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# SEE & SAY: UTILIZING VISUALS TO STIMULATE NOVICE LEARNERS' VERBALIZATION OF IDEAS IN THE TARGET LANGUAGE

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## Abstract

The rise of information technology has transformed our way of communicating to each other as visuals have become as significant as verbal messages. Novice English language learners usually find it difficult to orally verbalize their understanding and ideas when they are given word-based texts. This research aimed to elicit oral responses from English language learners towards wordless still graphics by encouraging them to decode visuals through a specific strategy. The strategy is a set of hierarchical steps developed according to the model of understanding known as Structured Observed Learning Outcomes (SOLO) taxonomy with elements from several techniques including Visible Thinking Routine. The subjects were an intact class of 12 students of lower English language proficiency. Their responses towards a series of visuals were analyzed through concept maps. The findings revealed that they were able to orally verbalize their thoughts towards the visuals. This was an improvement from the initial reluctance and limited oral production they exhibited towards word-based texts. It is likely that wordless visuals might be as effective or probably more effective than words in eliciting ideas and

language outputs from novice students. Hence, it is essential to consider viewing as the fifth language skill.

#### Keywords

Visual Literacy, SOLO Taxonomy, Still Graphics, English Language Learners

#### 1. Introduction

The emergence of social media, mobile devices and internet have gradually transformed our ways of communicating to each other as visuals started to substitute written (typed) or spoken words with emoji, meme, photos, gif and videos. This indicates that representing messages with visuals and interpreting visuals (viewing skills) could be utilized as a language skill of its own that can deliver messages effectively. It could be utilized to communicate meaning without the need for reading, listening, speaking and writing skills. In the past, visuals were often used to only complement the process of communication. The most common example was the use of pictures to enhance the meaning of words text. However, the recent development in technology has extended the use and role of visuals in communication to the extent that it might be a different language skill. This might necessitate language experts and educators to revise the current emphasis on four language skills (listening, speaking, reading and writing) and the need to integrate visual literacy as an essential component of language proficiency.

The Association for College & Research Libraries also known as ACRL (2011) defines visual literacy as "a set of abilities that enables an individual to effectively find, interpret, evaluate, use, and create images and visual media. Visual literacy skills equip a learner to understand and analyze the contextual, cultural, ethical, aesthetic, intellectual, and technical components involved in the production and use of visual materials. A visually literate individual is both a critical consumer of visual media and a competent contributor to a body of shared knowledge and culture." Visual literacy refers to the "ability to understand, interpret and evaluate visual messages" (Bristor & Drake, 1994 as cited in Baker, 2012). In 1935, a photo known as "Migrant Mother" during the Great Depression drew national attention that caused aid workers to immediately deliver food to the starving workers at the farm. In 2008, the first 10 minutes of animated film "Wall-E" contained no dialogue but still delivered the intended message effectively. These phenomena indicated the profound influence that images have on our perception and behavior. Visuals have become very significant in our life as we continuously encounter them on the Web, magazines and newspapers, advertising and televisions, maps and signs and many other platforms. According to Schoen (2015), the great shift in technology has

led to websites with lots of visuals and the increasing use of mobile gadgets has made visuals an integral part of all aspects of life. She asserted the importance to educate people on visual literacy as the increasing consumption of visuals does not necessarily train them to interpret and use them properly. "living in an image-rich world does not mean students (or faculty and administrators) naturally possess sophisticated visual literacy skills, just as continually listening to an iPod does not teach a person to critically analyze or create music", (Peter Felten, 2008, 60). ACRL (2011) posited similar arguments that the people need to develop the skills to engage in a visually-oriented society as visual media has become omnipotent. Although technology enables people to access, share and create visual media but this does not necessarily mean they are able to critically examine, utilize and produce visual media.

#### 2. Visual Literacy in Education

As technology turns more progressive and pervasive, images have become a fundamental part of our everyday routines. O' Neil (2011) describe how the world is saturated with moving and still images in various forms that skills in interpreting and utilizing images are a prerequisite of life skills. This implies the importance for people to be visually literate in order to function effectively in the world surrounded by countless images. Despite the rising importance of visuals, most curriculums give little or no attention to visual literacy in teaching and learning process as reading and writing are seen as the only literacy skills that matter or even exist (Brumberger, 2005; Yeh & Lohr, 2010). Visual literacy skills are just as important as verbal literacy skills as both require the skills to interpret and express ideas (Yeh & Lohr, 2010). Brumberger (2005) stressed the role of visual literacy skills in complimenting the four language skills of reading, writing, speaking and listening. Without the proper integration of visual literacy into curriculums, students would not be able to acquire comprehensive literacy skills that they require in order to process and communicate information and ideas efficiently in the real world. Brumburger (2011) conducted a survey on 500 undergraduates in Virgina Tech and discovered that majority of the students perceived themselves as weak in interpreting visuals as well as responding to them critically. This shows that students need to master visual literacy just as much as they need to learn verbal literacy so they can be highly proficient in interpreting and utilizing information that comes in various forms including images. Gabinete (2017) conducted a study on three English language teachers in the Philippines and discovered that the teachers were able to integrate viewing into their teaching practice but it was merely limited to asking

students basic questions related to visuals which did not encourage critical analysis. Barrot (2014) claimed that many teachers were not aware that viewing is another macroskill that needs to be taught together with reading, writing, speaking and listening.

#### 2.1 Visual Literacy as Language Skill

It is argued that visual literacy precedes verbal literacy in human development as Berger (1972) stipulated that "Seeing comes before words. The child looks and recognizes before it can speak" (p. 7). Visual literacy is the foundation that humans need to acquire before they learn to read and write. Sinatra (1986) postulated that learning evolves from concrete to abstract and therefore being able to understand and use visual symbols is a prerequisite to learning verbal symbols. This signifies the major influence of visuals in our literacy skills that had been overlooked for decades. In order to develop visual literacy skills, Heinich et al., (1999) proposed two major approaches, reading (decoding) and writing (encoding) visuals. The reading process involves interpretation and creation of meaning from visuals while the writing process requires communicating meaning though visuals. Previous research focused more on encoding visuals. Ford (2010) studied nine sixth grade students in the US on how they read and interpret visuals in the form of comic strips without texts and with little text. She found out that students relied on their existing knowledge and previous experience to interpret the visual images. They were able to demonstrate detailed observations and used their reasoning skills to explain what they saw. Mayer, Bove, Bryman, Mars, and Tapangco (1996) compared the use of verbal summary, multimedia summary with a small amount of text and multimedia summary with a large amount of text. The results showed that multimedia summary is more effective than verbal summary and multimedia summary with less text works better than the one with more words. It was also discovered that multimedia summary only works effectively with students with little background knowledge of the subject. Students who are more experienced might not gain much benefit from it due to their higher level of knowledge about the subject. Chanlin (1998) conducted a study which compared lessons with no graphics, still graphics and animated graphics and discovered that background knowledge influences how students respond to visuals and there was no significant difference between still and animated graphics. Thus, still graphics with no text were used in this study.

#### 2.2 Strategies in Visual Literacy

This study focused on familiarizing the students on how to interpret visuals. There are several strategies on how visual literacy can be taught. One of the most common one is "Visual Thinking Strategies" (VTS). VTS is an inquiry-based strategy that usually consists of a series of

questions such as "what do you see in this picture?", "what makes you say that?" and "what else do you see?". The purpose of this approach is to foster students' visual literacy skills which serve as the foundation for the development of more complex cognitive abilities (Rawlinson et al., 2007). Seeing-Thinking Activity (STA) which was adapted from a reading technique known as Directed Reading Thinking Activity (DRTA) is another visual literacy strategy. It usually starts by asking the students on what they think is happening in the photo followed by questions that become increasingly complex (Dalton, 1985). "Visible Thinking" (n.d.) recommended various techniques that stimulate thinking skills through visuals particularly work of art such as "See-Think-Wonder", "Think-Puzzle-Explore" and "What Makes You Say That". Tillmann (2012) proposed the alignment of teaching practice on visual literacy with Bloom's Taxonomy by tailoring her approach according to the six levels of Bloom's Taxonomy: remembering, understanding, applying, analyzing, evaluating and creating. Ford (2010) discovered in her research that students utilized their own strategies in interpreting visuals and their answers could be limited to what they merely saw on the photo unless if there were specific guiding questions that encouraged them to make inferences of the visual. The common strategies on visual literacy usually lack hierarchical links between the questions. They do not attempt to first elicit students' response on what they see before prompting them to systematically develop their interpretation and curiosity on the photo. Therefore, a strategy that consisted of five main steps was developed. The term "See & Say" was used to refer to the technique since the students were expected to look at the visuals (See) and explain what they saw and thought of it (Say).

- 1. Name: name the most salient element in the visual: What is the most obvious part of the visual?
- 2. Identify: Identify other elements in the visual: What else that you see? List them as many as possible.
- 3. Link: Connect the different elements to form meanings: What do you think was happening in the photo? Why do you think so? Where do you think this took place? Who do you think the people were? The questions could be extended and adapted according to the visuals and students' responses.
- 4. Ask: Generate questions related to the visual. The questions range from closed-ended questions to open-ended questions: What do you want to find out about this visual?
- 5. Discover: Search for more information about the visual including finding the answers to the questions created previously. What have you found out related to the visual? What were the answers to your questions?

# 3. Solo Taxonomy

SOLO taxonomy is a model which describes level of increasing complexity in a student's understanding of a subject which consists of five stages, and it can be applied in any subject (Biggs & Tang, 2009). This taxonomy is used in this study to examine the students' responses on the visuals. Table 1 illustrates the description for each level of SOLO taxonomy: pre-structural, unistructural, multistructural, relational and extended abstract (Potter & Kustra, 2012).

| 1 <sup>st</sup> Level | 2 <sup>nd</sup> Level | 3 <sup>rd</sup> Level | 4 <sup>th</sup> Level | 5 <sup>th</sup> Level |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Pre-structural        | Unistructural         | Multistructural       | Relational            | Extended              |
|                       |                       |                       |                       | Abstract              |
| Students do not       | Students learn        | Students learn        | Students learn        | Students can          |
| understand the        | one relevant          | about several         | to integrate          | generalize what       |
| particular topic,     | aspect of the         | relevant yet          | several different     | they learn into a     |
| problem or            | whole by              | independent           | aspects into a        | new area of           |
| issue and there       | focusing on one       | aspects of the        | structure by          | knowledge such        |
| is no                 | single aspect         | whole without         | making                | as predicting         |
| organization of       | with little           | making                | significant           | and creating.         |
| information and       | clarity, meaning      | significant           | connections           | They can apply        |
| no                    | and connection.       | connections and       | where                 | knowledge in          |
| understanding         |                       | adequate              | understanding         | other contexts        |
| of these              |                       | organization of       | and application       | learned beyond        |
| alienated pieces      |                       | information.          | of the ideas          | the original          |
| of information.       |                       |                       | have been             | context.              |
|                       |                       |                       | attained.             |                       |

**Table 1:** Levels of SOLO Taxonomy

Richards (2012) argued that SOLO taxonomy provides a feasible manner of how to evaluate students' progress from pre-structural competence to productive proficiency involving higher levels of SOLO taxonomy. It can be used to examine the depth of students' understanding of a particular subject matter. Thompson (2007) asserted that SOLO taxonomy provides a framework for teachers in assessing students' quality of responses.

### 4. Problem Statement

The subjects in this study comprised of students from a rural area of Sabah, the most isolated and least developed state of Malaysia. The students' level of English was too novice that their skills to produce the target language were limited. They displayed limited proficiency and some of them still struggled with basic literacy skills like reading. They could barely produce any oral responses in English language when presented with ESL reading comprehension questions. There was an attempt of familiarizing them first with shorter text before longer text was used but the students still exhibited the same level of responses. Their responses to ESL reading comprehension were often limited to the print text given to them that they merely regurgitated the phrases and sentences from the text as their answers. They were so confined by the text that even if the questions required them to go beyond the text, they tended to recite random words or phrases from the text and their responses often appeared as hit and miss attempts. This attitude hindered these students from improving their English language skills as they felt reluctant to produce even the most minimal language output of their own. They became utterly dependent on the given verbal texts that they were not making progress in learning the language as well as acquiring deep understanding of selected texts. Since the students had difficulties in giving proper and adequate responses to print texts probably due to the nature of the material and their limited proficiency, it might be possible that visuals stimulate them better in providing desired responses so their language and thinking skills could be nurtured. Hence, this study aimed to explore visuals as a way of nurturing students' production of the target language and ideas.

## 5. Objective and Research Questions

The aim objective is to elicit students' oral responses in deciphering still graphics through a strategy designed to develop visual literacy skills. The research aimed to examine the originality and quality of students' verbal responses when they were given wordless visuals in replacement of print text during one to one mentoring session. This session was usually done with print text as an effort to assist students to improve their literacy and to encourage them to orally speak in English. Since the students tended to merely reread the words and sentences from a print text as their responses without producing their own vocabulary, it was difficult to determine how well they understood the text, what level their proficiency was and worst, they were not able to experience meaningful learning as they did not produce the target language using their own vocabulary and challenged themselves to formulate their own ideas. Thus, the research questions were as follows:

- 1. To what extent visuals could stimulate students' verbalization of their thoughts in English language?
- 2. What effects that visuals might have on students' thinking skills in interpreting the visuals?

# 6. Methodology

The subjects were English Language Learners (ELLs) from a vocational school located in the interior region of Sabah, Malaysia. The subjects were 16 years old and they had limited proficiency in English language. The students did not take PT3 (a national standardized assessment for 15 years old) as they were streamed into vocational course after their primary education. There were 12 students in one intact class, 3 females and 9 males. The data gathering was technique was content analysis. Content analysis is a research tool that examines document and communication artifacts which can in any forms like speeches, advertisements, videos, conversation, books and essays (Alan, 2011). Their responses during one to one mentoring session were recorded, transcribed and converted into concept maps in order to examine the depth of their understanding and usage of English language. Concept maps can be used to systematically represent interview data (Novak, 1998). Concept maps are usually visualized in a hierarchical manner where the primary concept is at the top (White & Gunstone, 1992). Their responses were analyzed according to several criteria including SOLO Taxonomy (Dart & Boulton-Lewis, 1998).

| Level of Thinking | Characteristics                                      |  |
|-------------------|--|--|
| Pre-structural    | Incompetent, nothing known about the area            |  |
| Uni-structural    | One relevant aspect is known                         |  |
| Multi-structural  | Several relevant independent aspects are known       |  |
| Relational        | Aspects of knowledge are integrated into a structure |  |
| Extended Abstract | Knowledge is generalised into a new domain           |  |
|                   |  |  |

 Table 2: Solo Taxonomy

Source: Biggs & Collins (1982)

There was a tendency for them to use their native language or national language in describing what they saw but one of the main principle of selecting visuals for English language learners is that the learners need to be able to talk about it in their first language (Canning-Wilson, 2000). In addition, the teacher offered assistance to the students by translating the words and phrases for them.

The intervention focused on eliciting students' production of target language and ideas on their own in order to characterize their responses and foster their ability to communicate their ideas in the target language. Thus, the teacher attempted to delve into students' perception of the still graphics while encouraging them to produce language output independently. The students were interviewed and their responses were recorded, transcribed and converted to concept maps. There were two photos used in the main task. The first photo was related to the Hurricane Harvey in the US (Figure 1) and the second photo depicted the Rohingya crisis in Myanmar (Figure 2). The first six respondents were shown with the first photo and the second one was used on the other six respondents. The teacher briefed them the task and used the five steps specifically developed for this research to guide the students in decoding the visuals. The medium of instruction was English language but the students were allowed to express their answers in their native languages if they found it difficult to explain it in English. The teacher also offered assistance to help them translate some words and phrases. Their responses were recorded and analyzed qualitatively.



Figure 1: This photo was taken during Hurricane Harvey in the US



Figure 2: This photo was taken during the Rohingya Crisis in Myanmar

# Findings

The students were expected to apply the strategy specifically designed for this study to decipher visuals. The responses from the analysis of the concept maps revealed the deliberate steps of how the students interpreted the visuals.



**Figure 3:** Concept map which illustrates one of the students' oral responses on the photo of an event that took place during Hurricane Harvey in the US

### Table 3: Analysis of Concept Maps

Description of the student's response

Student 1 first responded by saying the grandmother was the most obvious visible element. He then pointed out that the boat, the men, the flood and the house as other visible elements. He was able to link these elements by saying that it was a rescue mission where the men were taking the old lady somewhere safe due to the flood. He explained that the men were guiding the old lady to go to the boat and he also mentioned that this possibly took place in the US, suggesting his background knowledge on the recent hurricane in the country. His questions were "Who were these men? Were they police officers? firefighters? Or civilians?", "why did the flood happen in the first place?", "where they were taking the grandmother?", and "what is their solution to the flood?".

| No | Evaluation Criteria       | Description  |
|----|---------------------------|--|
| 1  | Cognitive skills          | Naming   |
|    |                           | Listing  |
|    |                           | Inferring  |
|    |                           | Asking questions   |
|    |                           | Some of these cognitive skills are similar with reading        |
|    |                           | comprehension strategies                                       |
| 2  | Cultural Influence        | Referring to the lady in the photo as grandmother although     |
|    |                           | there was nothing about the visual that explicitly stated that |
|    |                           | she's a grandmother or had a family, grandchildren or          |
|    |                           | married. This was due to the common tradition in the local     |
|    |                           | culture that every woman got married and started a family      |
|    |                           | and eventually had grandchildren. Although this has            |
|    |                           | changed but the influence of such tradition is still           |
|    |                           | prevalent.   |
| 3  | Background knowledge      | The student deduced that this incident took place in the US.   |
|    |                           | This indicated their awareness of current issues as this       |
|    |                           | photo was taken during Hurricane Harvey in which the           |
|    |                           | news was covered on all major newspapers and circulated        |
|    |                           | around social media.   |
| 4  | Originality of vocabulary | The student was able to produce language output in English     |

|   |            | language on their own despite the fact that the visual       |
|---|------------|--|
|   |            | contained no text. This was a major shift from their         |
|   |            | tendency to simply reread words and phrases from print       |
|   |            | text.  |
| 5 | SOLO Level | The student was able to identify one element from the        |
|   |            | photo (the grandmother) and named several other visible      |
|   |            | elements (men, flood, boat, house). She then put the         |
|   |            | information together to deduce that the men were rescuing    |
|   |            | her from the flood. She was able to pose questions related   |
|   |            | to the visual which could serve as an exercise for inquiry-  |
|   |            | based learning as a follow up task. This was consistent with |
|   |            | the levels of SOLO taxonomy (unistructural-                  |
|   |            | multistructural-relational-extended abstract)                |

Table 3 is the analysis of the concept map based on the student's response on the first photo.



Figure 4: Concept map which illustrates one of the students' oral responses on the photo of an event that took place during Rohingya Crises in Myanmmar.

### Table 4: Analysis of Concept Maps

#### **Description of the response**

One student highlighted that the kid as the most salient part of the photo. He further responded by listing women, a man, old man, a baby, a group of people as other visible elements. He suggested that their homes must have been destroyed by natural disasters like hurricane or flood. He described how they were probably expecting for help since they might not have food, water and place to stay. The questions that he created were "why was their home destroyed?", "what happened to their houses", "would people ever find out if they die?", "would they receive help?", "where did they come from?", "how populated their country is?", and "did the woman come from the same country because her dress was very different?"

| No | Evaluation Criteria       | Description   |  |
|----|---------------------------|---|--|
| 1  | Cognitive skills          | Recognizing   |  |
|    |                           | Listing   |  |
|    |                           | Inferring   |  |
|    |                           | Making connection   |  |
|    |                           | Asking questions  |  |
|    |                           | Some of these cognitive skills are similar with reading       |  |
|    |                           | comprehension strategies                                      |  |
| 2  | Cultural Influence        | The student inquired on the clothing style of a woman on      |  |
|    |                           | the photo by relating it to their country of origin. This was |  |
|    |                           | probably due to her style of clothing that might be different |  |
|    |                           | than how women in this country usually dress.                 |  |
| 3  | Background knowledge      | The student deduced that their houses were demolished by      |  |
|    |                           | natural disasters and that they required basic needs like     |  |
|    |                           | food and water. This indicated his awareness on current       |  |
|    |                           | issues and real life problems that he could relate to such    |  |
|    |                           | incident. He also inquired on the population of the country   |  |
|    |                           | since it is common for overpopulated countries to             |  |
|    |                           | experience certain problems.                                  |  |
| 4  | Originality of vocabulary | The student was able to produce language output in English    |  |
|    |                           | language on their own despite the fact that the visual        |  |
|    |                           | contained no text. This was a major shift from their          |  |

|   |            | tendency to simply reread words and phrases from print     |
|---|------------|--|
|   |            | text.  |
| 5 | SOLO Level | The student was able to identify one element from the      |
|   |            | photo (the kid) and named several other elements (women,   |
|   |            | old man, baby, men) before describing them as a group of   |
|   |            | people. He was able to put the information together to     |
|   |            | deduce that their houses were destroyed, they needed help  |
|   |            | and they were able to pose questions related to the visual |
|   |            | which served as platform for inquiry-based learning as a   |
|   |            | follow up task. This was consistent with the levels of     |
|   |            | SOLO taxonomy (unistructural-multistructural-relational-   |
|   |            | extended abstract)   |

Table 4 is the analysis of the concept map based on the student's response.

#### 7. Discussion

The findings showed that the students usually started with basic English words to describe the visual elements that they were familiar with. They sometimes started to name the objects, occupations or events in the photos in isolated context such as "an old lady", "a flood", "the firefighters" before they began to link what they saw to form a logical and simple explanation. They were able to construct complete sentence with subject and predicate like "the men rescued the grandmother from the flood" and "their homes were destroyed during the flood". They then continued to analyze the photos by making inquiries and ideas which were not directly presented in the photos. They were able to formulate questions by using WH question stems. These responses indicated that the students possessed sufficient knowledge of vocabulary that they were able to use properly and they were of the basic language forms and functions.

The responses also signified students' ability to develop and express their thoughts in a correlated and systematic way. They deciphered the graphics in line with SOLO levels of first focusing on one element (unistructural) before deliberately highlighting the different elements (multistructural) and subsequently link them altogether (relational) and generalize the concept to new context (extended abstract). It became evident that when decoding the visuals, the students demonstrated cognitive skills that were equivalent to strategies used in reading such as making inferences, predicting, summarizing, questioning and making connection. These strategies were

reading comprehension strategies that learners usually apply in understanding word-based text like articles (Adler, 2001). The students made guesses based on clues they identified from the photos (inference, prediction), they narrated their own storyline of what happened in the photos (summarizing), they posed questions related to the visuals (questioning). This signified the feasibility for wordless visuals to complement reading activities to facilitate the transfer of the skills from visuals to print text so students can develop their reading comprehension strategies better.

The students' responses were considered as a positive outcome for novice English language learners who initially felt reluctant to respond orally to texts consisting of words. Stokes (2001) claimed that visual elements aid oral production of language as learners visualize the content that they find difficult to understand through words. The graphics in this intervention enabled the students to visualize the content so it became clear and comprehensible. This probably motivated them to verbalize their ideas orally. This was corroborated by Taboada, Bianco and Bowerman (2012) who stated that visual cues activate students' prior knowledge and intrinsic motivation. Hence, they became more engaged in the task and were willing to speak when they were presented with visuals than words. The findings were consistent with previous studies whereby the students' previous knowledge and experience influenced their interpretation of the visuals (Tillmann, 2012; Chanlin, 1998). The respondents instantly referred to the older woman in the first photo as grandmother despite the fact that there was nothing about the visuals that explicitly stated the lady as a grandmother. This illustrated how they linked being an older woman with having grandchildren which was a common tradition in the local culture. Their responses also indicated their general knowledge as they could relate the photos to some recent global issues (e.g. hurricane in the US, overpopulation, crisis).

As the students gradually named what they saw from the photo and put all the pieces together to form a clear meaning using the strategy, it was likely that they attempted to conceptualize the visual elements in the photo to arrive at the most plausible explanation. According to Canning-Wilson (2000), visual elements help students create mental model that links content objects more efficiently than words. Although they lacked the ability to understand words that might have explained why they struggled with print text, they were more successful in expressing their ideas better when they were only required to study the visuals. This showed how visuals can be better stimuli than print texts in encouraging students to respond better in the target language. Cooper (2002) argued that novice language learners rely more on visuals than words to attain clues that can help them create meaning. Wordless visuals allow novice learners

to focus on specific visual elements as clues that can help them deliberately establish logical relationship between the different elements to reach a solid and reasonable explanation. They freed their cognitive efforts on processing the complexity of words and focused on mere images. Visuals granted them the freedom to explore multiple alternatives and possibilities in decoding visuals. Instead of being overwhelmed with lengthy paragraphs of words, graphics require less cognitive efforts to be interpreted and evaluated. Clark and Lyons (2004) argued that graphics require fewer cognitive transformations and less cognitive load to be understood. Thus, visuals enable novice learners acquire adequate level of understanding of content.

The respondents, despite being considered as below than average learners, were able to orally verbalize their thoughts in English language and displayed critical thinking skills as they responded to the textless photos. This indicates the possibility that visuals can draw more language outputs and thoughts from novice learners than words. "Visible Thinking" (n.d.) proposed the concept of "Visible Thinking" which revolves around the idea that we learn best what we can see and hear. Its thinking routines which usually focus on visuals such as work of art were recommended as effective teaching methods in English language teaching by "Teaching English" (n.d.). Exploring the influence of visual literacy on textual literacy, language learning and development of thinking skills might be necessary to enable us understand how it affects learning. In a study conducted on 84 children aged four until eleven on picture book by Arizpe (2001) revealed that children with below average reading skills seemed to be able to decode visuals better than texts. The children were able to interpret symbols such as linking freedom and captivity with happiness and sadness respectively. A research on adults also showed similar results as inexperienced students responded better to still graphics and multimedia summary with minimal text (Mayer, et. Al., 1996). There is a high possibility that visuals especially textless visuals can elicit more ideas and language outputs from students than texts. If this is true, this might change how language skills should be taught by including and emphasizing visual literacy especially for novice learners.

The potential role of visual literacy in language learning needs to be explored more. It is recommended that studying the criteria for the selection of effective visuals should be done. This might help educators choose the right visuals to use in the classroom. Canning-Wilson (2000) argued that pictures need to be meaningful and universally appealing in order to be effectively used in teaching. There might be also possible influence of different types of photos in students' responses. Unlike photos, print text can be modified to fit learners' ability or at least its level of difficulty could be determined. It was also discovered that there were two ends of continuum on

how the students perceived the visuals that might have been influenced by their genders or other factors. The female students expressed more concern on the individuals in the photo (the lady who was being evacuated due to the flood) while many of the male students were more focused on the event itself (the causes and effects of the flood). This raised the question whether gender could possibly influence students' perspectives. The role and influence of gender can be further explored in future studies on visual literacy. While most of them generated open-ended questions that enabled them to explore the issue in many ways, a few only came up with close-ended questions that did not really foster deeper inquiry. It might be necessary to expose the students on how to create higher order thinking questions prior to the task. It is also interesting to note how some students produced questions that focused on the general event that took place (e.g. flood, crisis) while some wondered more about an individual character in the photo (e.g. the old lady).

# 8. Conclusion

This study shed some light on how visual literacy can promote learners' development of thinking and language skills. The intervention which utilized still graphics encouraged learners to verbalize their ideas in English language despite the absence of verbal texts. This denotes the significant role of visual literacy in learners' cognitive and language development that should be emphasized in curriculum. Alvermann and Hagood (2000) claimed that "literacy is on the verge of reinventing itself" due to the essential role of visuals in developing students' literacy skills that are no longer limited to reading and writing. Barrot (2014) asserted that visual literacy has already become the new addition to the four macroskills in language teaching (listening, speaking, reading, writing) as proliferation of information technology has necessitated its inclusion. It is probably essential for educators worldwide to officially acknowledge and incorporate viewing as the fifth language skill into the teaching and learning of language. This might demand some changes on our curriculum, teaching methods and learning strategies in order to deliver a more comprehensive language education.

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