
The Effect of Contextual Teaching and Learning on Reading Comprehension

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Abstract

This study investigated the effect of contextual teaching and learning approach on students' reading comprehension achievement. The quasi experimental design was employed in this study involving experimental and control groups. The experimental class received the contextual teaching and learning approach while the control class received the conventional approach. A multiple choice test was used as the research instrument to look at students' reading comprehension. Data were analyzed through using the parametric levene statistic and non parametric tests. The result revealed that the experimental and control classes had significantly different reading comprehension achievement. It was proved by the mean score of reading comprehension achievement and mean score of gain of the experimental class was higher than the control class. This study also provided information for the researchers and lecturers about how to implement contextual teaching and learning in teaching reading.

Keywords: Contextual teaching and learning, reading comprehension

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Introduction

English reading ability is regarded as the important skill for the academic success and career of EFL students, therefore it needs to be developed among the students (Fransisco & Madrazo, 2019). Reading trains students to comprehend written materials effeciently and quickly to get information and meaning with full understanding and enjoyment (Al Udaini, 2011; Sembiring, Rukmini, Mujiyanto, & Yuliasri, 2018). Moreover, Al-Jarrah and Ismail (2018) stated that the EFL students are expected to have a good skill of English reading text in terms of vocabulary and syntactic knowledge to get information and meaning from English reading text. In other words, skill in reading English texts is demanded by good reading habits (Iftanti, 2015). It is done by developing the students metacognitive awareness of mental process.

Although reading skill has an important role for the academic's success, English reading comprehension ability still is a problem for Indonesian students. Most of them seem to be able to read the texts without comprehending content. The students' failure in reading comprehension occurs as a result of inappropriate teaching approaches used by lecturers in teaching reading skill in the process of teaching and learning in the classroom. One of the approaches that can be used to improve students' reading comprehension is by using contextual teaching and learning. The contextual teaching and learning can stimulate students to be actively involved in reading English texts. Therefore, the lecturers must be able to combine academic rigor with practical educational experiences. It is by engaging between teaching material needs and real life context or natural surrounding (Al Udaini, 2011; Bera, 2016; Dorkchandra, 2010). In this way, students become the center of teaching, and the lecturers only as a facilitator who facilitates teaching and learning process in the classroom. Li (2016) suggests that the lecturers have to have ability to play a role as a facilitator to encourage students to be active learners in the process of teaching and learning in the classroom. In terms of being a facilitator, the lecturers have to be able to design various instructions based on the learners' prior knowledge, current interest, and level of involvement (Stenger & Garfinkel, 2003). Beside the ability of designing various instructions, the lecturers are also responsible for making students actively involved in the process of teaching and learning (Crawford, 2001). It is by developing the students' skills in comprehending reading texts (Lingan & Malana, 2019).

In relation to the importance of teaching approach in the process of teaching and learning reading in the classroom, it is very crucial to undertake studies in a higher education context. Therefore, the purpose of this study was to investigate the effect of contextual teaching and learning approach on students' reading comprehension achievement and gain. The study was guided by two major questions: (1) Are there statistically significant differences of reading comprehension mean achievement of the post-test between the two groups receiving conventional approach and the group receiving contextual teaching and learning approach? (2) Are there statistically significant differences of reading

comprehension mean gain of the post-test between the groups receiving conventional approach and the group receiving contextual teaching and learning approach?

Literature Review

Reading comprehension

Reading comprehension is the process of meaning construction through interaction and involvement with texts (Snow, 2002). In this sense, students must have knowledge and experience related to the texts (Al Udaini, 2011; Dorkchandra, 2010; Knoll, 2000). In other words, students need to have ability to recall the gist of the texts, ask specific questions, and interpret the messages (Pearson & Hamm, 2005). Better comprehension of the texts is very important for the students in constructing the meaning, because the goal of the reader is to reproduce meaning from what they read (Lipka, 2010). Therefore, students must have ability to analyze information from what the students read (Hassan, 2005).

A text can be difficult or easy to be comprehended by the students depending on the students' knowledge, ability, and engagement activity with the texts (Snow, 2002). Snow (2002) later adds that when too many factors are not matched to a reader's knowledge and experience, the text may be too difficult for optimal comprehension to occur. Therefore, evaluating and selecting a text appropriateness is highly crucial in reading comprehension (Alemi & Bagheri, 2013). There are three indicators of reading comprehension measurements (Dagostino, Carifio, Bauer, & Zao, 2014), namely literal, inferential, and critical creative. They argued that the three indicators comprise of some sub-indicators. 1) Literal consists of identifying of words/phrases/sentences, identifying main ideas, identifying important points, making comparison, identifying cause and effect, identifying sequence of ideas/events. 2) Inferential; interpreting main ideas, interpreting important points, interpreting comparison, interpreting cause and effect. 3) Critical creative; evaluating, making a conclusion, internalizing, identifying the moral of the story/lesson. Al-jamal, Al-Hawamleh and Al-Jamal (2013) used six indicators in measuring the students' reading comprehension in Jordan for their research; predicting, making connections, rereading, summarizing, finding main ideas, and figuring out the meaning of words.

Related to the indicators of evaluating reading comprehension used by the scholars above, this study adapted the literal reading sub-indicators used by Dagostino, Carifio, Bauer, and Zao (2014), then matched with reading evaluation for beginner of the Indonesian university students; Identifying the author's purpose, topic, main idea, details, references, and vocabulary in context. Dakin (2013) briefly states that comprehending a text requires students to acquire concrete skills include vocabulary, main idea, fact or opinion, sequencing, following directions and reading for details. The skill and indicators of reading comprehension is as the basic strategy for gaining the meaning or information from a text.

Contextual teaching and learning

Contextual teaching and learning is a set of way to solve problems with varies contexts for students to work together in practice communities, relying on experiences and diverse interest for students to respond to and reflect on new information, environments, and situations (Goodroe, 2010; Nasrun, 2014). It also encourages to engage students in an active teaching and learning process which can be implemented individually or in group (Satriani, Emilia, & Gunawan, 2012). According to Pinwanna (2015), Contextual teaching and learning approach is an approach to motivate learners to connect between teaching material contents to real life situations. Pinwanna (2015) also argues that motivating students to connect between teaching material contents to real life situations is by bringing the knowledge to be acquired close to the student's reality. Connecting subject matter contents to real life situations is meaningful for students. The learning process takes place naturally in the forms of work activities and experience, and not just a transfer of teacher's knowledge to students but it is more concerned with the processes than the results (Brown, 1998; Munawaroh & Setyani, 2015). It aims to supply knowledge to the students, flexibly transferable from one problem to another, from one context to another (Nasrun, 2014).

Contextual teaching and learning provides students with a skill to solve problems when the learning activity is to let them work in groups (Nasrun, 2014). Learning groups lead the students to share their ideas and make them actively participate in learning processes (Sears, 2003). However, the students must have skills and ability in solving the problems in sharing the idea in group work (Hasruddin & Rezeqi, 2015). This mean that skills and ability are the basic for students in learning through contextual teaching and learning approach. Based on previous statement, there are five strategies proposed by Crawford in Contextual Teaching and Learning approach (2001) as follows: Relating, experiencing, applying, cooperating, and transferring. These strategies are implemented in problem solving activities, work cooperatively in group or pair work activities, and use the knowledge to get in a new context (Khaefiatunnisa, 2015).

Relating strategy is the most important strategy in contextual teaching and learning approach. It is used by the lecturers to link the new concept to something familiar to students. In using this strategy, teachers must connect new perceptions with something familiar for students (Davtyan, 2014). Moreover, Crawford (2001) emphasizes that careful planning is needed because often students do not automatically connect new information to the familiar, because although students may bring memories or prior knowledge that is relevant to a new learning situation, they can fail to recognize its relevance. Second, experiencing strategy is learning in the context of exploration experience (Davtyan, 2014). This strategy enables to help students to practice action in the learning process that connect to their real-life work outside the classroom which they get in their daily life. However, this strategy will not effectively work if the students do not have appropriate experiences or prior knowledge related to the materials that they learn in the learning process in the classroom. Third, applying the strategy is a process of putting the concepts and information in an

appropriate situation. Students apply a concept when they can apply their real world experiences to their problem-solving activities (Davtyan, 2014; Crawford, 2001). Implementing real world experience guides students to problem solving. In this strategy, teachers can also motivate a need for understanding the concepts by assigning realistic and relevant exercises (Satriani, Emilia, & Gunawan, 2012). Fourth, cooperating with other students is initiated by the reason of working individually makes students hard to solve the problems in problem solving exercises. Cooperative learning strategy is the strategy that uses a small group learning in which the students work cooperatively to achieve a common goal in the process of teaching learning (Holubec, 2001; Sanchez-Escobedo & Lavadores, 2018). The students will feel self-conscious and ready to explain their understanding of the concept to other students in solving the problems (Crawford, 2001). In other words, cooperative learning support the learners' autonomy to work cooperatively with the group members (Hawkins, 2017).

Finally, transferring is related to learning in the context of existing knowledge (Davtyan, 2014). It is a teaching strategy that uses knowledge in a new context that has not been covered in class (Mestre, 2002; Satriani, Emilia, & Gunawan, 2012). However, to make the transfer process effectively occur in the learning process, active learning must be considered because it requires students' involvement in the learning process by making conscious efforts to learn (Miles, 2016). Activities of learning transfer what Miles mean is the process in transferring learning in the process of teaching and learning in the class. Transferring learning strategy guide students to memorize the teaching materials based on facts and to practice the procedures by working skill exercises (Crawford, 2001). It accelerates the students to use knowledge that has been learned and related it to the learning materials.

Contextual teaching and learning and reading comprehension

Studies on contextual teaching and learning and reading comprehension for Indonesian students have been conducted by some researchers. For instances, Sunarti and Puspita (2019) conducted a study to investigate the effectiveness of contextual teaching and learning and grammar-translation method in teaching reading. Furthermore, Khaefiatunnisa (2015) found that contextual teaching and learning can develop students' reading skill in procedural texts. While Azan, Sahlan, and Alberth (2017) found that contextual teaching and learning did not significantly influence students reading comprehension achievement.

Applying contextual teaching and learning in teaching reading begins with asking students to discuss the topic in a small group discussion, then lecturers guide students to activate their prior knowledge related to the topic to make prediction about the content of the texts. Small group discussion enables students to share the content of the text each other in the process of teaching and learning in the classroom. However, the lecturers as the content experts are persons who deliver reading materials to students in the process of teaching and learning in the classroom. Lecturers are required to train students to construct knowledge through reflection on contexts in order to create new knowledge and new action

(Forneris & Peden-McAlpine, 2006). Constructing knowledge through action based on the context will help students to understand implicit meaning on materials being learnt in the process of teaching and learning. A learning is considered a response acquisition and viewed as a mechanistic process in which successful responses are automatically strengthened and unsuccessful responses are automatically weakened according to environmental feedback (Neo & Neo, 2001).

Methodology

Research design, participants, and locale of the study

The research method used in this study was quasi-experimental. The rationale for choosing quasi-experimental research as the method of this study was because it did not need to include the entire feature of true experimental research. Veldman (2016) argued that quasi-experimental did not carry out naturally form of true experimental research. It is simpler than true experimental research that selects the samples randomly. The participants of this study were the second semester students of English Department of State Islamic Institute of Kerinci who had taken the course of Literal Reading subject in the first semester. Only two classes were chosen as the samples of this study as the nature of the sampling technique in quasi-experimental research. It means that samples are clusterly selected by the researchers according to cluster random sampling technique in quasi-experimental research. Literal Reading' scores were used in selecting the samples of the research by comparing all students' scores from each class.

Comparing the students' Literal Reading scores of each class aimed to get homogeneity between groups involved in this study. In other words, the criteria of both groups were matched in academic performance (Nagisetty, 2015). The normality test and homogeneity of levene statistical test were used in selecting the sample of the research. The results of t and t' test in literal reading showed that there were significant difference scores of each class. The result of t test A vs B was $\geq .05$) with the mean score of 76.28 vs 74.14, A vs C was $.00 < .05$ with the mean score of 81.24 vs 76.28. While the result of t -test B vs C was $.00 < .05$ with the mean score of 74.14 vs 76.28. Based on the results of t and t' -test above, class A and B were chosen as the sample of this study, it was due to the consideration that the significant scores of these two classes were equal to .05 as standard of significance score for this study. It indicated that both of the classes were nearly similar in literal reading scores as stated by Johnson and Christensen (2014) that experiment and control group must be matched at the beginning.

Data collection and data analyses

Reading comprehension pre-test and post test were used to get the data of both control and experiment classes. Post-test to evaluate reading comprehension's development. The pre-test was administered to measure the samples' reading prior knowledge of

comprehension before receiving conventional and contextual teaching and learning approach treatments, meanwhile post-test was administered after both of the classes receiving conventional and contextual teaching and learning approach treatments to evaluate reading comprehension development.

The validity and reliability tests were done through using corrected items total correlation for reading comprehension test items before the test was administered to the participants. This statistical analysis was applied after 38 items' reading comprehension test was tried out to different classes. There were three items eliminated based on the SPSS analysis, because these three items were not valid based on the corrected item analysis level of correlation of .30. These three items were not met the criteria of valid items, because their level of correlation was < .30. Thus, 35 items were appropriate for measuring students' reading comprehension in the pre and post-tests. The reading comprehension test items are listed in the following table:

Table 2. *Reading comprehension test items*

| Variable | Indicators | Number of Test Items |
|--------------------------|-----------------------------------|-----------------------------|
| Reading Comprehension | Identifying author purpose | 2,5,11,17,18 |
| | Identifying topic | 1,6,10,22 |
| | Identifying main idea | 13,26,29,31,32 |
| | Identifying details | 4,7,15,19,20,24,27,28,33,34 |
| | Identifying reference | 3,8,12,16,23,30 |
| | Identifying vocabulary in context | 9,14,21,26,35 |
| Total Items | | 35 |

The completed tests were processed by using the statistical package for social science (SPSS version 23) to establish the cause-and-effect relationships between independent and dependent variables. Parametric levene statistic and and non parametric Mann Whitney u test were used to examine the research hypothesis. Moreover, the reading comprehension achievement of control and experimental groups was measured by using the criteria of referenced interpretation and norm referenced interpretation as presented in the following table:

Table 3. *Criteria of reading comprehension achievement*

| Achievement Criteria | Interval of Achievement |
|----------------------|------------------------------------------------------------------------|
| Good | $\alpha \geq X + S$ ≥ 74 |
| Sufficient | $X - S \leq \alpha < X + S$ 46 - 73 |
| Not Good | $\alpha < X - S$ < 46 |

Meanwhile, gains of reading comprehension from pre-test to post-tests were analyzed based on the normalized gain formula. Meltzer (2002) stated that the normalized gain is introduced. by Hake (1999).

$$g = \frac{\text{Score of Posttest} - \text{Score of Pretest}}{\text{Score Maximum} - \text{Score of Pretest}}$$

The criteria of the normalized gain of reading comprehension are presented in table 4. This classification of gain as the basic classifying gain score of reading comprehension as shown in the following table:

Table 4. *Classifications of mean gain scores*

| <i>g</i> Score | Classification |
|--------------------|----------------|
| $g > 0,7$ | High |
| $0,3 < g \leq 0,7$ | Moderate |
| $g \leq 0,3$ | Low |

Ethical considerations

In this study, all the names of participants were masked and only the name of the research site was allowed to be mentioned in this study. All participants participated in this study voluntarily.

Findings

Reading comprehension mean achievement between the group receiving conventional approach and the group receiving CTL approach

The Mann Whitney U was used in analyzing the equality difference of reading comprehension for both control and experimental groups in the pre-test score. This analysis was used because we found that data were not normally distributed. Therefore, Mann Whitney U statistical analysis was used as one of the alternatives when the data were not normally distributed. The table of Mann Whitney U of reading comprehension is presented in the following table:

Table 5. *Result of reading comprehension pre-test data*

| Variables | Groups | n | Mean | Z | Sig. (2-tailed) |
|---------------|------------|----|-------|-------|-----------------|
| Reading | Control | 20 | 54.00 | -1,04 | .30 |
| Comprehension | Experiment | 21 | 53.76 | | |

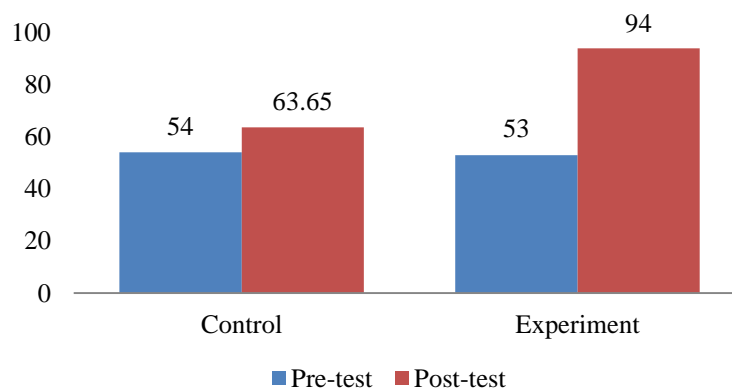
Table 5 shows that both of the groups' achievement mean scores were nearly equal before receiving different treatments, namely 54.00 and 53.76 respectively. The samples of both control and experiment groups had nearly an equal ability of reading comprehension in the pretest before receiving different treatments during course. The t' -test value was shown after the *Mann Whitney U test*. It was to examine the equality difference of the control and experimental groups after receiving different treatments. The t -test value of reading comprehension achievement mean score post-test data is presented in table below.

Table 6. Result of reading comprehension achievement post-test data

| Groups | Mean | t' | Sig. (2-tailed) | H ₀ |
|------------|-------|-------|-----------------|----------------|
| Control | 63.65 | -4.96 | .00 | rejected |
| Experiment | 77.05 | | | |

Based on the table 6, the significance score of reading comprehension for both control and experiment groups was lower than .05. This indicated that the contextual teaching and learning approach significantly affected the reading comprehension. Additionally, the reading comprehension achievement mean score of the experiment group was higher than that of the control group. The achievement mean score of reading comprehension for the control group was 63.65 and for the experiment group was 77.05 which means H-null of reading comprehension was rejected. The reading comprehension achievement mean score of pre-test and post-test are presented below:

Figure 1. Mean of reading comprehension achievement



Reading comprehension mean gain between the group receiving conventional approach and the group receiving contextual teaching and learning approach

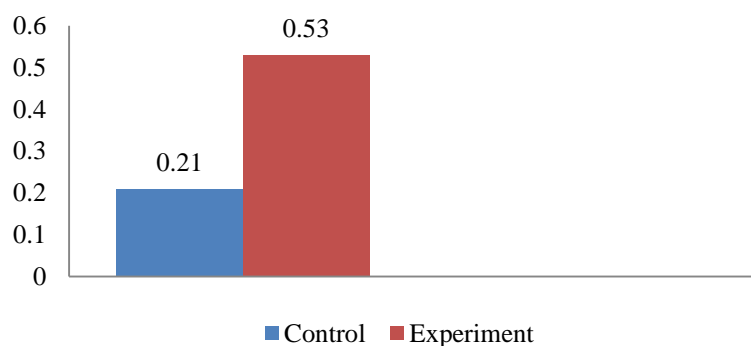
Gain mean score of reading comprehension for the control and experiment groups needs to be found to answer the research question and research hypothesis. Mann Whitney U test was used in this study based on the normality tests of Shapiro-Wilk statistical analysis result of the control and experiment group data. The Mann Whitney U test was conducted to analyze the equality gain mean score of both control and experiment group after analyzing gain mean score distribution of both groups through Shapiro-Wilk test as mentioned previously. It was used due to the consideration that both of the groups were significantly different in terms of distribution. The results of Mann Whitney U of the control and experiment reading comprehension gain are presented in the following table:

Table 7. Mann Whitney U test of Reading Comprehension Gain Data

| Group | Mean | Z | Sig. (2-tailed) | H ₀ |
|------------|------|-------|-----------------|----------------|
| Control | .21 | -4.96 | .00 | rejected |
| Experiment | .53 | | | |

From the table 7 can be seen that the value Z is -4,96 and sig. (2-tailed) is .00. The significance score of reading comprehension gain for both control and experiment groups was $.00 < .05$. Reading comprehension gain mean score was statistically different between the control and experiment group data. The gain mean score of the control group was .21, while that of the experiment group was .53. It indicated that the gain mean score of the experiment group was greater than that of the control group. The result pre-test and post-test mean gain of reading comprehension is figured out in the following figure:

Figure 2. Mean of reading comprehension gain



Discussion

Comprehending in reading refers to guessing the meaning from reading text contents. When students are able to guess the meaning, it means they have constructed the meaning from the words to understand a whole reading passage (Al-Udaini, 2011). Al-Udaini (2011) then added that better understanding occurred when the students were able to merge their thinking with the text, ask questions, draw inferences, think about what's important, and summarize and synthesize. This means that comprehension is the first step in solving the students' reading problems, therefore early reading comprehension must be considered by the lecturers in teaching reading class (Basol, Ozel, & Ozel, 2011). A better reading comprehension is influenced by the appropriateness of teaching approach used in teaching in the classroom. The teaching approach used must be able to change from the teacher-centered to students-centered (Hayikaleng, Nair, & Krishnasamy, 2016). The contextual teaching and learning approach is considerably effective to create students-centered in reading class. This teaching approach attempts to encourage students to connect reading text contents with their experience outside the classroom. Connecting reading text contents with experience outside the classroom can help students to comprehend reading text contents easily, because before reading the text, the students have had a concept in their mind related to reading text contents. However, reading text familiarity of the students must be considered. In other words, the reading text used in teaching reading must be appropriate with the students' knowledge.

Based on the criteria referenced interpretation and norm referenced interpretation for reading comprehension achievement mean scores of the control and experiment groups, there was a significant difference of reading comprehension achievement mean scores for both of the groups. The reading comprehension achievement mean score of the control group was sufficient, while that of the experiment group was good. The reading comprehension's achievement mean score of the experiment group was higher than that of the control group. The gain mean score of the control and experiment groups was also significantly different for reading comprehension from the pre-test to the post-test. The control group gain mean score was low and experiment group gain was moderate. Hence, the experiment group's gain mean was also higher than control group's gain. From the reading comprehension achievement and gain mean score of the control and experiment group data, it can be summarized that the contextual teaching and learning is an effective approach in enhancing the students' reading comprehension achievement scores and gains in the process of teaching and learning in the classroom.

Conclusion

The finding showed that the conventional and contextual teaching and learning approaches impacted on students' reading comprehension achievement and gain. However, the impact of achievement and gain were significantly greater in experiment class by using

the contextual teaching and learning approach than the control group. The Levene test statistical analysis showed that the achievement mean score of reading comprehension for the control group was 63.65 and for the experiment group was 77.05. While, reading comprehension gain mean score of the control group was .21, and the experiment group was .53. Our finding also showed that the null hypothesis (H_0) was rejected and the alternative hypothesis (H_a) was accepted. It can be concluded that the contextual teaching and learning approach significantly influenced the students' reading comprehension.

References

- Al-Jamal, D., Al-Hawamleh, M., & Al-Jamal, G. (2013). An assessment of reading comprehension practice in Jordan. *Jordan Journal of Educational Sciences*, 9(3), 335-344.
- Al-Jarrah, H., & Ismail, N. S. B. (2018). Reading comprehension difficulties among EFL learners in higher learning institutions. *International Journal of English Linguistics*, 8(7), 32-4.
- Al-Udaini, A. A. (2011). *The effect of a computerized program on developing 9th graders' reading comprehension skills and their attitudes towards reading in Palestine* (Master Thesis), the Islamic University – Gaza, Jerusalem, Palestine.
- Alemi, M., & Bagheri, H. (2013). Evaluation of “total English” text books from a cultural perspective. *Journal of English as an International Language*, 8(1), 69-80.
- Azan, M., Sahlan, S., & Alberth, A. (2017). The effect of contextual teaching and learning on students' reading comprehension. *Journal of Language Education and Educational Technology*, 2(1), 1-17.
- Basol, B., Ozel, S., & Ozel, E. Y. (2011). The relationship between reading comprehension competence and word problem comprehension among third-grade students. *Journal of European Education*, 1(1), 35-42.
- Bera, L. K. (2016). The effect of contextual learning strategy on the basis of language exposure ecology and learning motivation on the mastery of English vocabulary. Paper presented at the International Conference on Education, Graduate School, Universitas Negeri Malang, Indonesia. <http://pasca.um.ac.id/conferences/index.php/ice/article/view/70>.
- Brown, B. L. (1998). *Applying constructivism in vocational and career education*. The Ohio State university. <https://eric.ed.gov/?id=ED428298>.
- Crawford, L. M. (2001). Teaching contextually: Research, rationale, and techniques for improving student motivation and achievement. Texas: CCI Publishing, Inc.
- Creswell, J. W. (2012). *Planning, conducting, and evaluating quantitative and qualitative research (4th ed.)*. University of Nebraska–Lincoln: Pearson.
- Dagostino, L., Carifio, J., Bauer, J.D.C., Zao, Q., & Hashim, N.H. (2014). Assessment of reading comprehension instrument as it relates to cognitive abilities as defined by Bloom's revised taxonomy. *Current Issues in Education*, 17(1), 1-15.
- Dakin, C. (2013). *The effects of comprehension through close reading* (Master Thesis), St. John Fisher College). https://fisherpub.sjfc.edu/education_ETD_masters/237

- Davtyan, R. (2014). *Contextual learning*. Paper presented at ASEE Zone I Conference. University of Bridgeport, Bridgeport, CT. USA. <http://www.asee.org/documents/zones/zone1/2014/Student/PDFs/56.pdf>
- Dorkchandra, D. (2010). *Enhancing English reading comprehension through a text structure reading strategy call program* (Doctoral Thesis), the Suranaree University of Technology, Thailand. <https://www.researchgate.net/publication/301291317>
- Forneris, S. G., & Peden-McAlpine, C. J. (2006). Contextual learning: A reflective learning intervention for nursing education. *International Journal of Nursing Education Scholarship*, 3(1), 1-18.
- Fransisco, L. D., & Madrazo, C. A. (2019). Reading habits, reading comprehension and academic performance of grade v pupils. *The Asian ESP Journal*, 15(2), 138-165.
- Goodroe, J. J. (2010). *Teacher perspective of contextual teaching and learning with respect to students engagement* (Doctoral's dissertation), University of Georgia. Athens. Georgia. https://getd.libs.uga.edu/pdfs/goodroe_joseph_t_201005_edd.pdf
- Hasruddin, M. Y. N., & Rezeqi, S. (2015). Application of contextual learning to improve critical thinking ability of students in biology teaching and learning strategies class. *International Journal of Learning, Teaching and Educational Research*, 11(3), 109-116.
- Hassan, S. A. U. (2005). *Reading and writing skills for advanced students of business english in Pakistan*. (Doctoral Thesis), the University of Modern Languages Islamabad, Pakistan. <http://pr.hec.gov.pk/jspui/handle/123456789/5706>
- Hawkins, S. (2017). Cooperative learning's role in in enhancing motivation through autonomy: possibilities and limitations within a Japanese context. *Asian EFL Journal Research Articles*, 19(4), 62-77.
- Hayikaleng, N., Nair, S. M., & Krishnasamy, HN. (2016). Thai students' motivation on english reading comprehension. *International Journal of Education and Research*, 4(6), 477-486.
- Holubec, E. (2001). *Cooperative learning: A web-based system for the professional development of teachers in contextual teaching and learning project*. Bowling Green, OH: Bowling Green State University.
- Iftanti, E. (2015). What makes efl students establish good reading habits in English. *International Journal of Education and Research*, 3(5), 365-374.
- Johnson, B. R., & Christensen, L. (Ed.). (2014). *Educational research: Quantitative, qualitative, and mixed methds*. California, USA: Sage Publication.
- Khaefiatunnisa. (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.
- Knoll C. L. (2000). *The relationship between motivation and reading comprehension* (Masters Thesis), The Grand Valley State University, USA. <http://scholarworks.gvsu.edu/theses/497>

- Li, Y. W. (2016). Transforming conventional teaching classroom to learner-centred teaching classroom using multimedia-mediated learning module. *International Journal of Information and Education Technology*, 6(2), 105-112.
- Lingan, L. M., & Malana, M. F. (2019). Literary reading comprehension skills of senior students in Cagayan: An assessment. *Asian EFL Journal Research Articles*, 23(3.3), 448-459.
- Lipka, O. (2010). *Reading comprehension skill of grade 7 students who are learning English as second language* (Master Thesis), The University of British Columbia, Columbia. <https://open.library.ubc.ca/cIRcle/collections/ubctheses/24/items/1.0054559>
- Meltzer, E. D. (2002). The relation between mathematic preparation and conceptual learning gains in physics: A possible “hidden variable” in diagnostics pretest score. *American Association of Physics Teachers*, 70(12), 1259-1268.
- Mestre, J. (2002). Transfer of learning: Issues and research agenda. *Report of a Workshop held at the National Science Foundation*. Amherst. University of Massachusetts. <http://www.nsf.gov>.
- Miles, D. A. (2016). *Simulation learning and transfer to the clinical environment in undergraduate nursing students* (Doctoral Dissertation), the Loyola University, Chicago, USA). http://ecommons.luc.edu/luc_diss/2290.
- Munawaroh & Setyani, N. S. (2015). The development of learning model with the approach of ctl (contextual teaching and learning) through the method of apbl (authentic problem based learning) to the subject of entrepreneurship. *IOSR Journal of Research & Method in Education*, 5(1), 86-95.
- Nagisetty, V. (2015). A quasi-experimental study of using music-related concepts to teach high school geometry. *Journal of Mathematics Education*, 8 (2), 97-114.
- Nasrun, N. (2014). Contextual learning approach in improving critical thinking skills of guidance and counseling students of state university of Medan. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 18(1), 151-161.
- Neo, K. T. K., & Neo, M. (2001). A constructivist learning experience: Reconstructing a web site using web based multimedia authoring tools. *Australian Journal of Educational Technology*, 17(2), 330-350.
- Pearson, P. D., & Hamm, N.H. (2005). The assessment of reading comprehension: a review of practice-past, present, and future. *Article*, 13-69.
- Pinwanna, M. (2015, March 21-22). *Using the contextual teaching and learning method in mathematics to enhance learning efficiency on basic statistics for high school students mathematics education program*. Paper presented at the International Conference on Language Education Humanities and Innovation, International College, Suan Sunandha Rajabhat University, Bangkok, Thailand. <https://icsai.org>.
- Satriani, I., Emilia, E., & Gunawan, M. H. (2012). Contextual teaching and learning approach to teaching writing. *Indonesian Journal of Applied Linguistics*, 2(1), 10-22.
- Sanchez-Escobedo, P., & Lavadores, A. K. C. (2018). Student-Centred Teaching Strategies by Gender, Grade Level, and Teacher’s Self-Concept in Mexico. *International Research Journal in Education (IRJE)*, 2(1), 61-73.

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- Sears, S. J. (2003). *Introduction to contextual teaching and learning*. Bloomington, Indiana: Phi Delta Kappa Educational Foundation
Bloomington.<http://teacherlink.ed.usu.edu/yetcrest/catalogs/reavis/504.pdf>
- Sembiring, L. T. A. B., Rukmini, D., Mujiyanto, J., & Yuliasri, I. (2018). The impact of comprehension instruction on students' reading comprehension with different ability grouping and self-efficacy. *TESOL International Journal*, 13(4), 156-171.
- Snow, C. E. (2002). *Reading for understanding toward an r & d program in reading comprehension*. Office of Education Research. Science & Technology Policy Institute.
<https://videnomlaesning.dk/media/2526/reading-for-understanding.pdf>
- Stenger, C., & Garfinkel, B. (2003). *How the constructivist approach to learning can be used to attain academic standards*. Glen Forest Elementary School. Fairfax County (VA) Public Schools.
- Sunarti, S., & Puspita, R. H. (2019). The use of contextual teaching and learning to teach reading comprehension viewed from students' locus of control. *Teacher Education and Curriculum Studies*, 4(4), 58-64.
- Veldman, K. T. (2016). *A quasi-experimental study measuring the effect dimensional analysis on undergraduate nurses' level of self-efficacy in medication calculations* (Master Thesis), the University of University of Lethbridge, Alberta, Canada.
<https://opus.uleth.ca/handle/10133/4571>
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