The Use of Multimodal Texts in An English Classroom of Hard-of-Hearing Learners

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Abstract: This article provides a story of a teacher’s experience in using ICT-integrated multimodal texts to help heard-of-hearing learners develop or improve their literacy skills especially in mastering reading comprehension. Specifically, this study tried to investigate students’ engagement in the classroom activities involving multimodal reading materials. In addition, their perceptions toward the use of multimodality were also portrayed. The study was carried out in a special need school. The research was a narrative inquiry study of an English teacher and three hard-of-hearing learners. The material consisted of video observation, photographs, field notes, documents, and interviews with the teacher and the students. The findings showed that multimodal texts which were built with diverse modes or semiotic resources such as color, sound, motion, written text, and gesture could ease the teacher to help the students perform better in the area of reading comprehension. Moreover, the use of multimodal texts allow the students to participate more actively in the classroom activities. I believe that the result of the study contributes to the body of knowledge regarding the use of texts for reading purpose.

Keywords: Multimodality, hard-of-hearing learners, Reading materials

INTRODUCTION
Every child has the right to get a proper education including learners with special needs. Special Education Needs refers to physical, mental, or psychological conditions that may hamper students in learning something. (Lowe, 2016) describes students with special educational needs as those who have a learning difficulty which calls for special educational provision to be made for them. These students have significantly
greater difficulty in learning than the majority of students at their level or have a disability which prevents or hinders them from making use of generally provided educational facilities. There are a number of categories of special needs learners. One of them that becomes the focus of the study is learners who are hard-of-hearing.

Teaching English as a foreign language for hard hearing learners becomes a crucial global issue including in Asia. They are multilingual learners. In addition to learning their national language, they also need to learn sign languages whose structures and syntaxes are different from English. In Indonesia itself, the government established special schools for students with special needs. The education law stated that every child with a disability should be given equal rights to go for education as regular students. Special schools are specifically designed for students to cope with their disability in learning so they can learn in school just like other students do. Based on the policy, special schools in Indonesia accepts students with disabilities, such as blind students, deaf students, and so on. In Indonesia, the curriculum of special schools is similar to that of regular schools but it is adapted to suit the needs of the students with special needs. Therefore, as one of the subjects, it includes English.

However, the process of learning English for deaf or hard-of-hearing students is different from regular students. For hard-of-hearing students, it is quite challenging for them to learn English because learners with hearing impairments often indicate significant delays in syntax, phoneme production, and vocabulary (Cawthon, 2001). Moreover, it’s difficult for them to completely process information in the form of sounds, while regular students can process them. This gives effect to their ability because of the lack of vocabulary from the sounds they fail to fully process. Furthermore, Oyewumi (2008) cited in (Mpopu, 2013) stated that deaf and hearing-impaired students tend to be visual learners and this leads to a problem in an environment where much essential information is delivered exclusively by word of mouth as what mostly happens in the Indonesian context. Therefore, the language characteristic including the structure of sentences of hard-of-hearing is usually different from regular students and it will be a challenge for the teacher to teach them English.

One of the ways to help hard-of-hearing learners improve their reading skills and comprehension is to make use of appropriate materials. Teaching materials are often the most important and observable element component in classroom instruction (Nunan, 2004). It is one of the five important components of language teaching. In addition, (Date, Type, & Price, 1997) summarized the role of materials in language teaching, especially textbooks. The materials serve as a resource that supports learners’ practice and communicative interaction presents grammar, vocabulary, pronunciation, and ideas for classroom activities, and serves support for less experienced teachers. Teachers, particularly those who are less experienced, teachers rely on all guidance provided by a textbook. However, it is a fact that a textbook does not always meet the variety of conditions in a language class (Ur, 1996 in Richards, 2003). Sometimes, it is necessary for teachers to use other teaching materials in addition to textbooks and modify them in order to be relevant to the demands and needs of a particular group of learners. It implies that teachers should develop materials based on students’ needs. In developing the materials, teachers’ experiences and understanding of their students play an important role, so that the students are motivated in learning the target language. By having objectives of teaching and learning or being familiar with the needs of the learners, the teachers can develop their own materials for the learners to achieve the objectives or to fulfill the learners’ special needs.

As mentioned previously, hard-of-hearing children tend to be visual learners. Considering this characteristic, multimodality is
chosen as the approach to deliver reading materials. (Moreno & Mayer, 2007) state that a multimodal learning environment makes use of various modes to represent content knowledge. According to Kress et al (2001), multimodality practices in the classroom highlight us of multiple modalities in the real context. Students choose or negotiate the meanings conveyed from modalities to create conceptions about the world. Every mode brings information that is a resource for students’ meaning construction. In such multimodal courses, the instructional events or elements are presented and delivered in more than one sensory mode, therefore can facilitate the learning of students. The multimodal forms provide students with some multiple genres of texts they can explore where words, sounds, images, and other modes are put together as learning sources. The combination of printed and visual information presented from the text will allow hard-of-hearing students to make meaning easily thus improve their reading comprehension (Moreillon, 2007).

Considering the benefits of multimodality, an English teacher of one of the special needs schools in Indonesia has occasionally used multimodal materials in teaching English particularly reading. In this study, we want to uncover how the English teacher uses multimodal reading materials and the students’ perception of the use of multimodal texts. There have been some studies conducted on the use of multimodality for hard of hearing learners but most of them are experimental studies. A study that provides a comprehensive explanation of why and how the teacher incorporated multimodality on reading activities and how the students perceive learning reading by using multimodal texts is still scant. Thus, in this study we would attempt to answer these two research questions:

(1) How does the teacher use multimodal texts in delivering reading materials for hard-of-hearing learners?

(2) What are the impacts of the use of multimodal texts on students’ learning?

**Hard Hearing Learners and Their Literacy Skills**

Sattler (1992) states that hearing impairment is a general term refers to hearing losses ranging from mild to profound. The deaf means those with the sense of hearing is nonfunctional for the ordinary purposes of life.

Students who are deaf or hard of hearing often struggle to develop or improve crucial literacy skills. One of the most difficult skills for them to master is reading comprehension. According to (Van Staden, 2013), the reading skills of many deaf children lag several years behind those of hearing children, and there is a necessity to identify their difficulties in reading and implement the right reading strategies to address the problems.

(Hoffman & Wang, 2010) state that there are a number of factors that determine how far children can access and comprehend text. These factors as the degree of hearing loss, how parents share a language with their children, and the extent to which children have access to speech phonological information. A student who is deaf or hard of hearing often have problems with literacy skills, and especially with reading comprehension. In line with the statement, (Mich, Pianta, & Mana, 2013) noted that hard-of-hearing (HH) children have significant difficulties in comprehending written text. This is mostly because of the hearing loss that hinders them from being exposed to spoken language when they were a baby. However, it is caused by the type of educational intervention they deal with, which accustoms them to decoding single words and isolated sentences.

**Multimodality in Language Teaching and Learning**

Multimodality refers to the use of different semiotic modes of communication in which there is an integration of the linguistic mode of
meaning and the visual, the gestural, the spatial, or the audio mode. These modes are combined to make meaning during interaction with texts although one mode may dominate over the rest. In other words, the multimodal approach signposts that different types of semiotic resources are intertwined with a text’s particular meaning (Bao, 2017).

Nowadays, it is common to find a variety of print and digital multimodal texts such as graphic novels, websites, video games, and picture books that mostly involve a multifarious interplay of various semiotic modes such as gestural, audio, visual, and spatial elements (Kress et al., 2001). According to (Moreno & Mayer, 2007) people learn better from a combination of pictures and words than from words alone. Words contain written and spoken text while pictures consist of animation, video, and graphic images. The combination of words and pictures provide more information that the brain processes in its working memory (Liu, 2013).

The use of a multimodal approach in the classroom setting emphasizes the use of multiple modalities in real learning environments. Learners choose or negotiate the meaning derived from modalities to create conceptions about the world. Each mode involves information that becomes the learner’s resource in constructing meaning. Each modality has a different element of phenomena that could challenge their previous conceptions about the world and provide resources for the learners to imagine and think with (Kress et al., 2001). According to Kress et al., (2001), teachers often use gestures to give more explanation to speech. In particular, they argue that there are interaction and interplay of various modes. These modes are speech, objects, drawing, and gestures. Each of these modes helps learners to construct meaning easily. For example, a picture in the textbook help makes a stable summary and a picture on the blackboard help get a visual contrast. Meanwhile, cohesion can be obtained from synchronization, repetition, and contrast. Kress et al., (2001) adds that each mode requires learners to do various types of work and by doing so, they can understand the material better.

In line with the explanation above, (Liu, 2013) argues that multimodal learning classrooms utilize various modes to denote content knowledge, for example, the use of verbal and non-verbal together, where the non-verbal mode is the graphics mode that can be either static or dynamic graphics. The use of these different presentation modes aims to activate both learners’ visual and auditory sensory modalities. Moreover, the multimodal approach leads to multiple representations where instructional events or elements are delivered in more than one sensory mode. Therefore, these multiple representations can be used to further support student’s learning ((Sankey, Birch, & Gardiner, 2010).

METHOD
The study was conducted in a private special school. The participants were one English teacher and three hard-of-hearing students with moderate hearing loss. The English teacher has been teaching English for hard-of-hearing learners for 5 years. She was interested to use multimodal materials in the form of an interactive PowerPoint presentation that involves pictures and written texts. This is qualitative research with narrative design. Narrative research uses narration to interpret the data obtained from the participants. The researcher describes the lives of participants, collect, and tell their stories and experiences (Connelly & Clandinin, 1990). In this study, the researcher writes the narration based on what the participants told her. The study aimed to discover how this teacher used a multimodality approach in her classroom. It examined what she did in her classroom to help students, how she treated students and how she dealt with them on a learning process.
We collected the data by using a variety of data collection such as in-depth interviews, observation, and audiovisual materials (photographs and videos). Then, to analyze the data, we did data organization, data reduction, data description, data interpretation, and data validation.

RESULTS AND DISCUSSION

Results
In this section, the main results of the study are presented. The section concentrates on findings that provide insight into the two research questions mentioned above. Those findings are about how the teacher chose ICT based multimodal texts, the problems while using the materials and its solution, and the effect of using the materials towards the teacher and students. To make all of those clear, it will be elaborated in the explanation below.

How the Teacher Uses Multimodal Reading Materials
This study focuses on the use of multimodality in teaching reading comprehension. To begin with, the main reason why the teacher preferred to use multimodal materials was their attractive look thus it was very effective in boosting the mood of teaching-learning activity in the classroom. To use the materials, the teacher had to do several steps. The first step was that she selected the theme in advance that later she would use it as teaching material. The materials were in the form of interactive PowerPoints involving pictures. In addition, the PPT was linked to other interactive websites as well.

Before using Multimodal materials in the teaching and learning process, the teacher told us that she had to prepare several tools such as an LCD projector, laptop, and speaker active. The teacher stated that preparation was vital to prevent the technical problems commonly happened in the implementation of digital tools. “The class starts at 8 but I always came to the room 15 minutes earlier to prepare everything such as connecting my laptop to the projector, checking the audio, and so forth.”

In the preparation stage, one very popular kind of activity that the teacher does is brainstorming. In this activity, students are invited to recall words, experiences, and prior knowledge that relevant to the text. According to the teacher, the aim of these activities is to familiarize students with the contextual features of a text or text structure. She did that by showing pictures and asked some questions to the students. “I showed pictures related to the text and asked the students some questions related to the picture such as what pictures they were, who were on the pictures, etc. The aim is to predict what the text is about. I also discuss new vocabulary with students because discussing new vocabulary can help them to comprehend the text”.

The teacher also added that when students have problems with unknown words, she can encourage them to use a dictionary.

After preparing the hardware, the teacher started the teaching and learning process by firstly informing the topic being discussed. Then, the teacher asked the students to pay attention to the screen. With the special feature of PPT materials involving pictures and text together, the students seemed more enthusiastic and concentrate on seeing the presentation. The teacher then presented a video about the things which exist in the school and asked the students to repeat the vocabularies being listened to. After showing the video, the teacher paused the presentation and check students’ understanding of the reading text.

The teacher also assisted the students who found themselves difficult either in translating or pronouncing the words. Surprisingly, each group’s representative presented loudly and confidently. Even though there were some mistakes in pronouncing the words, it was normal since they are still in the process of learning.

“Due to the hearing impairment of the students, they could not pronounce some words and
sentences clearly. Therefore, I read the text loudly so the students could do lip-reading.”

After that, the teacher again asked the students to pay attention to the presentation of the material. This time, the teacher reviewed the material being studied on that day. The teacher presented a number of the vocabulary of things in the school. Then, the teacher together with the students tried to pronounce each vocabulary being presented correctly. According to the teacher, this phase was crucial in familiarizing the students with the correct pronunciation.

“These students should be given exposure and a time to get familiar and to find the meaning of unfamiliar words presented in the material. Therefore, I often give them additional activities related to vocabulary mastery”

In the post-reading stage, the teachers had done the activities which include: questioning, clarifying and justifying comprehension, asking for specific questions, reviewing and follow-up strategy. She often asked the students some questions about the materials they had to learn in order to make sure the students really comprehend the text.

At the end of the teaching and learning process, the teacher thanked the students for being active and cooperative. Besides, the teacher said that all of the students did a great job on that day. The teacher also informed the students that in the following meetings, the teacher will use e a more interesting multimodal materials presentation.

By implementing multimodal materials in the teaching and learning process, the students gained multiple benefits. They stated that multimodal materials stimulated their creativity and imagination. They also informed that the materials could strengthen their memory in learning vocabulary. As we know there is a great number of English vocabularies, and it is extremely difficult to recall by hard hearing students. Therefore, the use of PPT materials can help the students to remember at least some common, useful, and important words to know.

Related to multimodal materials’ lay-out, the teacher loved the PPT materials since they were colorful. In using the, there were also some effects on the students. She told that by using multimodal materials, the students became more enthusiastic to study. Since the English subject was considered arduous by the students, it was needed to make the teaching-learning activity as interesting as possible. By using these materials, the students were facilitated to learn more interestingly.

“I could see that my students enjoyed the activities. They laughed so often during the activities. They also became more engaged. Although they still found some difficulties, they were eager to ask.”

The way how the teacher used multimodal materials in the classroom is also one of the objects being studied in this research. We comprehensively observed how multimodal materials were incorporated into language teaching and learning process.

Based on the observation, all of the students look happy when reading the texts from the screen. They smiled and laughed frequently especially when animated pictures were presented. The students said that they felt happy during the lesson and the hoped that the next English lessons would be delivered using multimedia materials as well.

After all, the findings of this study informed that the majority of the students agreed if their teacher used PPT materials continually...
for the better result of the teaching and learning process. They stated that multimodal materials eased them to learn vocabulary, increased their motivation, and made vocabulary learning more enjoyable.

**Discussion**

The finding of the research indicates that the reason why the English teacher has endeavored to use multimodal materials is their practicality and attractive look. It is in line with what (A, 2019) points out that interactive PPT presentation comes with a visually-oriented design that is one of the innovative options to attract students' interest in learning English (Haluoleo, Hijau, Tridharma, & Kendari, 2013)

Besides, by using ICT-integrated multimodal materials, the teacher can be more creative in designing learning activity. In this research, the teacher combined materials with group work activity. In the initial phase, the teacher played the PPT. Meaningfully, this phase makes the students observe the vocabulary by themselves. They could watch and listen to the correct pronunciation, and they could see the picture of the things being learned as well. After watching the video, the students were asked to work together to discuss the vocabulary found in the text with the specific category. Finally, when they had to report the result of their discussion, they could present well with better pronunciation and high self-confidence. After communicating the result, the students were provided with a number of vocabularies presented in the materials, and with the teacher’s assistance, they practiced to pronounce each vocabulary correctly. Based on the finding, it is evidence that the use of PPT in teaching vocabulary could improve students’ vocabulary, and it seems that materials are a valuable tool for enhancing vocabulary learning (Qing, 2017). Eventually, using modern technology like the materials eases teachers in engaging students in learning (Davidson, 2009).

In order to help the hard hearing students to easily understand the materials, the teacher used gestures and demonstrations and read the text loudly to her students. It is in line with (Dotter, 2011) who said that hard hearing students like to see also the mouthing of a foreign language or to hear what they are able to hear of it.

Moreover, the teacher needed to give more time to students to comprehend the materials. According to (Dotter, 2011) as hearing-impaired people cannot utilize the visual and the auditory channel simultaneously, but have to use the visual one more or less exclusively, thus the learning process becomes more time-consuming than for regular. If something is presented visually, HH students need enough time afterward to activate their external memory systems like writing or typing.

In addition, the students also showed a positive attitude towards the materials in reading and learning vocabulary. They stated that the materials made the material being learned easier and more comprehensible. Moreover, they stated that materials could stimulate their creativity and imagination. More importantly, materials facilitated them to understand the text better and to learn vocabulary in an enjoyable and fruitful atmosphere. A positive attitude shown by the students will never be achieved if the teacher has no positive attitude too towards the use of such a digital tool like the PPT materials. In this research, it is clearly shown that the teacher is eager to incorporate technology into the teaching and learning process. Undoubtedly, when teachers have a positive attitude towards technology, a more effective result of English language learning will be more easily achieved (Philp & Duchesne, 2016).

**CONCLUSION**

This study recognizes the fact that a multimodal approach in teaching reading leads to hard-of-hearing students’ engagement in the teaching and learning of ESL by enhancing their meaning-
making abilities with the integration of ICT as a tool. This study also affirms that students get many benefits of multimodal lessons in an ESL classroom. They become highly engaged and motivated. Furthermore, they could also understand the text better as there are many sources of input. However, in doing most of the activities, they still need guidance for the teacher. In conclusion, multimodality applied in the teaching and learning process for hard-of-hearing students helps students acquire literacy skills. These students are offered many different modes for them to make meaning.

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