing character education (Tsai, 2012).

In the digital era and during the COVID-19 pandemic, teachers can encourage their learners to reconstruct their knowledge through constructive learning. Constructive learning encourages students to be more creative and active, which helps them better understand what they learn and express their ideas (Febriani, 2021). Teachers must see themselves as creators in the learning process and must possess creative pedagogy to design engaging and meaningful lessons. Teachers should also create a supportive environment that encourages children to actively talk about what they are doing and discuss their creative processes as they explore the resources they use in their learning (Eckhoff, 2013).

Reconstructing a teacher's knowledge can enhance learners' creativity in learning history. According to Leggett (2017), creative behavior leads humans to future possibilities, considering that intelligence and creativity are necessary for learners to participate in an increasingly advanced technological era. Divergent thinking is one of the

earliest studies in the field of creativity, using the divergent concept of thinking as the development of creative cognitive aspects in learners (Silvia & Willse, 2008).

Implementing the divergent concept of thinking in historical learning is an effort by teachers to make their learners more creative in their learning. To implement, teachers can provide a historical theme to learners and then ask their learners to explore the historical sources online and process the findings in a different way or use divergent concept thinking. The creativity of learners in using divergent thinking can be assessed by the ideas that result from their efforts in exploring historical sources (Silvia, Martin, & Nusbaum, 2009). Divergent thinking is the primary skill underpinning creative thinking; it is the capacity to generate multiple alternative solutions to a problem (Vincent, Decker, & Mumford, 2002). Through divergent thinking, learners can extract original ideas from their cognitive abilities (Runco, 1993).

The historical source of the internet that learners excavate is also a source of their learning, and of course, this will provide convenience for learners because the web can be an effective and efficient alternative source (Sasmita, 2020). Students can access limitless, up-to-date resources online whenever they want (Setiyani, 2010). However, even though the internet is a convenient and effective alternative source for historical learning, teachers still need to set clear guidelines for students because not all internet sources can be used as historical sources. Hence, we need to identify historical sources on the internet that learners can export.

The creative process of using internet resources as an alternative to learning history is part of digital history. According to Cohen et al. (2008), Lee (2002), and Levesque in Utami (2020), the rapid development of society in terms of communication, information, and available media is an integral part of digital data, which provides various historical sources with varied characteristics and all forms of past relics in the form of writings, objects, or stories from someone's memory that can provide us with information about events (Sjamsuddin, 2012). The inclusion of internet-based sources greatly facilitates access to scientific information to be used, but the user needs to remain more careful.

Utilizing historical sources that are available digitally can be optimized, especially during the COVID-19 pandemic. The results of the study by Kaviza, Rahim, & Bukhar (2018) suggest that history teachers should conduct historical learning so that students feel the source of history because it can increase their activeness. Recently, the utilization of digital sources is still considered not maximal, as stated by Ramakrishnan & Abdullah (2012), and the results of their research show that digital sources of history in the form of visual materials, videos, documents, and maps are still less exploited for the use of teaching and learning history subjects. In Utami's (2020) research, several sources can be used in historical learning can be accessed on the following websites:

a. https://sejarah-nusantara.anri.go.id/id/
b. http://www.manassa.id/
c. http://khastara.perpusnas.go.id/web/search/grid/0
d. https://www.hmmlcloud.org/dreamsea/manuscripts.php

e. https://seamushaf.kemenag.go.id/
f. https://eap.bl.uk/search/site?f%5B0%5D=ss_simplified_type%3AProject&f%5B1%5D=ss_country%3AIndonesia
g. https://digitalcollections.universiteitleiden.nl/
h. https://blogs.bl.uk/asian-and-african/?_ga=2.157766910.555481172.1589195728-2080683577.1589195728
i. http://orient-digital.staatsbibliothek-berlin.de/content/index.xml
j. https://www.delpher.nl/
k. https://digital.soas.ac.uk/r_idn
l. https://royalasiaticcollections.org/manuscripts/
m. https://www.niod.nl/en/collections
n. https://digitalcollections.nypl.org/collections/photographs-of indone-sia#/?tab=navigation

Although it has been theoretically explained earlier, the efforts of learners to apply divergent thinking to exploring historical sources on the internet will face many obstacles. Obstacles to historical learning will always exist, especially as long as there is a stigma that history subjects are boring (Musadad, 2011). The obstacles that learners will face in this case include: 1) limited internet network access as the main obstacle for learners; 2) limited knowledge of learners in finding historical sources on the internet; 3) difficulty for learners in distinguishing the validity of historical sources; and 4) difficulty for learners in processing historical sources found on the internet, many of which are in the form of historical texts.

CONCLUSION

In conclusion, this paper emphasizes that in teaching history, teachers must hone their learners' creativity by applying creative pedagogy to their learning. One way is to implement divergent thinking in learners, especially in exploring the historical sources of the internet, so that learners can unleash their creative ideas and reconstruct their knowledge through learning. While implementing divergent thinking in exploring historical sources on the internet, learners will face several obstacles, including limited internet network access, limited internet usage, difficulty distinguishing the legitimacy of historical sources, and difficulty managing the historical sources found on the internet.

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