

Context-Based Learning and Its Influence on Pupils' Reading Accomplishment

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ABSTRACT: In academic classes and professional settings, some researchers have indicated that context-based learning can affect students' academic success. Unfortunately, it was difficult to find research on the connection between the approach and students' reading achievement. Therefore, the researcher aimed to investigate how context-based learning affects students' reading success. It was quantitative correlational research that included 63 individuals from the State Polytechnic of Sriwijaya. The data on context-based learning were collected from the viewpoints of the students. Meanwhile, the data regarding the dependent variable were collected through the score of the tests. The research found a strong and significant link between context-driven learning and achievement in reading ($R = 0.679$). The R-squared value was 0.462. It means that the contribution of contextual learning to students' reading success was 46.2%. Additional variables not included in this model impacted the remaining 53.8%.

Keywords: *Context-based learning, reading accomplishment, reading fluency, reading comprehension*

INTRODUCTION

One of the competencies that students should accomplish when studying English in college, university, or polytechnic is reading skills. Reading skill is very important (Kaya, 2015) because the skill will help them to understand the written materials given in the classrooms. It is also important in the workplace when they have graduated from their school. To understand the instruction, for instance, they need this skill especially when they work in a multinational or even international company. Furthermore, reading skill is also needed to perform critical evaluation.

Buckingham et.al (2023) mentioned that students from poor families who live in remote areas tend to have difficulty searching the books that are very important to them. They do not have enough money to buy the books they need even second-hand books. Sometimes, they need big efforts to go to the library to read or to lend the books because the library is very far from

their homes. No access to the internet is also a problem for them. Some parents from poor families do not support their children in developing their reading skills because they do not understand the importance of having it. The rest do not support them because they do not have enough time to establish a good environment for their children. In their daily life, they only understand how to survive.

One of the efforts conducted by the lecturers in reading classes is to urge the students to develop their vocabulary. The vocabulary building can be conducted by reading as many passages as possible. The students can comprehend the topic given if they have enough vocabulary. In this regard, the students are urged to answer a variety of questions. Their ability to answer varieties of questions proves that they have reading comprehension ability (Duke et.al., 2021). The students also need interpretation skill to accomplish the reading skill. Interpretation means that the students can explain the passage whether it is implicit or explicit in the paragraphs. They can find the word if it is explicit. The readers cannot find the word if it is implicit but the meaning of the word can be concluded from the sentence or sentences. Therefore, this activity is crucial to do in the classroom. For efficiency, strategies like how to find specific information or how to find the main idea as quickly as possible should also be taught. On a higher level, the students are also taught how to analyze and interpret the text given. The ability to analyze the content is very crucial to decide what to do next. Fluency in reading is also an important aspect (Rupley, et al., 2020) that should be taught by the lecturers. It helps the students to develop their communication skills and confidence.

It cannot be disputed that lecturers have an important role in the students' reading success. Therefore, the lecturers should have good quality in teaching. They should be able to deliver the topics easily and enjoyably. Maajeeny (2019) stated that teachers should understand the variety of students so that they understand the approach that will be used to deliver the subject.

Many approaches can be applied by the lecturers in reading classes. One of them is context-based learning. The emphasis of this learning is on meaningful contexts. The lecturers use authentic materials to develop the reading accomplishment of the students. Authentic materials from the newspaper, weather forecast, menu, itinerary, instruction, manual, procedure invitation letters, email, and many others are used to develop the reading skills of the students. The students enjoy the study because it is suitable for real-life conditions. They study what they need in life. It is also easy for them to study because they can see the usage in real life. Seeing the relevance between the material and daily life makes them enthusiastic about studying. Some fun activities can be conducted when applying this approach. The application of this approach for polytechnic students is believed more functional because the graduate should be able to read the manual, procedure, and so on in their workplaces.

Context-based learning establishes the students' ability to do critical thinking based on the material given. They will be aware if there is a lost step in a procedure or if the procedure is out of sequence. This approach also allows the students to work together in solving a problem. This approach enables the students to argue about something they do not agree or complete the assignment based on the reading passage given. The activity to collaborate in completing a project makes the students happy because the instinct of humans is to work together and build human communication.

The following were some previous studies regarding the research. Ellis and Gabriel (2010) mentioned that students with a restricted exposure to chemistry responded positively to context-based learning. Getu, Mebrahitu, and Yohannes stated that incorporating real-world contexts and the practice in teaching chemistry was essential (2024). In addition, Majid and Rohaeti (2018) declared that context-based learning in chemistry influences students' performance and mindset. Unfortunately, they do not discuss in terms of reading achievement of EFL students.

Khaefiatunnisa (2015) noted that students' motivation as well as reading and understanding procedural texts be improved through the contextual teaching and learning approach. Tatal (2023) found that the approach discussed had a significant connection with the students' academic attainment, as well as the context-based learning and students' learning attention. In 2016, Nelson, Devardhi, & Zayed found that the first-year graduate students often lacked the necessary skills and strategies necessary for word' recognition and reading following an informational intervention aimed at improving the student's phonological ability and vocabulary. The data also show significant improvements in vocabulary with increased comprehension and use of a variety of reading strategies. It can be seen that they look at the problem from different angles. Therefore, in the current study, researcher wanted to investigate context-based learning and its influence on pupils' reading accomplishment.

METHOD

The current research used a quantitative correlational study. The researcher wanted to investigate how students view context-based learning as it is applied in the classroom. This study also wanted to assess to what extent students have attained their fluency and comprehension in reading through the implementation of the approach discussed in the classroom. Finally, the researcher wanted to find out the effect of the approach on pupils' reading achievement. Research population was Sriwijaya State Polytechnic students on the academic year of 2023-2024. The samples were 63 respondents taken randomly.

A Likert Scale Questionnaire regarding the approach were used to collect the data. Tests were used to measure the reading achievement. Descriptive statistics were used to analyze the data regarding context-based learning, reading fluency and comprehension. Pearson correlation coefficient and linear regression were used to find out the connection, influence and the contribution.

FINDINGS

In this section, the researcher described CBL, reading accomplishment and also the correlation of the variables.

1. Pupils' Perception regarding Context-Based Learning (CBL)

There were 82.6% respondents who had neutral position to the statement that using real-life examples on the reading materials improve their understanding of the text; 15.9% agreed; and 1.59% strongly agreed. Regarding the statement that reading passages that are recognized easily makes the activities of reading more enjoyable for them, there were 28.58% had neutral position; 58.72% agreed; and 12.70 % strongly agreed to the statement. Next, there was 69.84% agreed and 1.59% strongly agreed to the statement that CBL improves their comprehension skills. Only 28.57% of them had neutral position to the declaration. There was 58.73% agreed and 12.70% totally agreed that the approach encouraged the students to participate in the reading activities. Statement that the students can easily remember the details when they were taught by using the approach was agreed and strongly agreed by 17.46% respondents.

There was 69.84% agreed and strongly agreed to the statement that their confidence will arouse when the lecturers teach the passages by using the approach. The statement regarding the connection between the reading passage and experience of the students was agreed and strongly agreed by 69.84% respondents. There were only 17.46% approved and strongly approved to the remark that improvement in terminology can be gained through the application of context based learning. It was the fact that 66.67% of the respondents believed that the topics in reading passages found in the workplace is more reliable than the theoretical idea. There were 65.08% respondents who believed that the approach which is based on the context makes reading more significant for them to reach.

The statement that comprehending complicated materials when the lecturers presented them in recognizable settings was declared by 19.05% respondents. There were 25.40% respondents who disbelieved that the approach which is based on context stimulated them to investigate; 53.96% had neutral position; 19.05% accepted; and 1.59% strongly accepted the statement. There was 20.63% of the respondents understood that CBL can enhance their reading comprehension, despite their origin or capability rank. Concerning the item that CBL activities make reading more relatable for them, 20.63% agreed to the statement. Finally, there were 22.22% respondents agreed that CBL helps them develop critical thinking skills while reading.

There were 25.40% respondents approved and completely approved that they prefer educational materials incorporating real-life examples over those that focus solely on theoretical concepts. CBL made the respondents more engaged with the reading material. This statement was approved by 58.73% of the respondents. There were 19.64% agreed and strongly agreed that CBL can improve reading fluency; 56.55% neither agreed nor disagreed and 23.81% disagreed. The reading materials having CBL elements are more relevant to the students' everyday life. This issue was agreed by 28.57% respondents. Finally, there was 28.57% of the respondents agreed and strongly agreed that CBL activities make reading more enjoyable for the students.

It was easy for 55.56% respondents to remember information from relevant context. CBL encouraged the students to think critically about the information presented in the text. This information was accepted and widely accepted by 44.44% and 4.76% respondents consecutively. There were 73.02% respondents took a neutral stance; 22.22% accepted the information, and 4.76% widely accepted the idea that CBL can help struggling readers improve their reading skills. There were 40.2% respondents agreed and strongly agreed to the statement that reading materials with CBL elements enabled them to stay more focused and engaged. Finally, CBL positively impacted the students' reading achievement. This idea was approved and totally approved by

42.86% and 4.76% respondents sequentially.

Table 1. Context-based Learning (CBL)

| No | Mean | Median | Std. dev. | kurtosis | Std. error of kurtosis | Min | Max |
|----|-------|--------|-----------|----------|------------------------|-----|-----|
| 63 | 85.71 | 85.00 | 12.01 | 0.441 | 0.595 | 70 | 121 |

Table 1 showed the descriptive statistics regarding the context-based learning (CBL). The sample of the research was 63. Mean and the median was 85.71 and 85.00. The standard deviation was 12.01. The kurtosis was 0.441 and the standard error of kurtosis was 0.595. The data were distributed normally. The minimum score got by the respondents was 70 and the maximum score was 121.

Based on the level of perception regarding context-based learning (CBL), there were 33.33% respondents had medium perception; 53.97% had high perception; and 12.70% had very high perception.

2. Reading Fluency of the Pupils

The findings showed that most of the respondents usually pronounce words correctly and fluently, with little difficulty in identifying sounds or phonemes within words. There were more than 50% respondents usually read at an appropriate speed, rarely being too slow and hesitant or too fast and incomprehensible. There were 61.91% respondents sometimes read at an appropriate speed, but there are occasional instances of reading too slow and hesitant or too fast and incomprehensible. There were 22.22% respondents sometimes understand and respond to the text well, but their understanding of its content is inconsistent; Finally, there were 30.16% respondents sometimes use punctuation correctly, with occasional stuttering or sounding disjointed and sometimes pausing or stopping at the appropriate places.

There were 30.16% respondents sometimes read smoothly but occasionally make

unnecessary stops or pauses, showing mixed efficiency in processing the text. There were 30.16% respondents who sometimes demonstrate confidence in reading, but they occasionally hesitate or appear anxious. There were 69.84 respondents consistently demonstrate confidence in reading, without hesitation or appearing anxious. There were 3.18% respondents sometimes read with variation and occasionally adjust their reading style to different types of texts; and 63.82% respondents usually read with variation and generally adjust their reading style to suit different types of texts. There were 30.16% respondents sometimes read words correctly but also make occasional mistakes and the rest usually read words correctly, with rare misreading or mistakes. Finally, all respondents usually engaged in reading, showing interest and enthusiasm in understanding the text.

Table 2. Pupils' Reading Fluency

| No | Mean | Median | Std. Dev. | kurtosis | Std. Error of kurtosis | Min | Max |
|----|-------|--------|-----------|----------|------------------------|-----|-----|
| 63 | 72.75 | 74.00 | 6.9467 | -0.599 | 0.595 | 64 | 85 |

Table 2 showed the descriptive statistics regarding the reading fluency of the pupils. The sample was 63. The mean was 72.75 and the median was 74.00. The standard deviation was 6.9467. The kurtosis was -0.599 and a standard error of kurtosis was 0.595. The data were distributed normally. The minimum score was 64 and the maximum was 85.

3. Reading Comprehension of the Pupils

The findings showed that there were 25.40% respondents sometimes can identify the main idea of the text they are reading; 58,73% can identify; and 15.87% can easily and consistently identify it. There were 12.70% respondents sometimes can find details that support the main idea in the text; 71.43 can find; and 15.87% can easily and consistently find them. There were 28.57% respondents sometimes can make reasonable inferences or conclusions based on the information

available in the text; 63.49% can create logical inferences; and 7.94% can easily and consistently do it. There were 31.75% respondents sometimes can identify the text structure, such as chronological order, comparison and contrast, or cause and effect; 61.9% can identify; and 6.35% can easily and consistently identify it. There were 14.29% respondents sometimes can understand the meaning of words used in the text, either from context or from their prior knowledge; 80.95% can understand; and 4.76% can easily and consistently understand it.

Other findings showed that there were 14.29% respondents sometimes can use context clues to understand the meaning of words they may not be familiar with; 82.53% can use; and 3.18% can easily and consistently use them. There were 34.92% respondents sometimes can summarize the content of the text briefly and clearly and the rest can summarize it concisely and distinctly. There were 30.16% respondents sometimes can answer questions related to the text; 68.25% can respond them; and 1.59% can easily and consistently reply to the queries. There were 44.44% respondents sometimes can engage in critical thinking about the text, such as evaluating information, identifying bias, or questioning the validity of arguments; and the rest can involve in analytical cognition about the passage. There were 30.16% respondents sometimes can make personal connections between the text they are reading and their own experiences, knowledge, or values; and 69.84% can do it.

Table 3. Pupils' Reading Comprehension

| No | Mean | Median | Std. Dev. | kurtosis | Std. Error of kurtosis | Min | Max |
|----|-------|--------|-----------|----------|------------------------|-----|-----|
| 63 | 70.87 | 70.80 | 7.314 | -0.916 | 0.595 | 59 | 87 |

It can be seen from table 3, that the sample was 63. The mean was 70.87 and the median was 70.80. The standard deviation was 7.314. A kurtosis was -0.916 and standard error of the kurtosis was 0.595. The data were distributed normally. The minimum score got was 59 and the maximum score was 87.

4. Correlation, Influence and Contribution of the Variables

Table 4. The Correlation between the Variables

| | | Reading Accomplishment | CBL |
|------------------------|---------------------|------------------------|--------|
| Reading Accomplishment | Pearson Correlation | 1 | .679** |
| | Sig. (2-tailed) | | .000 |
| | N | 63 | 63 |
| CBL | Pearson Correlation | .679** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 63 | 63 |

** . Correlation is significant at the 0.01 level (2-tailed).

Model Summary^b

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .679 ^a | .462 | .453 | 5.16076 |

a. Predictors: (Constant), CBL b. Dependent Variable: Reading Accomplishment

Table 4 showed that the independent variable was context-based learning (CBL) as perceived by the pupils and the dependent variable was reading accomplishment of the pupils. There was a strong connection between them ($R = 0.679$).

An R-squared value was 0.462. The contribution of the CBL as perceived by the pupils to reading accomplishment of the pupils was 46.2%. Fifty-three point eight percent of the contribution was influenced by other variables.

DISCUSSION OF THE FINDINGS

Respondents believe that they require reading materials that are related to topics or subjects they are already familiar with. It means that English lecturers should deliver passages based on the focus of their study. It aligns with the idea mentioned by Osborne and Dillon (2008) regarding the students' varied needs. They can deliver reading passages about tourism destinations or making beds to hospitality students. The texts regarding how to greet visitors in a restaurant or how to make salads or pastry can also be given to them. The commercial students can be given passages about the trend of sales added with diagrams. In reading classes, they also can be given passages relating with the market structures in the business world added with diagrams. English lecturers in the electrical engineering study program can deliver the reading passages regarding the function of the components such as the function of resistor, transistor and diode. They can also provide procedural texts such as how to clean the electrical fan or how to do the safety precaution. The passages about the usage of some measuring instruments like voltmeter or calipers can also be presented. They need to understand about tools and materials used in the electrical engineering area. Therefore, those passages should be delivered to the students. English lecturers who teach at the mechanical engineering department should convey procedural texts added with pictures like to describe how to maintain or to repair the generator in their reading classes. Overall, to support their reading comprehension, the students need to be accustomed with the passages suitable with their contexts.

Their confidence aroused when the lecturer shared the materials in context-based. It corresponds with the concept stated by Demircioğlu et al. (2009) concerning students' curiosity and confidence in relation to the real world. It is very important to improve the confidence of the students in reading; the confidence in reading can improve their reading skill. Therefore, it is very crucial to deliberate suitable materials based on their educational background and discuss the

topic based on the content. The respondents gave affirmative responses regarding the benefit of associating the texts and their prior knowledge. Understanding prior knowledge of the students was very fundamental because it will determine how the students respond to the texts given. The respondents believe that the approach of context-based can enlarge proficiency in the English vocabulary; it can influence their ability to achieve the reading skills. Even though the reading proficiency of the student is novice because they do not have enough English background, they believe that context-based learning (CBL) can improve their reading comprehension. The failure in constructing good compound and complex sentences will not hinder them from gaining the general meaning of the passage. Because the students understand the context of the reading passage, they feel eager to do critical thinking. It is in line with the idea presented by Stolk et al. (2009a) about students' engagement with the subject matter. They like to discuss the importance of something based on the passage given; discuss their opinion about the passage; present accurate data; and discuss the impact of reading something. Polytechnic students tend to read the passages relevant to their major rather than the theory of the language itself. Sometimes they do not understand the structure or grammar used in that passage; the most important thing is that they understand the general meaning of the text. Since the topics are relevant to the major of the students, they tend to read the texts several even many times, and it resulted in improvement in their reading fluency. Rupley et al. (2020) mentioned the similar statement concerning the reading fluency of the students. Together with the lecturers in the classroom and individually outside of the classroom, they will find out how to read them fluently.

In terms of reading fluency, the respondents usually pronounce words correctly and fluently; but they have little difficulty to recognize or differentiate the sounds or phonemes within words. It means that some improvement should be conducted especially regarding the pronunciation and identification of sounds and phonemes so that they consistently can pronounce

the words correctly and fluently. It is an encouraging fact that there were more than fifty percent of the respondents usually read at a proper speed. However, some effort should be maintained to keep the condition. Some improvement should be conducted so that they can read at a proper speed consistently. Expression is other aspect that should be countered.

There are many aspects that should be noticed in the reading comprehension area. The respondents believed that identification the main idea of the text holds an important role. This finding is relevant with the idea of reading comprehension stated by Duke et al. (2021) as mentioned earlier. This activity can be conducted by previewing the text briefly to find out the main idea before the real reading activity is conducted thoroughly and carefully. Good readers should be able to do previewing consistently. The next activity is to find out the supporting details including details or data used to support the main idea of the text. The students should be able to find out supporting details consistently. It is crucial for the students to practice making summaries to show that they understand the topics thoroughly. Good readers should be able to identify the structure of the texts, like chronological orders, comparison and contrast, or cause and effect.

The strong and significant correlation ($R = 0.679$) between the variables means that the approach significantly influences the reading accomplishment of the pupils; the application of the approach can consistently increase the reading accomplishment of the pupils. The better the application, the higher the reading accomplishment of the pupils. The result indicated similar position as described by Tatal (2023) but in more specific attainment. The value of R-squared was 0.462. It means that the influence of this approach is moderate. The contribution of the independent variable was 46.2%. It means that there were some other factors (53.8%) that can influence the reading accomplishment of the students.

CONCLUSIONS AND SUGGESTIONS

The independent variable of the research was context-based learning (CBL) and the dependent variable was pupils' reading accomplishment. The first objective of this quantitative correlational study was to explore the students' perspective regarding the approach called context-based learning. The sample of the study was 63. There were 33.33% of the respondents had medium perception; 53.97% respondents had high perception; and 12.70% had very high perception. The second one was to evaluate the reading fluency and comprehension of the students. In this case, there was 84.13% of the respondents having high score, and 15.87% having very high score in reading fluency. In terms of reading comprehension, mean and its median was 70.87 and 70.80. The data were distributed normally; the minimum score got was 59 and the maximum score was 87. Finally, the researcher wanted to analyze the influence and contribution of independent variable to dependent one. The relationship between CBL as perceived by the pupils and reading accomplishment of the pupils was significant ($R = 0.679$). It means that the application of CBL can increase the reading accomplishment of the pupils. The value of 0.679 suggests that the relationship between the two variables was fairly strong, but it does not imply a perfect correlation. A correlation of 0.679 suggests that there was a consistent tendency for the two variables to move together, but there may still be some variability or noise in the relationship. The effect of CBL to dependent variable was significant ($R^2 = 0.462$). The contribution of CBL to reading accomplishment of the students was moderate. It is suggested to find out some other factors that can impact the reading performance of the scholars.

REFERENCES

- Buckingham, J., Beaman, R., & Wheldall, K. (2023). *Why poor children are more likely to become poor readers: The early years*. *Mapping the Field*, 185-203.
- Demircioğlu, H., Demircioğlu, G., & Çalik, M (2009). Investigating effectiveness of storylines embedded within context based approach: A case for the periodic table. *Chem Educ Res Pract 10*: 241–249.
- Duke, N.K., Ward, A.E., & Pearson, P.D. (2021). The science of reading comprehension instruction. *The Reading Teacher 74*(6), 663-672.
- Ellis, R., & Gabriel, T. (2010). Context-based learning for beginners: CBL and non-traditional students. *Research in Post-Compulsory Education, 15*(2), 129–140.
- Getu, G., Mebrahitu, G., & Yohannes, G. (2024). Effects of Context-Based Teaching Chemistry on Students' Achievement: A Systematic Review. *Jurnal Pijar Mipa, 19*(2), 190–197.
- Kaya, E. (2015). The role of reading skills on reading comprehension ability of Turkish EFL students. *Üniversitepark Bülten, 4*(1-2), 37-51.
- Khaefiatunnisa, K. (2015). The effectiveness of contextual teaching and learning in improving students' reading skill in procedural text (a quasi-experimental study of the second grade students at one vocational school in Bandung). *Journal of English and Education, 3*(1), 80-95.
- Maajeeny, H. (2019). Effects of teacher quality on student reading achievement as an indicator for learning disabilities: A meta-analytic review. *International journal of educational and Psychological science, 12* (31), 228-241.
- Majid, A., N., & Rohaeti, E. (2018). The Effect of Context-Based Chemistry Learning on Student Achievement and Attitude. *American Journal of Educational Research, 6*(6), 836-839.
- Nelson, D., Devardhi, J., & Zayed, J. (2016). Improving weak learners' decoding skills in using

context clues while reading comprehension of EFL students. *GJRA-global journal for research analysis* 5(9), 18-20.

Osborne, J., & Dillon, J. (2008). *Science education in Europe: Critical reflections*. A Report to the Nuffield Foundation, King's College London.

Rupley, W.H., Nichols, W.D., Rasinski, T. V. & Paige, D. (2020). Fluency: Deep Roots in Reading Instruction. *Education sciences* 10(6), 1-11.

Stolk, M.J., Bulte, A.M.W., de Jong, O., & Pilot, A. (2009a). Towards a framework for a professional development programme: Empowering teachers for context-based chemistry education. *Chem Educ Res Pract* 10: 164–175.

Tutal, Ö. (2023). Does context-based learning increase academic achievement and learning retention: A Review based on meta-analysis. *Journal of Practical Studies in Education*, 4(5), 1-16.