TECHNIUM
SOCIAL SCIENCES JOURNAL

Technium.

39/2023

2023

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Technium Social Sciences

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International Communication & PR

Technium Social Sciences Journal
Vol. 39, 127-133, January, 2023
ISSN: 2668-7798
www.techniumscience.com

Investigating Literal and Inferential Comprehension Achievement of Grade Six Students

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Abstract. Literal and inferential comprehension questions characterize the types of tasks students typically complete in reading assignments in elementary schools in Indonesia. This study, a preliminary survey of more extensive research, aimed at describing Grade Six students' literal and inferential comprehension achievements. The research respondents were 198 Grade Six students from three elementary schools in Makassar, Indonesia. The research instrument used was a reading comprehension test which consisted of 35 multiple-choice questions. The data obtained were tabulated and analyzed descriptively using percentage analysis. The results of the study showed that most of the students in this study had low achievement in reading comprehension, both in literal and inferential comprehension. The research findings had an implication for the teaching and learning process of reading comprehension in Grade Six in elementary schools in Indonesia and other similar contexts.

Keywords. literal comprehension, inferential comprehension, reading, elementary school.

Introduction

Reading is one of the most important learning activities given to elementary school students because reading ability is an early indicator of success and becomes the basis for success in school (Austin & Casselden, 2010; Tompkins, Campbell, & Green, 2012; Dabarera, Renandya,, & Zhang, 2014). In Indonesian contexts, reading is one of the four skills of the Bahasa Indonesia subject, the formal language in Indonesia, taught to students in elementary school. Various research results show that students who are able to read well are more likely to succeed in other subjects such as social science, science, and mathematics (Archambault, Eccles, & Vida, 2010; Austin & Casselden, 2010; Maebana, Molotja, & Themane, 2022). Reading skills are also considered to be the foundation for future student success (Küçükoğlu, 2013; Schunemann, Sporer, & Brunstein, 2013; Yassine, 2022).

One of the reading skills taught to elementary school students is reading comprehension. Reading comprehension refers to the ability to read texts, process texts and understand their meanings (Austin & Casselden, 2010; Zimmerman & Hutchins, 2003). In order to understand a text, a reader should be able to decode words and to comprehend the meaning of the word (McCardle, Scarborough, & Catts, 2001; Zimmerman & Hutchins, 2003; Oakhill, Cain, & Elbro, 2014).

Technium Social Sciences Journal
Vol. 39, 127-133, January, 2023
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Having good reading comprehension skills is very important because these skills are not only helpful academically, but also professionally and personally. Having excellent reading comprehension skills is also believed to increase students' enjoyment and effectiveness of reading. More importantly, good reading comprehension enables students to express thoughts, ideas, and feelings, which helps them become well-integrated citizens in the long run (Hong, Ma, Lin, & Yuan-Hsuan, 2020).

Reading comprehension has several types ranging from low to high levels comprehension (Basaraba et al., 2012; Lah & Hashim, 2014)). These include literal comprehension, inferential comprehension, and evaluative comprehension. Each comprehension requires different cognitive demands on the reader and involves varying levels of interaction with the text (Basaraba et al., 2012).

Despite the importance of reading comprehension, several previous studies have shown that many elementary school students in Indonesia lack reading comprehension skills (Aru, 2016; Iriani, 2017; Nurvitriawati & Sulfasyah, 2018). However, few studies relating to elementary schools in Indonesia have been conducted to find out which reading comprehension types the students struggle with more. This research addressed this dearth by focusing on students' reading achievement in relation to literal and inferential reading comprehension. The study focused specifically on these two as they are among the main competencies of reading subjects stated in the basic competencies which students must achieve in elementary school in the Indonesian context. The results of the study have instructional implications regarding the types of instruction teachers can use to teach comprehension.

Types of Reading Comprehension

Types of reading comprehension commonly taught in Indonesian elementary schools are literal and inferential comprehension. The first refers to the ability to understand written texts (Basaraba et al, 2012; Lah & Hashim, 2014; Oakhill, Cain, & Elbro, 2014). It is considered the lowest level of reading comprehension and thus considered the easiest (Basaraba et al, 2012; Lah & Hashim, 2014; Oakhill, Cain, & Elbro, 2014).

In literal comprehension, the reader will be able to understand the reading by reading what is stated directly in the reading text. In this case, the reader recognizes and captures the message that is expressed explicitly. Literal comprehension is needed to develop an understanding of the message contained in the text or to utilize concepts that have been understood by the reader (Basaraba et al, 2012; Lah & Hashim, 2014; Oakhill, Cain, & Elbro, 2014). Literal comprehension is considered to give aid to higher comprehension skills (Nation, 2005). Question words that are usually used for literal questions are what, who, where, and when.

Inferential comprehension on the other hand demands that the reader think at a higher level because in inferential understanding the reader must be able to catch what is not directly stated in the text but which is part of the author's message. The reader is required to interpret the nuances of the text that has been read. Inferential questions are types of questions that require answers that cannot be found explicitly expressed in the text but must be made based on the results of an interpretation after reading the text. In other words, the answer to an inferential question is the result of deducing the author's underlying meaning (Basaraba et al, 2012; Lah & Hashim, 2014; Oakhill, Cain, & Elbro, 2014). Questions that can be asked as inferential questions include, but are not limited to, asking about the main idea, the theme and comparisons or the conclusion of the content of the text.

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Lah & Hashim (2014) studied comprehension skills of low and high achievers in Malaysia's Grade 4, 5 and 6 students. Altogether, the study involved 4101 students who completed a comprehension test which consisted of 50 multiple-choice questions. The test items were categorized into several comprehension categories, including literal and inferential. The study found that both low and high achievers had no difficulties in the literal category and could do the test. However, in an inferential category, low achievers struggled to complete inferential questions compared to high achievers. Although the main objective of this study was not to find the level of students' comprehension skills, it can be implied that more students have difficulties in inferential comprehension in this study.

The Teaching of Reading Comprehension Strategies

Many factors affect students' reading comprehension ability. Research shows that one of these factors is how reading comprehension is taught to students. The results indicate that an effective reading comprehension programme involves implementing a variety of reading comprehension strategies (Küçükoğlu, 2013; Tompkins, Campbell, & Green, 2012).

Reading comprehension is a complex process that involves a number of different strategies. Such strategies refer to a number of specific actions that students can take to help their reading comprehension (Tompkins, Campbell, & Green, 2012; Abdelrahman, 2015). These strategies consist of two categories, namely cognitive and metacognitive strategies. The former refer to activities that involve thought processes such as making predictions at the beginning of reading, activating background knowledge, connecting existing knowledge with reading, determining important points in reading, drawing conclusions, using guiding questions in reading, identifying the focus of reading and summarizing (Tompkins, Campbell, & Green, 2012). A number of studies have shown the positive effects of applying these cognitive strategies, either individually or in combination with several strategies, on improving students' reading comprehension outcomes (Küçükoğlu, 2013). The latter, refer to student activities that are reflecting their thoughts or thought processes while reading (Abdelrahman, 2015). Metacognitive strategies in relation to reading comprehension cause students to reflect on their understanding, know the strategies to use when they do not understand the text they are reading and recognize situations where metacognitive abilities are used. Metacognitive strategies include monitoring and evaluation activities. Students who have metacognitive abilities tend to be successful in their learning (Schunemann, Sporer, & Brunstein, 2013). This also applies to reading comprehension learning where metacognitive abilities help improve students' reading comprehension (Lucia, 2013; Abdelrahman, 2015; Sulfasyah, Ernawati, & Fatmawati, 2021).

A number of studies have shown that many teachers do not have sufficient knowledge about cognitive and metacognitive strategies and therefore they do not teach students how to employ cognitive and metacognitive processes in reading comprehension (Wilson & Bai, 2010). Therefore, teachers need to improve their own cognitive and metacognitive understanding and how to teach them to others (Tompkins, Campbell, & Green, 2012; Abdelrahman, 2015). One way to increase the teacher's understanding is through self-development training activities (Hennessy, 2014).

Methodology

This study was part of the initial research of a larger research project conducted by the researcher. The main objective was to get an initial picture of the sixth grade students' reading comprehension achievement, especially in literal and inferential comprehension. The

Technium Social Sciences Journal
Vol. 39, 127-133, January, 2023
ISSN: 2668-7798
www.techniumscience.com

participants of the study were 198 sixth graders from three elementary schools in Makassar City, Indonesia. Sixth graders were selected because they had studied specific reading comprehension lessons since grade four. These schools were selected using a purposive sampling technique because the researchers had worked closely with the teachers from these schools in other academic activities. The instrument used was a reading comprehension test which consisted of 35 multiple choice questions. The questions were based on a reading passage consisting of 2 to 4 short paragraphs. The questions were adopted from a collection of reading questions from supplementary textbooks used in elementary schools. Before implementing the reading tests, they were first validated by two senior sixth grade teachers in order to assess the suitability of the material for use with sixth grade students. The data were collected using questionnaires and were analysed using the Gregory formula. The results showed that the validity of the test fell into a very high category (85<). Next, the data collected were analyzed descriptively in the form of mean score and percentages using the following range, which was determined based on the Minimum Completeness Criteria (KKM) for reading comprehension in this study.

>87 – 100	Very Good
>73 – 87	Good
>60 – 73	Average
< 60	Poor

Findings

The study aimed to describe the literal and inferential comprehension achievement of 198 sixth grade students of an elementary school in Makassar. The literal questions in this study requested factual information related to several short reading passages. Although literal comprehension is considered the easiest among reading comprehension types (Basaraba et al, 2012; Lah & Hashim, 2014), the data shows that most of the students in this study had low achievement in literal comprehension. The mean score for literal comprehension was 56.91. This score fell into the 'Poor' category. Students' score distribution is described in the following figure.

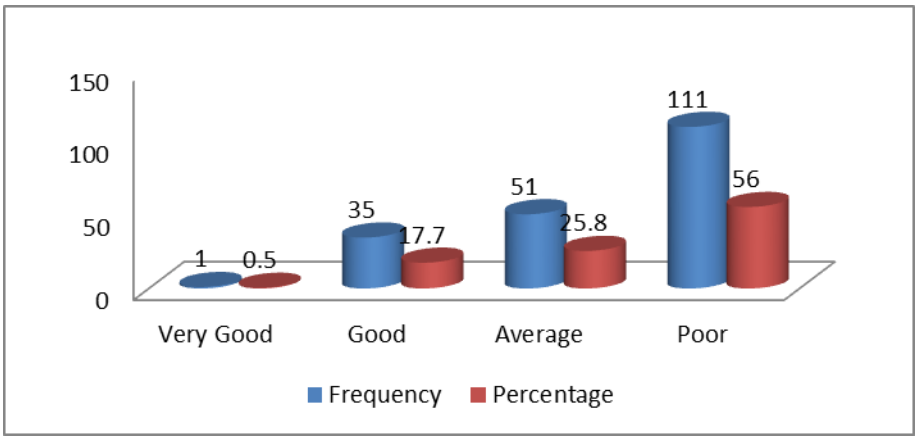

Figure 1. Literal comprehension score

Of all 198 sixth graders who participated in this study, more than half of them had a reading score that fell into the 'Poor' category (56%), and 25.8% had an 'Average' score. The rest of them respectively had a score that belong to the 'Good' category (17.7%) and 'Very

Technium Social Sciences Journal
Vol. 39, 127-133, January, 2023
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Good' category (0.5%). The data shows that students' literal comprehension was poor. This implied that students had difficulties in completing literal comprehension questions. The findings were different from other study in a different context in which even low achiever students did not have difficulties in literal comprehension (Lah & Hashim, 2014).

Figure two below shows students' scores in inferential comprehension. Questions asked for this type of comprehension were more complex than literal ones. Students were asked to answer questions where the answers were not stated explicitly in the text. For example, they were asked to determine the main ideas of paragraphs, make inferences or draw conclusions. The mean score for inferential comprehension was 47.60, which was lower than the mean score of inferential comprehension. This score fell into the poor category. The following is the students' score distribution:

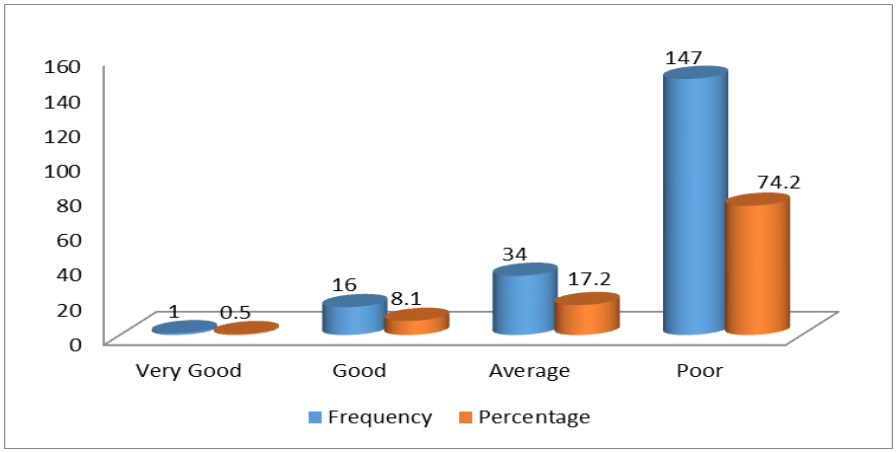

Figure 2. Inferential comprehension score

Similar to the students' literal score, their inferential comprehension score also fell into the 'Poor' category, as shown in Figure 2 (74%). However, more students have the 'Poor' score category in inferential comprehension (74%) and fewer students' has scores in the 'Average' and 'Good' category. This finding supports previous studies that students particularly struggle with inferential comprehension (Lah & Hashim, 2014). The data also shows that more students had difficulties in answering inferential comprehension questions than literal ones. This was not surprising as inferential comprehensions are considered more difficult (Basaraba et al, 2012; Lah & Hashim, 2014; Oakhill, Cain, & Elbro, 2014). Students' low scores in reading comprehension related to both literal and inferential aspects could be affected by many factors such as background knowledge, experiences and level of interest (Tompkins, Campbell, & Green, 2012). Further, reading comprehension is a complex process and is considered difficult to teach because it involves mental processes that cannot be seen (Tompkins, Campbell, & Green, 2012). Therefore, one possible solution is the use of effective strategies in teaching reading comprehension (Wilson & Bai, 2010; Tompkins, Campbell, & Green, 2012). How teachers prepare their teaching is very important. They need to use instructions that promote various comprehension strategies to make understanding more visible (Tompkins, Campbell, & Green, 2012).

Conclusion

The results indicated that students in this study struggled with both literal and inferential reading comprehension. The findings related to inferential comprehension were

worrying but not surprising as evidence supported this finding exists in other contexts. However, students' difficulties in low-level thinking as literal understanding particularly trigger some concern as literal comprehension ability is considered to help facilitate higher reading comprehension skills. These studies, however, have some limitations. It did not identify impending factors of the students' literal and inferential comprehension achievement. This study also did not involve other higher levels of comprehension and various texts. Therefore, future research in this field in the Indonesian context could address this. The findings have an implication for the types of instruction and reading strategies teachers can use to teach comprehension at different levels of complexity.

Acknowledgements

The main research for this initial study was supported by University of Muhammadiyah Makassar and was fully funded by The Director General of Higher Education, Research, and Technology through the Directorate of Research, Technology and Community Service, Republic of Indonesia.

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