



EFFECTIVENESS OF CONTEXTUAL TEACHING AND LEARNING APPROACH INTEGRATED WITH ARALING PANLIPUNAN SUBJECT: IMPLICATION TO ENHANCE TEACHING-LEARNING PROCESS

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Abstract : This study attempted to assess the effectiveness of Contextual Teaching and Learning practice as applied in Araling Panlipunan instruction in terms of effectiveness in the performance of Grade 3 learners of Mangaldan I District, Pangasinan Division II. From the data collected, implications to educational management and to the community were explored. Overall, this study served as guide for the adoption of Contextual Teaching and Learning (CTL) among elementary schools in the district.

Keywords: Contextual Teaching, implications, educational management, adoption

INTRODUCTION

Learning is a relatively settled change that occurs both on the cognitive level and individual behavior. At the behavioral level, the learning process is characterized by visible behavioral changes. In contrast, learning at mental level is generally cannot be seen directly. In the academic context, the learning process is generally measured by achievement test.

To achieve optimal learning outcomes, both learner and teacher have a significant role to follow and choose learning strategy. Hattie's meta-analysis study described many factors that influence student academic achievement. The factors contributing to the academic achievement are grouped by into six areas, including students, homes, schools, curriculum, teachers, and approaches to teaching. Teaching strategies, in that study, is included in factors that have a high contribution to student's achievement. That is, teachers need to consider choices of strategies and approaches in learning to optimize student academic performance.

In addition, from the personal side of students, Schunk mentioned that self-efficacy is one the essential factors that also influence students in learning. The studies conducted by, showed that there is a strong role of self-efficacy in academic achievement and student performance. Similarly, the study of Li showed an important role of self-efficacy in predicting student academic performance.

Teaching and learning by contextual approach is an instructional innovation that was developed at the turn of the 21st century. Contextual means something that is related to the local environment, such as home, community, or workplace; contextualizing means creating a connection between the lessons taught in the classroom and what is happening in the real world outside. In this approach, the students are given an "experience" on the lesson, not just pure thinking and imagination while seated in the classroom. Thus, students are expected to easily relate to the lesson, understand it better, and remember it more.

The problem with the traditional method of teaching Araling Panlipunan is that it is unable to connect the subject to real world situations which the students can easily comprehend. In actuality, Araling Panlipunan can be assimilated every day, but only a few realize it because it is being taught in classroom as a theoretical subject.

In the Philippines, however, the Contextual Teaching and Learning (CTL) is less prominent than the concept of socio-cultural instruction, although both are contextual approaches. Socio-cultural instruction is dedicated on how lessons will be taught in relevance to the culture of a group. Several of this kind of study had been done with different ethnic groups in the country. On the other hand, some Contextual Teaching and Learning-related projects have also been done in Cebu, Laguna, and Leyte through the Southeast Asian Ministers of Education Organization (SEAMEO) Project APEX (Applied Academics for Excellence) programme (Pefianco, 2005).

This study attempted to assess the effectiveness of Contextual Teaching and Learning practice as applied in Araling Panlipunan instruction in terms of effectiveness in the performance of Grade 3 learners of Mangaldan I District, Pangasinan Division II. From the data collected, implications to educational management and to the community were explored. Overall, this study served as guide for the adoption of Contextual Teaching and Learning (CTL) among elementary schools in the district

II. STATEMENT OF THE PROBLEM

This study sought to assess the effectiveness of contextual teaching and learning approach integrated with Araling Panlipunan as basis for implication to enhance teaching-learning process in Mangaldan I District, Pangasinan Division II during the School Year 2023-2024.

Specifically, it sought to answer the following sub-problems:

1. What is the profile of the Araling Panlipunan teachers in terms of:
 - 1.1 highest educational attainment
 - 1.2 length of service
 - 1.3 relevant in-service training attended
2. What is the extent of agreement on the Strategies in the Application of Contextual Teaching and Learning (CTL) Method as perceived by the Araling Panlipunan teachers?
3. Is there a significant relationship between the profile of the Araling Panlipunan teachers and their extent of agreement on the strategies in the application of Contextual Teaching and Learning Method?
4. What is the extent of agreement of the Grade 3 Learners' Self-Assessment Performance Prior and Post-application of Contextual Teaching and Learning (CTL) in Araling Panlipunan Subject?
5. Based on the findings, what implication to enhance teaching learning process in Araling Panlipunan can be recommended?

III. METHODOLOGY

3.1 Research Design

A quasi-experimental research design was utilized. The design included both preassessment and post-assessment data gathering on one sample to making it an independent sample design. The group infused was infused with Contextual Teaching and Learning. Before the application of Contextual Teaching and Learning, a self-assessment performance was conducted. The pre-assessment served as a base line data. After the application of Contextual Teaching and Learning, the self-assessment performance checklist was again given to the group. The results of the academic performance in first quarter in Araling Panlipunan were correlated to the result of self-assessment checklist of students.

The scheme of this design is the following: whereas EG is the group with Contextual Teaching and Learning (CTL) /experimental X is the application of CTL; O1 is the pre-assessment performance; and O2 is the post-assessment performance.

3.2 Data and Sources of Data

This study covered the Grade 3 learners and teachers of Mangaldan I District, Pangasinan Division II.

3.3 Instrumentation and Data Collection

One set of research instrument was used in gathering the data in this study.

The researcher conducted library research and consulted past studies relevant to the present study to crystallize her own concept of the study.

The questionnaire was formulated, evaluated and validated by the panel members before preparing the final draft.

Approval and permit to conduct the study were obtained by the researcher from the authorities concerned prior to the conduct of the study.

The questionnaire was personally administered by the researcher to the respondents involved in the survey.

3.4 Tools for Data Analysis

To derive valid and accurate results, appropriate statistical measures were employed.

To answer sub-problem number 1 regarding the profile of the Araling Panlipunan teachers, frequency and percentage were used.

To answer sub-problem number 2 on the Strategies in the Application of Contextual Teaching and Learning (CTL) Method, average weighted mean was used.

<u>Numerical Rating</u>	<u>Statistical Limits</u>	<u>Descriptive Equivalent</u>
5	4.20 – 5.00	Strongly Agree (SA)
4	3.40 – 4.19	Agree (A)
3	2.60 – 3.39	Neutral (N)
2	1.80 – 2.59	Disagree (D)
1	1.00 – 1.79	Strongly Disagree (SD)

To answer sub problem number 3 on the significant relationship of the profile of teachers and their extent of agreement on the strategies in the application of contextual teaching and learning method, chi-square was used.

To answer sub-problem number 4 on the Grade 3 Learners' Self-Assessment Performance Prior and Post-application of Contextual Teaching and Learning (CTL) in Araling Panlipunan Subject, average weighted mean was used.

<u>Numerical Rating</u>	<u>Statistical Limits</u>	<u>Descriptive Equivalent</u>
5	4.20 – 5.00	Strongly Agree (SA)
4	3.40 – 4.19	Agree (A)
3	2.60 – 3.39	Neutral (N)
2	1.80 – 2.59	Disagree (D)
1	1.00 – 1.79	Strongly Disagree (SD)

IV. RESULTS AND DISCUSSION

Profile of Araling Panlipunan Teachers

Table 1
Profile of Araling Panlipunan Teachers
(N=82)

Profile	Frequency	Percentage (%)
Highest Educational Attainment		
With Doctoral Units	9	10.98
MAEd/Med	31	38.80
With MA Units	42	51.22
Total	82	100
Length of Service as Teacher		
0-5	55	67.07
6-10	27	32.93
Total	82	100
Relevant Trainings Attended		
1-2	43	52.44
3 and more	39	47.56
Total	58	100

Highest Educational Attainment. As can be gleaned in Table 1, most of the Araling Panlipunan teachers have MA units with 42 or 51.22%. There are 31 or 38.80% who are MA graduates. The remaining 9 or 10.98% have doctoral units. This implies that all of the teachers are continuing their education by taking post-graduate courses for possible promotions and professional growth.

Length of Service as Teachers. Same table portrays that majority of the teachers (55 or 67.07%) have been in service for about 5 years or less while some (27 or 32.93%) have been working as teachers for more 6-10 years. This means that most of the Araling Panlipunan teachers are young in the service.

Relevant Training Attended. When it comes to training, it is depicted in Table 2 that bulk of the respondents has 1-2 training related to teaching Araling Panlipunan with 43 or 52.44% while the remaining 39 have attended 3 or more training related to teaching Araling Panlipunan. The result entails that teachers have essential training on curriculum and instruction and must therefore be encouraged to continue or partake in such to effectively utilize their skills.

Table 2
The Contextual Teaching and Learning (CTL) Method

Teaching Method	Strategies	Derived Outcomes
Contextual Teaching and Learning	<ul style="list-style-type: none"> • A problem is a simulated or real question, issue, challenge, or difficulty in need of a solution • Is relevant and worthwhile to students' lives – their families, school experiences, workplaces, and communities • Promotes critical thinking • Encourages a systematic approach to addressing the problem Integrates disciplines • Students learn in the real world where the knowledge would be 	<ul style="list-style-type: none"> • Students feel enthusiastic during the discussion. • Students are motivated and interested to learn. • Students understand the discussion easily. • All of the students participated. • Learners valued local materials and correlate such in certain topics.

	<p>applied – school (both the classroom and school "life"), workplaces, home, the local community, and sometimes, places beyond that community.</p> <ul style="list-style-type: none"> • Simulation of a situation or place can provide a satisfactory context, if the real world context is unavailable or poses a hazard. <p>Recognizes that learning is influenced and enhanced by the student's individuality – ethnicity, personality, social group, attitudes and values, habits, health status, skills and talents already acquired, genetic predispositions, background and experiences, interests, and learning style preferences or intelligences. Inspires the goal of lifelong learning, which implies that learners are able to seek out, analyze, and use information with limited or no supervision.</p> <ul style="list-style-type: none"> • Educators help students grow in their abilities to research, produce evidence of their learning, use their time well, learn from mistakes, and reflect on how they learned. • Based on learning communities, where students and teachers share knowledge, focus on goals, and allow all to teach and learn from each other. • Two or more groups connect in that knowledge-sharing, goal-focus, and teaching-learning with each other. • These connections enhance interpersonal skills as participants work in teams. • The creative process is magnified when people solve problems together. • Leads and expects students to use higher order thinking skills in addressing a problem, issue, or concept • A meaningful product of the students' new knowledge and skills. • Relates to the central goal of instruction (includes meeting national and local standards) • Is blended with the teaching and learning process 	
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Table 3
Grade 3 Learners' Self-Assessment Performance Prior and Post-application of Contextual Teaching and Learning (CTL)
in Araling Panlipunan Subject

Indicators	Self-Assessment Performance Prior to CTL		Self-Assessment Performance Postapplication of CT	
	WM	D	WM	D
1. Compared with previous lessons in Araling Panlipunan, I currently expect to do well. (Kung ikukumpara sa mga naunang aralin sa Araling Panlipunan, ngayon ay mas inaasahan kong gagaling ako.)	3.13	N	4.88	SA
2. I am certain I understand the ideas taught in this subject. (Natitiyak ko na nauunawaan ko ang mga ideya na itinuro sa paksang ito.)	4.00	A	5.00	SA
3. I am sure I can do an excellent job on the problems and tasks assigned to this class. (Sigurado ako na maaari kong gawin ang isang mahusay na trabaho sa mga problema at mga gawain na nakatalaga sa klase na ito.)	4.00	A	5.00	SA
4. I can explain things clearly. (Maaari kong ipaliwanag ang mga bagay nang malinaw.)	4.00	A	5.00	SA
5. I am enthusiastic during the subject's discussion. (Masigasig ako tuwing talakayan sa klase.)	4.35	SA	4.69	A
6. I think I will receive a good grade in this class. (Sa tingin ko makatatanggap ako ng mataas na marka sa klase.)	4.07	A	4.18	A
7. My study skills are excellent compared than before. (Ang aking mga kasanayan sa pag-aaral ay mahusay na kumpara kaysa dati.)	3.41	A	3.50	A
8. I encourage my classmates to take part in this subject. (Hinihikayat ko ang aking mga kaklase na makilahok sa asignaturang ito.)	3.41	A	3.75	A
9. Compared with other students in this class I think I know a great deal about the subject. (Kung ikukumpara sa iba pang mga magaaral sa klase na ito, sa tingin ko alam ko ang isang mahusay na pakikitungo tungkol sa paksa.)	4.06	A	5.00	SA
10. I know that I will be able to learn more from this class. (Naniniwala akong mas marami pa akong matututunan sa klase na ito.)	3.53	A	3.63	A
11. I expect high standards from my work now. (Inaasahan ko ang mataas na pamantayan mula sa aking trabaho ngayon.)	4.00	A	4.75	SA
12. The objectives/ what should I have learned is now clear. (Ang mga layunin o mga bagay na dapat kong matutunan ay malinaw na sa akin ngayon.)	4.46	SA	4.94	SA
13. I make myself prepared for the subject. (Hinahanda kong mabuti ang aking sarili para sa paksa.)	4.00	A	4.63	SA
14. I listen attentively to the lecture of my teacher. (Nakikinig akong mabuti sa panayam ng aking guro.)	3.59	A	4.63	SA
15. I usually follow the teacher's instruction. (Karaniwang sinusunod ko ang instruksiyon ng guro.)	4.36	SA	4.67	SA
16. I exert more efforts today. (Mas lalo akong nagsisikap ngayon.)	3.50	A	3.88	A
17. I am now updated with the present trends, relevant to the subject matter. (Nakakasabay ako sa mga kasalukuyang kalakaran na may kaugnayan sa aming paksa.)	3.76	A	4.75	SA
18. I usually respond to the teacher's questions. (Sumasagot ako sa mga tanong ng aming guro.)	3.76	A	4.00	A
19. I pay attention to the teacher's explanation. (Binibigyang pansin ko ang pagpapaliwanag ng aming guro.)	4.06	A	4.50	SA
20. I actively involved in doing what I have been learned. (Ako ay aktibong nakikibahagi sa pagsasagawa ng mga bagay na natutunan.)	3.94	A	5.00	SA
Average Weighted Mean	3.87	A	4.52	SA

Legend:	
Weighted Mean	Description;
4.20 – 5.00	Strongly Agree (SA)
3.40 – 4.19	Agree (A)
2.60 – 3.39	Neutral (N)
1.80 – 2.59	Disagree (D)
1.00 – 1.79	Strongly Disagree (SD)

Table 3 shows the self-assessment performance prior to Contextual Teaching and Learning (CTL) and self-assessment performance post-application of CTL of Grade 7 learners in their Araling Panlipunan 3 subject. During the pre-assessment, the item which states, “The objectives/ what should I have learned is now clear” got the highest weighted mean of 4.46 with verbal interpretation of strongly agree. Followed by the item which states that, “I usually follow the teacher’s instruction” with the weighted mean of 4.36 with verbal interpretation of strongly agree. Whereas item which states that, “Compared with previous lessons in Araling Panlipunan, I currently expect to do well” got the lowest weighted mean of 3.13 with verbal interpretation of neutral.

The average weighted mean for the pre-assessment performance of Grade 3 learners in Araling Panlipunan 3 is 3.87 with verbal interpretation of agree.

While during the self-assessment performance post-application of CTL to Grade 3 learners in Araling Panlipunan 3, the item which states, “I am certain I understand the ideas taught in this subject”, “I am sure I can do an excellent job on the problems and tasks assigned to this class”, “I can explain things clearly”, “Compared with other students in this class I think I know a great deal about the subject”, and “I actively involved in doing what I have been learned” got the highest weighted means of 5.00 with verbal interpretation of strongly agree. Followed by the item which states that, “The objectives/ what should I have learned is now clear” with the weighted mean of 4.94 with verbal interpretation of strongly agree. However, item which states that, “My study skills are excellent compared than before” got the lowest weighted mean of 3.50 with verbal interpretation of agree.

The average weighted mean for the self-assessment performance post-application of CTL to Grade 3 learners in Araling Panlipunan 3 is 4.52 with verbal interpretation of strongly agree.

Results implied that prior to the application of Contextual Teaching and Learning (CTL) approach, learners were cleared about the lesson’s objectives in class. Objective is a specific result that a person or system aims to achieve within a time frame and with available resources. In general, objectives are more specific and easier to measure than goals. Objectives are basic tools that underlie all planning and strategic activities. They serve as the basis for creating policy and evaluating performance.

Meanwhile, after the application of CTL, learners were certain to understand the ideas taught and performed excellent job on the problems and tasks assigned. In which also, they can explain the lessons clearly to their classmates and involved in psychomotor learning. They all developed a great comparison from their performance prior to the application of Contextual Teaching and Learning (CTL) approach.

Table 4
Average Grade in Araling Panlipunan of Grade 3 Learners

Average Grade in Araling Panlipunan 7	Frequency	Percentage
90 – 100 (Outstanding)	9	24
85 – 89 (Very Satisfactory)	10	27
80 – 84 (Satisfactory)	14	38
75 – 79 (Fairly Satisfactory)	4	11
Total	37	100

Table 4 shows the average grade of Grade 3 learners in Araling Panlipunan 3. Majority (14 or 38%) of them have the performance level of satisfactory. While 9 or 24% of the students have the outstanding performance during their Araling Panlipunan 3, while the others are Very Satisfactory (10 or 27%) and Fairly Satisfactory (4 or 11%).

Table 5
Third Quarter Academic Performance in Araling Panlipunan of Grade 3 Learners

Average Grade in Araling Panlipunan 7	Frequency	Percentage
90 – 100 (Outstanding)	11	30
85 – 89 (Very Satisfactory)	10	27
80 – 84 (Satisfactory)	15	41
75 – 79 (Fairly Satisfactory)	1	2
Total	37	100

Table 5 shows the academic performance of Grade 3 learners in Araling Panlipunan. Majority (15 or 41%) of them have the performance level of satisfactory. Followed by outstanding performance during the third quarter of Araling Panlipunan 3 gained by 11 or 30% of the learners. Then, the others obtained Very Satisfactory performance (10 or 27%) and lastly, those Fairly Satisfactory (1 or 2%).

Table 6
Significant Difference of Pre-Assessment Performance and Post-Assessment Performance of Grade 3 Learners in Araling Panlipunan

Data Analysis	Pre-Assessment Performance	Post-Assessment Performance
Mean 3.87 4.52	3.87	4.52
Variance	0.123478684	0.255830526
Observations	20	20
df	19	
t Stat	-6.638679	
P(T<=t) one-tail	1.18803E-06	
t Critical one-tail	1.729133	

*t is significant at 0.05

Table 6 presents the obtained t-test on the comparison of pre-assessment performance and post-assessment performance of Grade 3 learners in Araling Panlipunan. There is a mathematical difference among the pre-assessment performance and postassessment performance. Results indicate that the computed t stat value (-6.638679) is more than the t critical value of 1.729133 set at 0.05 level of significance.

There is enough evidence found to reject the hypothesis of the study. Therefore, there is a significant difference between the pre-assessment performance and post-assessment performance of the Grade 3 learners in Araling Panlipunan.

In addition, the principal who concurrently monitored and evaluated the teacher teaching with the method of Contextual Teaching and Learning (CTL) also observed:

Table 7
Significant Relationship between Self-Assessment Performance PostApplication to Contextual Teaching and Learning and Third Quarter Academic Performance in Araling Panlipunan 3

	AWM
Self-Assessment Performance PostApplication of Contextual Teaching and Learning	4.52
Third Quarter Academic Performance in Araling Panlipunan 3	85.08
Pearson r = -.82 R Square = .6724	

The data shown in Table 8 was used to correlate self-assessment performance postapplication of Contextual Teaching and Learning (CTL) and the third quarter academic performance in Araling Panlipunan of the Grade 3 learners- respondents to coefficient correlation obtained using Pearson r is -.82 (high correlation). The r² (0.6724) or 67.24 known as coefficient determination reveals 67.24% of variations in self-assessment performance postapplication of CTL to Grade 3 learners can be attributed to their first quarter academic performance in Araling Panlipunan. Thus, there is a significant relationship between the selfassessment performance post-application of CTL and the first quarter academic performance in Araling Panlipunan of Grade 3 learners- respondents.

Table 8
Significant Difference on Self-Assessment Performance Post-Application of CTL of Grade 3 Learners as to their Gender

Source of Variation	SS	df	MS	F	P-Value	F crit
Between Groups	195.5802	1	195.5802	679.0391	0.001469	18.51282
Within Groups	0.57605	2	0.288025			
Total	196.1563	3				

Table 8 illustrates the result of analysis of variance to determine the difference on selfassessment performance post-application of CTL to the respondents as to gender. There is a mathematical difference among the mean- perceptions of the respondents regarding their selfassessment performance post-application of CTL in Araling Panlipunan 3. This difference when subjected to ANOVA, the computed value of 679.04 which is higher than the critical value of 18.51 set at 0.05 level of significance. There is enough evidence found to reject the hypothesis of the study. Therefore, there is a significant difference on self-assessment performance postapplication of CTL of Grade 7 learners as to their gender.

Recommendations

In light of the findings and conclusions, the following recommendations are offered:

1. Future researchers may utilize the contextual teaching and learning (CTL) Approach in another school in the district.
2. The produced Contextualized Lesson Guide and Learning Material may be adopted and used for another try-out for experimental purposes.
3. The produced Lesson Guide and Learning Material utilizing Contextual Teaching and Learning (CTL) Approach in Araling Panlipunan may be improved by the future researchers.
4. The Contextual Teaching and Learning (CTL) may be utilized in another Grade level across various subject matter

REFERENCES

- Berge, Z. (2001). "Active, Interactive, and Reflective eLearning". *Quarterly Review of Distance Education*, 3 (2), pp. 181-191.
- Berns, R. G. & Erickson, P. M. (2001). "Contextual Teaching and Learning: Preparing Students for the New Economy". Ohio: Career and Technical Education National Dissemination Center.
- Blanchard, A. (2001). "Contextual Teaching and Learning". Educational Services.
- Bygate, M. (2007). "Speaking". Oxford: Oxford University Press.
- Biag, S. C. (2004). "Development and Validation of Contextual Teaching and Learning Materials for Selected Topics in Mathematics of Investment". *Tarlac City: TSU Graduate Studies Journal*, (25).
- Cahyani (2012). "The optimalization of Contextual Teaching and Learning to Improve the meaningfulness of Writing Learning". Internet journal. Retrieved from: jurnalupi.edu/penelitian_pondidikan/view/889/pembelajarankontekstual-untuk-meningkatkankemampuan-menulis-eksposisi.html.
- Danis, A., et.al. (2017). "The Effect of Contextual Teaching and Learning (CTL) and Motivation to Students' Achievement in Learning Civics in Grade VII SMP Imelda Medan". *IOSR Journal of Research & Method in Education*, 7 (6), I, p. 24-33.
- Depdiknas, M. (2002). "Pendekatan Kontekstual (Contextual Teaching and Learning)". Jakarta: Depdiknas.
- Dungo, R. A. & Sicat, L. V. (2007). "Performance in Basic Mathematics of the Indigenous Daweg G Students of Apu Palanguwan Cultural Education Center in Bendum, Malaybalay City, Bukidnon". *Tarlac Ciy: TSU Graduate Studies Journal*, (28).
- Dwi, H. (2005). "The Implementation of Contextual Teaching and Learning in Teaching Writing at the First Year of SMP N 3 Juwana Pati". Indonesia: School of Teacher Training and Education, Muhammadiyah University of Surakarta.
- Fatmawati, D. (2009). "Teaching Reading Comprehension Based on Contextual Teaching and Learning at Second Year Students of SMP AtTaqwa Bekasi". In *English Language Education UIN Syarif Hidayatullah, Jakarta*.
- Goodroe, J.T. (2010). "Teacher Perspectives ofContextual Teaching and Learning with Respect to Student Engagement". The University of Georgia, Unpublished dissertation.
- Halik, N. (2016). "Contextual Teaching and Learning Method to in Teaching Reading at Third Year Students of MTSN Balang-balang Gowa Regency". *English, Teaching, Learning and Research Journal*, (2) 2.
- Harjani, S. (2005). "Pengembangan kemampuan membaca dan menulis permulaan dengan pendekatan contextual teaching and learning (CTL)". Postgraduate Paper of UNS. UNS Surakarta: Unpublished.
- Hermana, D., Supardan, D., & Undang, G. (2010). "Contextual Teaching and Learning (sebuah panduan awal dalam pengembangan PBM)". Yogyakarta: PT. Diandra Primamitra Media.
- Johnson, D. W., Johnson, R., & Holubec, E. (2013). "Cooperation in the classroom". Edina, MN: Interaction Book Company, (9).
- Johnson, E.B. (2007) "Contextual Teaching and Learning. What it is and why it's here to stay". Corwin Press Inc. Thousand Oak California.
- Kamaruddin, N. K., Jaafar, N., & Amin, Z. (2012). "A Study of the Effectiveness of the Contextual Lab Activity in the Teaching and Learning Statistics at the UTHM (Universiti Tun Hussein Onn Malaysia)". *US-China Education Review*, David Publishing: A (1), pp. 13-19.
- Kilmer, S. (2001). "Developmentally Appropriate Practices". A Web-based System for the Professional Development of Teachers in Contextual Teaching and Learning Project. Bowling Green, OH: Bowling Green State University.
- King, D. (2009). "Context-based chemistry: Creating opportunities for fluid transitions between concepts and context". *Teaching Science - the Journal of the Australian Science Teachers Association*, 55(4), 13-20.

- King, D., Bellocchi, A., & Ritchie, S.M. (2008). "Making connections: Learning and teaching chemistry in context". *Research in Science Education*, 38(3), 365-384.
- Komalasari, K. (2010). "Pembelajaran Konstektual Konsep dan Aplikasi". Bandung: Refika Aditama.
- Lotulung, C.F. (2018). "Effectiveness of Learning Method Contextual Teaching Learning (CTL) For Increasing Learning Outcomes of Entrepreneurship Education". *The Online Journal of New Horizons in Education*, 8 (2).
- Lynch, R. L. (2002). "Contextual Teaching and Learning Across the Curriculum". University of Georgia: Hawaii International Conference on Education.
- Matugas, S. (2006). "Reconnecting Secondary Education and Creating Winning Opportunities in Eastern Visayas: The APEX Leyte Model". Palo, Leyte: DepEd VIII Government Center.
- McLeod, A. K. (2017). "Service Learning and Community Engagement for English Classes". Retrieved from americanenglish.state.gov/english-teaching-forum.
- Middlecamp, C. (2008). "Chemistry in context: Evidence, goals, and gaps". Commissioned paper from the National Research Council Board on Science Education Workshop Linking Evidence and Promising Practices in STEM Undergraduate Education, 30 June 2008, at the National Academies, Washington, DC. Retrieved February 14, 2011, from http://www7.nationalacademies.org/bose/PP_Middlecamp_WhitePaper.pdf.
- Minta (2010). "Peningkatan kompetensi menulis karangan dalam pembelajaran bahasa indonesia dengan pendekatan CTL (Contextual Teaching and Learning)". Undergraduate Paper of Universitas Sebelas Maret. Universitas Sebelas Maret Surakarta: Unpublished.
- Moffitt, M. (2001). "Problem-based Learning". A Web-based System for the Professional Development of Teachers in Contextual Teaching and Learning Project. Bowling Green, OH: Bowling Green State University.
- Mulyadin, T. (2010). "The use of contextualization in improving students' reading skill in descriptive text". Undergraduate Paper of UPI. UPI Bandung: Unpublished. Nurhadi, B, Y.
- A.G., S. (2004). "Pembelajaran Kontekstual dan penerapannya dalam". KBK Universitas Negeri Malang, Malang.
- Pefianco, E. (2005). "Lessons from the Field: A Preliminary Assessment of the APEX Project". Seminar on Growth Strategies for Secondary Education in Asia. Kuala Lumpur, Malaysia.
- Rahayu, S. (2015). "Improving Students' Learning Achievement in Civics Using Contextual Teaching and Learning Method". *Journa of Art IV*, 4 (1), 88- 91.
- Rohayati, T. (2013). "The Implementation of Contextualization in Teaching Vocabulary to Elementary Students (React: Relating, Experiencing, Applying, Cooperating, and Transferring)". *Journal of English and Education I* (2), 115-123.
- Rusman, M. P. (2014). "Models of Learning: Developing Teacher Professionalism". Jakarta: King Grafindo Pranada.
- Sabo-o, M. A. (2006). "Effects of Socio-cultural Mathematics Instruction on Student Interest and Achievement". Quezon City: UP Diliman.
- Satriani, I. & Emilia, E. (2012). "Contextual Teaching And Learning Approach to Teaching Writing". *Indonesian Journal of Applied Linguistics*, 2 (1), pp. 10-22.
- Sauian, S. M. (2001). "Mathematics Education: The Relevance of Contextual Teaching in Developing Countries". Mara, Malaysia: Universiti Teknologi.
- Schwartz, A.T. (2006). "Contextualized chemistry education: The American experience". *International Journal of Science Education*, 28(9), 977-998.
- Sears, J. S. (2002). "Contextual teaching and learning: a primer of effective instruction". USA: Phi Delta Kappa Educational Foundation.
- Selvianiresa D. & Prabawanto, S. (2017). "International Conference on Mathematics and Science Education (ICMSce)". *Journal of Physics*.
- Sister, O. (2004). "The Implementation of Contextual Teaching Learning in Encouraging Students of SMA N 5 Bandar Lampung". Bandar Lampung: Unpublished Scripts FKIP Unila.

- Smith, E. & Harris, R. (2001). "Work Placements in Vocational Education and Training Courses: Evidence from The Cross-Sectoral Literature, Review of Research". NCVER, Adelaide.
- Society for Neuroscience (2006). "Brain Facts: A Primer on the Brain and Nervous System". Retrieved June 8, 2007 from <http://www.sfn.org/skins/main/pdf/brainfacts/brainfacts.pdf>.
- Stanitski, C.L., et.al. (2003). "Chemistry in context: Applying chemistry to society". Dubuque, IA: McGraw-Hill, (4).
- Surdin (2018). "The Effect of Contextual Teaching and Learning (CTL) Models on learning outcomes of Social Sciences of the material of forms the face of the earth on Class VII of Junior High School". International Journal of Education and Research, 6 (3).
- Ültay, N., Durukan, Ü.G., & Ültay, E. (2014). "Determination of Student Teachers' Views about REACH Strategy". The Eurasia Proceedings of Educational & Social Sciences (EPESS), 1, 298-302.
- Van Kotze & Cooper, L. (2000). "Exploring the Transformative Potential of Project-Based Learning in University Adult Education". Studies in the Education of Adults, 23 (2), p. 212-229.
- Wandasari, T. (2011). "Using contextual teaching and learning (CTL) in improving students' reading skill in procedural text". Undergraduate Paper of UPI. UPI Bandung: Unpublished.
- Yetti, E. (2009). "Pendekatan Kontekstual dalam Pembelajaran". IPA

