Disaster Literacy in Communication Perspective

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Abstract

Indonesia as a one of country in disaster prone zones are needs manny studies of disaster risk reduction. Disaster literacy is part of a non-structural approach that focuses on people's knowledge of disasters. Disaster Literacy is a new study in disaster studies, while disaster literacy can be useful in measuring and building the capacity of communities in disasters. The goal of the disaster literacy study is how people understand the disaster. The article discussion about what are the disasters, positions and roles of communication science in the study of disaster literacy. Then how the method of disaster literacy research and what is the focus of the study of disaster literacy.

Keywords: Disaster; Capacity building; Mitigation; Disaster literacy

Introduction

Disaster studies still grow in Indonesia. Many scholars focus on disaster studies, communication studies one of them. In communication science, disaster studies are popular in disaster journalism studies. Focus of disaster journalism studies is how journalism work in disaster.

In disaster studies, communication science in the realm of disaster also focuses on disaster communication management, media and community studies, such as community media studies in mitigation and emergency, or other studies related to communication and disaster studies.

Disaster Literacy is one of the most interesting studies in disaster studies in the scope of communication studies. Although basically the source of disaster literacy is not always from communication studies, it actually comes from health studies.

In the future, disaster literacy can be a strategic study, especially in Indonesia. This is what makes the study of disaster literacy an alternative in disaster studies in communication science.

As a science and social movement, disaster literacy can also help governments, communities, in building knowledge about disaster, whose goal is to be instrumental in reducing disaster risk through capacity building.

On this occasion, the author tries to correlate between the concept of disaster literacy, disaster literacy model, and disaster literacy in the realm of communication studies. It is hoped that the study of disaster literacy will become a continuous study and useful as a science and useful as a movement.

Discussion

a. Literacy practices and disaster

Referring to the literacy study in popular culture written by David Barton and Mary Hamilton (1998: Williams and Zenger, 2007: 11) that literacy practices as general cultural ways of utilising written language which people draw on in their lives, or In another definition that literacy practice is a powerful way of conseptualizing the link between the activities of writing and reading and the social structures in which they are embedded and which they help shape. Barton and Hamilton (1998) look that writing and reading are part of a culture, where people take it as a tool for knowing or understanding phenomena. Literacy practices refer to values, attitudes, feelings and social relationships (Barton and Hamilton, 1998: Williams and Zenger, 2007: 4). In this context the cultural approach is very important in the practice of literacy.

Literacy practices are different with literacy events. Literacy events are part of a literacy practice. Literacy events are when a person or society practices reading or writing in a specific context (Barton and Hamilton, 1998: Williams and Zenger, 2007: 4).

Literacy focuses on writing and reading, but more than that literacy refers to meaning. According to Kress (2005: 23), the description of literacy can be seen when we make a message using letters as the purpose of recording a message. But when we communicate through numbers, we use the sign we call "numbers", and of course we will see that the meaning of using numbers will be very different from using letters, but we can distinguish them, even in the same writing technique.

The basic of literacy is words, such as words as the source of representation, words as the production of messages, and words as sources for the dissemination of the meaning of messages. That words would exist if there were languages (English, Sundanese, Javanese and so on), so the language would exist if there were words. By using language words, we can explain many things (Kress, 2005: 25).

Words are not only spoken, through culture, complex words (grammatical, nouns, adjectives etc.) are created into alphabets or letters (written). At this stage the alphabet or letter refers to two things; Namely the form of speech representation or called phonemes in language studies (Soeparno, 2002: 24), on other forms of speech through graphics on the board. This is in line with those described by David Barton and Mary Hamilton (1998: Williams and Zenger, 2007: 11) that literacy is a cultural way of using writing in the language.

According to Kress (2005: 33) speech or sound essentially different from the writing. If the sound of language is related to speech, then the writing is related to culture. The writing refers to the image, and speech refers to sound, although basically in a language context these two things are interrelated. But at the level of writing, every culture is different, for example Japanese writing will be different from that of Indian, as well as Greek writing, in accordance with the characteristics and rules of each system. Basically speaking and writing is the idea of "literacy".

Understanding of disasters applied in various forms of media, media use and how one understands and practices related to disaster mitigation and preparedness information is part of literacy.

What is disaster? The disaster according to Asmita Tiwari (2015: 56) is an event that result in a great damage or loss of life. In another sense disaster according to International Strategy for Disaster Reduction (UNISDR, 2009) disaster is;

> A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.

Disaster is an event that produces enormous damage or loss of life. Disaster essentially refers to two things in it, the "hazard" is a natural event, and "vulneralibity" refers to human factors, like a social and economic (Tiwari, 2015: 56).
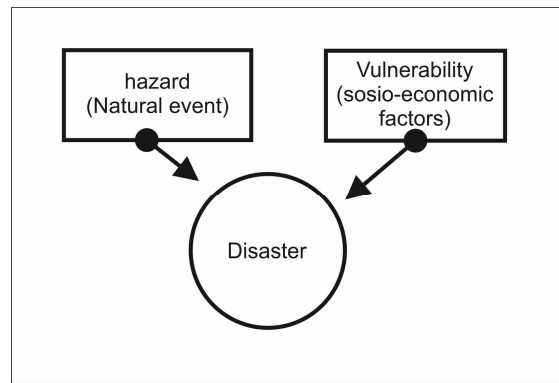
Figuer 1

(Tiwari, 2015:56)

Disaster arises from a hazard in which hazard is a natural event, and vulnerability to disaster. More increasing the vulnerability, it will affect the number of victims in the disaster. Vulnerability refers to many factors, such as knowledge of disasters, economics, or other things such as myths and so on.

b. Model of Disaster Literacy

Literacy initially refers to the definition of a person's ability to read and write. In addition, literacy studies refer to studies on illiteracy, reading ability and so on. Referring to Collins English Dictionary (2008), literacy is the ability to read and write, or also the ability to use language effectively. Literacy studies evolve, leading to many branches in literacy studies, like as information literacy, media literacy, computer literacy, news literacy, internet literacy, library literacy, and so on.

The Literacy of Disaster according to Brown et.al (2014: 267) is an individual's capacity to read, understand, and use information to make informed decisions and follow instructions in the context of mitigating, preparing, responding, and recovering from a disaster.

Disaster literacy studies are influenced by health literacy, the model concept is influenced by the health literacy approach. The definition of health literacy is the capacity of individuals to obtain, interpret, and understand basic health information and services and the competence to use such information and services in ways which enhance health (Brown et al., 2014: 269).

If Brown (et al) creates disaster literacy from the background of health studies, then Priyowidodo and Luik (2014) looks disaster literacy from media literacy approach. Priyowidodo and Luik (2014) seen the use of ICT (Information Communication Technology) on early warning system. Disaster literacy research by Priyowidodo and Luik looks at how the community chooses media to get disaster information, as well as how the media is part of disaster risk reduction.

Basically literacy according to Brown (et al) and Priyowidodo and Luik refers to the same thing, which is related to how people in disaster-prone zones access information, then with the media they are able to reproduce information in the form of disaster mitigation and preparedness practices. But in Priyowidodo and Luik (2014) it refers only to the approach of how people consume the media and its relation to their understanding of disasters. While Brown et al (2014) are more complete in building the concept of disaster literacy, ranging from the patterns of media consumed, information obtained, literacy practices, the process of criticism, to the evaluation of communication.

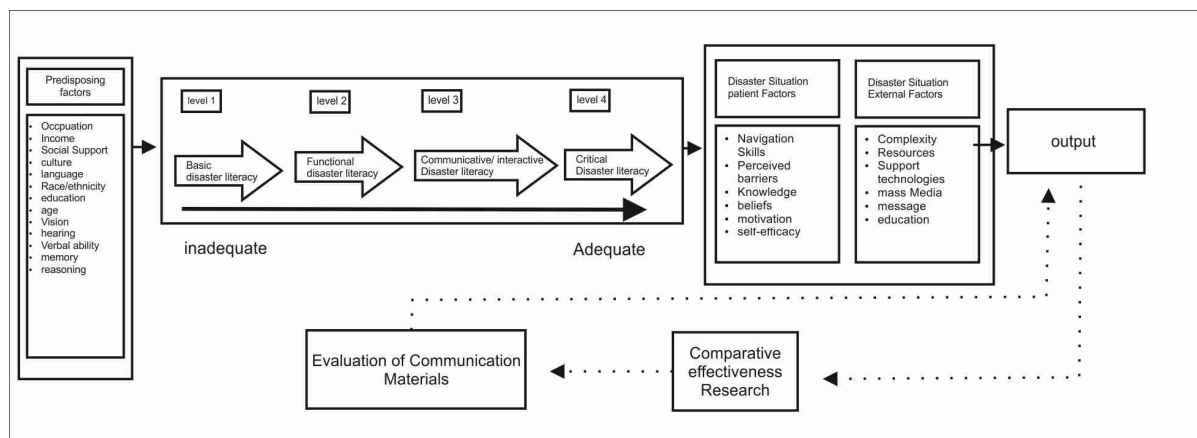The following illustrative literacy model version Brown et.al (2014);

Figure 2.

Model of disaster literacy (Brown *et.al,* 2014)

level 1, Is the first stage of literacy, at a minimum the community and individuals are able to read and are able to understand instructions on disaster mitigation and preparedness. At this level the tendency of capacity is still low but is willing to follow instructions related to disaster preparedness messages, disaster response, and recovery.

It usually takes a simple message to understand, and responds to a new message of information with a familiar message. For first, use the familiar message to making the information. For example, "To PAKEM Shelter, if Merapi erupts", not with "If Merapi

erupts, go to PAKEM Shelter". PAKEM Shelter in this case is a refuge zona. But to be better understood by the public, the first message is a familiar message for the community.

Level 2, Is a comprehensive ability related to disaster information. Communities have followed the recommendations and instructions. Although individually and generally still lack experience in the ability to process information, but this ability is quite important if disasters come.

level 3, Is the motivation and confidence of the individual to be proactive. At this level the message is already well received. Messages can then be modified. Messages may differ to needs of the community and individuals.

level 4, This stage Individuals are able to understand the information, especially with the constraints of environmental and social safety.

Disaster literature refers to a person who engages in understanding social and environmental aspects in a risk, and the need for resources that permanently save and recovery (Brown et al. 2014). If we look at the model of disaster literacy by Brown et al (2014), we can use in two research approach, are comparative effectiveness research and evaluation of communication materials. In the model, comparative effectiveness research is part of the evaluation of communication materials research.

c. Communication Science in Disaster Literacy Studies

Literacy studies are a popular study in the communication science, especially in media literacy studies. As discussed earlier, literacy is the ability to read and write, or the ability to language effectively very well (Collins English Directory, 2008). Basically literacy study not only refers to the ability to read and write, but also refers to the ability to language well. The basically ability of language is knowing, understanding and practicing the language (Metz, 1991: xiii).

David Barton and Mary Hamilton (1998) in Williams and Zenger (2007: 11) explain that understanding literacy is more than just understanding writing and reading, literacy is an interpretation, where literacy is the process of understanding the meaning of messages. So the practice of literacy is writing and language which is a cultural artefact where by society used to know phenomenon. Like writing, it is created by culture, through writing into a medium that explains many things. Barton and Hamilton, (1998: Williams and Zenger, 2007: 4) see that the cultural context is very important in literacy practice.

Kress (2005) also explains the same thing, that speech and writing are different but related. As explained by Barton and Hamilton (1998: Williams and Zenger, 2007: 4), that

language produces a tool called writing. Writing is a cultural work to explain the world, as well as speaking in the context of language.

According to Barton and Hamilton (1998), that literacy is not only the ability to read and write, but also related to interpretation. So this is consistent with what Fiske expressed that communication is not only a process but also understood as the production of meaning (Fiske, 1991).

Literacy studies are diverse. To link disaster literacy with communication studies, it is necessary to look at the information literacy and media literacy approach.
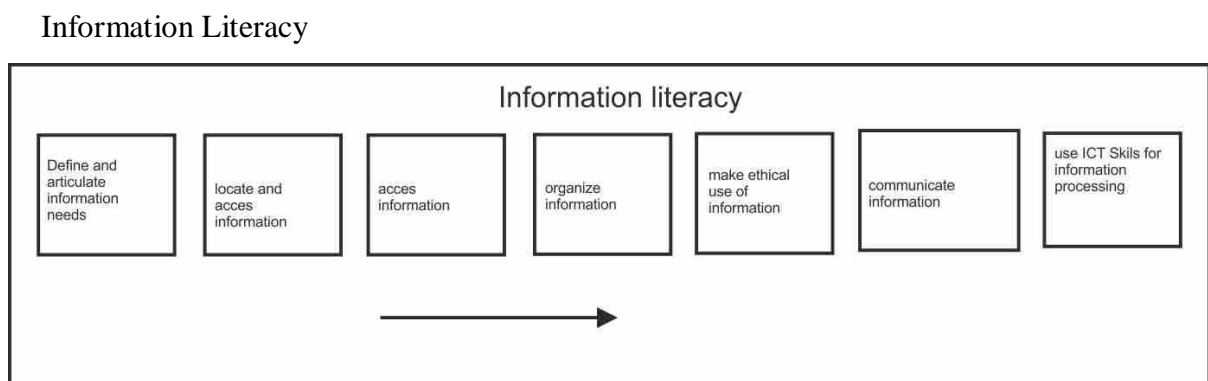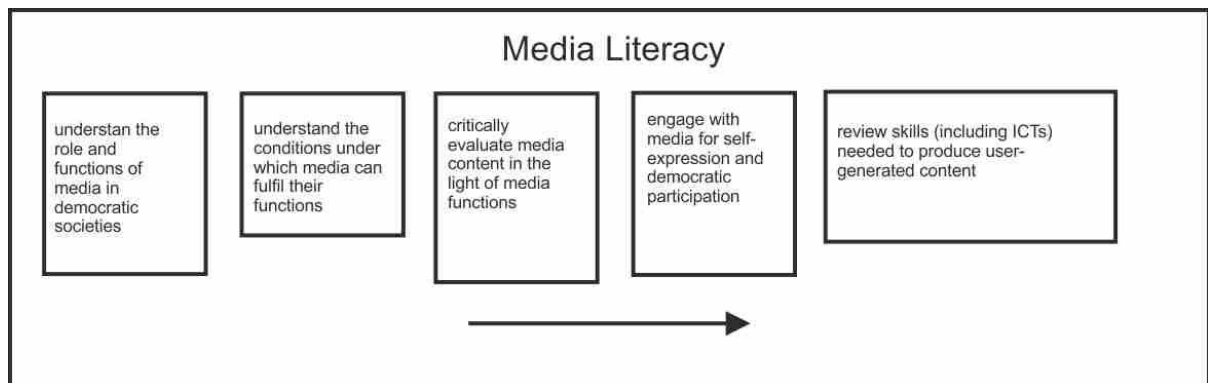
Information Literacy

Figure 3

Information literacy (Wilson *et.al,* 2011:18)

Media literacy

Gambar 4

Media literacy (Wilson *et.al,* 2011:18)

When referring to the literacy understanding of media and information literacy described above, literacy focuses on the study of messages, media, interpretation, representation, the ability to use the media, and critical evaluation. At one stage described above (media literacy and information literacy) also refers to how to do "practice" of literacy.

In information literacy, literacy skills can be seen from the ability to communicate information, and in media literacy, literacy practices are participating with the media in expressing themselves as part of democratization.

In disaster literacy, the core is same, which is related to the message, the practice of disaster literacy, the ability to communicate or interact, and criticize matters relating to mitigation, preparedness and recovery environment.

In disaster literacy, the first stage is how make a simply message for understands about mitigation, preparedness and recovery. The second stage refers to how to community can be understood to the message to be a provision if disaster come. The third stage, like a information literacy, a person confidently informs, communicates his skills in understanding disaster, mitigation, preparedness and recovery. The last stage is the critical stage of the message or information. Critical attitude through evaluation of messages or information about disaster literacy by adjusting to the scope of life.

Media literacy and disaster literacy require a critical attitude of a person or society, as an evaluation of information and messages. This critical attitude is part of the feedback to the message of someone who has understood and competent with the messages and information he gets. So the disaster literacy is essentially closely related to the study of communication.

d. Disaster Literay in Research Method

What is the paradigm if we research about disaster literacy? In the study of disaster literacy, the paradigm is not yet clear. Can use a positive approach or a constructive approach or even a critical approach. In one case, referring to how communities critically evaluate information and messages about disaster, and then modify the message for their needs in disaster mitigation, so the constructivist approach is more appropriate. Constructive is a paradigm that believes that reality is the result of mental construction that does not pass through the senses, and is the result of experience in a specific social. Moreover, reality is the result of an individual interpretation of the world (Denzin and Lincoln, 2009: 124). But of course this can still be a debate that is very open for further discussion.

The emphasis on constructive paradigms refers to the theoretical context in which Brown's Literacy model (2014) suggests that literacy information content is built on experience, interpretation and community or personal understanding of disasters, not just information produced from outside.

That research in disaster literacy is still very open using a variety of research approaches. Such as the use of qualitative and quantitative research approaches.

If using the quantitative research from disaster literacy model by Brown et al (2014), already available background elements and influencing factors that can be use as conceptual form, operational form, to modificates the instrument. While in qualitative research can use participant observation approach, that is by doing observation on society as a research subject. According to Mattews and Ross (2010: Herdiansah, 2013: 129) observation is a method of collecting data through the senses. Based on this statement, the human senses become the main tool in observation.

To get data about the influence factors the particular observation becomes an option, that we are not only a passive observer, but also a role in particular situations and participate in the events to research (Yin, 2006: 114). Besides using interview approach, or Focus Groups Discussion (FGD).

Conclusion

As a ring of fire area, Indonesia is one of the most vulnerable countries for disaster. In addition, high rainfall in the country crossed by equator causing floods and landslides make the disaster every time haunt the community, so field of disaster studies become necessary. The disadvantage of disaster studies is a concrete issue in dealing with disasters that often occur in Indonesia.

A disaster literacy study is a way of looking at how people's understanding and skills in coping with disasters. It can be seen through understanding to how the society is critical in receiving messages or disaster information.

Disaster literacy research approaches can still be developed in accordance with the research needs. The development of disaster literacy studies is still very wide. It is important to make continuous discussions to produce a standardized pattern in disaster literacy studies in Indonesia.

There needs to be a strengthening of the approach of epistymology, methodology and axiology in disaster literacy. In the end disaster literacy becomes another branch in the study of communication science.

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