

Appreciating, Interpreting and Understanding Posters via Levels of Visual Literacy

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Abstract—This study was conducted in Malaysia to discover how meaning and appreciation were construed among 35 Form Five students. Panofsky's theory was employed to discover the levels of reasoning among students when various types of posters were displayed. The independent variables used were posters that carried explicit and implicit meanings; the moderating variable was students' visual literacy levels while the dependent variable was the implicit interpretation level. One-way ANOVA was applied for the data analysis. The data showed that before students were exposed to Panofsky's theory, there were differences in thinking between boys, who did not think abstractly or implicit in comparison to girls. The study showed that students' visual literacy in posters depended on the use of visual texts and illustration. This paper discusses further on posters with text only have a tendency to be too abstract as opposed to posters with visuals plus text.

Keywords—explicit visual, implicit visual, visual interpretation, visual literacy

I. INTRODUCTION

VISUAL literacy is defined as a group of skills which enable an individual to "understand and use visual for intentionally communicating with others" [1]. It is about gaining the awareness and skill concerning the mechanism of the visual coupled with a sensitive conscious responsiveness of those workings. Thus, visual literacy is important since it is necessary for one to make critical choices especially between what is necessary and those that are not. Further, [1] emphasized that one needs to "distinguish superficial, glamorous and pseudo-sophisticated messages for the real and valuable ones".

"Visual literacy is what is seen with the eye and what is 'seen' in the mind. A visually literate person should be able to read and write visual language. This includes the ability to successfully decode and interpret visual messages and to encode and compose meaningful visual communications..." [2]

Since visual communication involves the process of sending and receiving messages using images, communicating the visual to others is a crucial aspect. Reference [2] stated that visual literacy is closely related to image interpretation that is displayed and can afford to produce an effective communication to its viewers. Therefore, visual literacy is seen as an important part in deciphering the projected image. Visuals may evoke feelings of remorse, desire, motivation,

spirit, strength, reaction towards a specific event or simply mindful thoughts. Hence it is not surprising that messages embedded in the visuals be interpreted differently among individuals.

Even so, visual images have several advantages over verbal communication. These include the ability to present the amount of information in a given amount of space, the ability to simplify complex concepts, the means to clarify pieces of an abstract, language-based concept, the capability to serve as advance organizers of information, and also the ability to increase learning retention.

In an effort to understand and appreciate visual art, viewers have to make observations for the purpose of interpretation. According to [3], interpretation means that the person has to make an explanation or translation between the object and the meaning. [3] named this interpreting skill as criterion interpretability. Humans have the ability to observe and recognize something in the environment by using their senses. Observation is necessary for the viewer to understand and appreciate the message to be conveyed through the visual that is used.

In posters, designers use icons to display a specific meaning to their audience but it is up to the viewers to interpret accordingly. The use of icons and symbols relate to iconography. Iconography is the study of image description or classification while iconology is the study involving the interpretation of the symbol image in the visual arts. However, semiotics is the study of visual iconography based on the icon used. To understand and appreciate the visual used, the viewer need to know about the study of semiotic and symbols to understand the overall meaning conveyed. Thus, it is the study of icons, indexes and symbols. According to the Dictionary of literary, semiotic or semiology is the study of symbol systems, or more correctly, to give meaning to symbols in linguistic or non-linguistic form. Traditionally the research on human communication shows that semiotics was found by CS Peirce (1839-1914) but Ferdinand de Saussure (1857-1913) advocates that language was part of a common symbol or semiology science. Semiotics is not only concerned with the relationship between symbols and objects but also relations between the symbols on the symbol system or code structure. Consequently, visual works can be seen in the form of paintings, drawings and prints. Basically, the art speaks of contemporary life, reactions to events, situations and circumstances and reflect the passion of the artist. Among the works that involves art and visual communication are posters which may involve typography, graphic design, illustration, color, layout and pictures designed to convey information that is easy and spontaneous.

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In the school context, Visual Art Education in Malaysia was introduced as a subject in the Secondary School Integrated Curriculum (*Kurikulum Bersepadu Sekolah Menengah*) to develop students' aesthetic values in the hope that their inner appreciation towards any visual art creation is cultivated. With the acquired knowledge and skills, students not only become apt at judging or evaluating surrounding art but will have developed a sense of creativity. The objective is to develop an individual who is more creative and is able to build visuals while crafting an aesthetic experience for others to appreciate and interpret. Visual Art Education not only place importance on visual communication but also art history.

Visuals can be in the form of paintings, drawings, and print and may tell a story or portray the thoughts of the creator captured within the boundary of time. Throughout the school compound, posters are in abundance and are used as means of communication. Posters are created graphically which may include typography, illustrations, colors, layout, and photographs that have been manipulated to convey information in a spontaneous manner. It can be printed and displayed on walls to deliver messages to large groups of people.

'A picture is worth a thousand words' still stands true in many cases. For instructional purposes, posters are designed to convey messages concretely to target audiences so that interpretation is precise. However, individuals tend to appreciate, interpret and understand differently unless visual literacy is being fostered.

The Malaysian government has made posters a mediator of communication for persuasive messages. One of these messages is to broadcast the danger of drug abuse. These drugs explicitly refer to those that are not used for medical diagnosis, treatment, cure, or disease prevention. Drugs are chemical substances, either natural or artificial that once consumed will change the function of the body. These drugs can be consumed or injected into the body to alter the physical or mental state of an individual. The Ministry of Health has made drug posters as an instrument to relay the danger of drugs by reminding and deterring people from involving themselves in bad drugs.

From observations, drug posters that have been created and produced use visuals to display the consequences of drug abuse. The visuals include texts, texts with illustrations, or illustrations only. Visuals in the posters are either easy to interpret (explicit) or difficult to interpret (implicit) that requires a high degree of understanding besides appreciating the meanings of the visuals used. Thus the paper will disclose the depth of appreciation, interpretation, and understanding of the visuals in drug posters and the intensity of awareness regarding the gravity of drug abuse which in turn can destroy lives.

II. PROBLEM STATEMENT

To curb the high rise of drug abuse, various activities were implemented such as motivational workshops, seminars, distributing pamphlets, and putting up posters. Unfortunately, according to statistics, the number of addicts who are within 13-18 years are many in Malaysia. This means that their appreciation and knowledge of the dangers of drugs is

negligible and do not affect these teenagers. Therefore the problem may lie within the level of visual understanding among students to understand and appreciate the visuals of drug use. It is hoped that students will understand and appreciate visual well if students know about the semiotic or visual iconography of the posters.

Visual literacy has been taught to students with Panofsky's theory [4], namely how to interpret the iconography used in the drug posters. Students have to analyze the iconography used to better understand and appreciate the visual in drug posters. Posters of drug use in the form of visual text, illustrations and text, and illustrations only requires students to think in a cognitive manner to better understand the visual used. The use of visuals in the poster is of drugs because the success of form 5 students to understand and appreciate the visual posters are either expressed or implied. This shows that their appreciation of the message is limited or absent.

Hence, this study was conducted to i) ascertain students' visual literacy ability in understanding the messages embedded in the posters of drugs and ii) determine students' visual literacy in appreciating messages embedded in the posters of drugs.

III. RESEARCH HYPOTHESIS

H₀₁. There is no significant difference in understanding the meaning of (a) explicit and (b) implicit drug posters among students of different levels of visual literacy.

H₀₂. There is no significant difference in appreciating the meaning of the drug posters among students of different levels of visual literacy.

H₀₃. There is no significant difference in understanding the meaning of (a) explicit, (b) implicit, and (c) ability to interpret drug posters among students of different levels of literacy visual by gender.

H₀₄. There is no significant difference in appreciating the meaning of the posters among students of different levels of visual literacy according to (a) gender and (b) the visual group.

IV. RESEARCH FRAMEWORK

In Panofsky's theory, the study of art objects and images could be systematized into three levels: Level 1 – identification through familiarity, Level 2 – iconography, Level 3 – iconological.

In identification through familiarity, [4] explained that there are two parts; factual and expressional which vary depending on experience. For example we can identify various types of cancer but can hardly understand the pain of those who went through chemotherapy. The second, iconography links artistic motifs with themes, concepts or conventional meaning. The third level of interpretation, the most debatable is iconological. Iconology is the inherent meaning or content of the work that was held (Table 1).

In the table introduced by [4], a hierarchical structure or level is used to discuss the relationship between the symbol and its interpretation. Normally in the form of visual art, predominantly the motif or iconography will have the form and content. In this situation, form is seen as the primary

experience. In this experience, the motif and formation is experienced through appreciation that is based on pseudo-formal analysis. Understanding at this stage depends on

experiences regulated to form, lines, colors and formal understanding.

TABLE I
ICONOGRAPHIC AND ICONOLOGY

Object of Interpretation	Act of Interpretation	Equipment for Interpretation	Corrective Principle of Interpretation (Hist. of Tradition)
I <i>Primary</i> or <i>natural</i> subject matter - (A) factual, (B) expressional - constituting the world of artistic motifs	<i>Pre-iconographical description</i> (and pseudo-formal analysis)	<i>Practical experience</i> (familiarity with <i>objects</i> and <i>events</i>).	<i>History of style</i> (insight into the manner in which, under varying historical conditions, <i>objects</i> and <i>events</i> were expressed by <i>forms</i>).
II <i>Secondary</i> or <i>conventional</i> subject matter, constituting the world of <i>images</i> , <i>stories</i> and <i>allegories</i> .	<i>Iconographical analysis</i>	<i>Knowledge of literary sources</i> (familiarity with specific <i>themes</i> and <i>concepts</i>).	<i>History of types</i> (insight into the manner in which, under varying historical conditions specific <i>themes</i> or <i>concepts</i> were expressed by <i>objects</i> and <i>events</i>).
III Intrinsic meaning or content, constituting the world of "symbolical" values.	<i>Iconological interpretation</i>	<i>Synthetic intuition</i> (familiarity with the <i>essential tendencies of the human mind</i>), conditioned by personal psychology and " <i>Weltanschauung</i> "	<i>History of cultural symptoms</i> or " <i>symbols</i> " in general (insight into the manner in which, under varying historical conditions, <i>essential tendencies of the human mind</i> were expressed by specific themes

Adapted from Panofsky (1974). Source: *Iconography and Iconology-Synoptic table from Panofsky, Meaning in the Visual Arts, 1974, pp.40-41*

Before students are able to understand visuals, they need to be visually literate. [2] highlighted that to be visually literate, a person should be able to:

- Understand the subject matter of images
- Analyze and interpret images to gain meaning within the cultural context the image was created and exists
- Analyze the syntax of images including style and composition
- Analyze the techniques used to produce the image
- Evaluate the aesthetic merit of the work
- Evaluate the merit of the work in terms of purpose and audience, and
- Grasp the synergy, interaction, innovation, affective impact and/or 'feel' of an image

finally tie the image with the object and the event. For example, the icon of a flower, as in this case a rose; the image of the rose is an icon while the rose is an object. The rose image in the form of an icon is a rose since the icon explains the image. The index refers to the conclusion made from analyzing the image. The analysis of the rose image in reference to the index refers to summer. In relating the object with the event, the rose is a symbol that has an intrinsic meaning. The rose symbol is often related to The War of Roses or perhaps Valentine's Day. The rose is connected with history and the past events. Iconography analysis as a whole is based on idea, theme and visual concept that were formed in the visual arts.

VI. RESEARCH DESIGN

The research design is depicted in Fig. 2. whereby the dependent variable is the visual literacy, the independent variable is understanding and appreciating the visual while the moderating variable is the students' visual literacy level.

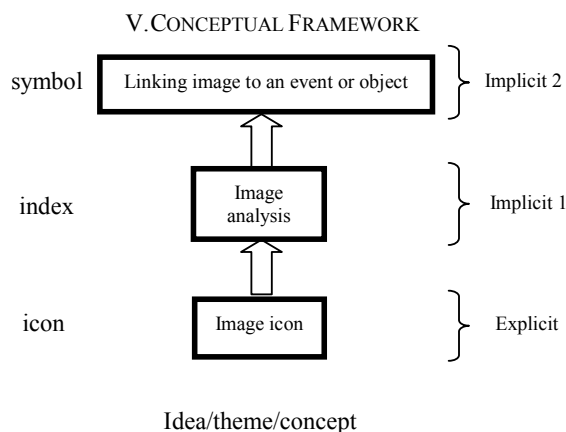


Fig. 1 Context Interpretation of Visual Art

Based on the conceptual framework (Fig. 1), the students analyze the visual in three stages. First, the students studies the objects in the image, then make an analysis of the image, and

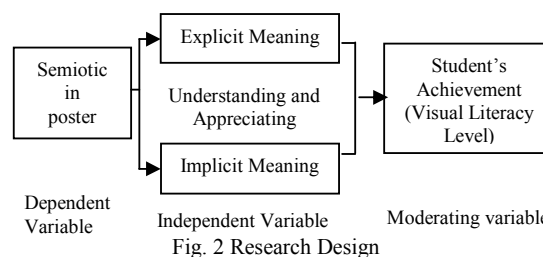


Fig. 2 Research Design

A. Sample

The sample consists of 35 Form 5 students whereby 18 were girls and 17 were boys. All of the students took Visual Art Education as an elective subject in the *Sijil Pelajaran Malaysia* or the Malaysian Certificate of Education. Further,

the students were studying at a day school in the Southwest zone of Penang.

B. Instruments

Basically, there were two sets of tests: The Basic Interpretation Test and The Embedded Interpretation Test. The basic Interpretation Test contains 10 objective questions or response options. Questions were on the photos of the drug posters. Students were given the option to select the answers to these posters which were in the form of images, either explicit or implicit. The purpose of the test was to see the level of understanding students had on the understanding of and appreciating of the visuals either explicitly or implicitly. Scores were awarded based on student responses; high or low. Scores for explicit interpretation is awarded one point, low level of implicit interpretation is awarded two points and three points were given for high implicit interpretation. The basic interpretation test was administered to categorize the student, into someone who thinks explicitly or implicitly. The embedded Interpretation Test was to test students' thinking after learning about visual literacy using Panofsky's framework. This instrument has 14 subjective questions. Students should respond to their own understanding and reasoning of the posters viewed. Questions given were to see the extent of the student's understanding and interpretation of the photo using their existing experience, analyze the iconography that is used, and to understand the intrinsic meaning of the visual that is symbolic in nature. The drug poster was divided into four categories of visual groups that use text-only, text and illustrations as a decoration, text and illustrations as a partnership to deliver the message, and posters with illustrations only. Questions posed were related to the intrinsic meaning found in the visual poster to test students' understanding and appreciation of the poster. The second question was related to the student's feelings towards the poster in order to assess if the photographs or drawings had an impact on them, or if the visual used left a message and if they were sensitive to the poster's layout. Scoring is based on the text provided. If the student wrote the purpose of the poster based on the image (letter), the score will be two, three points if the student gave an analysis of the image and four if the students relate events or objects.

C. Reliability and Validity

The instrument were validated by a lecturer at the School of the Arts, Universiti Sains Malaysia and an art teacher with 5 years of experience who holds a Bachelor degree in Fine Arts and a diploma in Teaching and Education in the area of visual arts education. Validity was conducted to ensure that the language structure and sentence was easy to understand and that the questions stated in the instrument met the research objectives. Nevertheless, the pilot study was undertaken to assess the feasibility of the study and to ascertain that the comments given by the respondents were used to improve the weaknesses of the questions. An inter-rater reliability was also done to ensure that there is no bias in grading the tests. The reliability obtained for the instrument on the basic

interpretation test was 0.617 while the reliability for the embedded or intrinsic interpretation test was 0.802, and for the test for the emotional message interpretation test was 0.795.

D. Method

Fig. 3 shows the steps in conducting the research beginning with the basic interpretation test, followed by the teaching and learning process following Panofsky Iconology, then the Implicit Test was administered before the final summarization of visual literacy explicit and implicit level.

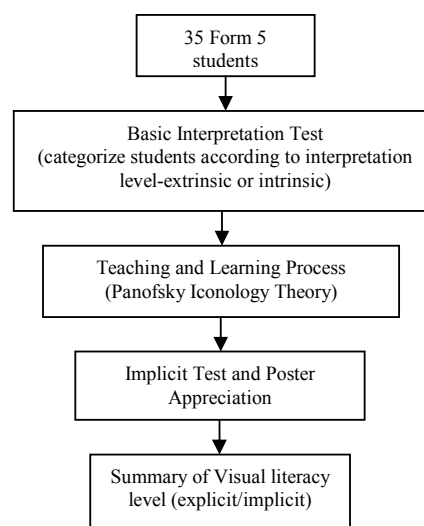


Fig. 3 Steps in conducting the Research

VII. FINDINGS

H₀₁. There is no significant difference in understanding the meaning of (a) explicit and (b) implicit drug posters among students of different levels of visual literacy.

Table II shows that students with high appreciation of extrinsic message has a mean of 4.33 with a standard deviation, s.d.=3.94 while the low extrinsic message has a mean of 3.86 with s.d. = 3.21. The ANOVA reports $F(1,33) = .14$ $p = .71$. As $p > .05$, therefore H₀₁ (a) is accepted. Students with high appreciation of intrinsic message has a mean of 8.95 and s.d.= 3.88, $p = .52$. Since $p > .05$ therefore H₀₁ (b) is accepted.

TABLE II
MEAN, STANDARD DEVIATION AND ONE-WAY ANOVA

Message	Appreciation	N	Mean	s.d.	ANOVA
Extrinsic	High	21	4.33	3.94	$F(1,33) = .14$ $p = .71$
	Low	14	3.86	3.21	
Intrinsic	High	21	8.95	3.88	$F(1,33) = .42$ $p = .52$
	Low	14	9.79	3.51	

H₀₂. There is no significant difference in appreciating the meaning of drug posters among students of different levels of visual literacy.

High appreciation for visual literacy reports a mean of 6.08 with s.d.=8.66. Low appreciation for visual literacy reports a mean of 6.26 with s.d.=7.27. The ANOVA test shows that $F(1,33) = .97$, $p = .33$. Thus, H₀₂ is accepted since $p > .05$.

H₀₃. There is no significant difference in understanding the meaning of (a) explicit, (b) implicit, and (c) ability to interpret drug posters among students of different levels of literacy visual by gender.

In the performance of understanding the meaning of explicit and implicit drug posters by gender shows that girls had a mean of 30.12 and s.d.=2.05 whereas the boys obtained a mean of 10.56 with s.d.=4.17. The ANOVA test reports $F(1,33)=2.85$, $p=.10$, thus H₀₃ is accepted since $p>.05$.

Upon scrutinizing, girls visual literacy in understanding explicit drug posters shows a mean of 2.61 and s.d.=1.42 while the boys mean is 4.18 and s.d.=2.51. The ANOVA test reports $F(1,33)=1.39$ with $p=.025$. Therefore, H₀₃ (a) is rejected since $p<.05$.

Girls visual literacy in understanding implicit drug posters shows a mean of 10 and s.d.=3.31 while the boys' mean was 8.53 and s.d.=4.05. The ANOVA test revealed $F(1,33)=1.39$ with $p=.25$. Therefore H₀₃ (b) is accepted since $p>.05$.

Findings for ability to interpret visuals reports that girls had a mean of 1.33 and s.d.=.49 while boys had a mean of 1.47 and s.d.=.51. The ANOVA test gave $F(1,33)=.67$ and $p=.44$, therefore H₀₃ (c) is accepted.

H₀₄. There is no significant difference in appreciating the meaning of the posters among students of different levels of visual literacy according to (a) gender and (b) the visual group.

According to gender, girls' mean=57.11, s.d.=9.35 while boys' mean=56.71, s.d.=6.91. The ANOVA test reported $F(1,33)=.02$ with $p=.89$. Therefore, H₀₄ is accepted.

From the perspective of visual group,

- i. The mean for girls is 42.78 and s.d.=6.11 for girls in terms of visual literacy on posters. For boys, the mean=38.76 with s.d.=6.23. The ANOVA test reports $F(1,33)=3.70$ with $p=.63$. Thus H₀₄ is accepted since $p>.05$.
- ii. The test for visual text reports a mean of 4.94 with s.d.=0.87 for girls while mean=4.88 with s.d.=1.17. The ANOVA test reports $F(1,33)=.032$, $p=.86$, and thus H₀₄ is accepted since $p<.05$.
- iii. In the case of illustration as decorations and text as message, the girls' mean is 12.11, s.d.=2.37 while the boys' mean=10.82, s.d.=2.46. The ANOVA test revealed $F(1,33)=2.49$, $p=0.12$. Since $p>.05$, H₀₄ is accepted.
- iv. For text and illustration as a way to deliver the message, data showed the mean is 12.89, s.d.=2.19 for girls while the mean for boys is 11.71, s.d.=2.47. The ANOVA test reports $F(1,33)=2.53$, $p=.122$. Thus, H₀₄ is accepted.
- v. In illustration, the mean is 12.83, s.d.=3.07 for girls while the mean for boys is 11.35, s.d.=2.37. The ANOVA test reports $F(1,33)=2.3$ with $p=.12$, thus H₀₄ is accepted since $p>.05$.

VIII. DISCUSSION

A. Understanding drug posters through visual literacy

[5] mentions that observation is an activity to determine the values and its events as well as to develop skills. This is shown in the current study whereby students are more prone to reason in an intrinsic manner after experiencing a learning process.

The students were taught to analyze the poster in an explicit way using the theory proposed by [4]. When students are taught the three levels, students will start to analyze better when making a deeper observation. Even when the posters has a clear meaning, they are taught to think critically using their mind to evaluate the reasonableness and appropriateness of an idea, scrutinize the validity or weaknesses of the poster and offer sound arguments to explain the implicit meaning of a message embedded in the poster. In the study, boys had a lower understanding regarding implicit meaning but could interpret better after they were taught the method of observing and analyzing the photos in a proper way. Nonetheless, girls can afford to interpret intrinsically better. It is often said that girls are better than boys orally but not spatially. Boys could not interpret better since they are more focused towards reality and not illusion. However, this difference is not significant in this study. This may be due to the maturity of the boys and girls at this age. From the findings on visual group category, the students could not give the intrinsic meaning to the text visual in comparison to the text visual and illustration or just the illustration only. However, through the text and illustration, students were able to give the meaning intrinsically.

B. Appreciating drug posters through visual literacy

Based on the research findings, when text visual is used, students could not think deeper since the meaning is clear. In contrast, if there is a combination of text visual and illustration, the students can think intrinsically. Even if the visual is only an illustration, the observer or student are able to give the meaning but may not necessarily be able to analyze the picture intrinsically. The students' ability was seen through the semiotic analysis either linguistically or non linguistic (text or non-text) drug posters. [6] stated that pictures should be used in science and suggests using first text and pictures and then just the text. In the context of visual literacy, combination of text and visual is essential in delivering the message. The findings also showed that coupling the picture and text is easier to understand and appreciate since the picture will explain the text or vice versa. Overall, the finding shows that girls think at a higher intrinsic level when compared to boys. However boys who were not exposed to understanding and appreciating semiotic in visual arts are prone to interpret extrinsically. In the visual group category, text and visual are communication tools that are effective in comparison to text and illustration only.

REFERENCES

- [1] L. Ausburn, & F. Ausburn, "Visual literacy: Background, theory and practice." *PLET*, vol. 15, no. 4, pp. 291-297, 1978.
- [2] A. Bamford, "Visual Literacy White paper." 2003. http://www.adobe.com/uk/education/pdf/adobe_visual_literacy_paper.pdf
- [3] C. S. Peirce, *Peirce on signs*. James Hoopes, ed. Chapel Hill NC: University of N. Carolina Press, 1991.
- [4] E. Panofsky, *Studies in Iconology: Humanistic Themes in the Art of the Renaissance*. England: Oxford University Press, 1939.
- [5] Y. Abu Bakar, *Pengembangan Individu Dalam Tradisi Pemerhatian*, Malaysia: Universiti Malaya. 1995.
- [6] R. E. Mayer, *Multimedia Learning*. New York: Cambridge University Press. 2001.