Promoting Sign Language by Digitizing Song Interpretation using Indonesian Sign Language in Social Media

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Abstract—There have been many Indonesian sign language interpreters who go hand in hand with Deaf communities in promoting inclusive environment by mainstreaming the exposure of sign language in various social media, particularly YouTube, using a song as the most influential media to endorse the promotion of sign language. Furthermore, the objective of this study is to identify how an interpreter interprets the poetic words in a song by using Indonesian sign language (BISINDO). This study employed a descriptive qualitative research method in which the data were collected through an interview with an experienced Indonesian sign language interpreter. The data were analyzed through data reduction, data display, and drawing conclusions. This study showed that there are several steps that must be done in interpreting a song, such as modification several sentences which cannot be signed easily. Thus an interpreter must have a strong motivation and awareness that the process needs a meticulous work as well as coping with several challenges.

Keywords—BISINDO; social media; sign language interpreter; song interpretation

I. INTRODUCTION

Digital platforms have been more popular among people worldwide as digital devices are becoming more inevitable. A digital platform which creates intimate closeness with the users is social media. It is obvious that according to CNN Research (2019), the first thing people hold one minute after waking up is their smartphone whether to check notifications or read updates in their social media. Further, the value of social media increased, not only for maintaining social lifestyle but also for creating social awareness and change, as the merits are also received by all people including Deaf community [1,2].

Among the population of people with disability, the highest users of social media are the Deaf community. Social media has been an effective tool for assisting Deaf community to participate in the activities of mainstream society. Taylor conveyed that the Deaf community is the major active users of social media in Canada [3]. Their ability in using social media could make people see disability as a big potential as it breaks the traditional way of networking and communicating by minimizing social and geographical matters so that they can stay connected to people [3,4]. In addition to that, social media uncover isolation between Deaf and hearings as well as suppressing negative stigma the Deaf community once experienced due to their lifestyle and appearance [2-5]. Thus, the effect of social media is strong in elevating their existence which is delivered uniquely through accessible media consisted of it.

Lately, the Deaf community together with Indonesian sign language interpreters and other stakeholders take advantage of social media as a tool to actively publicize the rights of the Deaf population. They were previously seen as a group of people who cannot do productive things due to their limitation in hearing and communicating so that their rights are neglected [6]. The new regulation concerning on Disability Policy Number 8 in 2016 apparently gives better law construction as it embodies wider context as the needs of disabled people community to continue their lives with equal rights in this global era is an urgent matter. In this new regulation, people with disability are empowered and perceived as active subjects whose productivity is valued. There are several points emphasized in this regulation, such as respecting each other, individual autonomy, no discrimination, full participation, diversity and humanity, the similarity in opportunity, equality, accessibility, capacity development and children identity, inclusion, special treatment, and extra protection. To make this law work, it needs a cooperative work between the Deaf and hearings. Therefore, sharing their voice and spread disability awareness through social media is such a powerful move to create an inclusive environment.

Among numerous media which can be accessed in social media, recently, the video is a medium which is popular in promoting sign language. It is perceived as a promising way to rapidly growing social awareness, raise the existence of the deaf community, and create an inclusive environment in the mainstream community. A video is the most watched medium as the visualization helps the audience understand the content clearly, the audio supports the effect of move that catches people’s attention, and in the context of this research, all supportive features in a video could bridge the world of deaf and hearing population.

Another factor that grabs most people’s attention is a video song. It can be vividly seen that a video song from a famous
singer could reach a million views in seconds after the video was uploaded on YouTube. In addition to that, the emergence of remarkable and famous Deaf figures who frequently creates digital video concerning various topics could make the video viral among the deaf and hearing people. These figures were also created song-signing video collaborated with well-known musicians that increase the value of sign language that reached millions of views. It is a chance for the Deaf and the supporting parties (Sign Language Interpreters) to unceasingly resonate their voice through song-signing.

According to Maler, the trend of song-signing has started in the early 20th century [7]. It was pioneered by Deaf people which interpreting the hymn in a religious setting. They did it live and face-to-face while bringing the deaf arts and culture. In consonance with this history, Interpreters of American Sign Language (ASL) have started utilizing media to promote sign language since 1990 as a response to the Americans with Disabilities Act [8]. Interpreters in Uganda also have started assisted the church songs with sign language since 1995 [9]. In Indonesia, the action of signing songs into Indonesian sign language has started in early 2016. Of course, in interpreting the songs, the help from the interpreters contributes a lot.

In the early 21st century along with the rapid growth of social media users, Maler explained that the trends of song-signing start escalating [7]. With the assistance of the advanced video recording, editing, and sharing, song-signing activities become more popular among common people. Now, there are many interpreters, ranging from the experienced to amateur ones, make their own version of signed songs and share it to social media. They usually chose the most popular songs such as Adele’s Hello, Tailor Swift’s Shake It Off, and John Legend’s All of Me [10]. According to Maler, the trend of song-signing which is commonly interpreted by hearing sign language interpreters are the remaking or interpreting the pop song [7]. The type of song-signing video on the internet which expose the performance of the pre-existing songs are usually performed by hearing song signers. They also came with a different motivation. Some are motivated by a sign language course. On the other hand, hearing signers tend to express themselves musically through sign language as well as conveying something about themselves in sign language. Thus, sign language is the medium in sharing their voice or on behalf of the Deaf community. Their motivation might be different from the signers who are Deaf. As they are native of Deaf culture and art and sign language is their communication tool, they sign the songs to create new music in sign language. Although the hearing sign language interpreters are not purely into Deaf art and culture, they face several significant challenges.

Song lyrics containing poetic words is a challenge for hearing signers to put it into song signing video. Poetic words are different from the words we use for daily communication. The words used are "aesthetically purposeful distortion of standard language" [11]. It means that the language used in songs, as well as in poems, breaks the rule of standard language. The message implied in a song reflects the social condition in a certain time in which the meaning of words used may be different from the interpretation used previously. The exploration done by Spence and Quadros reveals that different interpreters shared different sign language (British and Brazilian) which reflect the culture of their national communities [12]. Thus, to express the meaning contains in songs, it needs sign language which is flexible and contextual. In Indonesian context, BISINDO is best to be used to interpret the message of the songs.

Micheal listed at least three challenges for the interpreters in interpreting songs, especially in a religious setting [9]. The first one is synchronizing the voice, rhyme, and signs at the same time. Thus, an interpreter must have a piece of background knowledge about the song by understanding the message the song want to convey. The second one is if an interpreter lack of signs for several words, it is difficult for them to use their fingers signing the words every time they are used. The last is related to the audience. As the goal of interpreting the songs is to deliver the message which is expected to be understood by the audience. However, the message will fail to deliver if the Deaf have little or no sign language. Thus, the interpreter must look for the most appropriate and general sign to be used in interpreting the songs.

Micheal suggested to bridge the gaps, Deaf persons and the interpreters should practice together to find a suitable voice and sign for the songs [9]. In addition to that, the interpreters can have an open class for Deaf persons to learn the standardized sign language, for example, Indonesian sign language. If there are found several new words which have never been signed before, the interpreter and Deaf persons can make a consensus and make a decision which sign which is acceptable and understandable for them.

The issue of song-signing video has received much attention from people worldwide as the viewers had reached a hundred thousands viewers. Furthermore, this action is followed by other people by making their sign language which is appropriate with the context of sign language used in their countries that will increase the popularity of song interpretation into sign language. However, there are not many researchers investigating how interpreters interpreting the songs by using sign language. Hence, this study aims to find the answer to several research questions proposed in this study: (1) What are the motivations of the interpreters in signing the song?, (2) how is the process of signing the song?, and (3) what are the challenges faced by the interpreter in interpreting a song to Indonesian Sign Language (BISINDO)?

A. Official Sign Language in Indonesia: SIBI and BISINDO

There are two types of sign language in Indonesia. The first one is Indonesian Sign System (Sistem Isyarat Bahasa Indonesia / SIBI) and the second one is Indonesian Sign Language (Bahasa Isyarat Indonesia / BISINDO).

SIBI is the first official sign language in Indonesia. It is a sign language system which is used as media to help Deaf persons to communicate with people in a wider community. The language construction employed in SIBI was referring to Indonesian language structure with an opening sign, closing sign, formation, repetitive and combined words. SIBI put a strong concern on the well-structured construction of the sentence. Meanwhile, there are many problems in
implementing SIBI informal education as well as daily communication. Zulpicha stated that there are many Deaf persons who do not understand the well-structured Indonesian sentence [13]. In addition to that, she revealed that the process of legalizing SIBI as official Indonesian sign language was one-sided, meaning that there were no representatives from Deaf persons to take part in deciding the policy. As the solution, BISINDO which is perceived more contextual is used as the solution, BISINDO, as an alternative standardized sign language in Indonesia, is used because of its contextual content.

BISINDO is more contextual to be implemented. It concerns the diversity of language used by Indonesian people with different cultural background and location. Thus, Deaf persons in different parts in Indonesia may have different BISINDO. BISINDO was born naturally and it is spread among the Deaf persons. It was officially released by Ministry of Education and Culture on February 22nd, 2014 along with its guidance book. BISINDO is seen as a more practical and effective tool for communication between Deaf persons and hearing people. BISINDO is also called the mother-tongue of Deaf persons in Indonesia, which the use of BISINDO is suitable with what has been understood by the Deaf without paying attention to the structure of language. It is naturally acquired among the Deaf. There are several important aspects used in BISINDO, i.e. gesture, finger move, expression, and the body gestures interpreting a language so that it can give a complete visualization. It will ease the Deaf in receiving and sending what they are thinking. Thus, BISINDO is more preferable to be used by Deaf persons today.

II. METHOD

A. Research Design

This study employed qualitative research with descriptive approach. This design is commonly used in the field of education and psychology [14]. It aims to uncover the complexity of behaviors and experiences faced by the subject of the research through in-depth examination. In this study, the research questions are commonly started with what in order to describe an event. As it is combined with a qualitative approach, there is no manipulation in this study. Thus it totally relied on the natural setting or the real condition [15]. It also impacts to the data analysis. The result of the data collection will be analyzed qualitatively.

B. Subject of the Study

As qualitative research emphasizes on the representativeness and authority of the research, the subject being investigated was an experienced interpreter of Indonesian sign language. From the experiences that he had been through in the world of sign language, the subject had matched the criteria of subject to give information which is being investigated in this study.

The subject had had an interest in sign language since he was in elementary school. His curiosity rouse when watching TV and focused on the small box in the bottom-right corner. He had a friend who could speak sign language by using SIBI signing the alphabets from A to Z but the learning process stopped there. When he continued his education at university, he once came to a seminar and there were two interpreters interpreting the speech in the seminar who apparently came from the same university. He then learned sign language with the other interpreters in Study and Service Center for Disability in 2013. Not long after, he became a volunteer for Deaf students in his university. He met with Deaf persons from different parts of Indonesia and widen his network with Deaf community all over Indonesia so that he could learn BISINDO. He then once became a sign language interpreter for professional occasions ranging from national to international events, such as assisting Deaf student who will go abroad for world-class competitions until becoming an interpreter in the provincial event along with the Governor of East Java. He was also part of the field committee for several social events focusing on raising awareness on inclusive environment initiated by the Ministry of Social Affairs in Jember, Situbondo, and Yogyakarta.

C. Instrument

The instrument used to collect the data from the subjects are a semi-structured interview, the curriculum vitae of the subject and a rubric to map the sign language of a song. A semi-structured interview was conducted to get complete and rich information from the subject concerning the interpretation of the song by using Indonesian sign language. The aspects being interviewed are regarding the subject's profile, in order to confirm the curriculum vitae given, the motivation of the interpreter in interpreting the songs, the reasons why a certain song was chosen, the process of interpreting the songs including tools that are utilized to make a video of sign language songs and things to consider before making the video, and the challenges faced in interpreting the songs. The interview was automatically recorded through the voice note in WhatsApp.

The rubric was employed to reveal more detail information on how the subject interprets the lyrics of the song. The rubric was made by the researcher in the form of table which reveals the information on the level of difficulty in comprehending the implied meaning of the song lyric and the type of Indonesian sign language used whether it needs modification or not. The subject needs to simply check the empty table which suits the real condition experienced by the interpreter and adds more information if needed. The rubric can be seen in Appendix 1.

D. Data Analysis

As the data of this study are obtained through an interview with very minimum numerical data, the process of analysis relied on the framework proposed by Miles, Huberman, and Saldana [16]. There are at least three steps in analyzing the data: (1) data reduction, (2) data display, and (3) drawing conclusions. The recorded interview which was in the form of voice note file in WhatsApps was transcribed into text. Several data which are beyond the topic of study was reduced and the complicated explanation was simplified. The transcription was then coded by using descriptive coding method. The text was labeled by several words such as "motivation", "challenges", and "process" to help the process of summarizing the basic
The interpreter has several strong motivations in interpreting songs by using Indonesian Sign Language (BISINDO). He interpreted the song as a way to spread knowledge and its practical use of Indonesian Sign Language (BISINDO). Song is a universal language and it is used as a media which can break the assumption that learning sign language is difficult. Many people enjoy listening to songs and it is a good way to start. Through interpreting the songs, he wanted to communicate with people watching the video that sign language is easy to learn.

In addition to that, it is part of the responsibility as a sign language interpreter that sign language must be known by people in general, in a wider community particularly for the Deaf persons themselves. The capability of Deaf persons in using appropriate Indonesian sign language is varied. There are many Deaf persons who are incapable of using appropriate Indonesian Sign language especially those who were financially low. Thus, the song interpretation is also addressed to Deaf persons with a low proficiency level in sign language to learn BISINDO better.

Moreover, he wanted to popularize Indonesian sign language in Indonesia as well as American sign language in USA. As in USA, many people have a high awareness of American Sign Language as well as their support to Deaf community. Whenever a new song released by a well-known singer, they directly created the ASL version of the song. The videos become trending topic following the original song.

Lastly, it is such a pleasure for the interpreter to upload the video on YouTube. Related to the personal existence in virtual world, it is important to raise people existence. As long as they spread positivity, they can educate people by exposing the song interpretation video on YouTube so that people's awareness of inclusive environment increased. In addition to that, as sign language interpreters in Indonesia were still limited, it could increase his self-confidence as the sign language interpreter.

Cokely explained that the sign language interpreters are in between two worlds: Deaf persons and hearing persons [17]. As the needs to communicate increased, the interpreters should bridge the Deaf and the hearing. What the interpreters can contribute to this need is the translation or interpretation. By using sign language and non-sign language (vice versa), the interpreters indirectly build a mutual understanding which can be a strong basis to create an inclusive environment. Strong awareness and understanding between these three parties (interpreters, Deaf and hearing persons) are expected to decrease the negative issues happened in communities.

### III. FINDINGS AND DISCUSSIONS

#### A. The Motivation of the Interpreter in Interpreting Song by Using BISINDO

There are several steps that should be done before interpreting song by using Indonesian sign language. The first step is to decide the criteria of the song.

Choosing one most popular song is suggested by the interpreter as it has been heard by many people. We can check the numbers of view on YouTube. In addition to that, it is familiar with the people so that they might sing it along in some situations. Besides, we need to check the words used in the lyrics. We need to be sensitive whether the lyric contains complicated words or terms. By knowing the level of complicatedness of the words used, an interpreter can decide which sign language which is best used. The simpler the metaphor used in the song lyric, the easier the interpreter in signing the lyric. Last but not least, the context and content should be easy to understand for targeted audience. The chosen song was by Armada entitled Asal Kau Bahagia.

The next is the process of interpreting the song lyric. The first thing that must be done by the interpreter is to remember the song lyric. It will help them in bringing the meaning deep to their soul as well as understanding the tempo and emotion in the song. After that, the interpreter needs to map the song lyric. The overall result of the mapping of the song lyric can be seen in Appendix 3.

In mapping the song lyric, the interpreter must break down a stanza or per line to decide which sign in BISINDO which is appropriate to be used (see table 1).
TABLE I. PROCESS OF SIGNING THE SONG LYRIC INTO BISINDO IN THE FIRST STANZA

<table>
<thead>
<tr>
<th>Piece of Song</th>
<th>Interpretation (Tick)</th>
<th>Chosen Sign Language (Tick)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Easily understood</td>
<td>Hardly understood</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BISINDO</td>
<td>Modified BISINDO</td>
<td></td>
</tr>
<tr>
<td>Dear ... I saw you, yesterday You met him I ... feel that you’re still Thinking of him</td>
<td>✓</td>
<td>✓</td>
<td>Yank (dear): this word is interpreted by drawing an abstract figure of a girlfriend in front of him Kau bertemu dengannya (you met him): this part is not translated into sign language instead, the interpreter described the meaning of using his left hand’s index finger as the girlfriend, and the other hand’s index finger as the one she met; these fingers are brought closer as a sign that those people were meeting Ku rasa (I feel): the interpreter uses a single move of his hand holding his chest Masih dan tentang (still and about): it is not interpreted</td>
</tr>
</tbody>
</table>

For example, in the first stanza, the interpretation of the song is not easy to understand. One which can measure the level of comprehensibility of a stanza is the interpreter himself. Thus, BISINDO needs to be modified. This is close to the modified input used to teach language. If the language used by the instructor is too high, they need to lower the level by modifying the words or using other alternative diction which are more understandable for the students. In this case, the interpreter eliminates some words to be more understandable for the audience, such as the word “Yank” as this refers to a lover in which the visualization can be easily understood by the audience. In addition to that, the words “masih” and “tentang” were also eliminated as it can be understood from the story flow of the song lyric. A line “kau bertemu dengannya” was simply signed by putting the forefingers in our right and left hand together with a move like two people meet. Overall, in creating a modified input, the interpreter did an elimination of words and modification on the Indonesian sign language used.

After composing the appropriate sign language, the interpreter needed to understand the tempo. Thus, the speed of the singer singing the song could synchronize with the speed of the hand move of the interpreter signing the song lyrics.

Finally, in recording the video, there are several tools that needed to be prepared. The interpreter used smartphone and video editor application. To get better definition of the video, more sophisticated tools are suggested to be used. Pay attention to the lighting of the room. It needs enough light to make the video bright.

C. Challenges in Interpreting Song by using BISINDO

Several challenges were faced by the interpreter. First, it is not easy to find a simple interpretation from each song lyric. Second, it is hard to make a sign which matches the context of the songs. Lastly, it is a hard work to show emotions and expression which reflect the meaning of the song. These challenges were in line with findings by Micheal [9]. Nevertheless, if the interpreter has enough experience and knowledge, these challenges can be easily addressed.

IV. CONCLUSIONS

From the findings and discussions of this study, there are several points that can be highlighted from interpreting a song by a sign language interpreter. An interpreter needs to have strong motivation in doing this project. Strong motivation will impact the quality of the signed song. The motivation of the interpreter in this study was to raise awareness among people in general about the inclusive environment as well as emerging the identity of Deaf persons.

In addition to that, the process of interpreting the song lyric is not an easy task. There are several steps to be considered: (1) the interpreter needs to set a criteria on the appropriate song to be translated, (2) the interpreter needs to map out the song lyrics in order to analyze the level of difficulty of understanding the context of the song and to decide which part should be modified. The modification can be in the form of deletion or creating a modification on a certain sign language. (3) the interpreter should be aware of the challenges in interpreting a song so that they know how to address the problems they face in regards to creating a quality video on the signed song.

From this study, it is recommended for sign language interpreters to promote sign language through any media possible and by utilizing technology. For future research, it is suggested to conduct the research under the same topic with different research methodology and approach to contribute to enriching the literature on interpreting a song by using Indonesian sign language.

REFERENCES


APPENDIX 1

PROCESS OF SONG LYRICS MAPPING

<table>
<thead>
<tr>
<th>No.</th>
<th>Piece of Song</th>
<th>Interpretation (Tick)</th>
<th>Chosen Sign Language (Tick)</th>
<th>Note(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Easily understood</td>
<td>Hardly understood</td>
<td>modified BISINDO</td>
</tr>
<tr>
<td></td>
<td>Dear ... I saw you, yesterday You met him I ... feel that you're still Thinking of him, now</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>What is my lack in your life So you dare cheating on me ...</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Say, now That you are not happy I have your body But not your soul ...</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>You don't need to lie You are still wanting him I will let you be with him As long as you're happy</td>
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<tr>
<td></td>
<td>What I feel now is that you still are Thinking of him</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>What is my lack in your life So you dare cheating on me ...</td>
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</tbody>
</table>
## APPENDIX 2

**PROCESS OF SONG LYRICS MAPPING**

**ARMADA – ASAL KAU BAHAGIA**

<table>
<thead>
<tr>
<th>No.</th>
<th>Piece of Song</th>
<th>Interpretation (Tick)</th>
<th>Chosen Sign Language (Tick)</th>
<th>Note(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>Easily understood</td>
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<td>BISINDO</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>1</td>
<td>Dear ... I saw you, yesterday You met him I ... feel that you're still Thinking of him, now</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>What is my lack in your life So you dare cheating on me ... Say, now That you are not happy I have your body But not your soul ...</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td>You don't need to lie You are still wanting him I will let you be with him As long as you're happy</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What I feel now is that you still are Thinking of him</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What is my lack in your life So you dare cheating on me ...</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Easily understood</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
</tbody>
</table>

Yank (dear): this word is interpreted by drawing an abstract figure of a girlfriend in front of him

Kau bertemu dengannya (you met him): this part is not translated into sign language instead, the interpreter described the meaning of using his left hand’s index finger as the girlfriend, and the other hand’s index finger as the one she met; these fingers are brought closer as a sign that those people were meeting

Ku rasa (I feel): the interpreter uses a single move of his hand holding his chest

Masih dan tentang (still and about): it is not interpreted

Didalam hidupmu (in your life): the interpreter motions a sign language of LIFE/LIVE forward

Hingga kau curangi aku (you are cheating on me): motioning an act of MOCKING/VILIFYING in sign language

Bahwa: it is not interpreted

Tidak hatimu (not your heart/soul): motioning his hands holding his chest while shaking his head sadly or with disappointment

Tak perlu (no need): the interpreter motions a weak hand waving which means NO

Masih (still): he doesn’t interpret it

Ku rela (let go): motioning a sign language of SINCERITY (right hand’s fingers describing “I” on his chest and slowly drop them down and then to the front)

Asalkan: this word is replaced by a sign language of IMPORTANT (because in sign language, this word (asal/origin) is referred to a place, so he uses word PENTING or IMPORTANT)

(exactly the same)