

# Visual Culture-Based Art Learning Uses Internet To Improve Higher-Order Thinking Skills In Early Childhood

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**Abstract:** Internet as part of information technology has experienced very rapid development. The technology resulting from the evolution of information civilization underlies the emergence of tools, gadgets such as smart phones, high-definition television, game stations, computers, all of which play a significant role in human life in this era of visual culture. The purpose of this paper is to describe the use of the internet in visual arts-based learning of visual culture in improving higher-order thinking skills for young children. Art education must prepare learning so that students are ready and able to adapt to the future. Students must be taught analytical, critical and creative ways called higher order thinking skills. Various learning models used in developing critical reasoning are discovery learning, project based learning, problem based learning and inquiry learning. The use of HOTS in order to feel directly the real world so that it is familiar with various complex problems such as the environment, health, and the use of science and technology in various aspects of life.

**Keywords:** Internet, visual culture, art learning, higher order thinking skills, early childhood

## 1. INTRODUCTION

Internet as part of information technology has experienced very rapid development. The technology resulting from the evolution of information civilization underlies the emergence of tools, gadgets such as smart phones, high-definition television, game stations, computers, all of which play a significant role in human life in this era of visual culture. Information technology that continues the mechanical/electronic technology phase of the industrial era 4.0 has a contribution in sustaining to replace the role of sensing and part of the brain's work in humans. Furthermore, current technology is able to produce new realities with artificial images through various simulations that were previously unthinkable. The very rapid development of information technology has resulted in what is called visual culture. The dominance of the image world has created a new culture called visual culture, which is a culture that relies on visual elements as the main constituent elements [1]. Visual culture, as the third evolution of the two previous cultural developments (oral and writing culture) has an extreme inclination in the removal of humans from the totality of factual/concrete experiences leaving one thing, human visibility. Visibility indeed dominates the process of creating and appreciating reality in visual culture. The truth that lies behind cultural reality remains the most complete aspect to be achieved. In the course of reaching truth, knowledge-laden realities are transmitted visually through screens on the equipment mentioned above. The screen in this case acts as a medium to convey the message and meaning of various phenomena that are represented or simulated in reality. The results of the simulation or representation can be displayed on

screen or printed into other media such as paper, canvas, cloth, etc [2]. The 21st century is the visual age. Visual symptoms are everywhere. Various visual signs have become a language of visual communication that gives space for interpretation and reinterpretation of experience and reality. This phenomenon in the context of today's world is driven by the presence of various communication media that massively become the most representative instruments for shaping self-meaning in the post-modern world [3]. People in the era of industry 4.0 are required to have higher order thinking skills (HOTS). The ability to think at a high level must be equipped from an early age through visual culture-based art learning. Through the application of HOTS-oriented learning programs that have been integrated with strengthening character education, students have the ability in problem solving, critical thinking and creative thinking in the face of the industrial revolution 4.0. 21st century education focuses on the skills to create and renew (creativity and innovation skills) [4]. This can be realized by providing knowledge at each level of education and training it to have the ability to solve problems, think critically and creatively. These traits will grow if trained, students are accustomed since childhood to explore, inquiry, discover and solve problems [5].

The ability to solve problems, think critically and creatively is also needed so that young children gain experience in efforts to build new knowledge. The ability to solve problems, think critically and creatively is an individual's skill in using his thought process to produce new ideas, constructive, based on concepts that make sense, individual perception and intuition. The ability to solve problems, think critically and creatively as a product. By having the ability to solve problems, students' critical and creative thinking will be very easy to understand the characteristics of Visual Culture-Based Art Learning. The use of internet in visual culture-based art learning in order to make early childhood have the ability to solve problems, think critically and creatively. Therefore early children are required to be active and creative in implementing learning so that when faced with a problem, it can creatively solve the problem. These skills include problem solving skills, critical thinking skills, collaboration, creative thinking skills and communication skills. The ability to think creatively is needed in learning [6]. That creative thinking is a way that students

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need to be able to build ideas that can be applied in life, especially when the learning process takes place [7].

## 2 METHOD

The method used is the study of documentation by examining various theories and research results on higher order thinking skills (HOTS), internet, visual culture, early childhood and art learning. The method used in summarizing the various studies and research results the author uses the steps:

### 2.1 Data Collection Procedure

The data traced is the result of publication either through international journals or national journals with keywords visual culture, fine arts education, information technology and high-level thinking skills. The strategy used in finding data is:

- 1) Tracing research reports and books in the library
- 2) Browse research articles, conceptual articles and books through the Google search site on the internet

### 2.2 Data Sources

The author uses various documentation data sources including articles and research reports, conceptual articles and reference books. The data selection criteria are:

- 1) Results of research conducted in qualitative and quantitative ways
- 2) Research articles, conceptual articles and books published by universities or other publishers that have legality, marked by ISSN or ISBN
- 3) Literature published through international journals and national journals
- 4) Literature published in the last five years

### 2.3 Analysis

Data sourced from articles and books are then discussed based on data groups namely discovery learning in art education, project based learning in art education, problem based learning in art education and inquiry learning in art education, then summarized in this article discussion.

## 3 DISCUSSION

Information Technology is a general term that describes any technology that helps humans create, change, store, communicate and/or disseminate information. IT brings together high-speed computing and communication for data, voice and video. Examples of Information Technology include not only personal computers, but also telephones, TVs, electronic household appliances, and modern handheld devices (such as cellphones). Information Technology emphasizes the implementation and processing of data such as capturing, transmitting, storing, retrieving, manipulating or displaying data using electronic technology devices, especially computers. Information technology plays an important role in the dissemination of information and knowledge in the field of visual arts based on visual culture. One container that is quite instrumental is the internet. Many have used the internet as a place to find information, including in cities that already have access to connect to the internet. Through the internet, information will be very easily obtained. So that the internet is one of the most effective learning media used in visual arts-based visual culture learning to early childhood. Through the use of internet media, educational institutions have begun to apply learning patterns that are effective enough to be applied to people who have problems with distance and time to get

information, especially information in the world of education. Information through the internet media, can be one of the keys to making the world of education in Indonesia have the same standards as other countries. The use of the internet in learning visual culture-based art can overcome some of the problems caused by the limitations of qualified teaching staff and also helps students to learn and understand new sciences with a more attractive appearance. Various learning methods that can be used in the learning visual culture-based art to use the internet to improve higher order thinking skills include discovery learning, problem based learning, project based learning and inquiry learning. HOTS was originally put forward by Bloom in his book *Taxonomy of Educational Objectives: The Classification of Educational Goals* which came to be known as "Bloom's Taxonomy". In Bloom's theory, to understand learning objectives, it is divided into three domains, namely cognitive (information processing), affective (attitude and feeling) and psychomotor (physical skills). HOTS is part of the cognitive realm in Bloom's Taxonomy which aims to develop thinking skills. Broadly speaking there are six categories in the thinking process, starting from the simple to the very complicated, namely; 1) knowledge; 2) understanding (comprehension); 3) application; 4) analysis; 5) synthesis; and; 6) evaluation [8]. Bloom's cognitive domain was revised in 2001 by Lorin Anderson, David Karthwohl et al. The category remains six but the order and wording of the nouns is converted into verbs namely; 1) remembering; 2) understanding; 3) applying; 4) analyzing (analyzing); 5) evaluating; and; 6) creating.

### 3.1 Discovery Learning

The application of creative and varied learning models in art learning to make students more active in following the learning process. One learning model that can make students actively express their opinions and find their own concepts is the discovery learning model. Discovery learning is a learning model that aims to improve the way of active learning by finding it yourself, investigating itself so that the results obtained will last a long time in memory [9]. The purpose of using discovery learning models in art education is that the learning process is more varied and not boring, so that makes students more active and enthusiastic in the learning process and students can understand the concept of learning by practicing their thinking skills. Various studies report that the use of discovery learning models is very effective in learning art. Researchers who have conducted research on the use of discovery learning models in various levels of education in art learning suggests that students who are taught using discovery learning models have very significant differences from students who are taught not to use discovery learning models. Students who are taught using the discovery learning model are better able to solve problems, think critically and creatively than students who have not been taught using the discovery learning model [10] [11] [12] [13] [14] [15]. Discovery learning model has a significant effect on critical thinking skills. This is because educators or teachers put the cognitive footing of critical thinking in the first learning syntax of Discovery Learning, stimulation. Stimulation at this stage serves to provide conditions for learning interactions that can develop and assist students in exploring material. Discovery learning model has advantages in terms of the acquisition of knowledge that is very personal and effective in strengthening understanding and memory in receiving learning material. With

this ability it will be easier for students to master learning material, especially learning art [16].

### 3.2 Project Based Learning

Project based learning must involve students in problem solving activities and other tasks, students are given the opportunity to work independently in carrying out their own learning activities. Providing opportunities for members to work collaboratively, and ultimately produce products. This certainly will involve all the senses, nerves, and physical students. The use of this Project Based Learning method in learning can increase motivation where students persevere and try hard to achieve projects and feel that learning in projects is more fun, and increase collaboration, the importance of teamwork in projects requires students to develop their creative nature and practice skills in communicate. Project based learning is an activity of learning models that use projects so as to enhance existing knowledge with new knowledge. Project-based learning focuses on the activities of students to be able to understand a concept by conducting an in-depth investigation of the problem and finding solutions by producing products. In addition, project-based learning is designed to be used in complex problems that are needed by students in carrying out real activities [17]. The use of project based learning models in the learning of art made students more active, independent, able to create new and productive things. Project based learning in art education is the key to the success of students in honing higher-order thinking skills. Students have the ability to solve problems that exist in the real world by conducting research, and producing products that are needed [18] [19] [20] [21] [22] [23] [24]. Improved problem solving skills, critical and creative thinking that has been applied in art learning through the use of project based learning methods in line with this statement:

- 1) Project-based learning can increase learning motivation because students try hard to complete projects and feel excited in learning.
- 2) The project-based learning environment encourages students to solve complex problems and make students more active.
- 3) Learners' skills in finding information will increase because in this project-based learning requires students to be able to obtain information quickly.
- 4) The existence of group work in the project in improving communication skills between students [25].

Based on the description above it can be concluded that the project based learning model is a real learning model and requires students to further enhance creativity in order to understand concepts and principles by investigating authentic problems and finding appropriate solutions and implemented in real products, so students experience their own process of meaningful learning by building their own knowledge

### 3.3 Problem Based Learning

The Problem Based Learning (PBL) model has several stages that enable an increase in the ability to think creatively and the learning outcomes of students. The first stage, provides orientation about the problem to students. The second stage, organizing students to research. The third stage, guiding the investigation of students independently or in groups. The fourth stage, develops and presents the work. The fifth stage, analyze and evaluate the problem solving process. Critical and

creative thinking is a very important skill that must be possessed by students in producing works of art. Therefore. Learning art using a model of problem based learning makes students able to think creatively to be able to produce works of art according to real world needs. Through the use of this learning model students are more motivated in learning because students are given a problem to find a solution [26] [27] [28] [29]. The advantages of problem-based learning models include; 1) develop students' critical thinking and creative skills; 2) improve students' ability to solve problems; 3) increase students' motivation in learning; 4) help students in learning to transfer knowledge to new situations; 5) encourage students to have the initiative to learn independently; 6) encourage the creativity of students in the disclosure of the investigation of the problems he has done; 7) with this learning model there will be meaningful learning; 8) this model integrates knowledge and skills simultaneously and applies them in relevant contexts; 9) this learning model can improve critical thinking skills, foster student initiative in work, internal motivation to learn, and can develop interpersonal relationships in group work [30]

### 3.4 Inquiry Learning

Inquiry learning is one of the learning models that is influenced by the view of constructivism. This is because the use of this method is to give students the freedom to express their feelings in the creation of art that is taught to them. In order for them to gain flexibility, there are basic things that must be considered in the use of this model. As with the process of creating adult art, then even in art education this is no exception, namely the theme to be conveyed or the content of the expression of feelings, there is a uniformity of the form of expression that is more in line with the character of students who determine the style of each expression. The application of this inquiry method can increase the creativity of students, especially in finding sources of ideas, which are then developed into new forms in producing works of art. So that students' learning outcomes in art also increase with an increase in student creativity. The inquiry method in its implementation involves all the abilities that students have. Students observe the source of ideas directly, then identify them by investigating critically, so that knowledge can be found with confidence. This method also has to do with fluent thinking skills, curiosity, being attracted by plural abilities, and dare to take risks [31] [32] [33] [34]. In connection with learning to find embraced in inquiry learning strategies that are directed at how students handle things, observe objects and imagine and then apply them in a symbolic form. This inquiry learning model has very strong relevance to the activity of creating art; the process of creating has three stages, namely the stage of finding ideas, the stage of developing ideas and the stage of visualization with the medium. These three stages with the process of creating an absolute and interrelated presence are also a kind of law in the activity of creating [35].

## 4 CONCLUSION

Art education must prepare learning so that students are ready and able to adapt to the future. Students must be taught analytical, critical and creative ways called Higher Order Thinking Skills. Various learning models used in developing critical reasoning through the use of internet media are discovery learning, project based learning, problem based learning and inquiry learning. The use of HOTS in order to feel

directly the real world so as to recognize various complex problems such as the environment, health, and the use of science and technology in various aspects of life.

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