Waste Management Literacy Event in Indonesia: Study Case in Bandung

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Abstract

Bandung, faces catastrophic problem of waste management, although the city has already series of waste reduction regulation, however in practice is stiff to implement. Sums of research in waste management focuses to technology choices and community participation, and only limited number of waste management research referred to literacy. In the other hand, the research of literacy event frequently focusses to education activities in school, only a few number denoted to social practice such as waste reduction. These paper aims to analyze the waste management literacy event in Bandung, Indonesia, which piloted by Forum Bandung Juara Bebas Sampah (Forum BJBS). The event represent by the activity in deliberate the waste management regulation due to the institution form in Bandung Municipality.

Key words: critical discourse, waste management, literacy event,

Introduction

The dimension of waste problem is varied from economic issues (Morrissey and Browne, 2004), social and culture (Marshal & Farahbakhsh, 2012, Pauline et.al. 2009, Zotos, et.al, 2008, Chung & Lo,2004; Gille, 2001) to the political issues (Marshal & Farahbakhsh, 2012). Sums of research showed that the success of waste management implementation supported by community participation (Tukahirwa, Mol dan P. Oosterveer, 2010), media exposure (Chan, 1998; Tremblay, 2013; Arbi 2014) and the system itself (Marshal & Farahbakhsh, 2012).

Bandung as one of modern city in Indonesia, faced the catastrophic problem of waste management. The huge problem was raised in 2005, when the leuwigajah landfill was collapse, hundreds of people died, consequently Bandung had no area to placed and process waste product. Label of "*Paris van Java*", which represent Bandung as beautiful city was replace by "Bandung the sea of waste", its impact to the image of the city as tourist destination. There were numbers of program and activity had been done to reduce waste production, unfortunately there is limited impact. The regulation of waste divided is stiff to implement, because of limited of law enforcement and willingness of sustainable implementation.

Fortunately, Bandung has numbers of individual who concern about waste problem, they creates the collaboration through communication and ideas forum, named Bandung Juara Bebas Sampah (BJBS). The forum supported local government in developing appropriate waste management system. They provide series of activities: regulation analysis, community participation model development, regular discussion forum, etc.

Frequently, focus of waste management researches are to deliberate about technology (Burger and Rechberger, 2015, Lavigne et.al, 2014, R, Annepu, 2012,), or model of

community participation (Zaman, 2014, Rathi, 2006), and there is a limited number which linking waste management and literacy activity or literacy event. Therefore, there is an opportunity to the researcher in developing literacy event in waste management implementation.

In general, the literacy activity connected to the process of education: writing and reading. In this paper, the literacy event referred to the definition develop by Heat (1982) as occasion in which written language is integral to the nature of participants. In the other world, the literacy activities is a social interaction process between the source and participants. In this paper the literacy event is refer to the discussion activity which conducted by the forum through social media.

Regulation of Solid Waste Management in Indonesia
Recently, solid waste management become a hot issue in Indonesia, especially after the release of president regulation of incinerator technology uses. Numbers of municipality's government discard the technology, and the other tries to find the combination of the system. Bandung include to the city that discard the technology, and supporting by the BJBS forum put forward the judicial review. However, the solid waste management should simultaneously conducted, even in the of poorer quality system.

There are series of regulations concerning waste management, in national, regional and local level, unfortunately the implementation is stiff because lack of capacity, capability and appropriate resource. One of the major problem is the inconsistency of the regulation content itself, specifically in categories named of waste categories. In national level there is basic regulation of waste management name UU No. 18/2008, the focus is to provide the guidance for the ministry, provincial government and city/district government to provide local regulation. However, respond of every single level are varied, then there is various interpretation to the content.

Name of waste categories in each level is differ, depending to the interpretation of the individual and/or team who mandates as rules developer or provider. Desk study result showed the differences of naming categories as follow:

Table 1. Differential of waste categories

Rules	Categories

UU 18/2008	➡ Waste categorized as : household waste, equal to house hold waste and specific waste
	➡ Specific waste include:
	  1. Waste with dangerous and poison material
	  2. Dangerous and poison rubbish
	  3. Waste from disaster;
	  4. Construction waste
	  5. Un-recycle waste due to the technology
	  6. Periodical waste

Ministry of Home Affairs Regulation 33/2010	Article 5: every single household provide two kind of trash bin, labelled organic and an-organic
West Java Provincial Regulation 12/2010	Article 18 : "Waste include of: easy and hard to rotting
Bandung Government regulation 9/2011	Article 22 (1) : " waste divided into: organic, an-organic and dangerous and poisoning waste
PP 81/2012	Article 17 (2): ".. 5 kind of wastes: (a) dangerous and poisoning waste (b) easy to loose, (c) reuse waste (d) recycle waste (e) other
Permen PU No. 3/2013	Attachment 3: (a) Waste with dangerous and poison material (b) tranquil to wobbly, (c) reuse waste, d) recycle waste (e) other

Source: series of regulations

The table showed that each rule uses different term of waste categories, consequently, different interpretation potentially raise. The terms is also not tranquil for public to ascertain. The term organic and an-organic is ubiquitous, stick on numbers of trash bin in public space. The fact is, people placed the trash without pay attention to the label. Lack of education charges as the basic of people behavior and attitude in waste treatment. Actually, information and socialization is provides in variety ways, however

its lack of appropriate contents. In the other word, the information, education and communication (IEC) content packages with no attention to socio-demography characteristic. Preliminary research found that the economic, education and experience background effected to the level of understanding in solid waste treatment.

Inadequate services of waste management in Bandung municipality, not only due to insufficient funds and ineffective regulations, but also the organization form. In Bandung, waste is managing by PD Kebersihan or Cleanness Municipal Business Firm. Therefore the orientation of waste management services is not only public services, but profit also. Unfortunately, the organization form impacted to the area of services. As it purpose, PD Kebersihan is demanding to earn profit besides providing waste management services to keep the town clean still (BPLH, 2014).

According to the national rules, article 9: Every single municipality has a right to develop their own waste management regulation and rules, concerning the national and provincial legislation. In provincial level, article 8 (b), district/municipality government should determine which institution will manage municipal solid waste. In the other word, local government can decide on institution form that handling solid waste management. Most all of city and district decide to develop the institution as part of other kinds of public affair, only Bandung government that select as municipality business.

The decision on institution form has an impact to the quality service and system development. As business firm, PD Kebersihan demanding to run the services based on business principles. Series of study to amendment the institution form, had been done, regrettably effort to pursue the result, confronted with several obstacle including political issue.

Responding to the situation, group of scientist and practitioner in waste management were initiated to develop the collaborative and communication forum to support Bandung government in resolving waste management problem. According to Heat, the discussion could be categorize to literacy event. What they discuss in the group is the object of discourse analyses. The conversation and language use is used as based of study.

Literacy Event in BJBS Forum a Brief Review

Literacy of waste management is one of the practical form of environmental activity, which define by Jurin et.al. (2010) as a set of abilities and commitments necessary to find, understand, assess, and act on information about the health of our environment… its embodies values, beliefs and attitudes. In the other word, literacy event is a social practice of community regarding their interaction with the environment.

Literacy event conducted by BJBS, purposing to provide recommendation to the government in resolving solid waste problem. The content of the discussion is varied, include: regulation review, alternative technology, development of zero waste area model and activity, and etc. Numbers of the discussion result has been delivered to the Bandung Environmental Affairs, PD Kebersihan and other relevant parties which concern in resolving city solid waste problems. Several of recommendation had been applied, such as application of zero waste area models, preparing the legislation of waste divided implementation, and reviewing the form of waste management institutions.

There are specific word and symbols usage in the discussions and the ideology of users. It is interested to explore, because forum member is not only from community but also the civil service who give an opinion as individual. As literacy process every single member could became as source of information, with their own knowledge they

learn together regarding the solid waste issue. The deliberation process as literacy event includes the process of interpreting and interacting around the piece of writing. As Heat, considered the literacy event as subset of speech events, in this paper literacy events is concerning about chatting events in social media group. The ways in which written language in chatting process are carefully regulated as literacy events. Fairclough (2014) define deliberation as an argumentative genre in which practical or pragmatics argumentation is the main argument scheme.

The deliberation process also could be concerning as learning process, it includes of reception, integration, expression and review. The *reception* process involve in reading, and taking note of the group topic, which copying the other opinion to a further discussion. *Integration* is the process of reception of new learning from other member to her or his existing knowledge. The next stage of learning cycle is that involve the *expression* of what had been learned. Individually, member may be take the new information to his or her work or organization to be execute as a new regulation or activity or they only give a comment of the other member opinion as denial or supporting the opinion. Finally, there is a *review* stage, where the members consider the evaluations which has given of what has been written on his or her chat.

The basic ideology of BJBS forum members concerning waste management is zero waste, decentralization and community participation. They delivered the ideas in every day discussion in social media. Series of discussion topic should be connected the basic ideas. The idea of zero waste is sounding in every moment of discussion, include in social practice when the forum conducted of line meeting. Decentralization of waste management is encourage in most of the discussion session, purpose of the topic is supporting the regulations authorities to adjust the legislation. Finally, the discussion forum is sub-set of community participation, which purposing to the forum member following up the issue in their own organization or community.

Framing and Contextualization

Framing in the case of BJBS forum discussion, an attempt has been made to apply the Fairclough framing theory (2014), whereas the reception, integration, expression and review as literacy events, could be consider as process of DECISION framework. The Fairclough (2014) framework analysis is outlined including arguers/agents in a situation of incomplete knowledge (uncertainty and risk), putting forward and evaluating one or more proposals for action (alternatives), amongst which they will choose and decide in favor of one.

They have goals and values, and are acting in a context of facts (circumstances), some of which enable or constrain action, - for example if one of the member deliver the issue of dangerous and poison waste need to be regulated separately. There are an alternative to handling the specific waste in another way, means that the other alternative could be chosen. The idea has potentially has negative consequences to the political situation, or earn the negative critical from the public.

Reviewing series of framing theory, Fairclough (2014) found that the substantial of framing theory is primarily by a notion of the framing process, rather than of 'frames' as systems of inter-related concepts. Framing, on this view, involves taking or promoting a particular perspective or angle on an issue and "refers to the process by which people develop a particular conceptualization of an issue". In her early proposal Faiclough offering the concept of DECISION framework analysis. The concept is developing from the deliberative situation in political debate, there is a process of decision making.

Fairclough new framework analysis scheme is the argumentative approach which proposed: to frame an issue is to offer the audience a salient and thus potentially overriding premise in a deliberative process that can ground decision and action. Values, goals, potential consequences, as well as various facts pertaining to the context of action can all be made selectively more salient in an attempt to direct the audience towards a particular, preferred conclusion. In this process, metaphors and persuasive definitions may be used to redefine facts in rhetorically convenient ways and thus lend support either to the practical claim that A should be performed or that it should not (Fariclough, 2014;6). The model was figure out as:
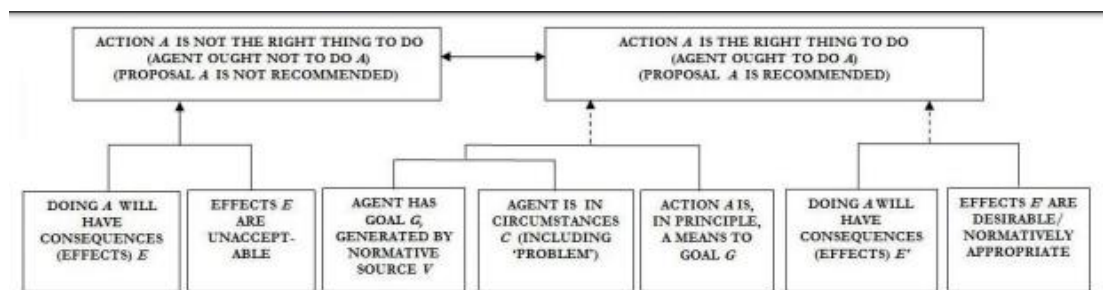

Figure 2: Practical reasoning in deliberative activity types: the deliberation scheme (Fairclough, 2014;4)[1]

In the case of BJBS deliberation forum, the proposal represent by the idea in handling waste management and/or other relevant issues. The decision process is define from the reception and interpretation of the topic idea, whether the members agree or disagree with the ideas they will writing their opinion as expression of their alternative

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[1] The deliberation scheme provide by Fairclough is the extended model for practical reasoning is a causal argumentation scheme from van Eemeren & Grootendorst (2004). Actions have both intended and unintended effects, and the same effect can result from a multiplicity of causes. The unintended effects can be such that the action had better not be performed, even if the intended effect (goal) can be achieved by doing A. If this is the case, then a critical objection to A has been exposed and the hypothesis that the agent ought to do A has been falsified (or rebutted). A pragmatic argument from negative consequence (the left-hand side of Figure 2) can potentially falsify (rebut) the practical proposal (conclusion) itself.

decision, then when they has agreed with the ideas they have an opportunity to take action, includes contribute an agreement or taking real action in their organization or community.

The term framing in these research has been used to refer to the activity whereby forum members in a communicative event reciprocally exhibit and interpret anticipated norms for the conduct of that event (Malcom, 2002). Framing in the communicative event purposed to shift or adjust of member opinion.

Methodology

Critical discourse use to explore the use of language and symbols and sociocultural practice as a text. The method denote to the Fairclough DECIONS frame work analysis. The discussion to be analysis will take from July 2016, there is 1280 posting of chat including pictures and light chat among member. The productions of text will be classified in learning process, reception, integration, expression and review, and will focus the relevant topic with waste handling.

Result and Discussion

The BJBS Forum Discussion, is discussion forum in social media named Whatapps. In the forum all of the members could express their opinion concerning the waste management. Every single members can express their ideas concerning the zero waste, decentralization and community participation. The most crucial topic which has impacted the legislation is zero waste area models, thus this theme when implemented in the field could triggered the decentralization and increasing community participation.

Daily discussion commonly start with the hot topic or member and/or member community activity in waste treatment, can classified as:

Table 2. Literacy Events Process

Activity	On line	Off line
Reception	Writing the topic to be discuss	Engaging in discussion
Integration	Interpretation the topic or ideas	Participating in community activity in selected areas
Expression	Writing opinion	Conducting action
Review	Reading and responding to the other comment	Receiving suggestion and responding with action

The model of literacy event process in the group is develop from the model which has been state by Malcom (2002).

The ideas of topic to be discuss can arise from any member includes: opinion, picture or capture from other site, as long as it about waste management.
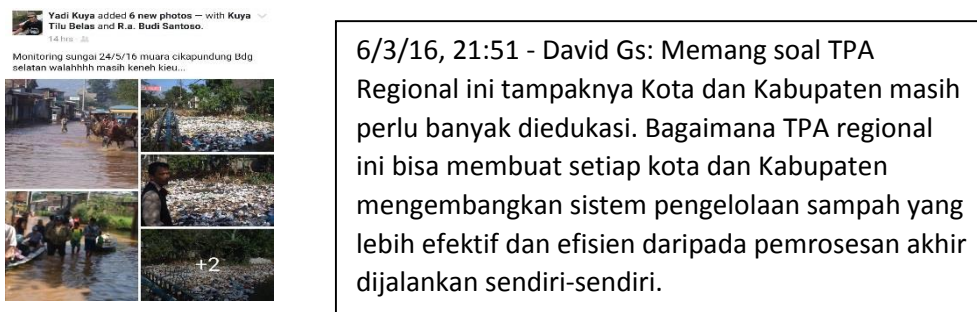

Figure 1: example of topic ideas to be discuss

The written opinion in the discussion are known by the member who has knowledge and experience in waste handling only. There are specific word such the technology of waste handling, the abbreviation of the place, people or events. The Learning process amongst member in July, 2016 varied from: reducing plastic usage, Id Mubarak

greeting with waste theme, waste regulation, environmental award, zero waste events and   specific waste.

Literacy events process in the forum start when the forerunner state the ideas or topic to be discuss in the media social forum. The other member will respond to the topic after them interpreted the issues, and there is a process of integration with their existing knowledge and experience. The other member will respond to the theme, if it interested them or outfit with their acquaintance and experience. The expression of the agreement or disagreement will be write in the chat room. The deliberation will flow naturally, and will be stop after one or numbers of people participate in agreement or disagreement or if the other member shift the issue or topic. The process can be summarize as figure 3:
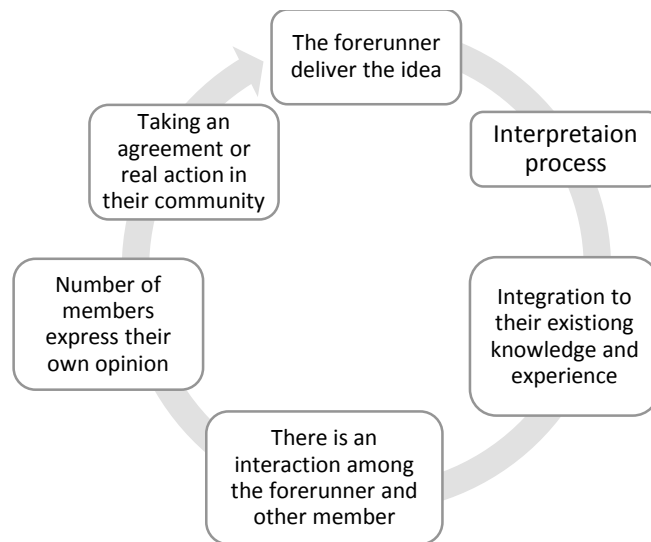

Figure 3: the process of literacy event in BJBS forum

The production text in every single stage of learning range from the acceptable idea to the negative one, for example:

"**7/27/16, 10:07** - **+62 812-2126-xxx**: Pertanyaannya: jika memprakarsai teknologi thermal dlm hal pengelolaan sampah, kira2 bakal digugat nggak ya sama teman2?"

These the forerunner member, he questioning about the aplication of thermal technology. The deliberation naturally flow in, until one of the members state the alternative solution. In scholar put their opinion from the science perspective and the practitioner responding the question and other opinion with their relevant experience. One of the member who is expert in the issue deliver the complete explanation about the regulation, the technology itself, and the impact and consequences of the action. The other offering, the alternative before taking participation in technology implementation. The forerunner stop questioning and state his opinion concerning the quality of his cell phone. The issue still interested the rest, although there is the other member who try to shift the topic, the discussion continue still. The second forerunner did not have any respond.

The time of discussion is varied, number of issue may be have one or two respond only, but the serious issues such as the technology implementation, take more than a day of discussion. The decision process to finalize the issue could base on the theme discussed. The issue of regulation, and technology frequently take more than a day to discuss and it will be in a series, rarely following up with the off line discussion. If the discussion involving the individual from civil service, the other participant could suggest to follow up by provided regulation or aiming the rule in resolving the problem.

In the context of discussion forum, framing of the issue is exist in the sense of communicative event, of part thereof, which serve as guide for the members who encourage to participate in the discussion. Discourse in on line discussion, essentially interactional and governed by rules which anticipate consistency which respect to the use of a variety writing convention and the maintenance topic. Particularly there is no problem, but when the participant left behind in the discussion, and she or he has no

basic information or experience in the topic, it will be hard for them to maintain the topic.

Concerning the variety of socio-demographic background of forum member, frame of the topic has been fixed in the early session of discussion, for example,:

Forerunner, opinion:

> "7/8/16, 13:48 - +62 878-2282-xxx: Dinas Kebersihan bisa punya pengaruh lebih besar dlm prcepatan ketimbang PD"

Questioning of institution form of waste management, is one of the sensitive issues, not frequently discuss in open forum, the other member try to fixed the frame with the state:

> "7/8/16, 14:16 - +62 811-2310-xxx: Gak ada hubungannya Pak, pointnya : banyak cara yg bisa kita lakukan untuk mencapai tujuan. Nyampe gak nya ya tergantung yg jalanin. ....."

The respond is attempt to lead the discussion turn back to the forum vision, decentralization of waste management. In the other word, the form of institution has no direct connection in managing waste, as long as it can provide high quality services, either as municipality business firm or civic affair it can be accepted still. The respond is supported by other members as:

> "7/8/16, 17:53 - +62 817-215-xxx: Pd.kbr jadi skpd juga perlu matang, saya berani jamin 50% skpd yg menangani sampah di seluruh indonesia tidak lebih baik dari pd.kebersihan kota bandung. Bukan muji ini....silahkan koreksi kalau salah."
>
> 7/8/16, 20:00 - +62 877-6451-xxx: Maaf ikut jawab pak David, ... lho PD kebersihan kan mau beresin mafia TPS yang pasang tarif semaunya.
>
> 7/9/16, 16:53 - RI: Waah seru diskusinya, Mustinya Kang Gun bisa crita dikit nih,
>
> Bagaimana susahnya membenahi tps kita.
>
> 7/9/16, 23:09 - +62 811-2221-xxx: Lihat Tweet @pdkebersihanbdg: https://twitter.com/pdkebersihanbdg/status/751758169878044672?s=08 ------>

> Nggak pernah nyerah memberikan layanan kebersihan buat warga ☺. Lebaran makin kerja keras, InsyaAllah menjadi amal buat para petugas. Warga pengguna fasilitas publik belum pandai mengurangi sampah. Belum ngerti pilah sampah, bahkan blm paham cara taro sampah di wadahnya. **Irahaaaa atuh warga, ngartinaaaaa... *GEMESS GEMES GEMESSS, KZL KZL KZL▨▨▨

Even the initiator of the topic to be discuss had state series of opinion which show that the form of business firm should shift to public affairs form, with numbers of benefit. Nonetheless, there is a fixed frame in the forum, the frame should be accepted by the rest of forum members. Flexible frame, usually use in the general topic such as campaign, community events and other regular activity in promoting zero waste behavior.

The pattern of literacy event in on line discussion of BJBS forum member is involving fixed framing in deliberate the thoughtful theme, and flexible framing in regular issues. Regularly, flexible frame use by the members who conducted activity in community level, they usually start with the general questions or post the picture. Shifting of the frame is a result of individual integration process to the existing skill, knowledge and experience. The communication event in the literacy process in BJBS forum discussion represent by the interaction among member.

Conclusion

Literacy event as social practice in BJBS discussion forum are culture specific. The forum could be set as metaphors of classroom, and the members are the student. The unique of the atmosphere is that every member could be as lecturer of information source, depending to discussion theme. Writing activity in on line group discussion denote as literacy event, since there is a reception, integration, expression and review process.

Reception process due to the activity of writing topic, when the member eager to offer and/or proceeds the information of specific issue. The cycle process of literacy is

following the stage as in classroom. There is also specific frame and language, fixed frame is use frequently. The event is the medium to shift the frame of participant.

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