VISUAL LITERACY OF SENIOR HIGH SCHOOL STUDENTS IN MARPOYAN DAMAI

A THESIS

Intended Fulfill One of the Requirements of the Award of Sarjana Degree in English Language Education of Universitas Islam Riau

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ABSTRACT

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The visual literacy is the ability to read and write image to make meaning of image, the user has to criticize and reflect of them. A literate person is able to communicate effectively with others and to understand written information. Visual literacy as a reading and writing helps students better analyze and interpret information from an image and helps students to develop the habits inquiry and skill of expression that they need to be critical thinkers and make them improve their reading. In this study, it was aimed to find out how are visual literacy of Senior High School Students' in Marpoyan Damai District Pekanbaru based on indicators of visual literacy such as; visual perception, visual language, visual learning, visual thinking and visual communication. All of Visual Literacy indicators rapidly developed by sub indicators. This study was designed in accordance with a qualitative model. The research was carried out with 30 students, 15 students each classes.

Keywords: Visual Literacy, visual language, visual learning, visual thinking and visual communication

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CHAPTER I

INTRODUCTION

1.1 Background of the Problem

Literacy is the ability to read and write image to make meaning of image, the user has to criticize and reflect of them. A literate person is able to communicate effectively with others and to understand written information. When people engage in literate action, they are doing more than encoding or producing text. Like any social practice, it has history with a set expectations and social convention. Literacy as a social, cognitive and act and creates some opportunities and or strategic thinking. Because literacy evolves with changes in cultural communicative practices and technological development, along with the development of the times, marked by technological advances, we are required to able to keep with existing technological advances as the case with the levels of education, it must be flexible to follow the progress of existing progress. It is mean that technology science and art develop dynamically. Therefore, enthusiasm and content of the curriculum and its learning must provide learners experience to follow and take advantages of the development of technological and artistic science.

The application of the development of technology and art is using learning media especially in visual literacy. Visual literacy displays images and presentations clearly and absorb the meaning of the leaning. Therefore, so that

learning can be meaningful, effective and based on standards, learning is done using multimedia. Visual literacy is the ability to decode, interpret, create, question, challenge and evaluate texts rather than word. Visual literate people are able to read, interpret their purpose and intended meaning, and evaluate the form, structure and feature of the text. They can also use picture and word image in a creative and appropriate way to express meaning.

But, currently in twenty-first century, many scholars live in a visual culture where scholars becoming increasingly able at reading image to get information and acquire knowledge. Criteria of scholars must adequate to read, analyze and interpret meaning and representation an image to get some information and delivery it technically or creatively which displays an image. So that recipient of the information and idea can be accepted by the reader. However, not many scholars able to analyze and interpret the image. For several reason, scholars have limited vocabulary and low motivation to read information by using English language. So, they cannot understand and comprehend the text properly, they still consider like reading is a difficult thing that‟s not easy to master.

The use of visual literacy ideas and strategies to enhance verbal learning is important (Flattley, 1998; Sinatra, 1986). Because visual literacy advances verbal literacy in human development, it is the basic literacy in the thought processes that are the foundations for reading and writing. Berger (1972) explains, “Seeing comes before words. The child looks and recognizes before it can speak” (p. 7). Visual symbols are nonverbal representations that precede verbal symbols (Sinatra, 1986). Action activities provide the concrete base for the abstract use of

symbols in defining and explaining the action activities. These activities of action progress to activities of observation which then are followed by abstract representations, a process that facilitates reconceptualization and understanding of the experience before describing it verbally. Because pictures or illustrations are analogs of experience and are only one step removed from actual events, these visual representations may be able to capture and communicate the concrete experience in various ways.

So, the learning resource that contain information or subject matter that are made interesting with a combination of image, text, motion and animation that are be adapted with age of students who can attract students to learn, so learning will be fun and not saturating.

Visual literacy as a reading and writing helps students better analyze and interpret information from an image and helps students to develop the habits inquiry and skill of expression that they need to be critical thinkers and make them improve their reading. Visual literacy is creative and appropriate way to express meaning. Visual literacy can increase students" vocabulary, can increase students" language in learning English and make the students able to decode, interpret, create, question, challenged and evaluate the meaning from an image.

In reality, there are some students cannot be visual literate person. Many of students have a problem in visual literacy such as they can"t read and describe the image properly, they can"t interpret their purpose, they can"t intend meaning and they can"t evaluate the form, structure and feature of the texts and they can"t

also use picture and word image in a creative and appropriate way to express meaning. In reading image, students need to have ability to read, describe, interpret, intended, evaluate, and use picture to express meaning. Not all students can think critically when they read, interpret and understand in pictorial images, and they are poor at reading and understanding pictures, they are also poor at expressing themselves with pictures. The factor can be lack of vocabulary, not too understand about the meaning, and difficult to create a message. Because visual literacy is the ability to interpret visual message accurately and can create the message properly.

1.2 Identification of the Problem

Based on the background of the study, there are several problems of visual literacy. Twenty-first century education at all levels however, has focused on literacy and how educators can engage students who are seeing the world through diverse representations and a many of forms. Many scholars maintain that students live in a visual, where they are becoming increasingly proficient at reading images. Students are learned to use spoken and written language without knowing the terminology to describe the images. They can‟t describe contents of images, and how the way to describing the objects. Students should have an ability to create the message in pictorial or graphic images. They need to think critically about the image and they should be able to understand what the picture about. With visual literacy students can improve their language, communicate well, their reading, and make they more think critically.

In visual literacy, there are some indicators that might be a good effect to students to developing and shaping students at reading images of all kinds to be a good reader and support their learning with visual literacy such as with visual perception, visual language, visual thinking, visual learning and visual communication.

1.3 Focus of the Problem

Based on setting of the problem, this research focused on Visual Literacy of Senior High School Students in Marpoyan Damai District Pekanbaru. The researcher wants to find out Visual Literacy of Senior High School Students in Marpoyan Damai District Pekanbaru by using questionnaire based on the indicators of visual literacy such as visual perception, visual language, visual thinking, visual learning, and visual communication.

1.4 Research Questions

Based on the limitation of the problem, this study was formulated as follow: How are visual literacy on Senior High School Students in Marpoyan Damai distict Pekanbaru?

1.5 Objectives of the Research

This study is intended to find out how are the students″ visual literacy Senior High School in Marpoyan Damai distict Pekanbaru.

1.6 Significance of the research

a. English teacher, helping English teachers to improves their motivations and method to give advice to students to make them want to learning by using visual.

b. Students, the result of this study to make students realize what they should do to develop and shape they learning skill and let them know the quality of themselves in visual literacy

c. Readers, to be a source of the information about visual literacy and the important to know how to master on visual literacy.

1.7 Definition of Key Term

Wileman (1993) defines **visual literacy** as "the ability to „read," interpret, and understand information presented in pictorial or graphic images" (p. 114). Associated with visual literacy is **visual thinking**, described as "the ability to turn information of all types into pictures, graphics, or forms that help communicate the information" (Wileman, p. 114). A similar definition for visual literacy is "the learned ability to interpret visual messages accurately and to create such messages" (Heinich, Molenda, Russell, & Smaldino, 1999, p. 64). The use and interpretation of images is a specific language in the sense that images are used to communicate messages that must be decoded in order to have meaning (Branton, 1999; Emery & Flood, 1998). If visual literacy is regarded as a language, then there is a need to know how to communicate using this language, which includes being alert to visual messages and critically reading or viewing images as the

language of the messages. **Visual literacy, like language literacy,** is culturally specific although there are universal symbols or visual images that are globally understood.

CHAPTER II

THE THEORITICAL FRAMEWORK

2.1 Relevance Theories

The relevance theories are about visual literacy, indicators of visual literacy, the concept, the purpose, the characteristic and the component of visual perception, visual language, visual thinking, visual learning and visual communication.

2.1.1 Visual Literacy

There are several aspects that will be discuss in visual literacy, they are about the concept, the purpose, the characteristic, and the component of visual perception, visual language, visual thinking, visual learning and visual communication.

2.1.1.1 Concept of Visual Literacy

Wileman (1993) defines visual literacy as "the ability to „read," interpret, and understand information presented in pictorial or graphic images" (p. 114). Its mean that visual literacy displays images and presentations clearly the meaning of the leaning and learning can be meaningful, effective and based on standards, learning is done using multimedia. Visual literacy is the ability to decode, interpret, create, questions, challenge and evaluate texts that rather than, word. Visual literate people can read, interpret their purpose and intended meaning, and

evaluate the form, structure and feature of the text. They can also use picture and word image in a creative and appropriate way to express meaning.

The use of visual literacy ideas and strategies to enhance verbal learning is important (Flattley, 1998; Sinatra, 1986). Because visual literacy precedes verbal literacy in human development, it is the basic literacy in the thought processes that are the foundations for reading and writing. Berger (1972) explains, "Seeing comes before words. The child looks and recognizes before it can speak" (p. 7). Visual symbols are nonverbal representations that precede verbal symbols (Sinatra, 1986). Action activities provide the concrete base for the abstract use of symbols in defining and explaining the action activities. These activities of action progress to activities of observation which then are followed by abstract representations, a process that facilitates reconceptualization and understanding of the experience before describing it verbally. Because pictures or illustrations are analogs of experience and are only one step removed from actual events, these visual representations may be able to capture and communicate the concrete experience in various ways.

2.1.1.2 Purpose of Visual Literacy

The educators think of literacy as reading and writing words, visual literacy can be described as the ability to both interpret and create visuals, and to help students develop the habits of inquiry and skill of expression that they need to be critical thinkers. Visual literacy is promoted engagement with visual image and an understanding of how visual form constructs meaning. It advocated careful

scrutiny of the elements that make up the image in order to enhance understanding and appreciation or to promote critical viewing skills.

According to Messaris (1994, pp. 1-40), visual education had four major goals:

1. To enhance the comprehension of visual media across a range of visual forms, including diagrams, graphs, editing and other technological effects.
2. To enhance cognitive abilities through the specific properties of the visual, for example, spatial relationships.
3. Awareness of visual manipulation, distortion and misinformation in advertising, political campaigns and propaganda.
4. Aesthetic appreciation of the visual arts and of visual skills in all forms of visual communication.

2.1.1.3 Characteristics of Visual Literacy

The characteristics that the visually literate individual should possess are as follows (Bunmark 2002; İşler, 2002; Roblyer, 1998):

1. Interpreting, understanding, and liking the meanings of visual messages
2. Communicating more efficiently by applying the basic principles and concepts of visual design
3. Producing visual messages by using computer and other technologies

4. Utilizing from visual thinking in order to conceptualize solutions for
5. Communicating more efficiently by both applying and analyzing the basic principles and concepts of visual design
6. Producing effective visual messages by using traditional methods, computer, and other technological devices
7. Utilizing from visual thinking in order to develop conceptual solutions to the encountered problems
8. Perceiving subliminal messages in the pictures used in the advertisements and other contents
9. Understanding and interpreting the meanings of visual messages
10. Communicating more efficiently by using basic principles and concepts of visual design
11. Producing visual messages by using computer and other technologies
12. Utilizing from visual thinking for providing solutions to the conceptualization problems

Definition of some characteristics is including the ability to successfully decode and interpret visual messages and to encode and compose meaningful visual communication. The students are told that the first step; what do I see, is an absolute personal experience and cannot be communicated. Also, that the second step is always a selection that influences the third step. They also were warned that it is hard to interpret excluding what one knows about it because of

the personal frame of references. And finally, that criticizing is meant to be positive and well balanced. The judgement “I (don‟t) like it” has to be founded.

2.1.1.4 Components of Visual Literacy

There are several components of visual literacy that can help students to be success in their visual literacy, According to Maria D. Avrigenou (2001); visual Perception, visual language, visual learning, visual thinking and visual communication.

2.1.2 Visual Perception

There are several theories that related to the research that being studied about the concept, purpose, characteristics, and component of visual perception.

2.1.2.1 Concept of Visual Perception

Perception and attention are two separate processes, they are also related. Attention occurs first, but perception interferes with it; attention is a basic condition for perception to occur (Hagemann et al., 2010). Furthermore, attention and perception are mutually influenced and affected by each other. In many cases, attention can be directed from within an individual, which means that he/she can choose what to focus on or search for specific environmental stimuli to achieve a particular goal (Parkin, 2000). The direction of attention is usually affected by environmental stimuli located in the individual's area of attention (Hagemann et al., 2010).

Based on the explanation above visual perceptual skills develop from infancy, as the students learns to focus on and interact with the environment. Giving the students and toddler lots of opportunities to move and play indoors and outdoors will help the eyes learn to focus, to track moving objects and to locate objects in the environment. Visual perception is the process of absorbing what one sees, organizing it in the brain, and making sense of it. One of the most common examples of visual perception's importance in cognitive processes is reading. Looking at the words of a book and being able to make sense of the plot is visual perception at work.

2.1.2.2 Purpose of Visual Perception

Kavale and Forness (2000) investigated the relationship between auditory and visual perception and reading achievement. The findings indicated that auditory and visual perceptual skills can successfully increase the accuracy of predicting reading achievement. It was concluded that, while there was some justification for early conceptualizations of learning disability emphasizing perception, the limitations surrounding the magnitude and nature of the relationship between perceptual skills and reading as well as recent advances showing other processes holding greater promise for explaining reading disability, perceptual processes no longer need to be considered primary factors in predicting reading ability.

According to Akçin (1993) the development of visual perception has an impact on acquiring reading skills. The students with low visual sensitiveness test

grades are expected to have many dictation mistakes. The students who attended pre-school education obtained slightly higher points in visual sensitiveness test than the students who did not attend pre-school education.

2.1.2.3 Characteristics of Visual Perception

White & Cheatham, 1959) that has many of the characteristics that have been ascribed to psychological time units by the philosophers Bergson (1913) and James (1890). Renewed interest in a psychological moment has come from research on backward and forward masking in visual perception. At least certain masking effects can be interpreted as a temporal summation of test and masking stimuli into a composite perception (Eriksen, 1966; Eriksen & Collins, 1965), and Boynton (1961) has suggested an explanation for temporal summation in vision and of masking phenomena in terms of a psychological moment. Based on explanation above Visual perception is cognitive activity and necessary in thinking process, visual perception is the process where the brain extracts and organises information, giving meaning to what we see. The ability to copy a vertical line, circle, horizontal line, right oblique line, square, left oblique line and an oblique cross have been recognised by therapists as an indication of a student's readiness to integrate visual-motor skills to begin handwriting instruction.

2.1.2.4 Component of Visual Perception

The following Visual perception components:

1. Visuospatial perception, this is one component of cognitive functioning and it refers to our ability to process and interpret visual information about where objects are in space. This is an important aspect of cognitive

functioning because it is responsible for a wide range of activities of daily living.

2. Figure-ground differentiation is a type of perceptual grouping which is a vital necessity for recognizing objects through vision. In Gestalt psychology it is known as identifying a figure from the background. For example, you see words on a printed paper as the figure and the white sheet as the background.
3. Age dependence of the development of Visual perception components indicating the variation of the rates of their development was found. All Visual perception components rapidly developed between five and six years of age; considerable changes in visuomotor integration and visuospatial perception were observed between six and seven years of age.
4. Visuomotor integration, is the coordination of visual perceptual abilities and fine motor control. It is a skill that allows us to use our eyes and our hands in a coordinated and efficient way.

Adopted by:

M. M. Bezrukikh and N. N. Terebova (February 25, 2009). *Journal of Characteristics of the Development of Visual Perception in Five- to Seven-Year-Old Children Institute of Developmental Physiology,* Russian Academy of Education, Moscow, 119869 Russia.

2.1.3 Visual Languange

The following theories related to the research that has been studied about the concept, purpose, characteristics and components on visual language.

2.1.3.1 Concept of Visual Languange

According to Avgerinou, (2001b), Visual language is cognitive ability but also draws on the affective domain. In others words, visual language involves cognitive functions such as critical viewing and thinking, imaging, visualizing, inferring as well as constructing meaning; but also communicating as well as evoking feelings and attitudes. The visual language skills are learnable, teachable, and capable of development and improvement. based on the explanation above, A visual language is a tool to read picture. The picture that can be read is the forms that are still recognizable and not abstract. For examples, pictures of pre-historic paintings, traditional artworks, advertising, pictures made by kids, and so on.

As stated by Tabrani (2005), to be able to read visual language, there are two terms related to the analysis. Firstly, content of image consisting of some objects in panel of drawing area. Secondly, way of image describing how to draw those some objects. If form of object is assumed important, object can be painted large. If the movement of objects is assumed essential, object can be repetitively painted. If transparency of objects is necessary, X-ray of inside objects can be painted. At least Visual language is the language of images. Shapes, colours, forms, lines, patterns, objects, people are examples of elements in images

arranged to create a particular visual effect or to communicate certain thoughts, ideas, feelings, meanings and messages.

2.1.3.2 Purpose of visual language

A language requires an interaction between three primary components (Cohn 2013b): meaning, modality, and grammar. First, it combines the mapping of meaning to a modality. Spoken languages express meaning using the modality of phonology (sound), while visual languages use graphic structure (drawn lines). Systematic mappings between a modality and meanings create a stored lexicon. However, meaningful expressions systematic or unsystematic are not enough to become a language. Rather, those expressions must be ordered using a grammar. In visual languages, the grammar organizes meaningful images into coherent sequences. Only full languages use this combination of three structures: a modality, which expresses meaning manifested into a lexicon, and a grammar, which orders those meanings into sequences. So, based on explanation above there are some purposes of visual language that is a tool to read a picture and involves cognitive function such as a critical viewing, thinking, imaging, visualizing, inferring as well as constructing meaning.

2.1.3.3 Characteristic of visual language

Students are learned to use spoken and written language without learning about the structure of language and without knowing the terminology to describe it. They know what a cat is without knowing that the word "cat" is a noun. Likewise, they are able to understand visual language without being able to analyze or name the particular elements that enable it to communicate meaning.

However, by learning how visual language works, by making our implicit knowledge explicit, and by acquiring terminology, we gain the means of identifying, describing, discussing, analyzing, and evaluating visual language, and we thereby gain a better understanding of visual language texts. Just as close as reading of written texts promotes understanding in depth, so close study of visual texts provides important insights.

An understanding of visual language features can also assist students who are using visual language themselves to create and convey particular effects and meanings. Creating visual effects is a useful way of learning about visual language. Also, for many students, learning through visual language is an effective method or style; many people can acquire knowledge and understanding more readily from information and ideas presented visually.

(Adopted by: *Exploring language*: A handbook for teachers)

Exploring language is a handbook for teachers which was developed to assist with the exploring language objectives for *English in the New Zealand Curriculum* (1993). The book is accompanied by two videotapes on oral and visual language.

2.1.3.4 Components of visual language

According to (Beery & Beery, 2010) there are components of visual language:

1. **Visual motor** skills enable a student to coordinate their eyes and hands to draw and write. Students may have difficulty with copying shapes, handwriting, lining up math problems, etc.
2. **Visual figure ground** the ability to find an object when it is hidden in a busy background.
3. **Visual discrimination** matching two objects that are the same
4. **Visual closure** the ability to identify two objects that are the same even if part of one is missing.
5. **Visual memory** the ability to remember visual information.

2.1.4 Visual Thinking

There are several theories that related to the research that being studied about the concept, purpose, characteristics, and component of visual Thinking.

2.1.4.1 Concept of visual Thinking

Many years ago, Leo Vygotsky suggested a broader notion of thinking, he described it as a mental process of operating upon representatives of external objects, i.e. upon signs and symbols of any nature. In his work "Thinking and Oration" (M., 1934) Vygotsky tried to prove that "verbal thinking does not cover neither all forms of thought, nor all forms of speech. There is a large part of thinking, which does not have direct attitude towards verbal thinking.

Instrumental and technical thinking together with a whole realm of the so-called practical intellect in general may be included into this realm of nonverbal thinking" (p. 95). A nonverbal kind of thinking is as real, as a verbal one. If many years ago practical intellect was psychologically described as a preliminary and primitive stage of thinking‟s development only, then today it is shown, that this kind of intellect has all properties of effective thinking in its literal form. Verbal and non-verbal thinkings do not exist separately but constitute two different cuts of any subjective reality – a cut still not verbalized and a cut verbalized already. A non-verbalized level of thinking can be verbalized in future. In the beginning of the 60s M. Gazaniga and R. Sperry, American psycho-physiologists, investigated a functional asymmetry of a human head brain from a point of view of differences among verbal and non-verbal thinking.

So, visual thinking can act as a way for students to organize students‟ ideas, and see connections between things which students haven‟t seen before. In fact, for most of students even when their think that they have everything perfectly reasoned logically in their heads, visual thinking can be an important last step to seeing all the possibilities, and not to focus blindly on the most obvious.

2.1.4.2 Purpose of visual Thinking

According to (Vladimir I. Zhukovskiy and Daniel V. PivovarovVisual,2008) thinking helps us to ontologize results of abstract-verbal thinking; by means of it an abstract essence becomes intellectually visible. It is necessary to stress, that visual thinking is a contentive product of synthesis of previous sensual experiences and abstract-verbal thinking; by means of it an

abstract essence becomes intel-lacteally visible. Visual thinking is a constructive product of synthesis of previous sensual experiences and abstract-verbal activity. So, a sensual component of an image of visual thinking is not just the same as some direct sense-data. This component is radically changed within a visual-rational image; it reflects those objective structure, which are not given in a direct perception. An image of visual thinking is able to foresee future events, to draw future worlds.

2.1.4.3 Characteristic of Visual Thinking

Visual thinking is a human activity, which results with new images, new visual forms. These forms make visible the meanings of abstract concepts. While mediating verbal thinking and practice, images of visual thinking are comparatively free in correspondence to objects of perception. They have an ability to reflect in themselves practically any categorical relations of reality – spatial, temporal, attributive, causal, teleological, existential and so on. But they reflect these relations not by means of word‟s expression, but through expression of them in spatial-temporal structures, in transformations and dynamics of sensual images. Epistemological function of visual thinking includes (beside the mentioned above property to be a bridge be-tween verbal and practical activity) an ability to find information about structure-spatial and temporal characteristics of possible worlds by means of imaginative trans-formations of schematic pictures of objects and modes of acting upon these objects.

Adopted by: *Vladimir I. Zhukovskiy and Daniel V. Pivovarov*. The Nature of Visual Thinking

2.1.4.4 Component of Visual Thinking

Visual thinking is made up of a set of components that make visual thinking possible. These components form the basis of how we structure our thoughts when thinking visually.

1. Pictures, allow you to visualize complex ideas in an eye-catching way that gets your message.
2. Symbols, Signs and Icons, provide you with a means of representing a complete thought in a streamlined and effective way.
3. Colors, are not an essential ingredient for visual thinking, however they are extremely helpful because they enable to highlight ideas, and making them more effective and memorable.
4. Numbers and figures, is a similar way to written language, numbers and figures are also used as a way of supporting and enhancing the meaning of your visuals.
5. Shapes, For the most part, drawing is nothing more than a combination of basic shapes that help to structure our visuals and shapes can also be used to link visuals, and to communicate movement.

   Attributed to: https://school.iqdoodle.com/framework/components/

   (adopted)

2.1.5 Visual Learning

The following theories related to the research that has been studied about the concept, purpose, characteristics and components on visual learning.

2.1.5.1 Concept of Visual Learning

Visual learning is defined as the assimilation of information from visual formats. Learners understand information better in the classroom when they see it. Visual information is presented in different formats, such as images, flowcharts, diagrams, video, simulations, graphs, cartoons, coloring books, slide shows, posters, movies, games, and flash cards (Rodger et.al. 2009). Teacher can use the above-mentioned formats to display large amounts of information in ways that are easy to understand and help reveal relationships and patterns. Based on various studies, students remember information better when it is represented both visually and verbally.

These strategies help students of all ages to better manage learning objectives and achieve academic success. Visual learning also helps students to develop visual thinking, which is a learning style whereby the learner comes better to understand and retain information better by associating ideas, words and concepts with images.

2.1.5.2 Purpose of Visual Learning

Sadoski and Paivio (2013) found that "the imagery value of conceptual categories as well as instructions to use visual imagery during learning facilitated the acquisition of concepts". The knowledge about learners" expectations is an essential part of learners' understanding of the audience - message relation. It is so because extending and developing the use of pictorial material in education does not mean exposing learners to more of it, but help change learners" expectations so that they are prepared to take the best advantage of what is offered in the environment. "Through much exposure to pictures, learners not only become „literate" in reading pictures but in the process their ways of thinking be modified" (Fleming, 1979). Wilson at al. (2009) introduced games-based learning, such as scratch, and game-based construction to engage children at the primary level with computer programming concepts. With Scratch, users can program interactive stories, games, and animations. It helps young people learn to think creatively.

Based on explanations above purpose of visual learning can allows the student to look at problem differently in a way they will understand, increase student memory of important information, increase the student"s interest in the subject matter and help students learn more effectively.

2.1.5.3 Characteristic of Visual Learning

Visual learning is one of the "most exciting and stimulating method" (Baratta, 2010). In language learning and teaching process, learner uses his eyes as well as his ears; but his eyes are basic in learning. Visual learners have specific

characteristics that make their learning method unique. In school, visual learners typically:

1. Learn from seeing things written out on a chalkboard
2. Use diagrams and charts to understand ideas and concepts
3. Take notes during class or while listening to presentations
4. Use color to organize information
5. Need to be able to see the teacher

2.1.5.4 Components of Visual Learning

Visual learning is defined as the assimilation of information from visual formats. Learners understand information better in the classroom when they see it. Visual information is presented in different formats, such as images, flowcharts, diagrams, video, simulations, graphs, cartoons, coloring books, slide shows/PowerPoint decks, posters, movies, games, and flash cards (Rodger et.al. 2009). Teacher can use the above-mentioned formats to display large amounts of information in ways that are easy to understand and help reveal relationships and patterns. Based on various studies, students remember information better when it is represented both visually and verbally. There are components of visual learning:

1. Simulation
2. Video
3. Image
4. Flowchart

2.1.6 Visual Communication

The following theories related to the research that has been studied about the concept, purpose, characteristics and components on visual communication.

2.1.6.1 Concept of Visual Communication

We live in a world of signs, and communication is possible only by means of signs and sign systems, whether they are letters on a page, sound or visual images. Visual communication is the transmission of information and ideas using symbols and image. It is one of three main types of communication, along with verbal communication speaking and non-verbal communication one, body language, etc. Visual communication is believed to be the type that people rely on most, and it includes signs, graphic designs, and films. According to Communications expert, Lester, images can be analyzed through the following elements: Personal, Historical, Technical, Ethical, and Critical.

2.1.6.2 Purpose of Visual Communication

1. Effective for illiterates, easily understood for them
2. Helps for oral communication, give dear information and get oral communication easier
3. Easily to explain the meaning of information

4. Complex information and data can be easier understood through map, graph, symbol and picture

5. Takes less time than oral communication to explain things

2.1.6.3 Characteristics of Visual Communication

1. **Accurate Message,** message of a communication must be clear, concise and accurate.
2. **Understanding**, effective communicators must understand to whom they are talking with. They must understand the style of communication.
3. **Empathy**, effective communicators always see the situation of empathy from the perspective of the other person. It also includes the emotions that might be involved with the message.
4. **Effective Listening**, effective listening is the method of hearing what another person is saying.

2.1.6.4 Components of Visual Communication

Visual components are graphics, sign, typography, symbols, real objects that can elicit responses from the viewers.

1. Graphics, visual communication connects strongly to the technology learning area and supports a particular form of technological practice that

use visual communication knowledge and techniques to develop conceptual designs or technological from the graphics .

2. Symbol, using language, symbols and text students will develop an ability to interpret and critique a range of visual codes in which knowledge is expressed and strengthens the key competency.
3. Typography is the process of creating a visual picture by using words without any fancy fonts involved.

2.2 Relevance Studies

The study of Bouwer (2000) entitled "Visual Literacy in Adult Basic Education: a study of ABET learners" visual perception with regard to their general level of English Second Language learning", sought to develop understanding about the processes which go into understanding images and text, examined how pictures can be used to help adult learners to develop proficiency in English and to teach learners the basics of visual literacy so as to improve their comprehension of the plethora of images.

Results revealed that when learners „hang" a concept within their frame of reference, the learners found it easier to retain. Also, results indicate that learners enjoy looking at pictures and become more able to analyze images and find it easier to comprehend more complex types of illustration.

The study of Bouwer (2000) is related to the present study since this study focused on the visual literacy of the participants and this study also used pictures as an instrument in the study. What makes it distinctive from the present study is that, it also focused on how pictures could be used to help adult learners to

develop proficiency in English, while the present study only centered in determining the visual literacy level of the participants.

A study entitled "Teaching Visual Literacy in the Secondary English Language Arts Classroom: An Exploration of Teacher‟s Attitudes, Understanding and Application" of Robertson (2007) attempted to discover teachers" attitudes towards the understanding and use of visual literacy concepts through a survey of secondary English language arts teachers in the rural areas of central Kansas. Results showed that teachers in the rural areas of central Kansas only provide little instruction to their students in visual literacy. The result of the study also showed that though the students lacks visual literacy training, they could still read a wide range of print and non-print texts, draw on their understanding of textual features, adjust their use of spoken, written, and visual language, and apply knowledge of media techniques, figurative language, and genre to create, critique, and discuss print and non-print texts.

The study of Robertson (2007) is relatively related to the present study since the study also discussed visual literacy and the study was completed in a rural area. The present study differed in a sense that it only determined the visual literacy level of the participants; while the study of Robertson (2007) discovered teachers" attitudes towards the understanding and use of visual literacy concepts.

A study of Lin (2008) entitled "A Qualitative Study of Three Secondary Art Teachers" Conceptualizations of Visual Literacy as Manifested Through their Teaching with Electronic Technologies", examined and described three technologically competent secondary-level visual arts teachers' insights into the

notion of visual literacy in the information age, and how this notion manifests through these teachers' teaching praxis with art and technology in their classroom and school environments. The findings show that teachers do not engage the visual literacy language as it is framed in academic discourse, rather these teachers derive their idea of visual literacy from their own teaching experiences with students, from their conceptions about the schools and communities in which their students live, and to provide a unified learning experience and prepare students for their future. The findings also show that these art teachers" notion of what students should learn in the information age embraces a socio cultural approach, emphasizes student development of higher order thinking skills in connecting art and lived experience, and fosters student ability to integrate multiple literacy skills and multimodal communication in media production and analysis.

The study of Lin (2008) is related to the present study since both studies focused on visual literacy. What makes the study of Lin (2008) different from the present study is that it examined and described three technologically competent secondary-level visual arts teachers' insights into the notion of visual literacy in the information age, while the present study determined the visual literacy level of the grade five pupils.

In a study entitled "What We See and Why it Matters: How Competency in Visual Literacy Can Enhance Students Learning" of Tillmann (2012), it explored the balance between words and images that has shifted considerably calling for new forms of literacy. Findings suggest that developing the ability to

create images helped students better learn, to decipher, understand, and communicate with images. If there is a better understanding of how and why visuals are developed, then the use of visuals can become more effective, ergo enhancing student learning.

The study of Tillmann (2012) is related to the present study since it explored the role of visual images to literacy, and used visuals as an instrument of the study. What makes it distinctive from the present study is that the present study determined the visual literacy level of the participants.

Another study entitled "Visual Literacy and the Use of Images in the Secondary Language Arts Classroom" of McDermott (2005) examined visual literacy and the use of infographics in content area classrooms. Results showed that combination of image-viewing, good assessment design, and extra review time will lead students to good performance.

The study of McDermott (2005) is related to the present study since it examined visual literacy with the use of visual representations in classroom areas. However, the present study determined the visual literacy level of the grade five pupils.

In a study conducted by Ford (2010) entitled "Visual Literacy: How do they do it?" sought to answer the question on how do elementary students in a modern age of technology and visual information read and interpret visuals. Results showed that the students clearly used background knowledge, learned interpretations, and critical thinking skills, their own experiences and learned knowledge in interpreting visuals.

The study of Ford (2010) is related to the present study since both studies focused on the visual literacy of elementary students. What makes the study of Ford (2010) distinctive from the present study is that it highlighted more on how do elementary students in a modern age of technology and visual information read and interpret visuals, while the present study sought to determine and compare the visual literacy level of the grade five pupils.

In a study of Wu, X., and Newman (2008) entitled "Engage and Excite all Learners Through a Visual Literacy Curriculum". It attempts to look for any changes in retention of content in using the visual literacy curriculum versus a standard traditional curriculum. Both quantitative and qualitative research conducted resulted in a positive response by all students involved in the study. More importantly, it proved to be useful to learners of diverse academic abilities in the learning of content. Additionally, the study showed that teachers felt more connected to the material being taught as well by using the visual literacy curriculum versus the curriculum that lacks visuals for instruction.

The study of Wu, X., and Newman (2008) is related to the present study since both studies focused on the role of visual literacy in the learning process of the students. What makes it different from the present study is that it focused on the reading comprehension of the students in history classes, while the present study focused on the level of visual literacy of the students.

In a study of Nagel and Louw (2007) entitled "Mass media advertisements: Responses to selected advertisements in semi-urban Limpopo", tested the assertions of various writers about mass media, as applicable to a semi-

urban or rural group of (black) South Africans with educational levels ranging from Grade 10 to Honors level. It was found out that the respondents reacted positively to billboards that supported products on which they have been relying; that once they have been introduced to a product and found it efficient, competitive campaigns do not impinge on their stance; but also that – in this particular semi-urban area – traditional values folklore and usages have to be taken into consideration by advertisers for effective communication.

The study of Nagel and Louw (2007) is related to the present study since both studies focused on the visual literacy of students from rural areas. What makes the study of Nagel and Louw (2007) distinctive from the present study is that the reviewed study tested the response of the respondents to the mass media, while the present study did not only tests the visual literacy of the respondents but also compared their levels.

2.2 Conceptual Framework

Students become better critical thinkers by identifying, analyzing, interpreting, and evaluating what they see, no matter what the format. Visual literacy adds another dimension to students' core knowledge, helping them recognize and explore perspectives and resolutions through creative thinking skills. Comics and graphic novels are now considered a legitimate artistic medium containing profound and relevant writing and aesthetically strong visuals (Jenifer Mayer: 2014).

Theory of visual literacy should be grounded on the following conceptual components: visual perception, visual language, visual thinking and visual communication.

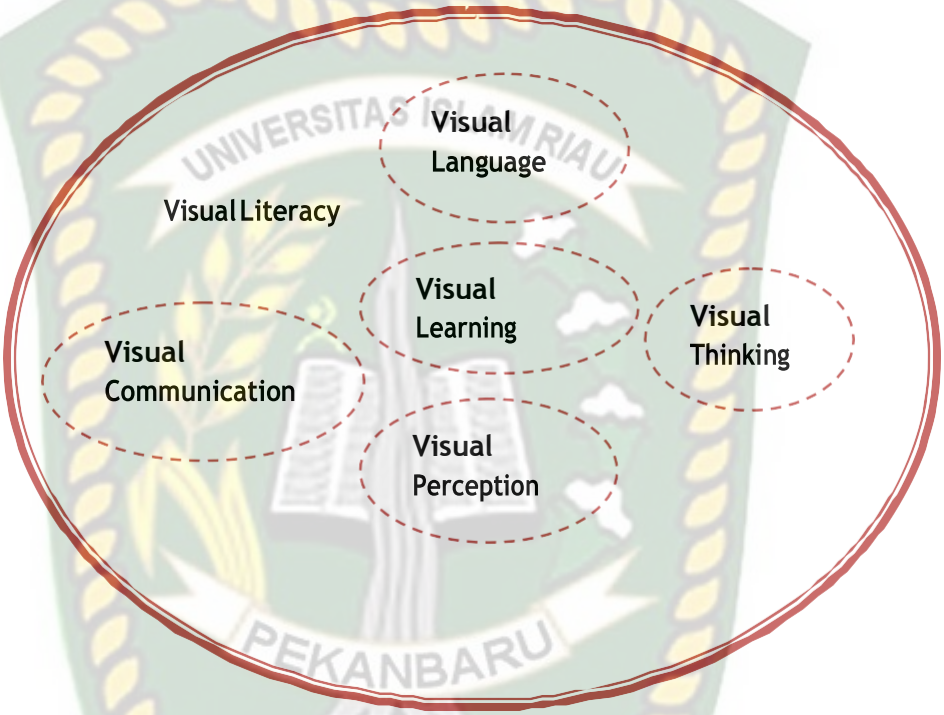

Figure 1. The components of the visual literacy theory. *Maria D. Avgerinou DePaul University, Chicago, US. Rune Pettersson Tullinge, Sweden*

2.4 Assumption

The writer assumes that the studentsat Senior High School in Marpoyan Damai District Pekanbaru have adequate visual literacy based on the indicators of visual literacy.

CHAPTER III

RESEARCH METHOD

3.1 Research Design

This study used case study design. A case study is an- depth exploration of a bounded system (e.g., activity, event, process, or individuals) based on extensive data collection (Creswell, 2007). This research is intended to analyze students' learning by using visual literacy at Senior High School in Marpoyan Damai District Pekanbaru.

3.2 Source of Data

The data of this research is from of questioner that will be gives to the students. The population in this study is the first grade of SMA YLPI Pekanbaru they are be the representative of the school to participate in this research and the sample are two classes of school.

Table 3.1 Indicators of Questionnaires Visual Literacy

No	Indicators	Sub-Indicator	Description
1	Visual Perception	accurate judgement	It begs the corollary question of whether judgments of influenced individuals can be improved, and if so, how they can. At the core of these questions is the issue of whether an individual can control their use of an influencing stimulus at the time of making a judgment.
2	Visual Language	a.critical viewing and thinking	To developing idea, develop and revisit visual ideas, in response to a variety of motivations, observation and imagination, supported by the study.

		b.imaging	Content of image consisting of some objects in panel of drawing area and way of image describing to draw those some object. If from of object is assumed important, object can be painted large. If the movement of object is assumed essential, object can be repetitively painted.
		c.visualizing	Visualizing refers to our ability to create pictures in our heads based on text we read or words we hear. It is one of many skills that makes reading comprehension possible.

			.
		d.constructing meaning	The students able to understand visual language without being able to analyze or name the particular elements that enables to constructing meaning. For many students, learning through visual language is an effective method to acquire knowledge and understanding more readily from information.
3	Visual Thinking	a.pictures	Pictures tell stories in both words and pictures. Interacting with the printed word, the technical elements of illustration – color, line, shape and composition – work to establish and

			enhance the story. Sometimes simply by adding description of characters and setting, and, at times, by challenging the veracity of the text with additional information, the illustrations in picture provide essential clues for comprehension
		b. Shapes	Shapes that help to structure students" visuals and shape can also be used to link visual and to communicate movement.
		c.Symbols, signs and icons	Symbols, signs and icons can be providing the students with a means of representing a complete thought in a streamlined

			and effective way.
		d. figures	Used as a way of supporting and enhancing the meaning of visuals.
4.	Visual Learning	a.organize and analyze information	The ability to view, understand, analyze and evaluate, design and create, and use visuals and visual representations for acquisition, consolidation and communication and transfer of knowledge
		b.think critically	Allow the students to look at problems differently in a way they will understand. Increase student memory of important information and make students learn more

			effectively.
		c.intergrate new knowledge	They should be able to present and communicate information and concepts using visual graphic software tools, images, videos, charts, presentations and visual organization tools such as concept maps and mind maps with new information, idea or knowledge that student gets.
		a.facial expressions	It‟s about how the students use some expressionswhen communicate the image.
5	Visual Communication	b.body language	It‟s about how the students use gestures or

			other symbols to communicate the image.
		c. Picture	It‟s about how students evaluate the use of visual picture and conventions to convey meaning.

3.3 Instruments of the Research

In order to conduct the data in this research, the researcher is going to use questionnaire. Questionnaire is the instrument in quantitative research. It is used to identify how visual literacy of the subject of this research which is Senior High School Students in Marpoyan Damai district Pekanbaru. According to Amanda Hunn (2009) Questionnaire are a useful option to consider when conducting a postal survey. Questionnaire can be either devised by the researcher or they can be based upon some ready made index.

3.4 Data Collection Technique

The procedures of gathering data is the researcher want to the schools and asked for permission to get the data from two classes, the researcher distributes to the samples, forty-five minutes gives to the samples to answer the question in questionnaire. The researcher makes sure that the students answers the question

and gave their reason to help the researcher easier to analyze the data. After the samples finished with the questionnaire, the researcher collects the questionnaires and analyzes it.

3.5 Data Analysis Technique

This research is intended to find out visual literacy at the first grade of SMA YLPI Pekanbaru. The writer collected the data through questionnaire that already been given to the students and categorize the answers based on the indicators and the researcher analyzed the data and described how the students" visual literacy of each school are.

CHAPTER IV

RESEARCH FINDINGS

In this chapter, the researcher explain to answer and analyze the problems posted in the statement of how are visual literacy of Senior High School Students in Marpoyan Damai District Pekanbaru. At the previous chapter, there are five indicators that the researcher want to analyze, such as ; visual perception, visual language, visual thinking, visual learning and visual communication. The researcher found the students" answer in questionnaire of visual literacy.

4.1 Data Description

In this chapter the researcher will explain analysis of students" answer on the questionnaire of indicators of visual literacy of senior high school student‟s in Marpoyan Damai Districyt Pekanbaru. According to Avgerinou (2011) there are five indicators such as; visual perception, visual language, visual thinking, visual learning and visual communication. The researcher coding the sample as A and B. Class 11A is sample A and Class 11B is sample B.

4.1.1 Visual Perception

Visual perception is the process where the brain extracts and organizes information, giving meaning to what the student‟s see. The sub indicator of visual perception is accurate judgement.

Table 4.1 Visual Perception

No. Sample	Visual Perception
	Accurate Judgement
A01	✓
A02	✓
A03	X
A04	✓
A05	✓
A06	✓
A07	✓
A08	✓
A09	✓
A10	✓
A11	✓
A12	✓
A13	✓
A14	✓
A15	✓

Table 4.1 showed that 14 students of sample A answered about the information on the question of visual perception and 1 student did not answered the question.

Table 4.2 Visual Perception

No. Sample	Visual Perception
	Accurate Judgement
B01	✓
B02	X
B03	✓
B04	✓
B05	✓
B06	✓
B07	✓
B08	✓
B09	✓
B10	X
B11	✓
B12	X
B13	✓
B14	✓
B15	X

Table 4.2 showed that there were 11 students answered the quoestion of visual perception and 4 students not answered the question.

4.1.2 Visual Language

Visual language is as critical viewing and thinking, imaging, visualizing inferring as well as constructing meaning. Visual language are learnable, teachable and capable of development and improvement. There are four sub indictors of visual language such as; critical viewing and thinking,imaging, visualizing and constructing the meaning.

Table 4.3 Visual Language

No. Sample	Visual Language			
	Critical Viewing and thinking	Imaging	Visualizing	Constructing Meaning
A01	✓	✓	✓	X
A02	✓	✓	✓	X
A03	✓	✓	✓	X
A04	✓	✓	✓	X
A05	✓	✓	✓	X
A06	✓	✓	✓	X
A07	✓	X	X	X
A08	✓	X	X	X
A09	✓	✓	X	X
A10	✓	X	X	X
A11	✓	X	✓	X
A12	✓	X	✓	X
A13	✓	✓	X	X

A14	✓	✓	X	X
A15	✓	✓	✓	X

Table 4.3 showed that there were 15 students of sample A that answered the questions of critical viewing and thinking, 10 students answered the question of imaging, 9 students answered the question of visualizing, 10 students have incorrect answer and 0 students have the incorrect answer of the question of constructing meaning.

Table 4.4 Visual Language

No. Sample	**Visual Language**			
	Critical Viewing and thinking	**Imaging**	**Visualizing**	**Constructing Meaning**
B01	✓	X	✓	✓
B02	✓	✓	✓	X
B03	✓	✓	✓	✓
B04	✓	X	X	X
B05	✓	X	X	X
B06	✓	✓	✓	X
B07	✓	✓	✓	X
B08	✓	✓	✓	X
B09	✓	✓	✓	X
B10	✓	✓	✓	✓

B11	✓	✓	✓	✓
B12	✓	✓	✓	X
B13	✓	✓	✓	X
B14	✓	✓	✓	X
B15	✓	✓	✓	✓

Table 4.4 showed that there were 15 students of sample B that answered the questions of critical viewing and thinking, 12 students answered the question of imaging, 13 students answered the question of visualizing, and 5 students answered the question of constructing meaning.

4.1.3. Visual Learning

Visual learning is helps students to develop visual thinking, wich is a learning style whereby the learner comes better to undesrtand and retain information better by associating ideas, words and concepts with images. Visual learning allow the students to look at problems differently in a way they will understand. Increase student memory of important information and make students learn more effectively.

Tabel 4.5 Visual Learning

No. Sample	Visual Learning		
	Organize and analyze information	**Think critically**	**Intergrated new knowledge**
A01	✓	X	X
A02	✓	✓	✓
A03	✓	X	X
A04	✓	✓	X
A05	✓	X	X
A06	✓	X	✓
A07	✓	✓	✓
A08	X	X	X
A09	X	X	X
A10	✓	X	X
A11	X	X	X
A12	X	X	X
A13	✓	X	X
A14	✓	X	X
A15	✓	X	X

Table 4.5 showed that there were 11 students answered the question of organize and analyze information, 3 students answered the question of think

critically, and 3 students answered the question of intergrated new knowledge. There were 4 students not answered all questions.

Table 4.6 Visual Learning

No. Sample	Visual Learning		
	Organize and analyze information	**Think critically**	**Intergrated new knowledge**
B01	✓	✓	✓
B02	X	X	X
B03	✓	✓	✓
B04	X	X	X
B05	X	X	X
B06	X	X	X
B07	X	X	X
B08	X	X	X
B09	✓	✓	✓
B10	✓	✓	✓
B11	X	X	X
B12	X	X	X
B13	X	X	X
B14	X	X	X
B15	✓	✓	✓

Table 4.6 showed that there were 5 students of sample B that answered the question of organize and analyze information, 5 students answered the question of think critically, and 5 students answered the question of intergrated new knowledge. There are 10 students not answered all questions.

4.1.4. Visual Thinking

Visual thinking is a human activity, which results with new images, new visual forms. These forms make visible the meanings of abstract concepts. While mediating verbal thinking and practice, images of visual thinking are comparatively free in correspondence to objects of perception. In visual thinking there are five indicators such as; pictures, shape, symbol, and figures.

Table 4.7 Visual Thinking

No. Sample	Visual Thinking			
	Pictures	**Shapes**	**Symbols**	**Figures**
A01	✓	✓	✓	✓
A02	✓	✓	✓	✓
A03	✓	✓	✓	✓
A04	✓	✓	✓	✓
A05	✓	✓	✓	✓
A06	✓	✓	✓	✓
A07	✓	✓	✓	✓
A08	X	X	X	X
A09	X	X	X	X

A10	✓	✓	✓	✓
A11	X	X	X	X
A12	✓	✓	✓	✓
A13	✓	✓	✓	✓
A14	✓	✓	✓	✓
A15	✓	✓	✓	✓

Table 4.7 showed that there were 12 students answered the question of picture, 12 students answered the question of shapes, 12 students answered the question of symbols and 12 students answered the question of figures. There were 3 students not answered the all questions.

Table 4.8 Visual Thinking

No. Sample	**Visual Thinking**			
	Pictures	**Shapes**	**Symbols**	**Figures**
B01	✓	✓	✓	X
B02	✓	✓	✓	✓
B03	✓	✓	✓	✓
B04	✓	X	✓	✓
B05	✓	✓	X	✓
B06	✓	✓	X	✓
B07	✓	X	X	✓
B08	X	X	X	✓
B09	✓	✓	✓	✓

B10	✓	✓	✓	✓
B11	✓	✓	✓	✓
B12	✓	✓	✓	✓
B13	X	✓	✓	X
B14	✓	✓	✓	✓
B15	✓	X	X	X

Table 4.8 showed that there were 13 students answered the question of picture, 11 students answered the question of shapes, and 10 students answered the question of symbols and 12 students answered the question of figures.

4.1.5. Visual Communication

Visual communication is the transmission of information and ideas using symbols and image. It is one of three main types of communication, along with verbal communication speaking and non-verbal communication one, body language, etc. There are 3 sub indicators in visual communication such as; facial expression, body language, and sign symbols.

Tabel 4.9 Visual Communication

No. Sample	Visual Communication		
	Facial expression	**Body language**	**Picture**
A01	✓	X	✓
A02	✓	✓	✓
A03	✓	✓	✓
A04	✓	X	✓
A05	✓	✓	✓
A06	✓	X	✓
A07	✓	✓	✓
A08	X	X	X
A09	X	X	X
A10	X	X	✓
A11	X	X	X
A12	X	X	✓
A13	X	X	✓
A14	X	X	✓
A15	X	X	✓

Table 4.9 showed that there were 7 students of sample A that answered the question of facial expression, 4 students answered the question of body language, and 12 students answered the question ofpictures. There were 10 students not answered all questions.

Table 4.10 Visual Communication

No. Sample	Visual Communication		
	Facial expression	**Body language**	**Picture**
B01	X	X	X
B02	X	X	X
B03	X	X	X
B04	X	X	X
B05	X	✓	✓
B06	X	✓	✓
B07	X	X	X
B08	X	X	X
B09	X	X	X
B10	X	X	X
B11	X	X	X
B12	✓	X	✓
B13	X	X	X
B14	X	X	X
B15	X	X	X

Table 4.10 showed that there were 1 student of sample B that answered the question of facial expression, 2 students answered the question of body language and 3 students answered the question ofpictures. There were 12 students not answered all questions.

4.2 Data Analysis

The researcher analyze the data based on the five indicators of visual literacy, they are; visual perception, visual language, visual thinking, visual learning, and visual communication.

4.2.1 Visual Perception

Visual perception giving the students lots of opputunities to help the eyes learn to focus, to track moving the objects and making sense of the images. The sub indicator of visual perception is accurate judgement.

4.2.1.1 Accurate Judgement

Accurate Judgement is begs the corollary question of whether judgments of influenced individuals can be improved, and if so, how they can. At the core of these questions is the issue of whether an individual can control their use of an influencing stimulus at the time of making a judgment. According to the data of students" answers of visual literacy questionnaire sample, all of students are 14 samples A that understand about the question, they are: A01, A02,A04, A05, A06, A07, A08, A09, A13, A14, A15, and only 1 student has incorrect to identify the picture, it is A03.

The students" understanding the illustration of images. All of the students, when the researcher refer they answer they look understand about the question. The direction of the question is “Identify the Picture”. And the answer of 14 students about the questions are correct, only 1 student has incorrect answer. The

pictures are about the famous figure in the world. Such as; Science figure and motivator.

There are 15 students of sample B that answer the question about accurate judgement, they are; B01, B02, B03, B04, B05, B06, B07, B08, B09, B10, B11, B12, B13, B14, B15. Most of them said they understand the information about what they see the in the picture. B01 :"yes, i know who is in this picture number 1. He answer the first picture is Albert Einstein. He as a Science figure."

However, that are 4 students are inccorect to identify the picture, they are; B02, B10,12, and B15 said that they did not know who is in this picture number 1, because they did not know the name of since figure, but they often to see the picture of him.

4.2.2. Visual Language

Visual language that is a tool to read a picture and involves cognitive function such as critical viewing and thinking, imaging, visualizing and constructing meaning. Learning by visual language the students gain the means of analyzing and understanding of visual language text. so visual language provides important insights to reading of written text promotes understanding in depth. There are five sub indicators in visuallanguage, they are; critical viewing and thinking, imaging, visualizing, and constructing meaning.

4.2.2.1. Critical Viewing and Thinking

Critical viewing and thinking is develop and revisit visual ideas, in rsponse to a variety of motivation and imagination supported by the study. On analyze of the data, the researcher got by the students" answer in questionnaire of visual literacy indicators, all of students that correct to answer the question about critical viewing and thinking. The direction of the question is "Write your answer in the line provided below each number". The image is about the famous place in the java is Mounumet of Yogjakarta.

4.2.2.2. Imaging

The students being able to analyze or name images effectively, considering meaning. For many students, learing through visual language is an effective method to acquire knowledge and information.

According to the data that researcher got by the students" answer in questionnaire of visual literacy indicator, sample A there are 10 students that correct to answer the questions about imaging, they are: A01, A02, A03, A04, A05, A06,A09,A13, A14, A15. The data views that they have answer the question, and the questions are "What is the picture about? what can you say about the picture? And what is the significance of book in the picture?". and there are several answer from the students:

What is the picture about? "Cover book of Merry Riana: Mimpi Sejuta Dolar", what can you say about the picture? "The book has many motivation

about to reach our dream", what is the significance of book the picture? "This book contains lessons about life so as not to give up easily to achieve a dream"

There are 12 students of sample B that have correct answer the question, they are: B02, B03, B06, B07, B08, B09, B10, B11, B12, B13, B14,B15 , and they answers are :

B03: "This is a picture of cover of Marry Riana"s Book"

"True Story, it shows how Marry Riana looks like."

"Marry Riana as a motivator of us"

"B11: "the cover of Marry Riana"s Book"

"true story, it shows how Marry Riana is never give up to reach her dream and it is as motivation of us"

"She has a lot of motivation words"

However, there are 3 students that have incorrect answer the question, there are: B01, B04 and B05, and they answer are:

B01: "it looks nice" This answer does not match with the question. And she did not answer the question for others number, because she did not know what is the question about.

B04 and B05 have the same answer with B01.

After analyse the answer of students, researcher made conclusion that the students cannot use picture and word image in a creative way to express meaning. But students do not only view visual presentations based on how the image looks like, they also ask or inquire the meaning of what they see in the picture. For example, the students do not directly say that the picture is Marry Riana. But, they also include tittle of the book or story. This shows that the students are using their knowledge to understand and obtain the meaning for answer the question.

4.2.2.3. Visualizing

Visualizing is the ability to interpret, negotiate, and make meaning from information presented in the form of an image, extending the meaning of literacy, which commonly signifies interpretation of a written or printed text. Visual literacy is based on the idea that pictures can be read and that meaning can be through a process of reading.

A: A01, A02, A03, A04, A05, A06, A07, A08, A09, A11, A12, A13, A14, and A15. The data views that they have answer the question, and the question are "What kind of animal can you see in the picture? "Describe the features of this animal."

There are 10 students that correct to answer the questions about visualizing, they are: A01, A02, A03, A04, A05, A06, A011, A12, A15. And they answer are:

A03: "elephants"

"Elephant has a big body, has a long trunk, and big ears"

A06: "Mother of elephant and his son"

"Largest animal, wide and has long trunk, flat ears, brown in color, and their body hair is sparse and coarse".

Meanwhile there are six students have incorrect answer, they are B07, B08, B09, B10, B13 and B14. They answer are:

B10: "elephant" the answer is wrong because, in the picture there are two elephants. He answer with singular. But the correct answer is with plural.

And the others have the same mistake.

4.2.2.4. Constructing Meaning

Constructing meaning is the students able to understand visual language without being able to analyze or name the particular elements that enables to constructing meaning. For many students, learning through visual language is an effective method to acquire knowledge and understanding more readily from information.

In accordance with the researcher got by the students" answer in questionnaire of visual litearcy indicator, the data shows the sample A: A01, A02, A03, A04, A05, A06, A07, A08, A09, A11, A12, A13, A14, and A15. The data views that they have answer the question, and the question are "Describe the image pointed in number 14, 15 and 16".

There are 15 students that have incorrect to answer the questions about visualizing, they are: A01, A02, A03, A04, A05, A06, A07, A08, A09, A10, A011, A12, A13, A14, A15. And they answer are:

A01: "Sand, gravel and water"

A06: did not answer the questions, because he did not understand about the questions are and he did not know how to comprehending the picture.

A10:"Land or ground, miner and surface"

A14:"Stone, miner and surface"

Hence, there are 5 students did not answer the questions. They are A08, A10, A11, A12, and A15.

According to the researcher, by the A student"s answer of the question is the most of students not able to understand visual language without being able to analyze or name the particular elements that enables to constructing meaning. They only write that they see without constructing the meaning of the picture and they are also poor at expressing themselves with pictures.

In accordance with the researcher got by the students" answer in questionnaire of visual litearcy indicator, the data shows the sample B: B01, B02, B03, B04, B05, B06, B07, B08, B09, B11, B12, B13, B14, and B15.

Only five students answered the question. They are B01, BO3, B10, B11, and B15, and 2 students answered the question correctly. They are B01 and B03.

The data views that they have answer the question, and the question are “Describe the image pointed in number 14, 15 and 16”. They answer are:

B01: “A man holding a rope helping the people at the bottom.

„The layers of the Earth, a crust and lithosphere”

“There are two people working, the person in the left side is holding a basket.”

BO3:” A Man give something to his friend for helping”

“There is man bring land”

“The man bringing a basket”

When analyzing the answers of students, the researcher made the conclusion that most of students who did not answer the questions because they cannot interpreting the picture that they see, difficult to create a message and lack vocabulary that they have to constructing the meaning.

4.2.3. Visual Learning

Visual learning is the strategies help students of all ages to better manage learning objectives and achieve academic success. Visual learning also helps students to develop visual thinking, which is a learning style whereby the learner comes better to understand and retain information better by associating ideas, words and concepts with images. There are 3 sub indicators of visual learning such as; organize and analyze information, think critically, and intergrated new knowledge.

4.2.3.1. Organize and Analyze Information

The ability to view, understand, analyze and evaluate, design and create, and use visuals and visual representations for acquisition, consolidation and communication and transfer of knowledge.

According to the data that the researcher got by the students" answer in questionnaire of visual literacy indicators, the data shows sample A 15 students: A01, A02, A03, A04, A05, A06, A07, A08, A09, A10, A11, A12, A13, A14, and A15. There are 11 students are answer the question. With the question: "Are the picture included the stories important? Why? and the several of them answers like this:

A01:" Yes, because these picture telling about conflict and who mediated in the conflict"

A04: "Yes, because the stories to be obligated for me"

A06:"Yes, The stories is not fake and corresponding with the real.

There are 5 students in sample B that answer the question, they are: B01, B03, B09, B10 and B15. They answer are:

B01, B03, B09, B10 and B15 have the same answer,: Yes, because this stories about the proclamation of Indonesia independence"

When analyzing the answers of students, the researcher made the conclusion that most of students who did not answer the questions because they not able to interpret, create and analyze challenged and evaluated the meaning

from an image and also they cannot understand and comprehend the text because limited vocabulary that they have.

4.2.3.2. Think Critically

Allow the students to look at problems differently in a way they will understand. Increase student memory of important information and make students learn more effectively.

According to the data, there are 3students in sample A that answer the question about think critically, they are: A02, A04, and A07. And the question is "What do these picture illustrate?" and they answer are same:

A02, A04, A07:"Soekarno and Mohammad Hatta was signed the document and they were appointed as a president and vice president.

But in sample A there are 5 students not answer the question at all, they are: A06, A09, A11, A12, A13 and 7 students have incorrect answer.

Meanwhile, 5 students in sample B that answer the question about think critically, they are B01, B03, A09, B10, and B15 have same answer. They answer:

B01, BO3, B09, B10 and B15:"President Soekarno reading the proclamation of Indonesia independence"

Hence in sample B there are 10 students did not answer the question.

The researcher made summaries, most of them are not visual literate person. Many of students have problem cannot read and interpret the image properly. They cannot interpret the purpose and intend the meaning.

4.2.3.3. Intergrated New Knowledge

Student should be able to present and communicate information and concepts using images and visual organization tools such as concept maps and mind maps with new information, idea or knowledge that student gets and how students experiments with different ways of intergrating images into academic work.

According to the data that the researcher got by the students" answer of quesionnaire of visual literacy indicator, in sample A there are 3 students that answer the question about intergrated new knowledge, they are: A02, A06, and A07. The questions is " Do you think the pictures help you to understand the stories? Explain your answer." And they answer are same:

A02, A06 and A07: "Yes, this picture help me to understand the stories".

They answer the question without explaining why the picture can help them to understand.

In sample B, there are 5 students answer the question. They are B01, B03, B09, B10 and B15 and they have same answer.

"Yes, because with the picture we know about the story of proclamation Indonesia Independence. "

Students, in sample B answer the question with a little explanation why the picture can help them to understand.

When analyzing the answers of students, the researcher made the conclusion that they need to be critical thinkers, improve their reading comprehension, increase their vocabulary, and increase their language in Learning English.

4.2.4. Visual Thinking

Visual thinking can act as a way for students to organize students" ideas, and see connections between things which students haven"t seen before. In fact, for most of students even when their think that they have everything perfectly reasoned logically in their heads, visual thinking can be an important last step to seeing all the possibilities.

There are sub indicator in visual thinking such as; shapes, pictures, symbols and writing language.

4.2.4.1. Shapes

Shapes that help to structure students" visuals and shape can also be used to link visual and to communicate movement.

According to the data that the researcher got by the students answer in questionnaire of visual literacy indicators, in sample A there are 12 students that answered the question of pictures, they are: A01, A02, A03, A04, A05, A06, A07, 10, A12, A13, A14, and A15. The questions is “Name this forms” and they answered:

A04:”Diamond”

“Square”

“Plus”

“Love”

“Rewind Bottom”

A07:”Diamond”

“Square”

“Plus”

“Love”

“Play Back”

A10:”Rombhus shape”

“Box”

“Plus”

“Love”

“Rewind Bottom”

But in sample A there are 3 students are did not answer the question, they are A08, A09 and A11.

In sample B there are 11 students that answer the questionn about intergrated new knowledege, they are: B01, B02, B03, B05, B06, B09, B10, B11, B12, B13, B14, and they answer is:

B02:”Diamond”

“Square”

“Plus”

“Love”

“Play Back”

B05:”Diamond”

“Square”

“Plus”

“Love”

“Rewind”

However in Sample B there are 4 students are did not answer the question, they are B04, B07, B08 and B15.

After checked the sub-indicator answers from visual thinking, namely "shapes", the researcher made the conclusion that students A and B able to name or identify and get information from pictures.

4.2.4.2. Symbols

Symbol and text will develop an ability to interpret and critique a range of visual codes in which knowledge is expressed and strengthens the key.

According to the data that researcher got by the students answer in questionnaire of visual literacy indicators, there are 12 students in sample A answer the question about colors, they are: A01, A02, A03, A04, A05, A06, A07, A10, A13, A14, A15. The question is; “What is this”? and they answer like:

A05:”Maps of House”

A010:”Floor Plan”

A13:”Ground Plan”

However in Sample B there are 3 students are did not answer the question, they are B08, B09, and B11.

In sample B there are 10 students that answer the question abot colors, they are: B01, B02, B03, B04, B09, B10, B11, B12, B13, B14, And they answer is:

B01:"Location of house"

B02:"Maps of the house"

B03:"House map"

B10:"Location"

But in sample B there are 5 students not answer the question at all. They are: B05, B06, B07, B08 and B15.

The researcher made summaries, students in sample A and B able to organize their ideas and see connections between things. Most of them even think that they have everything reasoned logically in their heads.

4.2.4.3. Pictures

Pictures tell stories in both words and pictures. Interacting with the printed word, the technical elements of illustration color, line, shape and composition work to establish and enhance the story. The illustrations in picture provide essential clues for comprehension.

According to the data that the researcher got by the students answer in questionnaire of visual literacy indicators, in sample A there are 12 students that answered the question of pictures, they are: A01, A02, A03, A04, A05, A06, A07, 10, A12, A13, A14, and B15. There are 3 students did not answer the question they are: A08, A09 and A11, the questions is "Name this forms" and they answered:

A02”Part of body”

A05”Organ of human/Structure of human”

A06” Human Respiratory System”

In sample B there are 13 students that answered the questions about pictures, such as: B01, B02, B03, B05, B06, B09, B10, B11, B12, B14 and B15. And 2 students did not answer the question. They are A08 and A13. There are several answer of them:

BO1, B03 and B05 have the same answer: “Man‟s Body”

B02:”Organ of body”

B11”Organ”

In summaries, after analysed the answer of students the factor of they cannot answer the question is lack of vocabulary, and not too understand about the picture. The students have no ability to interpret visual massage accurately.

4.2.4.4. Figures

Figures Used as a way of supporting and enhancing the meaning of visuals.

According to the data that researcher got by the students answer in questionnaire of visual literacy indicators, there are 12 students in sample A answer the question about figures, they are: A01, A02, A03, A04, A05, A06, A07, A10, A12, A13, A14,and A15. The question are “What does this picture show?”

"Observations: What interesting part can you find in these two pictures?" and they answered like this:

A05:"The mom reading story to her son"

"Flashback"

A06:"The mom telling story to her son"

"Looked gallery, when they were kid"

A13:"The mom reading story book for her son"

"They are flashback their past"

However in sample A there are 3 students not answer the question at all. They are: A08, A09 and A11.

In sample B there are 16 students that answer the question abot colors, they are: B02, B04, B05, B06, B07, B08, B09, B10, B11, B12, B13 and B14. And they answer is:

A07:"Mom read a book for her child"

"A boy and a girl looking at the photo album. The one on the upper right is a picture that shows a young boy riding a bike."

A08:"Mom reading the book to a children"

"The father and his cousin have flashback if they read and see the book"

But in sample B there are 3 students not answer the question. They are: B01, B03 and B15.

When analyzing the answers of students, the researcher made the conclusion that they have not been able to enhancing and supporting the meaning of picture and they cannot develop ideas and messages that they get from pictures. They only use simplifying words and cannot turning them into something that is memorable and leaves a lasting impact on the brain.

4.2.5. Visual Communication

Helps for oral communication, give valuable information and get oral communication easier, easily to explain the meaning of information and complex information and data can be easier understood through facial expressions, body language and picture. There are 3 sub indicators in visual communication such as; facial expression, body language, and pictures.

4.2.5.1. Facial Expression

Facial expression is how about the students use some expressions when communicate the image.

According to the data that the researcher got by the students answer, in sample A there are 7 students that answer the question about facial expression, they are: A01, A02, A03, A04, A05, A06 and A07. And the questions are:

"Are the characters the same? How did you know?"

"Which of the two pictures is easier to understand? The picture in figure 1 or the picture in figure 2? and several of students answer like;

B02:"No, this characters are different"

"Figure 1"

B04:"Yes, the pictures are same. Because I look everywhere this pictures looking at how the girl looks like and her action, how the boy looks like and his action. I look that they are the same persons because all characters in the four boxes looks similar.

"Picture 1"

B06:"No, the pictures are different, because I can tell the boy is sick and the girl give suggestion.

"Figure 1"

However, in sample A there are 8 students that answer the questions. They are: A08. A09, A10, A11, A12, A13, A14 and A15.

In accordance with the researcher got by the students" answer in questionnaire of visual litearcy indicator, the data shows the sample B there is 1 student that answer the questions about facial expression he is A12. He answered like this: "I look this pictures are same"

"Figure 1"

But so many students do not answer than those who answer the questions in sample B. They are B01, B02, B03, B04, B05, B06, B07, B08, B09, B10, B11, B13, B14, and B15.

The researcher made summaries, students in sample B, they cannot read meaning and representation an image to get some information and delivery it creatively which displays an image. They have limited vocabulary and low motivation to read information from the image. They cannot also use picture in a creative to express meaning.

4.2.5.2. Body Language

Body language its about how the students use gestures or other symbols to communicate the image.

According to the data that the researcher got by students answer in questionnaire of visual literacy indicators, in sample A only 4 students that answer the question about body language, they are A02, A03, A05 and A07. with the question: “In figure 2, are the characters the same?” And they have same answer:

”Yes, the pictures are same, there are look two boys are angry”

But, in here there are 11 students that not answer the question.

In sample B there are 2 students that answer the question about body language, they are: B05 and B06. They answer like:

"Yes, the people Figure 2 are the same people. I can look because of how they look, the dress they wear, and the actions they do"

But so many students do not answer than those who answer the questions in sample B. They are B01, B02, B03, B04, B07, B08, B09, B10, B11, B13, B14, and B15.

After analysed the answer of students, the researcher made conclusions that the factor of they cannot answer the question is lack of vocabulary, and not too understand about the picture. The students have no ability to interpret visual massage accurately.

4.2.5.3. Pictures

Picture is about how students evaluates the use of visual image and conventions to convey the meaning. According to the data in sample A there are 12 students that answer the question about picture, they are A01, A02, A03, A04, A05, A06, A07, A10, A12, A13, A14, and A15. The question is:"Where you can find this animal"? Some students answer like this:

A05:"Arica"

A06:"In the Zoo, and Africa"

A12:"On the television and in the zoo"

A15:"Argentina and in the zoo"

In sample A, there are 3 students that answer the question. They are A08, A09 and A11.

However, in sample B, there are 14 students that answer the question about sign symbols, they are: B05, B06, and B12. They answer the questions like:

B05:" South Africa"

B06:"In the zoo"

B12:"Africa"

But so many students do not answer than those who answer the questions in sample B. They are B01, B02, B03, B04, B07, B08, B09, B10, B11, B13, B14, and B15.

The researcher made summaries, students in sample B, they not too understand about the question. Because they did not know what the meaning of the question. Actually they know those picture is Zebra, but they did not know how to answer.

CONCLUSION AND SUGGESTION

5.1 Conclusion

After conducting a research, the researcher analyzed the data and find out the that the students visual perception, they were 25 students of 30 students. 25 students who answer the question in visual perception, they can construct meaning from visual images with the use of critical skills of exploration, critique and reflection in order to make meaning from images. In visual language there were 30 students answer the question in crtical viewing and thinking. In critical viewing and thinking, the researcher see some students answer about the question, all of students that correct to answer the question about critical viewing and thinking. They able to give response and idea from the question.

Many of students have a problem in visual literacy such as they can‟t read and describe the image properly, they can‟t interpret their purpose, they can‟t intend meaning and they can‟t evaluate the form, structure and feature of the texts and they can‟t also use picture and word image in a creative and appropriate way to express meaning. In reading image, students need to have ability to read, describe, interpret, intended, evaluate, and use picture to express meaning. Not all students can think critically when they read, interpret and understand in images, and they are poor at reading and understanding pictures, they are also poor at expressing themselves with pictures.

The grade eleventh A Students in Senior High School, Marpoyan Damai district Pekanbaru can construct meaning from visual images with the use of

critical skills of exploration, critique and reflection in order to make meaning from images.

The grade eleventh B Students in Senior High School, Marpoyan Damai district Pekanbaru can construct meaning from visual images moderately effective wherein she/he sometimes uses critical skills of exploration, critique and reflection in order to make meaning from images.

5.2 Suggestion

Based on the result of the data, the researcher would like to give some suggestion dealing with the teacher and next researchers.

5.2.1 For Teacher

The teachers should give the students different kinds of viewing materials as well as questions to enhance their level of visual literacy. And the Teachers should also expose students to different kinds of visual representation especially those that are appropriate for their levels.

5.2.2 For the Future Researchers

The future researchers, should consider a lot of factors affecting visual literacy for them to easily determine if their respondents are good or poor viewers. However, the researcher hope that the next researcher can find another solution to increasing students reading skill in visual literacy to be more effective.

REFERENCES

Ali S. Brian, J. A. (2018). *A Pilot Investigation of the Perceived Motor Competence of Children with Visual Impairments and Those Who Are Sighted.*

Andreas Gegenfurtnera1, E. M. (2017). Neural correlates of visual perceptual expertise: Evidence from cognitive neuroscience using functional neuroimaging . *Frontline Learning Research* .

Andrew Philominraj1, D. J.-S. (2017, March). English Language Teaching . *Visual Learning: A Learner Centered Approach to Enhance English Language Teaching*, 1-10.

Avgerinou, M. & Ericson, J. (1997). A review of the concept of visual literacy. *British Journal of Educational Technology*, 28, pp.280-91.

Avgerinou, MD (2001). *Developing Visual Literacy Index (Chapter 5 of unpublished doctoral disertation). University of Bath, UK.*

Avgerinou, M. D. (2012). The International Visual Literacy Association. (S. B. Terzic, Ed.) *New Horizons in Visual Literacy*, 276.

Aysel Memiş1, D. A.-Z. (8 August 2016). The Analysis of Reading Skills and Visual Perception Levels of First Grade Turkish Students. *Journal of Education and Training Studies, Vol 4 No. 8*, 6. Retrieved from http://jets.redfame.com

Benzon, W. L. (1990). Visual Thinking . *Encyclopedia of Computer Science and Technology.* , 5-13.

Baratta, A (2010). *Visual Writing. UK, Cambridge Scholar Publishing.*

Çayir, A. (2017). Analyzing the Reading Skills and Visual Perception Levels of First Grade Students . *Universal Journal of Educational Research* , 4.

Cohn, N. (2018). Visual Language Theory and the Scientific Study of Comics. 1-23.

Creswell, J (2012). *Educational Research Boston: Pearson Education*

Debes, J. (1968). Some Foundations of Visual Literacy. *Audio Visual Instruction*, 13, pp. 961-964.

Ericson, M. A. (1997). A review of the concept of visual literacy. *British journal of educational technology, 28. No 4*, 12.

Frederic Fol Leymarie Goldsmiths College, C. U. (n.d.). Onthe Visual Perception of Shape Analysis and Genesis through Informati on Models. 14.

Grocholl, T. (Febuary, 2014). Flictionary- Towards a more vsual language.

Helen lloyd, S. e. (2015). *Visual Language an education resource for Primary and intermediate teachers.* Museum of New Zealand Te Papa Tongarewa .

International Visual Literacy Association, *Visual literacy in the 21st Century 2012*, 16 December, available at: http://www.ivla.org/drupal2/index.php [accessed 25 September 2013].

Jagoda Walny, S. C. (23 October 2011). Visual Thinking In Action: Visualizations As Used On Whiteboards. 10.

Jamal Raiyn Computer Science Department, A. Q. (2016). The Role of Visual Learning in Improving Students" High-Order Thinking Skills. *Journal of Education and Practice, vol 7 No.24*, 1-7.

Kara Christy, M. O. (n.d.). Assessment and Intervention of Visual Perception and Cognition Following Brain Injury and the Impact on Everyday Functioning.

Kiper, A. (N.D.). Visual Literacy Scale: The Study Of Validity And Reliability . *Journal of Sakarya University Department of Curriculum and Instruction* , 11.

Krystyna K. Matusiak, C. H. (January 2019). Visual Literacy in Practice: Use of Images in Students" Academic Work. *College & Research Libraries* , 17.

Loreta Vaicaityte MSc. (loreta.vaicaityte@gmail.com) Vilnius University, V. (. (January 2007). Visual Literacy and Visual Communication for Global Education . *Journal of Innovations in teaching E-learning in Art, Design and Communication* , 3-6.

MartinErwiga, K. (November14,2016). Whatis a Visual Language? 4-6.

Montana, T. F. (2013). Measuring Visual Literacy Ability in Graduate Level Pre-Service Teachers . 126.

Newfield, D. (May, 2011). From visual literacy to critical visual literacy: An analysis of educational materials. *English Teaching: Practice and Critique, Volume 10, Number 1* , 81-94.

Pivovarov, V. I. (2008). The Nature of Visual Thinking. *Journal of Siberian Federal University. Humanities & Social Sciences 1 (2008) 149-158*, 10.

Ragnhild Halvorsrud, E. L. (2014). Components of a Visual Language for Service Design . 3-11.

Ragnhild Halvorsrud, E. L. (2014). Components of a Visual Language for Service Design . *Journal of Fourth Service Design and Innovation conference* .

Robin Kay and Liesel Knaack University of Ontario, I. o. (2005). Developing Learning Objects for Secondary School Students: A Multi-Component Model . *Interdisciplinary Journal of Knowledge and Learning Objects* , 230-231.

Schellenberg, J. (2015). Visual Literacy Practices in Higher Education . *International Master in Digital Library Learning* , 24-42.

Terebova, M. M. (2009). Characteristics of the Development of Visual Perception in Five- to Seven-Year-Old Children. *Human Physiology*, 37-42.

Troy, S. S. (n.d.). Visual Literacy in Teaching and Learning: A Literature Perspective. *Electronic Journal for the Integration of Technology in Education, Vol 1 No. 1*, 12-16.