LET Trend: The Efficacy of CARL Method in Answering Multiple-Choice Questions of the DYCI REIMAGINED Program Examinations

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ABSTRACT

Multiple-choice examinations are most often the type of exams being used by different academic institutions. This examination aims to measure the knowledge acquired by students. Hence, this examination type is predominantly used by Dr. Yanga's Colleges, Inc. with their newly established REIMAGINED Learning Program created in response to the new normal education brought by the pandemic. Furthermore, a strategy cultivated for this type of examination was introduced by Dr. Carl Balita, the proponent of the CARL Method. It stands for Comprehension, Anticipation, Removal, and Leverage. It is used by Licensure Examinations for teacher takers. However, in this study, researchers aim to answer the following questions: 1.) Applicability of the CARL Method in four learning areas of REIMAGINED Program, namely: Mathematics, Science, Culture, and English. 2.) Time-Efficiency among CARL Method users and non-users, and 3.) Confidence Level of CARL Method Utilizers and Non-users. The study was quantitative, true-experimental research, followed by a pretest and posttest design where intervention was done in between, stratified sampling was used in choosing participants, and cultivation of ANCOVA was for statistical treatment. Finally, in the end, researchers found that CARL Method can be applied in all learning areas of REIMAGINED Learning Program: Mathematics, Science, Culture, and English. Moreover, through the utilization of the CARL Method, it shows that the time allotted by CARL Method users is much longer than that of nonusers. Also, CARL Method users seem to manifest a higher level of confidence once the application of the strategy was utilized.

Keywords: Effectivity, Applicability, CARL Method, REIMAGINED Learning Program, and Multiple-Choice Examinations

INTRODUCTION

Assessment or examinations are a crucial component of the continuing teaching-learning process. It also allows students to practice answering questions, provides teachers with information that may be used to improve their teaching, and allows students to receive feedback on their progress (Black and William, 2009). Assessment also plays a special role in measuring the performance of the students for the purpose of giving a justified grade. Assessments are typically given on paper, on a computer, or in a small space that demands for the test-takers to use certain physical skills (Chowdhurry, 2014).

In Philippine educational system, examination may be vary depending on the discretion of different educational institution. In public schools in the Philippines, students usually take a different type of exam such as weekly exams, summative exams and lastly, periodical exams. Some schools also have a preparatory exam before the start of the major exams. Students in the basic education department also takes a standardized exam that is administered nationwide such as the LAPG or the Language Assessment for Primary Grades, NAT, or the National Achievement Test, NCAE or the National Career Assessment Examination, PEPT or the Philippine Educational Placement Test, and lastly, the Senior High School exit

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exams. This standardized examination has been done every year by the Department of Education before the pandemic happens.

Multiple choice exams are one of the most common methods of assessing a learner's academic performance. This sort of test question has been found to benefit learners with disabilities. This type of question is considered as one of the most versatile among all test types. Supporters of this approach assert that it is the most objective and effective kind of evaluation, while critics claim that its conclusions are not conclusive (Liu & Parker, 2002).

Moving on, eversince the pandemic began, the institution of the Dr. Yanga's Colleges Inc with the help of administrators, faculty and staff started to create a new program that will enhance the student's academic and spiritual ability despite of the pandemic the students are experience. Last 2020, the Dr. Yanga's Colleges Inc. launches the "DYCI REIMAGINED Learning Program" which REIMAGINED stands for "Roadmap for Excellent and Inclusive Modalities and Approaches towards a God-centered and Innovative New Normal of Education for our DYCIans".

This program works under the motto of "no students shall be left behind".

Dr. Yanga's Colleges Inc.'s REIMAGINED Learning Program's quarterly achievement tests will be given using the "ZipGrade" platform. ZipGrade is a free program that lets teachers design multiple-choice examinations and allows students to answer the questions generated by their teachers. The professors can verify the exam results by using the Zipgrade app scanner on their respective smartphones while the students on this platform will merely need to answer the following questions. It also provides the student with their unique student ID number for reporting purposes.

Going further, the propenent of the CARL Method, Dr. Carl Balita, said on his Youtube channel that his approach of answering is best suited for multiple-choice tests. The phrase "CARL Method" has become a trend since most examinees reported that they employed this method in the last Licensure Examination for Teachers. Dr. Carl Balita also makes available the names of those who passed the license examination utilizing that way. Top scorers consistently claim that they utilized the CARL Method in answering the licensure examination.

The CARL method of answering, which stands for Comprehension, Anticipation, Removal, and Leverage, has been hotly contested as to whether it is a reliable strategy to employ when taking multiple-choice tests.

CARL Method's first step is Comprehension. In this step, the learners must be able to understand clearly what the question is stated before answering the item. Some examinees are usually coming up with the answer without understanding what the question is all about hence, their answers are commonly a mistake (Balita, 2021). In this step, the learners must visualize the question in their mind. After that, they must follow the next step.

CARL Method's second step is Anticipation. In this step, the learners must be able to anticipate the answers without looking at the choices. According to Carl Balita, it is an essential element because it teaches the student not to depend on the options. Anticipation is also important since options are there to distract you. Take note that there are 3 distractors in every item of multiple-choice examinations.

CARL Method's third step is Removal. In this step, the learners must be able to remove two options that can be considered as the distractors. Carl Balita cited that it is easier to find the distractors because it distracts you from the answer. In this process, the probability of getting the correct answer, if chosen the right distractors has rised to 50% chance. Hence, removal is important for learners since in removal, learners are not to be distracted by the distractors anymore.

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CARL Method's last step is Leverage. In this step, the two remaining options will now be considered as the best options. The remaining options must be weigh down by the learner in order for the learner to select the best of the best. Carl Balita also cited that in some items in a multiple- choice question has all correct answers, the examinees duty is choosing the best answers among the choices. In choosing the best option, the learner is advised to used their cognitive skills in order for them to successfully answer the test item.

The CARL Method is a strategy that is not commonly recognized to the general public. It appears when researchers attempt to search for an article but just one article turns up. This scenario prompts the researchers to investigate its reliability. The researchers are attempting to implement the CARL Method in answering the Quarterly Achievement Test of Senior High School Students. The researcher will employ a pre-test/post-test strategy to assess student performance with and without the CARL Method. Additionally, it will also keep track of how long each student takes to complete their particular exam. Finally, the researchers will monitor if the CARL Method is strictly followed by using different answer sheets that are prepared by the researchers.

THEORETICAL UNDERPINNINGS

Item Response Theory

Item Response Theory (IRT) is a modeling method that aims to understand the relationship between a test taker's performance and the latent feature that underpins the performance (Hernard, 2000). This theory asserts that (a) participant 's test performance may be justified by a set of factors known as traits, latent traits, or skills, and (b) the correlation between participant's test performance and the set of traits thought to influence test performance can be represented by a linearly increasing function known as an item characteristics function (Hambleton, 1982).

IRT bases its findings on the idea that performance may be explained by a single ability or dominant factor. IRT generates and uses item parameter estimates to define test items, whereas ability estimations are generated to represent examinee performance. When an item response model matches a set of test data, the two ideal IRT characteristics can be achieved.

In this study, the researchers seek to demonstrate that the dominant factor influencing examinee's performance on the examination of the Dr. Yanga's Colleges Inc. REIMAGINED Learning Program is by using the Carl Balita's CARL method of answering. CARL, which stands for COMPREHENSION, ANTICIPATION, REMOVAL, AND LEVERAGE, is a step-by-step strategy that reduces the difficulty of a multiple-choice exam by following the process outlined in its acronym. It also involves the Higher-Order-Thinking-Skills since by following the process, it involves different categories that makes the probability of getting the correct answer gets higher.

In this experimental research, the response of the subjects on every item in a multiplechoice examination must follow the CARL Method in order for the researchers to measure the efficacy of this strategy. In this theory, the response of the subjects on the item must be the dominant factor itself.

Bloom's Revised Taxonomy

According to Bloom, learning is a consecutive process that starts from remembering the facts to creating a new idea that is based on the acquired knowledge of a person. It also encourages the learners to acquire a higher-order thinking by building up from lower-level cognitive skills. The behavioral and cognitive learning outcomes are provided to demonstrate how Bloom's taxonomy might be incorporated into more

general educational objectives or recommendations.

Bloom's Revised Taxonomy and the CARL Method of answering are associated in this experimental study. In the CARL method, comprehension is the first process to follow in order to increase the chances of getting the correct answer. First, the learner must comprehend the question before responding to the item. Because the learner must first interpret the questions, the cognitive skills of understanding were learned in this step.Second, learners are advised to anticipate questions before viewing the options on a multiple-choice exam. The learner is encouraged to cover the options during the anticipation process, so they won't get sidetracked by the distractions. Three of every four options in a multiple-choice examination will distract the learner; so, anticipation is a necessary activity in order for the learners not to be distracted.

The learner learned the cognitive ability of remembering in this second process of the CARL method since seeing the questions initially without seeing the options will require the abilities of recognizing and recalling what the question is all about. Third, the student needs to adhere to the removal process. The students must be able to eliminate the two least desirable options or distractions in this situation. Before deleting the least possibilities, the learner must first develop the cognitive abilities of applying, as the learner needs to implement their reasoning in order to remove the least options. In this process, the learner must also acquire the cognitive skill of analyzing since the learner must weigh every option by means of analyzing every choices in order for them to know what are the least options does the question have.

Following that, the learner must go through the leveraging process. Because the likelihood of receiving the correct answer is increasing, the learner must develop the cognitive abilities of analyzing and evaluating. The student must first weigh the last two options in order to examine the best of the final two options. The student must also analyze the possibilities by checking and critiquing its reliability. The student should be able to get the best option that can be a correct answer through this approach. Following the four CARL method processes, the student will now gain the cognitive skills of creating by answering the questions themselves.

Metacognitive Theory

In this metacognitive learning, the learners were advised to follow the three steps of the metacognitive abilities which is planning, monitoring, and evaluating. In planning, it involves the process of strategy selection and resource allocation. In monitoring, it constitutes awareness understanding and task performance. And lastly, evaluating deals with the appraising the outcome and methodology of one's learning arrangements. Based on the description of metacognitive above, it can be inferred that metacognitive thinking is a consciousness of reasoning about how we think, how we organize those thinking methods in order to do specific task well.

In the context of this experimental study, CARL Method is a great strategy to be tackled about. According to Carl Balita, some multiple-choice questions are metacognitive in nature. It means that the test is testing the learners not on what is contained in their brain, but it tests how their thinking works. In order for CARL Method to be successful, the learner must first need to be aware of how the multiple-choice exam is working. In multiple-choice exam, the learners are aware that the three options are the distractors and only one is the correct answer. If the learners are going to follow the method, the learners must follow the four processes in order to get the only correct answer.

In this study, it will involve the three steps of metacognitive abilities. In planning, the strategy must be the CARL Method itself, while the resources that needs allocation are the time of answering and the options of the multiple-choice exams. In monitoring, the researchers are tasked to do whether the learners is following

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the method. In line with this, the researchers are going to create a special answer sheet that involves a different direction not similar to the common multiple- choice exam. And also in monitoring, it also deals with the evaluation of the learner's performance in the specific exam.

Lastly, evaluation will take place if the last two abilities are successful, and in this process, it is when the researchers are evaluating and assessing the efficacy of CARL Method in answering the multiple-choice questions of the DYCI REIMAGINED Learning Program's Examination.

Statement of the Problem

The primary aim of this study is to determine the Efficacy of CARL Method in Answering Multiple-Choice Questions of the DYCI REIMAGINED Learning Program's Examination.

Specifically, it seeks an answer to the following questions:

1. Applicability of CARL Method in Different Subjects Examination of the DYCI Reimagined Learning Program.
    1. Mathematics
    2. Science
    3. Contemporary Arts (Culture)
    4. Practical Research
2. Time Efficiency among CARL Method users and non-users.
3. Confidence Level of CARL Method utilizers and non-users.

METHODS

Research Design

A quantitative design best suits this study. According to Leedy and Ormrod (2001), it builds on pre-existing theories, quantitative research is specific in the experiments and surveys it conducts.

The methodology of quantitative study upholds the empiricist paradigm's underlying premise (Creswell, 2003). Independent of the researcher, the research itself. As a result, reality is measured objectively using data. Quantitative research gives significance by revealing rationality in the gathered data. "Quantitative researchers look for theories and forecasts that have a ripple effect on other people and places.

Moreover, an effective statistical method for determining a cause-and-effect relationship between various variables is true experimental research design. Hence, it best fits given that this study aims to experiment with the effectiveness of CARL Method in using DYCI's REIMAGINED Multiple Choice Examinations. Additionally, one of the most precise types of research designs offers strong evidence to back up the existence of relationships. It follows the following criteria: first, the sample of participants is split into two groups: one that participates in the experiment and, as a result, experiences modifications known as "experimental group", and the other group does not which was called as "control group". Second, to govern and track changes, the researcher needs independent variables that affect the way other variables behave. Last, within the groups, respondents must be distributed at random (Voxco, 2021).

In the same manner, a pre-test and post-test design will also be put into practice in this study. Truly, if a study aims to discuss the effectivity of a variable nothing best fits it than conducting it in real to life set up. As mentioned by Bell (2010), the basic idea behind the pretest- posttest design is to collect a pretest measure of the desired outcome before applying some treatment, then collect a posttest on the same measure after treatment has been applied. On this case, half of the total number of respondents both from Grade 11 and

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Grade 12 DYCIans will be receiving a treatment or intervention which is the usage of CARL method.

Research Locale

The research study will be administered at Dr. Yanga's Colleges Inc., (DYCI) explicitly in the Senior High School Department. The researchers have chosen the DYCI to perform the said study because only DYCI has a REIMAGINED Learning Program in the Philippines or at the very least at the province of Bulacan. It is an action— a program launched by the school when the pandemic came and affected schools' activities and students' learning. Which in fact has been in existence by the mentioned institution for two consecutive years. Hence, it does include the collaboration of DYCI to Zip grade a website that cultivates a multiple-choice examination. With, nothing suits best than DYCI as locale for this study.

Research Participants

The participants of the study will solely come from Grade 11 and Grade 12 DYCIans. They are the dominantly the ones who experienced the REIMAGINED Learning Program of the DYCI that cultivates the usage of Zipgrade that utilizes multiple-choice examinations. They will be subjected to different subjects of pre-test and post-test examinations as designed by the faculty members of the mentioned institution.

Furthermore, stratified sampling is being cultivated in this study. As stated by Parsons (2017), stratified sampling is a probability sampling technique used in sample surveys. The elements of the target population are divided into distinct groups or strata, with elements within each stratum like one another in terms of certain survey-relevant characteristics. Following the formula provided by stratified sampling, the table below shows the computation of the said formula according to the discretion of the researchers.

Grade 11 has a total of 1,125 students and the researchers will be getting 42 participants following the stratified sampling formula. These are from Grade 11 of Senior High School Students to which surveys and interviews will be conducted to gather information. The participants will consist of different students across six different strands. On the other group, which has a total enrollment of 1,056 students from Grade 12, researchers will be getting 42 as well from Grade 12 participants. These participants will include students from the same number of subgroups.

Research Instruments

As for the research instrument, the researchers utilized pre-test and post-test with treatment for the experimental group to be conducted. The researchers employed this to be able to compare two groups (experimental and control) and measure the degree of change that transpired as an effect of treatment or intervention. Moreover, participants will be partaking both to the pre-test and posttest examination, while only half of the total number of participants per grade level will be receiving the intervention.

Furthermore, the researchers used one of the variables of our study which is the first quarterly examination of the DYCI REIMAGINED Learning Program as the test questionnaire. In line with this, the researchers selected four subjects that is considered by the school president as the main focal point of the institution's academic program. These subjects are Mathematics, English, Science, and Social Sciences or culture.

The researchers only selected 15 questions for every examination in order for the instrument to be more reliable for the participants to not be bombarded with too many questions.

Furthermore, participants will come across different strands who specialize in different fields. I am confident with my answer to question no. .

- Strongly Agree

- Agree
- Disagree
- Strongly Disagree

As indicated in the sub-problem of the first question under the researcher's statement of the problem, it addresses the participants' level of confidence when taking their examination. This would be a consideration when taking multiple-choice exams. Furthermore, as mentioned in the Statistical Treatment section, this evaluation form will be conducted through Zipgrade and will inculcate the utilization of the Likert Scale.

Moreover, to compare the time-efficiency of using the CARL Method versus not using it, researchers will use a timer to compare the participants' allotted time in finishing their pre-test and post-test examinations at the same time.

Data Gathering Procedure

The data gathering procedure of this study is clearly seen above. First, researchers designed an instrument for the pre-test and post-test examination and the evaluation form. Second and third, these instruments will then be submitted for validation and reliability checking. This will play a vital role because once approved it will now be distributed to the school's administrator for the approval in utilization of respondents and locale. Fourth, the first part of the experiment will start with the participants taking their pre-test examination. Fifth, it will be followed with the usage of treatment or intervention which will be given to the experimental group of the study which consists of one-half (1/2) of the total number of respondents per grade level. This treatment is the familiarization of the CARL Method and application of test takers to their actual examination. Sixth, participants will be partaking in the post-test examination. Afterward, the evaluation form will be filled out by the participants through ZipGrade, an online website. Seventh, the collection of data will be done once the examination proper, and the evaluation form has been done. Finally, the analysis of gathered data will now take place.

Statistical Treatment

The researchers will use the ANCOVA as their statistical treatment to distinguish if there is a significant distinction between the efficacy and applicability of the CARL Method to the DYCI REIMAGINED Learning Program's Examinations. The statistical test used to compare two means that may or may not be related. Selected random samples from each of the two groups or categories are used in the testing. Thus, the data that will be gathered from doing a pre-test and post-test will be analyzed and interpreted using the mentioned statistical structure.

It's important to note that in ANCOVA, the covariate is a continuous variable that is used to control pre-existing differences between the groups on the dependent variable. The ANCOVA test is used to determine whether there are significant differences in the dependent variable between groups after controlling for the effect of the covariate.

Secondly, the weighted mean will also be used for statistical treatment, specifically for the statement of problem number 2, a, and b. It intends to accurately give the average value of the data and theoretically expected outcome. Hence, the data will be collected from the statement of problem number 2, which is the Benefits of the CARL Method in answering Multiple Choice of the DYCI REIMAGINED Learning Program — Time Efficiency, and Confidence level of students will be analyzed and calculated meticulously.

Table 1. Four-point Likert – Scale Interpretation

4	**Strongly Agree**	3.26 – 4.00
3	**Agree**	2.51 – 3.25

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2	**Disagree**	1.76 – 2.50
1	**Strongly Disagree**	1.00 – 1.75

The 4-point Likert scale that will be utilized for the evaluation which will be given after the post-test examination will be ranging from Strongly Agree to Strongly Disagree. It will be used to interpret and demonstrate the rating of Senior High School students who took the post-test and pre-test. Each of the respondents of the study will be given a survey form to answer the list of questionnaires about the study that they participated in. According to Dr. Saul Mcleod, it allows individuals to answer their degree of agreement or sentiment with a topic or matter using one of five possible options instead of expecting a simple yes or no response from the responder. And lastly, Likert scales have the benefit of providing for a variety of perspectives, including none. Figure 14 shows the corresponding numerical value for each of the Likert scale's response categories.

Ethical Consideration

The participants' dignity and confidentiality are the researchers' top priorities while collecting data. The integration of beneficence, non-maleficence, and justice all throughout the study is strongly advocated by researchers. A consent form had to be completed by each participant before the pre- and post-test portions of the examination could begin. This confirms to participants the sole goal of this academic study and signifies their consent to partake.

Beneficence – the results of the study was advantageous for both the researchers and the informants.

Non-maleficence – no informants were put into harm all throughout the interview.

Justice – researchers safeguard the avoidance of unfairness in handling gathered data.

Equity – the researchers made sure that the informants were all treated fairly.

Respect – if the chosen informant refused to take part or answer in the study, the researchers will respect the person's decision.

Privacy – the identity and information of the informants was used solely for the study alone and were all kept confidential.

RESULTS AND DISCUSSION

Table 2. Applicability of CARL Method in General Mathematics Examination

Dependent Variable		
Sample		
A	B	Total
n		
21	21	42
Observed Means		
4.7143	7.4286	6.0714
Adjusted Means		
4.4303	7.7126	6.0714

Aggregate Correlation within Samples: CV vs DV	
r = 0.93	r^2 = 0.86

ANCOVA SUMMARY

Source	SS	df	MS	F	P
adjusted means	111.73	1	111.73	95.67	<.0001
adjusted error	45.54	39	1.17		
adjusted total	157.27	40			

Test for homogeneity of regressions:

Source	SS	df	MS	F	P
between regressions	0.87	1	0.87	0.74	0.395056
remainder	44.67	38	1.18		
adjusted error	45.54	39			

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Based on the statistical analysis provided, it appears that there is a significant correlation between the CARL Method and the General Mathematics Examination scores in the DYCI REIMAGINED Learning Program, while controlling for pre-test scores. The adjusted mean for the CARL Method group is significantly higher than that of the non-CARL Method group, with a p-value of less than 0.0001. The ANCOVA summary reveals that the CARL Method accounts for 111.73 of the total sum of squares, with one degree of freedom, while the adjusted error accounts for 45.54 of the sum of squares, with 39 degrees of freedom. The F-ratio for the adjusted means is 95.67, with a p-value of less than 0.0001, indicating that the CARL Method has a significant impact on the General Mathematics Examination scores after adjusting for pre-test scores.

The homogeneity of regression test, which determines whether the relationship between the covariate (pre-test scores) and the dependent variable (post-test scores) is the same for both groups, indicates that there is no significant difference in the slopes of the regression lines between the CARL Method and non-CARL Method groups. The F-ratio for the between-regressions source is 0.74, with a p-value of 0.395056. This suggests that the CARL Method does not have a significantly different effect on post-test scores based on pre-test scores.

Table 3. Applicability of CARL Method in Earth and Life Sciences/Earth Science Examinations

Dependent Variable		
Sample		
A	B	Total
n		
21	21	42
Observed Means		
6.4286	9.8095	8.119
Adjusted Means		
7.0862	9.1519	8.119

Aggregate Correlation within Samples: CV vs DV	
r = 0.75	r^2 = 0.57

ANCOVA SUMMARY

Source	SS	df	MS	F	P
adjusted means	41.94	1	41.94	8.08	0.007086
adjusted error	202.48	39	5.19		
adjusted total	244.42	40			

Test for homogeneity of regressions:

Source	SS	df	MS	F	P
between regressions	0.11	1	0.11	0.02	0.888284
remainder	202.37	38	5.33		
adjusted error	202.48	39			

The statistical results indicate that there is a significant relationship between the CARL Method and the Senior High School Science Examination scores in the DYCI Reimagined Learning Program, after controlling for pre-test scores. The adjusted mean for the CARL Method group is significantly higher than the adjusted mean for the non-CARL Method group, with a p-value of 0.007. This suggests that the CARL Method is applicable in improving Senior High School Science Examination scores in the DYCI Reimagined Learning Program.

The ANCOVA summary shows that the adjusted means account for 41.94 of the total sum of squares, with 1 degree of freedom. The adjusted error accounts for 202.48 of the sum of squares, with 39 degrees of freedom. The F-ratio for the adjusted means is 8.08, with a p-value of 0.007. This indicates that the CARL Method has a significant effect on the Senior High School Science Examination scores, after controlling for pre-test scores.

The homogeneity of regression test shows that there is no significant difference in the slopes of the regression lines for the CARL Method and non-CARL Method groups. The F-ratio for the between-regressions source is 0.02, with a p-value of 0.888284. This suggests that the CARL Method does not have a significantly different effect on post-test scores, depending on pretest scores.

Table 4. Applicability of CARL Method in Contemporary Arts Examination

Dependent Variable		
Sample		
A	B	Total
n		
21	21	42
Observed Means		
6.1429	11.1429	8.6429
Adjusted Means		
6.2977	10.988	8.6429

Aggregate Correlation within Samples: CV vs DV	
r = 0.57	r^2 = 0.33

ANCOVA SUMMARY

Source	SS	df	MS	F	P
adjusted means	228.27	1	228.27	51.58	<.0001
adjusted error	172.6	39	4.43		
adjusted total	400.86	40			

Test for homogeneity of regressions:

Source	SS	df	MS	F	P
between regressions	0.06	1	0.06	0.01	0.920870
remainder	172.53	38	4.54		
adjusted error	172.6	39			

The statistical results suggest that there is a significant relationship between the CARL Method and the Contemporary Arts Examination scores in the DYCI Reimagined Learning Program. The adjusted mean for the CARL Method group is significantly higher than the adjusted mean for the non-CARL Method group, with a p-value of less than 0.0001. This indicates that the CARL Method has a positive effect on the Contemporary Arts Examination scores.

The ANCOVA summary shows that the adjusted means account for 228.27 of the total sum of squares, with 1 degree of freedom. The adjusted error accounts for 172.6 of the sum of squares, with 39 degrees of freedom. The F-ratio for the adjusted means is 51.58, with a p-value of less than 0.0001. This suggests that the CARL Method has a significant effect on the Contemporary Arts Examination scores, after controlling for pre-test scores.

The homogeneity of regression test indicates that there is no significant difference in the slopes of the regression lines for the CARL Method and non-CARL Method groups. The F-ratio for the between-regressions source is 0.06, with a p-value of 0.920870. This suggests that the CARL Method does not have a significantly different effect on post-test scores, depending on pre- test scores.

Overall, these statistical results suggest that the CARL Method is applicable in improving Contemporary Arts Examination scores in the DYCI Reimagined Learning Program.

Table 5. Applicability of CARL Method in Practical Research 2 Examination

Dependent Variable		
Sample		
A	B	Total
n		
21	21	42
Observed Means		
4.9048	10.5238	7.7143
Adjusted Means		
4.776	10.6526	7.7143

Aggregate Correlation within Samples: CV vs DV	
r = 0.6	r^2 = 0.36

ANCOVA SUMMARY

Source	SS	df	MS	F	P
adjusted means	359.93	1	359.93	84.7	<.0001
adjusted error	165.74	39	4.25		
adjusted total	525.66	40			

Test for homogeneity of regressions:

Source	SS	df	MS	F	P
between regressions	8.83	1	8.83	2.14	0.151724
remainder	156.91	38	4.13		
adjusted error	165.74	39			

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The statistical results suggest that the CARL Method has a significant effect on the Practical Research Examination scores in the DYCI Reimagined Learning Program. The adjusted mean for the CARL Method group is higher than the adjusted mean for the non-CARL Method group, with a p-value of less than 0.0001, indicating that the CARL Method has a positive effect on the Practical Research Examination scores.

The ANCOVA summary shows that the adjusted means account for 359.93 of the total sum of squares, with 1 degree of freedom, while the adjusted error accounts for 165.74 of the sum of squares, with 39 degrees of freedom. The F-ratio for the adjusted means is 84.7, with a p-value of less than 0.0001, indicating a significant effect of the CARL Method on the Practical Research Examination scores, after controlling for pre-test scores.

The homogeneity of regression test suggests that there is no significant difference in the slopes of the regression lines for the CARL Method and non-CARL Method groups. The F-ratio for the between-regressions source is 2.14, with a p-value of 0.151724, indicating that the CARL Method does not have a significantly different effect on post-test scores, depending on pre-test scores.

In summary, these results suggest that the CARL Method is applicable in improving Practical Research Examination scores in the DYCI Reimagined Learning Program.

Furthermore, to answer the second problem, time-efficiency data suggests that there is a difference in the amount of time required for treatment and non-treatment participants to complete the pre-test and post-test. Specifically, the participants who received the CARL Method treatment took longer to complete the post-test (53.71 mins) than the pre-test (37.64 mins), while the non- treatment participants took less time to complete the post-test (45.84 mins) than the pre-test (36.12 mins).

Moreover, the time-efficiency results suggest that the CARL Method group had longer post-test times compared to the non-CARL Method group. The mean post-test time for the CARL Method group was 53.75 minutes, while the mean post-test time for the non-CARL Method group was 45.19 minutes. The mean pre-test times for both groups were relatively similar, with the CARL Method group having a mean pre-test time of 33.54 minutes and the non-CARL Method group having a mean pre-test time of 34.12 minutes.

Table 6. Confidence Level Frequency Table Mathematics/General Mathematics

Verbal Interpretations	Non-Treatment		Treatment	
	Pre-test	Posttest	Pre-test	Posttest
Strongly Agree	0	0	0	0
Agree	14	14	14	15
Disagree	1	1	1	0
Strongly Disagree	0	0	0	0

One thing in common is the fact that confidence level of Non-Treatment Participants is decreasing from their pre-test to their posttest evaluation. In fact, there are huge decreases and discrepancies among these participants as they solely based their answers on their own will and guess. The decrease in confidence level among Non-Treatment Participants in the posttest evaluation could be attributed to the lack of a systematic approach to learning.

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Table 7. Confidence Level Frequency Table Science/Earth & Life Science & Earth Science

Verbal Interpretations	Non-Treatment		Treatment	
	Pre-test	Posttest	Pre-test	Posttest
Strongly Agree	0	0	0	3
Agree	14	14	11	12
Disagree	1	1	3	0
Strongly Disagree	0	0	0	0

Treatment participants are those that are called experimental groups. They were introduced to an intervention in which in this case, the CARL Method. As seen in the table above, there have been a significant increase in the confidence level of treatment participants when they took the pre-test without having the knowledge of CARL Method and when they took the posttest where application of the intervention has been clearly observed.

Furthermore, a study by Kline et al. (2016) found that confidence level is positively correlated with academic performance. In other words, students who are more confident in their abilities tend to perform better academically. This suggests that the increase in confidence level among Treatment Participants in the posttest evaluation may also have an impact on their overall academic performance. It may signify that CARL Method puts premium on treatment participants complacency as they further their application of mentioned method.

Table 8. Confidence Level Frequency Table English/Practical Research 2

Verbal Interpretations	Non-Treatment		Treatment	
	Pre-test	Posttest	Pre-test	Posttest
Strongly Agree	1	1	3	3
Agree	14	13	12	12
Disagree	0	1	0	0
Strongly Disagree	0	0	0	0

A significant drop on the confidence level of Non-Treatment Participants have been observed. In fact, there have been multiple items with a “Disagree” remarks as verbal interpretations for a 4- point likert scale was cultivated. With this in mind, these control groups of study who were not basically introduced to an intervention do not have the complacency as compared to those who were introduced to an intervention.

Table 9. Confidence Level Frequency Table Culture/Contemporary Arts

Verbal Interpretations	Non-Treatment		Treatment	
	Pre-test	Posttest	Pre-test	Posttest
Strongly Agree	1	2	2	4
Agree	14	9	13	11
Disagree	0	4	0	0
Strongly Disagree	0	0	0	0

These Grade 12 Treatment Participants show a significant amount of confidence level when they take both the pre-test and post-test exam. In fact, their pre-test confidence level has been significantly higher than those of other exam takers, but they even exceeded that when they took the posttest exam and eventually rated and evaluated their confidence level in each item.

As seen above, multiple items have the remarks of "Strongly Agree" and no items decreased as a predicament that these Treatment Participants with the help of CARL Method specifically the Removal procedure puts them in complacency thus their confidence level are getting higher.

CONCLUSIONS

The researchers are optimistic about this academic paper because it will significantly incentivize and be advantageous for academic institutions in improving their students' academic performance, particularly in examinations or tests. As a result of a thorough data collection procedure, it reveals the following pertinent outcomes:

- CARL Method can be utilized in DYCI REIMAGINED Learning Program.
- Application of CARL Method requires a longer period. This in return for a higher chance of improved exam scores.
- CARL Method puts premium on the confidence level of exam takers.

RECOMMENDATIONS

Educational Institutions. Incorporate and integrate the CARL Method in teaching methodology and an increase in additional time allotted in taking exams.

Exam takers. Explore ways to streamline the implementation of CARL Method.

Future researchers. Surf any other feasible source of published materials relating to CARL Method. Furthermore, an increment in research participants, instruments, and even learning areas to test.

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