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## Problems on learning thinking aloud for reading via Zoom app in an emergency remote learning class

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**Abstract:** This research attempted to obtain information on the problems of learning think-aloud for reading in an emergency remote learning class utilizing the Zoom video conference application as the means of communication. While think-aloud is a well-known method for improving students' reading strategy usage management, there are still problems encountered during class, especially if it is learnt via Zoom video conference application. The research participants were nine D3 program students of AMIKOM Purwokerto University PSDKU Yogyakarta who took Reading IV class. The data collection procedure included literary research, observation, questionnaire, and group interview. There were seven problems discovered: (1) Students were too shy to talk, (2) Students did not have or know the proper vocabulary to verbalize their thoughts. (3). Students understood the text but had nothing to say. (4) Easy text did not invoke observable understanding processes in the students' minds. (5) Students neither understood the text nor knew what to say. (6) Time-consuming. (7) Internet disconnection. Among the solutions to those problems, group work was one of the most applicable. Impartation and mastery of reading strategies prior to the introduction of think-aloud are also helpfully essential.

**Keywords:** emergency remote learning, thinking-aloud problems

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### Introduction

When people talk about English mastery academically, English reading proficiency will inevitably come into one's mind. This is understandable because learning a second language (in this case, English) is, according to Verghese (2007, p. 71) "learning the four skills, viz. listening, speaking, reading, and writing". Verghese clearly mentions that learning English includes learning reading. Reading is often misunderstood as a superficial skill. Text is mistakenly seen as a cluster of selected meaningful words. As a result stemming from this mistake, understanding text is misinterpreted as merely understanding those words separately and simply jolting those meanings of words together to fully understand the sentence those words constitute. This oversimplified concept of reading has been adopted by many learners and teachers to the extent that it misleads them to heavily focus on the mastery of vocabulary.

Reading is, in fact, a very complicated activity that gives birth to a lot of definitions about it by various notable scholars. Some of those scholars offer simple definitions, albeit precise, about reading. For example, Pang et al. (2006), who define reading as "understanding written texts". However, they admit that reading is "a complex activity" which involves perception and thought simultaneously. Moreover, they add that reading involves (1) word recognition, in which it is described as "the process of perceiving how written symbols correspond to one's spoken language", and (2) comprehension, which Pang et al. describe as "the process of making sense of words, sentences, and connected text". To make sense of the words and sentences in a text accurately, readers will usually use their "background knowledge, vocabulary, grammatical knowledge, experience with text, and other strategies" (p. 6).

A similarly simple definition of reading is offered by Grabe and Stoller (2011). They define reading as "the ability to draw meaning from the printed page and interpret this information appropriately".

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However, they also admit that such definition fails to fully address the true nature of reading abilities (p. 3).

The complexity of reading is attributed to a lot of things, and one of them is the cognitive process taking place in the reading process. This cognitive factor appeared to be a consideration when Kim & Goetz (1995, p. 205) mention that reading is “a complex cognitive process in which the reader, through interaction with the text, constructs meaning.” Rayner and Reichle (2010) apparently have a similar view when they convey that reading is a process “that attracted the attention of many cognitive scientists because many fundamental cognitive processes are involved in reading. (p. 1)”

Due to its complexity, reading requires particular strategies to achieve or improve comprehensions. Generally, according to Jahandar et al. (2012, p. 1) people are not consciously aware that they are applying a particular set of reading strategies when they read smoothly. However, when the text puts those readers to be out of their depth, those readers will be forced to reconsider their strategies in realization.

Reading strategies are basically “the broad term used to describe the planned and explicit actions that help readers translate print to meaning” (Reading Horizons, n.d.). Consequently, anything that can help readers comprehend a text is classifiable as reading strategies. This causes the number of reading strategies, according to a Reading Horizons, is so many that “it’s common for teachers and parents to feel overwhelmed”. Duffy (2009) enlists eleven common reading strategies usually used by readers: (1) predicting what will happen next (p. 101); (2) monitoring, questioning, and repredicting their previous prediction (p. 107); (3) imaging or visualizing (p. 115); (4) inferring or reading between the lines (p. 122); (5) fix-it (the reader search the previous or next sentences) (p. 130); (6) searching for main ideas (p. 138); (7) identifying themes (p. 146); (8) summarizing (p. 153); (9) drawing conclusions (p. 161); (10) evaluating or making judgements about the message (p. 169); and (11) synthesizing or creating a single understanding from a variety of sources (p. 177). In addition to those strategies, an article entitled “Comprehension” in site Read Naturally (n.d.) mentions that there is one well-known strategy by Keene and Zimmerman called “using prior knowledge”. This strategy is classified by Duffy in his book as a reading skill, not as a strategy.

Even with the help of various reading strategies, reading a text, especially of a foreign language, still possesses a challenge. Oftentimes, guidance from teacher is needed. In order to be able to assist the learners, Jahandar et al. (2012) affirms that “teachers need to recognize their students' learning habits, the problems the students encounter while grappling with the intricate system of the foreign language, and provide them with evidence of the usefulness of certain strategies (p. 1)”. However, the cognitive processes of understanding a text run in one’s mind. Processes in a mind are intangible and thus perceptible only by its owner. Educator has no way to accurately monitor the cognitive processes undergoing in the learners’ minds.

The solution of problem comes in the form of think-aloud. Güss (2018), citing Ericsson and Simon (1993), defines think-aloud as “the concurrent verbalization of thoughts while performing a task” (p. 1). Oster’s definition (2001, p. 64) of think-aloud is similar to Güss’ except Oster clearly defines the task as reading.

The feasibility of think-aloud to monitor the processes in the readers’ minds is acknowledged by McKeown & Gentilucci (2007, p. 136) who claim that think-aloud “makes sense conceptually because many interpretive reactions are conscious (quoting Pressley et al., 1992) and can be made overt through the use of this strategy (citing Baumann et al., 1993).”

Students may have never learnt think-aloud previously, thus a precedent by the teacher is highly recommended. In reference to Davey’s (1983) work, Sönmez & Sulak (2018) provide an illustration of how a teacher applies think-aloud when reading (p. 169).

1. Make predictions. (Show how to develop hypotheses.)
  - *"From the title, I predict that this section will tell how fishermen used to catch whales."*
  - *"In this next part, I think we'll find out why the men flew into the hurricane."*
  - *"I think this is a description of a computer game."*
2. Describe the picture you're forming in your head from the information. (Show how to develop images during reading.)
  - *"I have a picture of this scene in my mind. The car is on a dark, probably narrow, road; there are no other cars around."*
3. Share an analogy. (Show how to link prior knowledge with new information in text.)
  - *"This is like a time we drove to Boston and had a flat tire. We were worried and we had to walk three miles for help."*

4. Verbalize a confusing point. (Show how you monitor your ongoing comprehension.)
  - *"This just doesn't make sense."*
  - *"This is different from what I had expected."*
5. Demonstrate fix-up strategies. (Show how you correct your lagging comprehension.) □ *"I'd better reread."*
  - *"Maybe I'll read ahead to see if it gets clearer."*
  - *"I'd better change my picture of the story."*
  - *"This is a new word to me - I'd better check context to figure it out."*

Partners in Reading - San Jose Public Library (2014), in its videos accessible through YouTube video sharing platform, also added some useful checkpoints that think-aloud users can practice.

- Does this word, sentence, or idea make sense?
- Am I confused? Can I spot what is confusing me?
- What do I need clarified? (Clarify – to make clear or easier to understand) □ What did I learn?
- Can I identify the most important information?
- Can I restate in my own words what I just read?

With think-aloud, not only will the teacher be able to identify students' problems to understand a text in their cognitive efforts, the students will also be able to be "aware of their their own comprehension processes", helping them to become independent readers (Sönmez & Sulak, 2018, p. 169).

However, at the time this article was written, there was a drastic shift in the field of education. This sudden change started when COVID-19 successfully paved its way from a local disease in a rarely heard city of Wuhan in China to the global pandemic. Nations around the world tried to prevent the disease from spreading more widely by limiting large gatherings. Educational institutions, where the knowledgeable impart their knowledge to the learners, were greatly impacted. Educational institutions also quickly adapted to this abrupt change. They quickly resorted to distance learning. Educational institutions are not a stranger to the concept of distance learning. In 1850s, the distance learning still relied on correspondence. The internet-based distance learning people know of today has already existed since 1990s (Negash et al., 2008, p. xviii). At the moment this article was written, many educational institutions in Indonesia put their options to internet as the distance learning medium (Jakarta Globe, 2020). The reason for such an option relies on the fact that the internet is "an effective platform for delivering virtual courses because of its universal appeal, global access, consistent interface, media richness, lower connection costs, quicker development time than videos or CD-ROMs, easier updating of content, and an interactive communications environment (Motiwalla & Tello, 2000, p. 254)."

With educational institutions embracing and resorting to internet for their medium of educational instruction, the term of "online class" became popular. However, some scholars have shown their objections to the idea of equating the online educational programs during COVID-19 pandemic with the "real" online educational programs. Hodges et al. (2020), for example, highlight that the "real" online education is complex and well-designed. What Hodges et al. voice is supported by Milman (2020) who writes, "It takes a lot of time and effort to design and develop effective, engaging online education", contrary to the abruptly prepared online class during COVID-19 pandemic. A similar sentiment is also shared by Shisley (2020) who points out that online learning "requires a significant amount of time to thoughtfully design".

It is apparent that the scholars mentioned previously denounce the misleading name of "online class" to describe the online learning during the early COVID-19 lockdown. Hodges et al. (2020) write that some people coin the term of "emergency remote teaching" for this phenomenon. A slightly different term is preferred by Shisley (2020) who calls it "emergency remote learning". Having a similar conjecture with Hodges et al. and Shisley, Milman (2020) popularizes this phenomenon with a similar term, "emergency remote teaching and learning", although she also adds another term, "pandemic pedagogy". Those terms all share the same word "emergency", which proclaims that this phenomenon is just a quick response to the absence of education plan during this unexpected global pandemic.

In conclusion, emergency remote teaching and learning is not well-planned and not well designed. Thus, it is severely flawed and cannot compete with the well-planned and designed online learning program. Its existence is limited only as "a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances" (Hodges et al., 2020) and "quick transformation of face-to-face courses to online delivery" (Shisley, 2020).

The researchers wished to identify problems that may occur during teaching and learning think-aloud in an emergency remote reading class. The class used Zoom video conference application as the

main medium of communication. The participants were the D3 program students of the AMIKOM Purwokerto University PSDKU Yogyakarta who took Reading IV as one of their subjects. The research class would have three (3) meetings, with each meeting lasting between fifty (50) to sixty (60) minutes.

Prior to the research, the students received a short video providing a brief sneak peek on thinkaloud. The video, entitled 'Think Aloud Strategy' posted by eziapahl, by the time of the research was accessible through the link [youtu.be/fBB0nbY-a8Y](https://youtu.be/fBB0nbY-a8Y). Students were required to watch the video and those who were interested might volunteer to join the research.

When the participants were readily selected, a Whatsapp group was created to facilitate the discussions with fellow classmates and lecturer. The participants also received another four short videos on think-aloud for further references. Those videos, containing information on think-aloud created by Partners in Reading - San Jose Public Library, were accessible from (1) [youtu.be/PMFyWkTeUkE](https://youtu.be/PMFyWkTeUkE), (2) [youtu.be/HJL7hQDM8I](https://youtu.be/HJL7hQDM8I), (3) [youtu.be/yAtw9cTWPeQ](https://youtu.be/yAtw9cTWPeQ), and (4) [youtu.be/L44FNswJ\\_cc](https://youtu.be/L44FNswJ_cc). Short videos with brief contents, instead of longer videos with richer contents, were selected in consideration of the limited attention span of the watchers. This consideration stemmed from opinions of at least two scholars. The first one, Guo et al. (2014), conclude that median engagement of a video, regardless of its length, is at most six minutes (p. 44). This means that on average, attention will dissipate after the sixth minute. Meanwhile, Berg et al.'s (2014) research shows that 74% of their respondents believed that the acceptable length of a video was 15 minutes or less (p. 8). This convinced the researchers to use videos whose length was at most 15 minutes, and those five short YouTube videos fulfilled the criterion.

The participants were set to learn in group because group learning was expected to facilitate encouragement from fellow group members and provide boost to shy students' self-confidence. The researchers' assumption was supported by Marjanovic (1999), quoting Hodgson & McConnell (1995), who states that "collaborative learning, especially in the face-to-face mode, has an important social dimension as it gives rise to other positive outcomes which are not usually considered academic such as self-assurance and personal insight" (p. 129). Other scholars, Istifci and Kaya (2011), mention that a collaborative learning within a group will result in members helping each other (p. 91) and generally create "a positive social atmosphere and makes comprehension better" (p. 94). With the difference of conditions of face-to-face class and distance class using Zoom application, the role of cooperative working was only limited to the fellow group members being allowed to give brief encouragement anytime and offer hints if a student encountered a difficulty.

As this research class, in the rest of this article will be referred as "Think-Aloud Class", basically resembled a common quick response to government's bans on large gatherings, this class was never meticulously designed to be a well-designed online class. Accordingly, this Think-Aloud Class fundamentally belonged to emergency remote teaching and learning or pandemic pedagogy and was still considered inferior to both face-to-face and "real" online classes. For example, in a face-to-face class, people can act naturally like any other humans who rely on and process non-verbal clues such as "facial expressions, the tone and pitch of the voice, gestures, posture and the distance between the communicators (Sander & Bauman, 2020). However, in this Think-Aloud Class, the camera "will either limit or maximize the amount of space a person has to communicate and emit nonverbal information (Adams, 2020)." With so many lost or limited clues to nonverbal signs other people offer, anyone cannot make the best of judgement and response.

A well-planned online class may use a better camera and/or wireless headset. Better equipment will allow people to maintain a distance between themselves and camera to provide a better view than just heads and faces. However, this Think-Aloud Class could not use such sets of equipment considering that not all students had an access to superior and relatively expensive smartphone, camera, and headset. Without sophisticated camera and headset, students' voice could only be clearly relayed if they were extremely close to their smartphones. Such extreme proximity would only be able to shoot the faces of the users, leaving other parts of the body beyond the camera coverage. Thus, the class was no longer able to rely much on body languages as a means of natural communication.

The researchers, however, tried to make the class as effective as possible. For example, the researchers put Zoom fatigue into consideration. Zoom fatigue is the name the media gave to a newly discovered phenomenon in which people start to feel inexplicable exhaustion. This exhaustion is traceable to the use of video applications (Jiang, 2020). A description on Zoom fatigue was given by Wiederhold, quoting Wolf (2020), who writes that its symptoms are "tiredness, anxiety, or worry resulting from overusing virtual video conferencing platforms (2020, p. 437). The sufferers are not limited to the users of Zoom video conference application. Overuses of other video applications such as Skype, FaceTime, and Google Meet (formerly Google Hangout) will trigger the same phenomenon. To avoid Zoom fatigue,

the researchers decided to limit the time of the class to only fifty or sixty minutes per session. Although the “no video” option helps to reduce Zoom fatigue, this was not an option as the researchers needed to monitor the participants’ facial expressions and body languages to obtain reliable raw data.

### **Methodology**

This research obtained data from observation, Likert-based questionnaire, spoken daily feedback, and group interview. The objects of the observation were the students’ performance during Zoom class and their class-related discussions in the specifically created Whatsapp group. Hauke (n.d.), quoting Savin-Baden and Howell Major (2013, p. 392), describes that “observation is particularly useful for understanding how or why something occurs within a natural setting, and can be a particularly effective data collection approach when self-reported information (what people say) is likely to be different from actual information (what people really do)”. Aside from live observation, the recorded classroom interaction was also analyzed.

In addition to observation, a questionnaire was distributed, written and spoken daily feedback collected, and group interview performed to ensure the reliability and validity of the data obtained during research. Literary research was also carried out to enrich the researchers’ knowledge, enabling them to support or question the data gathered. The daily feedback was received at the end of each meeting, while on the last day of the Think-Aloud Class, students would be required to fill a Likertbased questionnaire and attended the group interview.

This research enlisted nine students of Reading IV class as participants, all in their fourth semester. Participation of this research was mostly voluntary. Out of those nine students, seven students volunteered to join the research while the remaining two was specifically selected students who showed a sign of shyness during class. The two shy students were expected to be a good representation of shy learners, which often become an integral part of a class. The researchers’ attempt to enlist the participation of shy students was based on the assumption that shy students might behave differently from general population of students. Think-aloud includes reading aloud and expressing someone’s thought aloud, which may be a deterrent to shy students. Shy students are often reticent and, according to Nyborg et al. (2020), “often quiet across a range of school situations (p. 1)” but the researchers believed they still usually constitute a small part of the class, so their involvement was considered necessary by the researchers.

### **Results**

Data for this research was obtained from observations of both live and recorded videos, Likert-based questionnaire, spoken daily feedbacks (at the end of the first and second day), and group interview (at the end of the third day). Each method of data collection was supposed to obtain new information and substantiate or refute the validity of data obtained by another method.

Information obtained through observation was presented in the following.

1. Students showing some signs of anxiety, such as prolonged uses of fillers or gibberish words such a long “e” or humming, unclear or unconfident articulations, panic, and giving superficial and arbitrary answers (including but not limited to imitating their friends’ answers), performed better when they received hints and encouragement from their group. Signs of anxiety also happened more and more infrequently after students received guidance from the lecturer and their fellow students.
2. Having been allowed to use Indonesian to think-aloud, students’ think-aloud performance rose. On most occasions, Indonesian would be used along with English, and its use slowly diminished as students learnt and mastered the English vocabulary needed to think-aloud.
3. Students complained they could not think-aloud a sentence. They understood the sentence as soon as they read it, unaware of the processes running in their minds when they decrypted the sentence into understanding. They could think-aloud after viewing the checklist containing examples of common expressions used for thinking-aloud.
4. Easier sentences produced relatively simple think-aloud expressions and reading strategies (such as the meaning of an unknown word and their discussion revolved around just the word level) and confusion more frequently than more difficult sentences did. More puzzling sentences tended to invite a more complex think-aloud expression and reading strategy.
5. On the first day, one student admitted that he did not understand the sentence, was not unaware of the processes to understand it, and was at a loss of what to think-aloud. Some other students voiced their similarity of conditions.

6. Imitation of expressions or modelling other students was relatively common at the beginning. For example, when one student said she believed she knew what the next sentence would be about, it quickly became a model, leading others to say they knew or did not know what the next sentence would say. The practice of imitation or modelling gradually faded as students were lectured that not all sentences had to be thought-aloud, learnt about various reading strategies and other applicable thinkaloud expressions, and were allowed to use Indonesian to think-aloud.
7. On the first day, most students still practiced simple expressions, like word meaning. They improved their reading strategies and think-aloud on the second and third days of the Think-Aloud Class. The following mixed English and Indonesian think-aloud was created on the second day of the Think-Aloud Class by a student who performed poorly on the first day but continued receiving guidance to practice: "What is a star? *Benda di luar angkasa. Bukan planet.* The sun is our star. Survive, *bertahan.* Close call? *Panggilan dari dekat? Bukan to?* Close call *lolos dari kejadian berbahaya.* Black hole. (*Ada di*) *Film "Interstellar". Mengubah waktu?* (Let's see the) Picture. Do not know. Next sentence ..."  
The expression contained several reading strategies with "activating background knowledge and/or experiences", "finding the meaning of words", "guessing", and "looking into the pictures" being four of them.
8. A frequent internet disconnection at first fazed the students, triggering a lapse in their concentration, especially if it struck the one who was reading. There were at least 8 disconnections occurring during *the* Think-Aloud Class, all coming from the students.

The *students* were requested to work on the Likert-based questionnaire at the end of the research. The result of the questionnaire is presented in the following table.

**Table 1.** The result of the questionnaire.

No	Statement	SA	A	N	D	SD	Total
1	I felt shy at the first time I practiced think-aloud (formal class (Answer questions 1a to 1c only if you strongly agree/agree with statement no. 1)	-	3	2	4	-	9
1a	I still felt shy practiced think-aloud at the last meeting.	-	1	1	1	-	3
1b	Working in group helped me overcome my shyness.	-	2	-	1	-	3
1c	Constant practice helped me overcome my shyness.	-	2	1	-	-	3
2	I had something in my thought about the text but I did not know the right words in English to accurately express my thought. (Answer questions 2a only if you strongly agree/agree with statement no. 2)	2	4	1	2	-	9
2a	Using non English words helped me more accurately express my thought.	2	2	1	1	-	6
2b	Working in group helped me overcome my lack of vocabulary.	1	2	2	1	-	6
3	I understood the text but did not know what to tell. (Answer questions 3a to 3d this if you strongly agree/agree with statement no. 1)	1	3	2	3	-	9
3a	Looking at the think-aloud checklist helped.	2	2	-	-	-	4
3b	Imitating my friends helped.	1	1	1	1	-	4
3c	Just saying anything helped.	-	2	1	-	1	4
3d	Having nothing to tell was okay so I would proceed and speak if I had an idea.	2	2	-	-	-	4
3e	Working in group helped me to tell the process in my mind.	-	2	2	-	-	4
4	I did not understand the text and did not know what to do (Answer questions 4a if you strongly agree/agree with statement no. 4)	1	2	2	3	1	9
4a	Learning about reading strategies helped.	-	2	-	1	-	3
4b	Working in group helped me when I did not understand the text and did not know what to do.	-	1	2	-	-	3
5	Think-aloud only wasted my time as I could comprehend the text faster without thinking it aloud.	1	3	3	2	-	9
6	Think-aloud only wasted my energy as I could comprehend the text more effortlessly without thinking it aloud.	1	4	3	1	-	9

The third data collection method was daily feedback by the students. Relevant information obtained from daily feedback was as follow:

1. Students reported internet disconnection or slowing down distracted their concentration.
2. Students wrote that they could understand the text but thinking it aloud was difficult.
3. Students recommended the use of Indonesian to amend the vocabulary gap.

4. Students believed they could think-aloud better if they were allowed to read the material before the class to prepare. The lecturer explained that this suggestion betrayed the purpose of think-aloud as they would present what they already prepared instead of articulating their spontaneous thoughts.

The group interview confirmed that

1. Students viewed the masteries of various reading strategies and relevant expressions should be achieved prior to learning think-aloud method.
2. Encouragement and hint offered by group assuaged shyness and anxiety and provided the students the clues they needed to verbalize their thoughts.
3. A few students were still indignant at the necessity of learning think-aloud. They still believed thinking aloud slowed them down and hindered them instead of assisting.
4. Students admitted that practice made them think-aloud better.
5. Learning think-aloud required a lot of practices. Practice reduced shyness and anxiety, adapted the students to verbalize thoughts, and guided the students to apply reading strategies to the texts they read.

## Discussion

The observations in the formal class and Think-Aloud Class showed that students benefitted from employing the think-aloud method, although some problems lingered. The data from the observation was reinforced by the results of the daily feedbacks, group interview, and questionnaire.

The following are the problems identified during the Think-Aloud Class.

1. Too shy to talk.

Some students, especially the ones suffering from shyness, find it embarrassing to even perform a short talk or reading aloud, let alone think-aloud, which requires them to do more than a short talk or reading aloud. Worse, some shy students sometimes panic and cannot properly think. Inability to talk, talking gibberish, and unintelligent imitation during Think-Aloud Class are partly attributed to shyness.

Solution: Solution to this problem came in two ways. The first was through the group-based learning. Students within the group were expected to offer cooperation and encouragement to each other, thus providing a small boost of confidence to those who were too shy to talk. Constant practice on thinking-aloud was the second solution.

Out of nine participants, three students answered that they felt shy to verbalize their thoughts the first time they practiced think-aloud in the formal class. At the third meeting of the Think-Aloud Class, the answers in the Likert-based questionnaire showed that the number dwindled with only one student agreeing that (s)he was still shy. The other two answered neutral to and disagree with the statement respectively. Two students agreed that working in group helped them alleviate their anxiety while one student disagreed. Constant practice was also seen by two students to be able to overcome shyness and the last student declared his/her neutrality over this statement.

The researchers, based on the results of the observation, group interview, and questionnaire, believed that collaborative working and constant practice would be beneficial to alleviate students' shyness.

2. Not having or knowing proper words to accurately verbalize their thoughts.

Vocabulary problems impede expressions, and think-aloud practice is not immune to it. Six out of nine participants agreed with the statement that they did not know the right words to verbalize their thoughts correctly.

Solution: The researchers decided to temporarily tolerate the use of Indonesian expressions in the Think-Aloud Class. While some experts believe the use of native language may be detrimental to the creation of ideal atmosphere for second language learning, the researchers' consideration was based on the assumption that students would, in time, learn a correct expression. Moreover, central to this research was the learning and practicing of think-aloud instead of the use of the second language.

The questionnaire revealed that out of six participants who said that ignorance to the proper words derailed their attempts to verbalize their thoughts, four answered that they strongly agreed or agreed that using non English words helped them to express their thoughts.

The researchers also perceived that the students did not liberally use non English words to think-aloud although they already had permissions to do so. The participants still used English to think-aloud many times. On a few occasions when the students thought-aloud in Indonesian, the English equivalences were offered by the lecturer after the students finished their turns, and those English expressions should be practiced immediately.

Group cooperation did not seem to be very promising to overcome the problem from the lack of vocabulary. Out of six participants, three answered that they strongly agreed (one person) and agreed (two people) that working in group helped them with their vocabulary problems, while two students had a neutral stance over the statement and one disagreed.

### 3. Understanding the text but having nothing to say.

Students found verbalizing their process of thoughts, which were indescribable to them, difficult. They already understood the text without thinking it aloud. Practicing think-aloud only added an unnecessary confusion to them. Four students agreed that it was indeed a problem to solve.

The lecturer thus explained that thinking aloud is basically assistive and not mandatory. It surely adds more burden if the readers can comprehend the text easily and fast. The practice of thinking-aloud is beneficial when the readers know the meaning of the words in the text but encounter difficulties in understanding the text as a whole. The reason of think-aloud being beneficial to such a reader because think-aloud requires the reader to slow down and reflect how the readers understand and interpret the text (Wilhelm, 2003; Kauder, 2007, p. 26). The Think-Aloud Class trained the students to carry it out and allowed the lecturer to see what the students had in mind so the lecturer could offer a pointer whenever needed.

Verbalizing thought might be hard for some people who are not trained to do it. Unlike people who cannot express their thoughts due to the limitation of their vocabularies in their arsenals of minds, some people usually take for granted their silent albeit complex process in their minds. Accordingly, they find it difficult to express the process. Thus, the researchers believed making known of those processes may help people verbalize them.

Solution: To help the students identify some processes in their minds, a think-aloud checklist containing a number of common possible expressions of thought verbalization/reading strategies was distributed. The students could then search and match the checklist with the processes in their minds.

The researchers already informed the students that the checklist only served as a guide and example, not a correction that should be applied to their minds. This first solution received a favorable response from the students. All four students answered they either strongly agreed or agreed that the think-aloud checklist helped.

Sometimes, students decided to simply imitate what their friends had expressed. They reasoned that it was easier than monitoring their thoughts and composing words to express them or exploring the checklist. Imitating friends received a strongly agree and agree responses from two students, while one student selected neutral, and the last one said (s)he disagreed imitating friends helped.

Both using the checklist and echoing were basically a desperate attempt by the students to show their participations. While those two might help them in a very short run, students should be informed again and again that the checklist and their friends' expressions should only serve as an example, and not something to blindly imitate. Students were expected to identify and explore their minds and make known the processes in their minds. This requires a lot of practices, creativity, and willingness to try.

In addition to the prepared checklist and imitation, students sometimes simply said whatever came into their minds. This approach, in the researchers' opinion, was better than copying checklist and friends' responses. Copying betrays the purposes of think-aloud practices, which is to verbalize the process of understanding of the text in the readers' thoughts. Saying anything at least describes something in their thought. To keep the students on track when they decided to simply say anything, anytime they said something less or not relevant, students were encouraged to improve it. For example, when a student said (s)he disliked a text because it was too long, (s)he was guided to think what strategies (s)he could use on the text to understand it without succumbing to boredom due to the lengthy article. This third solution received a favorable response from two students, while one selected to be neutral and one said (s)he strongly disagreed with such a solution.

The fourth solution was to ignore the sentence that invoked nothing in the students' minds and proceed to the next sentence. While it appeared to be an act of giving up, this actually unburdened the students as they could move to the next sentence and see if the next sentence could trigger a recognizable and speakable process in their minds that they could verbalize. To ensure that students practiced, students should think-aloud after at most three sentences. When students read three sentences without thinking-aloud, the lecturer asked them to check the think-aloud checklist or ask themselves (1) Do I understand these three sentences correctly? (2) Do these three sentences connect? (3) What will the fourth sentence be about? All four students who said that they understood the text but had nothing to say were in favorable in the fourth solution, with two strongly agreeing and the rest agreeing to the statement that it was nothing wrong to proceed to the next sentences until an idea appeared.



Working in group was also another solution. Two of four students agreed that collaboration helped them when they understood the text but had nothing to say, while the rest observed neutrality.

4. Easy sentence or text made it difficult for students to analyze their minds.

In relation to problem no. 3, the researchers also discerned that students tended to get puzzled when they read relatively easy sentences. The reason why difficult sentences or texts work better than easy articles is because the nature of understanding a reading material. Good readers, or the ones who can read and comprehend a text easily, carry out the reading and comprehension processes automatically. This confirmed Ozek & Civelek's (2006) article, written based on Someren et al.'s (1994, p. 36) theory, which posits that "think-aloud works better when a task is difficult so that students cannot solve all of it in an automated manner (p. 5)." These automatic processes are carried out without the readers' awareness. On the other hand, poor readers, or the ones who encounter some degrees of difficulties in comprehending a text, will use various strategies, employ those strategies appropriately, and monitor the usage of those strategies. According to Jahandar et al. (2012), "using a variety of strategies, using strategies appropriately, and monitoring strategies is not automatic (p. 1)". Thus, based on Jahandar et al.'s theory, readers who employ strategies properly and monitor whether those strategies work or not will be aware of the employed strategies in their minds and can articulate them.

Basically, we can conclude that students who are presented with a relatively difficult text will try various strategies to understand the text in awareness. As they realize that they are doing something, it is easier for them to verbalize it.

Solution: During think-aloud practices, the learners should have a challenging text to understand. The text in general should be properly adjusted to the students' capability, not too easy so learners cannot easily describe the automatic processes in their minds, and not too difficult, which may extinguish the willingness of the learners to read and practice.

5. Students do not understand the text and are confused about what to do.

Some students, in a few cases, admitted that they felt the sentences they read were beyond their understanding but they did not know what to do. When they were asked why they did not make use of the think-aloud checklist, they would later usually select expressions that describe simple processes such as the meanings of words. More difficult processes, such as finding a connecting between sentences or connecting the texts with their real life experiences, were rarely selected. The researchers then came into conclusion that the students might view the sentence, and the text in a broader view, as being too difficult and did not know what to do to comprehend it.

Solution: Students were imparted the knowledge on reading strategies and how to use them. The case of a student reading "Star survives close call with a black hole" in the second meeting was a good example of the implementation of this solution. Two out of three students who said they experienced this problem agreed with this solution while one disagreed.

Group collaboration only gained favor from one of the three students who experienced this difficulty. Two other students said they were neutral to the effect of group collaboration on this problem.

6. Requiring a lot of time in both learning and practice.

During the interview, some students complained that it was easier and less time-consuming to comprehend the text without uttering their thoughts. This was a normal conjecture. While think-aloud offers its own unique advantages, such as, according to McKeown & Gentilucci (2007, p. 136) "helping second-language learners develop the ability to monitor their reading comprehension and employ strategies to facilitate understanding of text (Baumann, Jones, & Seifert-Kessell, 1993)", "permitting these students to self-regulate the reading process and improve comprehension by employing "fix-up strategies" where needed (Cassanave, 1988)", "activating metacognitive monitoring in those students for whom self-regulation has not yet become automatized (Ward & Traweek, 1993)", it does have its own disadvantages. First, think-aloud, according to Cotton & Gresty (2007, pp. 48, 50) is time-consuming. Cottin & Gresty do not elaborate why they claim that thinkaloud is time-consuming. However, the researchers agreed with Cotton & Gresty after comparing the speed of thinking and speaking. Richard L. Weaver II, Ph.D. claims that the speed of thinking, which is 600 words per minute, is faster than the speed of talking, which is about 150-200 words per minute (Weaver, 2008). Think-aloud is completely executed when the readers talk what they think. As the verbalization speed is much slower compared to the speed of thinking, the completion of think-aloud appears to be more time-consuming compared to the cognitive application of strategies which does not require talking.

In addition to the difference between the speed of thinking and that of talking, readers are also required to slow down to reflect their understanding, as already previously mentioned in problem no. 3.

Not only the application of think-aloud looks bleakly time-consuming. Learning think-aloud method is also time-consuming due to its unique natures and its learning is also ridden with problems, such as problems 1 to 5 already presented previously.

Solution: To avoid students' demoralization, the lecturer again and again emphasized that thinking-aloud is just a means to facilitate them to realize the process in their minds and how to improve it. The learning conditions should also be shaped to be as accommodative to their needs and wants as possible without spoiling the students too much. Three of such accommodative actions were tolerance to use non English language, group work, and tolerance to offering supportive actions to students belonging to another group.

Students must also be well equipped with useful or at least commonly used reading strategies beforehand. The fundamental core of think-aloud lies in the proper uses of relevant reading strategies. Students will not be able to employ appropriate strategies if they are not well-versed to, or at least cognizant of, those strategies.

#### 7. Internet disconnection.

Several times the internet slowed down or disconnected. While fortunately the disconnection or the slowing down rarely lasted for 15 minutes, this connection disturbance often created a lapse of attention.

Solution: Basically, there was nothing the researchers and the students could do, leaving the researchers and the students at the mercy of the internet service providers. However, those connection relied on wi-fi may try disconnecting and connecting to the wi-fi again. Modem might also provide a better service after reset. Mobile internet users may find a better spot for a better connectivity.

Students might feel distracted one way or another when they realized they were no longer connected with others. A good class management ensures that the class is still conducive for learning.

Zoom video conference application also has a setting that lowers the HD (high definition) quality of the video. This solution might come in handy when slow internet hindered the class.

### Conclusion

While readers usually are not aware how their thoughts process a text, think-aloud guides the readers to identify and verbalize them. Articulating one's thought is beneficial because it proves that one recognizes the process in his/her mind and can adjust it if necessary. Another advantage is when one's thought is made known, others can perceive it and offer improvement. Considering the benefits of practicing think-aloud, think-aloud is often taught in class.

Although people avail themselves from think-aloud, its teaching and practices are not free from problems. The problems become more complicated when it is taught during an emergency remote class due to COVID-19 threat. Emergency remote class has a different nature from face-to-face class, where think-aloud is taught most.

This research tried to reveal problems that existed when teaching think-aloud in an emergency remote class. Students were divided into groups and assigned texts to think-aloud. The emergency remote class limited the cooperation among members to only giving a brief hint and encouragement to the ones doing thinking-aloud, but the limitation was not detrimental to the students' learning. Data was collected through observation, questionnaire, and group interview. Literary research was also performed to obtain better understanding over the data collected.

The research concluded that there were seven observed problems from the teaching and learning of think-aloud using Zoom video conference apps. Those problems were (1) students were too shy to talk. Solutions to this problem were: (1a) Working in group, and (1b) Constant practice; (2) Students did not have or know proper vocabulary to verbalize their thoughts. This problem had two viable solutions: (2a) Tolerance to use non English language, and (2b) Group support; (3). Students understood the text but had nothing to say. Answers to this problems came in five different methods: (3a) Providing a checklist of examples of common think-aloud expressions as a model, (3b) Imitating other students' expressions, (3c) Saying anything that students have in minds, (3d) Continuing reading until an idea emerges, and (3e) Receiving brief hint and encouragement from the group; (4) Easy text did not invoke observable understanding processes in the students' minds. Thus, (4a) texts should be adjusted to the students' reading levels; (5) Students neither understood the text nor knew what to say. This problem might be solved by (5a) mastering the reading strategies required, and (5b) Group collaboration; (6) Time-consuming. Basically, this is the price of learning think-aloud, so there is nothing to be done except (6a) maintaining high morale by providing everything the learners need; (7) Internet disconnection. This is a problem

beyond personal solution as it stems from the insufficiently available infrastructures, but emergency solution may help, such as (7a) restarting modem or finding an area with a better coverage, and (7b) keeping the class in an orderly manner.

The possibility for further research is available. This research involved a few participants. Another research with a larger number and more diverse participants might provide a better insight on the problems that people experience in learning think-aloud in an emergency learning class. Group collaboration may also be expanded to discussing a text together using think-aloud instead of just providing encouragement and clues. Other researchers may also use knowledge obtained from this research to refine their research. For example, other researchers working on think-aloud research should consider finding a text whose difficulty level is on par with the participants' mastery because easy text tends to make the participants unaware of the cognitive process in their minds.

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