

Contract activity package (CAP) as motivational strategy in facilitating performance-based assessment

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Abstract

This study aimed to examine the effectiveness of Contract Activity Package (CAP) as a motivational strategy for performance-based assessment in the Ethics 100 course during the first semester of AY 2022-2023 at Bulacan Agricultural State College. The researchers utilized a total enumeration sampling method to determine the number of participants, consisting of three groups from the control group and three groups from the experimental group, all enrolled in Ethics 100 during the specified semester. In total, 273 participants were selected from the six sections. The study employed a True-experimental research design, using researcher-made Pretest and Posttest questions as the research instrument. The findings indicated a highly significant difference between the students' scores in the pretest and posttest when exposed to both the Traditional Approach and CAP. Additionally, it was observed that there was a highly significant difference in the students' scores when comparing the Traditional Approach and CAP. Furthermore, the study found that increased exposure to the CAP as a motivational strategy for performance-based assessment correlated with higher scores in the Ethics 100 class.

Keywords: Contract Activity Package, performance-based assessment, motivational strategy, ethics

Introduction

Student motivation is a cornerstone of academic success and a critical area of focus in educational research. It is, however, a complex phenomenon that is not solely an internal characteristic of the student but is significantly shaped by a multitude of classroom dynamics. A foundational study by Kılıç et al. (2021) identified four key dimensions that affect student motivation: the pedagogical approach, the dynamics within the class, the educational environment and materials, and, critically, the element of evaluation. This finding firmly establishes that the methods by which students are assessed play a direct and powerful role in their engagement, persistence, and overall willingness to learn. Consequently, the design and implementation of effective assessment strategies have become a crucial concern for modern educators seeking to foster deep and sustained motivation.

This challenge has been significantly amplified by the widespread adoption of online and blended learning models in the contemporary educational landscape. Blended learning, defined as an educational method that strategically integrates online delivery modes with traditional in-person instruction, aims to enhance learning outcomes and institutional efficiency (Medina, 2018; Shamsuddin & Kaur, 2020). However, in these environments, the reduction of physical consultation and direct, spontaneous interaction creates a barrier. This barrier can limit a teacher's ability to accurately perceive individual student needs, often leading to a reliance on standardized, "one-size-fits-all" activities. This approach frequently fails to account for students' diverse learning preferences, resulting in inconsistent levels of interest and motivation.

Furthermore, this reliance on standardized methods often extends to assessment. Traditional evaluations, such as multiple-choice or fill-in-the-blank tests, are common but do not adequately prepare pupils for the complex problem-solving required in the 21st-century workplace. As Stanley (2021) argues, real-world success depends on the ability to demonstrate skills through application, not just recall. Therefore, a pedagogical shift toward authentic performance-based assessments is essential. These assessments challenge students to apply their

knowledge and skills to create a product or complete a task, better reflecting the demands they will face professionally and fostering a more meaningful connection to their learning.

To address these multifaceted challenges of motivation and assessment in blended contexts, educators can draw upon robust theoretical frameworks like Self-Determination Theory (SDT). SDT is a leading macro-theory of human motivation that has been extensively applied to education. A comprehensive review by Guay (2022) confirms that student motivation and positive school outcomes are significantly enhanced when the learning environment satisfies three innate psychological needs: autonomy (the need to feel a sense of choice and control over one's actions), competence (the need to feel effective and capable of achieving desired outcomes), and relatedness (the need to feel a sense of belonging and connection with others). The literature emphasizes that autonomy-supportive practices by teachers are the primary catalysts for fulfilling these needs.

The concept of learning styles—while academically contested in its rigid application—can serve as a practical framework for implementing autonomy-supportive practices. The idea that students have different preferences for how they process and express information (e.g., visual, auditory, kinesthetic) provides a useful lens for designing varied and personalized tasks (Dunn et al., 2021). Rather than prescribing a single teaching method, acknowledging these preferences allows an educator to offer meaningful choices, thereby supporting student autonomy. Research in technology-mediated learning confirms the importance of student preference, showing that even when learning styles do not directly predict final grades, they significantly impact a student's sense of presence, cognitive load, and overall attitude in the learning process (Huang et al., 2019). This highlights the critical role of personalized options in fostering a positive and motivating learning experience.

Building on these principles, this study focuses on a specific instructional tool designed to operationalize SDT and personalized learning: the Contract Activity Package (CAP). The CAP is a form of differentiated instruction where students are presented with a "contract" of various performance-based tasks and can choose the ones that best align with their interests and preferred learning styles (Dunn et al., 2021). By providing structured choice, the CAP directly supports the need for autonomy. By enabling students to complete tasks they feel capable of, it fosters a sense of competence. Finally, by allowing them to express their understanding in a personalized way, it helps cultivate the sense of recognition and safety crucial for relatedness and belonging (Porter et al., 2024).

CAP is employed to assist students in individualizing their instruction based on their diverse and distinctive learning styles. It is a sort of specialized instruction that is designed to accommodate the student's preferred learning style. This sort of personalized instruction allows motivated, independent, and nonconforming students to learn successfully, efficiently, and with enjoyment. In addition, it offers students options, flexibility, and a rigorous learning environment. This instructional method challenges students at a greater level than traditional teaching methods normally do (Caraisco, 2007). Bloom (2017) defines CAP as an effective form of personalized instruction that permits students to work at their own pace while finding new, relevant, and contemporary academic subjects. This can be produced and offered at any academic level, developing independence and collaboration in the process. It decreases frustration and is easily adaptable to a variety of educational and environmental requirements. One of its primary objectives is to capitalize on each student's interests and strengths while also providing choice, autonomy, and challenge. It permits students in the same class to learn the same topics and standards in diversified ways, add objectives based on personal interests, and exhibit acquired knowledge creatively through the construction of traditional instructional materials (Bloom, 2017). Thus, it is effective because it allows students to work at their own pace, allows for behaviors that do not conform to prevalent educational practices, can be provided at any academic level, fosters independence and collaboration, reduces frustration and anxiety, and can be easily adapted to meet the needs of any environment. In order to reduce frustration, anxiety, and boredom and to increase engagement and retention, it then develops customized learning settings for people who work well independently and are motivated learners (Bloom, 2017).

CAP offers a multisensory and multimedia approach to students who can learn more effectively through visual, auditory, tactile, or kinesthetic means. It empowers students to assume personal responsibility for acquiring the new concepts and requirements. This distinctive technique of diversified instruction is frequently used to provide students with the opportunity to understand their learning styles and talents, as well as how to assume responsibility for the educational decisions they make (Qorib, 2024). It includes objectives that identify the course material that students must master, as well as activity alternatives that provide students with options for activities that reinforce the course material taught via resource alternatives. Reporting alternatives assists students in determining how the activity alternative should be shown and, ultimately, shared with a small group of peers. Alternative resources offer a variety of methods for acquiring the information outlined in the abovementioned objectives.

The value of such individualized instruction has been shown to be particularly vital for preventing student disinterest; when students, whether gifted or otherwise, are not suitably challenged and motivated, they cannot maximize their educational opportunities (Caraisco, 2007). The CAP offers a structured way to provide this necessary choice, freedom, and appropriate degree of difficulty. Despite its strong theoretical foundation, there is a need to empirically investigate the impact of the CAP on student motivation within the increasingly prevalent

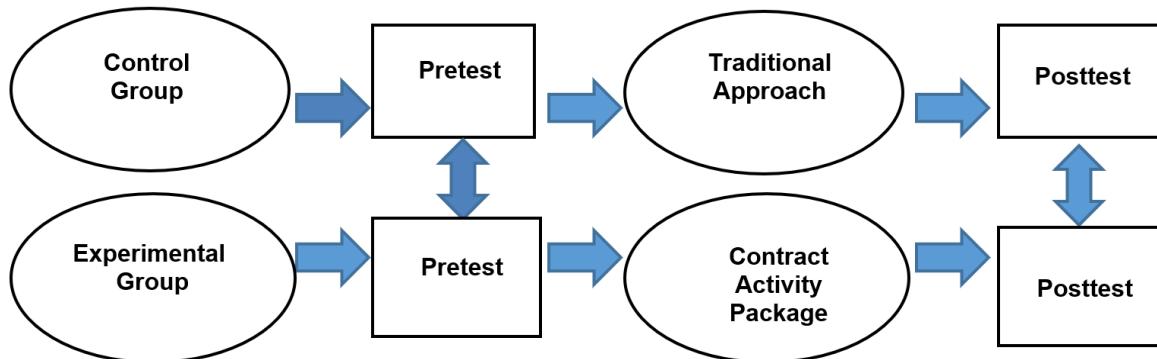
blended learning environment. Therefore, this study aims to explore how the implementation of the Contract Activity Package as a tool for differentiated, performance-based assessment influences student motivation in a blended learning context.

Conceptual Framework

Figure 1 shows the conceptual paradigm of the study on investigating the effectiveness of the implementation of CAP as a motivational strategy in facilitating performance-based assessment.

Figure 1

Conceptual Paradigm of The Study



The first frame of circles presents the classification of involved students as respondents of the study identifying as Experimental and Control Group, while the second frame of boxes presents the tests given to the two groups before the exposure to such teaching approach as Pretest. The third frame of circles on the other hand presents the approach given by the researcher: CAP for the Experimental Group, and Traditional Approach for the Control Group. The last frame of boxes presents the tests given to the two groups after exposure to such a teaching approach as Posttest. Withal, the arrows present the connections of each entity as the flow of the study.

Research Objectives

The researchers aimed to investigate the effectiveness of Contract Activity Package (CAP) as a motivational strategy in facilitating performance-based assessment in Ethics 100 against the traditional approach of teaching the subject. Hence, this study specifically aimed to:

1. Describe the students' scores in terms of pretest and posttest before and after exposing them to:
 - 1.1 Traditional Approach; and
 - 1.3 Contract Activity Package
2. Determine if there is a significant difference between the students' scores in pretest and posttest when they were exposed to:
 - 2.1 Traditional Approach; and
 - 2.2 Contract Activity Package
3. Determine if there is a significant difference between the students' scores when they were exposed to:
 - 3.1 Traditional Approach; and
 - 3.2 Contract Activity Package.

Methodology

Research design

This research study utilized the True-Experimental research design as according to Gribbons and Herman (1996), is exceptionally useful in evaluating the efficacy and impact of a program especially in the field of education. More than one purposefully designed group, common measured outcome(s), and random assignment are all included in this True-Experimental design category. The study utilizes this method in order to identify the disparity between the utilization of the traditional approach to CAP and a performance-based assessment approach. By

comparing these two approaches, the study aims to highlight the existence of a notable distinction. Both approaches are treated equally, except for the variation in the assessment provided.

Sources and materials

In this study, the researcher will use Pretest and Posttest researcher made test questions aligned with the subject in Ethics 100. This consists of 30 items that refers to the sensitivity of the common good with the topic terms and applicational scenario questions.

The researcher will use the test questions that are validated by the professors and teachers in the field of philosophy who experts in handling are and teaching the subject.

Data collection techniques

Before conducting the study, the researchers sought permission from the President of Bulacan Agricultural State College (BASC). Upon receiving the approved permit, the researchers coordinated with the Deans and Program Chairs of different institutes in order to identify the possible students to be participated in the data gathering. In addition, the researchers and involved personnel in the institutes scheduled the quantitative data collection.

During the course of the study, the researcher administered the identical diagnostic test to both the control group and the experimental group using the instrument employed in this study to assess their level of proficiency on the provided topic. Each group is given an equal amount of time to respond with their best prior knowledge before the lesson is discussed. After completing the diagnostics, the researcher instructed and discussed the lesson with both groups using the identical audio-visual discussion. Separate assessments are provided for the control and experimental groups. The control groups were assessed using traditional means. On the other hand, the experimental groups were assessed using the CAP. At the completion of the study, a posttest was administered to both groups using the same instrument as the diagnostic test but with randomized questions.

The sources of the data for this study were selected students of BASC who undertake the course Ethics 100. The researchers specifically chose the course outcome (CO7): *"Developed Sensitivity to the Common Good"* as the topic where the CAP was implemented. Likewise, the researchers chose Ethic 100 as a subject as it requires a practical outcome through a performance-based assessment that will showcase what the student learned from the course.

The data gathered was used as the basis for a development of a program through CAP that aids teachers as they facilitate performance-based assessments in their subjects. The main aim of this innovation is to have a paradigm shift from traditional facilitating performance-based assessment.

To ensure the conclusions of this study were accurate, several steps were taken to address common threats to internal and external validity. Specifically, selection bias was minimized by using intact classes for the experimental and control conditions. While individual random assignment was not feasible, using multiple classes and analyzing pre-test scores helped establish a baseline and averaged out pre-existing differences. Furthermore, the inclusion of a control group from the same student population on the same timeline effectively addressed threats from history (external events) and maturation (natural student growth), as these factors would likely have affected both groups equally. Potential testing effects were controlled because both groups completed the same pre-test and post-test, which isolated the intervention's impact. Threats from instrumentation were minimized by using a consistent, expert-validated test for all measurements, and the risk of attrition was also reduced by using a total enumeration sampling of these intact classes. While these measures strengthened the study's internal validity, it was acknowledged that external validity (generalizability) was limited to the context of Bulacan Agricultural State College, and further research was needed to apply these findings to other populations.

Respondent of the study

Table 1.

Sample size of the respondent in their class, group and number

Class	Group	Total Number
BSBA 1A	Experimental	56
BSBA 1B	Controlled	46
BSEd Eng 3A	Controlled	43
BSEd Eng 3B	Experimental	43
BSEd Sci 2A	Experimental	26
BSEd Sci 2B	Controlled	25
		Total: 239

The researchers utilized a total enumeration sampling method to get the number of respondents of the study. Specifically, there will be three (3) groups from the control group, and another three (3) groups from the experimental group, both who are enrolled in Ethics 100 from the first semester of academic year 2022-2023. Overall, there were 239 respondents from the six (6) sections who were chosen as the participants of the study.

Findings and discussions

The following are the results of the gathered data in determining the difference between the traditional approach and CAP in Performance Based Assessment:

Students' scores on the pretest and posttest before and after exposing them to Traditional Approach and Contract Activity Package

The data were analyzed using descriptive statistics. Specifically, the pretest and posttest results were evaluated through measures of central tendency and variability, including the range, mean, and standard deviation. The results of the pretest and posttest of the students who are considered as a Control Group before and after the exposure to Traditional Approach are presented on the Tables 1 to 3.

Table 2

Descriptive Statistics for BSBA 1B (Traditional Group)

Scores	Pretest		Posttest	
	F	%	F	%
25-30	0	0%	1	2.2%
19-24	7	15.2%	23	50%
13-18	31	67.4%	22	47.8%
7-12	8	17.4%	0	0%
0-6	0	0%	0	0%
Range	10-24		14-27	
Mean	15.61		18.59	
Stand. Dev.	2.91		2.43	

It can be noted from the table that more than half or 67.4% of the students obtained Pretest scores that lie within the bracket of 13 to 18. On the other hand, a considerable portion or 17.4% of the respondents received scores that lie within the bracket of 7 to 12. Meanwhile, the remaining 15.2% got scores from 19 to 24. Further perusal of the same table reveals that the Pretest scores of the students ranged from 10 to 24. The mean was recorded at 15.61. The standard deviation which measures the spread of the students' scores from the mean was registered at 2.91. This result discloses that 46 students obtained Pretest scores within the bracket of 10 to 24.

In regard to the Posttest scores, the above table shows that half or 50% of the students obtained Posttest scores that lie within the bracket of 19 to 24. On the other hand, a considerable portion or 47.8% of the respondents received scores that lie within the bracket of 13 to 18. Meanwhile, the remaining 2.2% got scores from 25 to 30. Further perusal of the same table reveals that the Posttest scores of the students ranged from 14 to 27. The mean was recorded at 18.59. The standard deviation which measures the spread of the students' Posttest from the mean was registered at 2.43. This result discloses that 46 students obtained Posttest scores within the bracket of 14 to 27.

Table 3

Descriptive Statistics for BSED Science 2B (Traditional Group)

Scores	Pretest		Posttest	
	F	%	F	%
25-30	0	0%	0	0%
19-24	5	20%	9	36%
13-18	16	64%	15	60%
7-12	4	16%	1	4%
0-6	0	0%	0	0%
Range	11-22		9-23	
Mean	15.48		17.44	
Stand. Dev.	2.83		3.23	

It can be gleaned from the table that more than half or 64% of the students obtained Pretest scores that lie within the bracket of 13 to 18. On the other hand, a considerable portion or 20% of the respondents received scores that lie within the bracket of 19 to 24. Meanwhile, the remaining 16% got scores from 7 to 12. Further analysis of the same table reveals that the Pretest scores of the students ranged from 11 to 22. The mean was recorded at 15.48. The standard deviation which measures the spread of the students' scores from the mean was registered at 2.83. This result discloses that 25 students obtained Pretest scores within the bracket of 11 to 22.

However, it can be seen in the results that more than half or 60% of the students obtained Posttest scores that lie within the bracket of 13 to 18. On the other hand, a considerable portion or 36% of the respondents received scores that lie within the bracket of 19 to 24. Meanwhile, the remaining 4% got scores from 7 to 12. Further perusal of the same table reveals that the Posttest scores of the students ranged from 9 to 23. The mean was recorded at 17.44. The standard deviation which measures the spread of the students' Posttest scores from the mean was registered at 3.23. This result discloses that 25 students obtained Posttest scores within the bracket of 9 to 23.

Table 4

Descriptive Statistics for BSED English 3A (Traditional Group)

Scores	Pretest		Posttest	
	F	%	F	%
25-30	0	0%	5	11.6%
19-24	2	4.8%	23	53.5%
13-18	34	78.6%	15	34.9%
7-12	7	16.7%	0	0%
0-6	0	0%	0	0%
Range	10-21		14-26	
Mean	14.76		20.21	
Stand. Dev.	2.32		3.20	

By looking at the table, more than half or 78.6% of the students obtained Pretest scores that lie within the bracket of 13 to 18. On the other hand, a considerable portion or 16.7% of the respondents received scores that lie within the bracket of 7 to 12. Meanwhile, the remaining 4.8% got scores from 19 to 24. Further perusal of the same table reveals that the Pretest scores of the students ranged from 10 to 21. The mean was recorded at 14.76. The standard deviation which measures the spread of the students' scores from the mean was registered at 2.32. This result discloses that 42 students obtained Pretest scores within the bracket of 10 to 21.

On the flip side, as displayed in the table, more than half or 53.5% of the students obtained Posttest scores that lie within the bracket of 19 to 24. On the other hand, a considerable portion or 38.9% of the respondents received scores that lie within the bracket of 13 to 18. Meanwhile, the remaining 11.6% got scores from 25 to 30. Further perusal of the same table reveals that the Posttest scores of the students ranged from 14 to 26. The mean was recorded at 20.21. The standard deviation which measures the spread of the students' Posttest from the mean was registered at 3.20. This result discloses that 43 students obtained Posttest scores within the bracket of 14 to 26.

Furthermore, the results of the pretest and posttest of the students who are in the Experimental Group before and after the exposure to CAP are presented on Tables 4 to 6.

Table 5

Descriptive Statistics for BSBA 1A (CAP Group)

Scores	Pretest		Posttest	
	F	%	F	%
25-30	0	0%	12	21.4%
19-24	4	7.2%	36	64.3%
13-18	29	51.8%	8	14.3%
7-12	23	41.1%	0	0%
0-6	0	0%	0	0%
Range	7-21		13-30	
Mean	14.04		21.96	
Stand. Dev.	3.0		3.52	

The table exposes that more than half or 51.8% of the students obtained Pretest scores that lie within the bracket of 13 to 18. On the other hand, a considerable portion or 41.1% of the respondents received scores that lie within the bracket of 7 to 12. Meanwhile, the remaining 7.2% got scores from 19 to 24. Further perusal of the same table reveals that the Pretest scores of the students ranged from 7 to 21. The mean was recorded at 14.04. The standard deviation which measures the spread of the students' Pretest scores from the mean was registered at 3.0. This result discloses that 56 students obtained Pretest scores within the bracket of 7 to 21.

Correspondingly from the table, more than half or 64% of the students obtained Posttest scores that lie within the bracket of 19 to 24. On the other hand, a considerable portion or 21% of the respondents received scores that lie within the bracket of 13 to 18. Meanwhile, 14.3% of the students got scores from the range of 13 to 18. Further perusal of the same table reveals that the Posttest scores of the students ranged from 13 to 30. The mean was recorded at 21.96. The standard deviation which measures the spread of the students' Posttest from the mean was registered at 3.52. This result discloses that 56 students obtained Posttest scores within the bracket of 13 to 30.

Table 6

Descriptive Statistics for BSED Science 2A (CAP Group)

Scores	Pretest		Posttest	
	F	%	F	%
25-30	0	0%	15	57.7%
19-24	4	15.4%	10	38.5%
13-18	21	80.8%	1	3.8%
7-12	1	3.8%	0	0%
0-6	0	0%	0	0%
Range	10-20		15-28	
Mean	15.89		23.96	
Stand. Dev.	2.52		2.88	

Through the table, more than half or 80.8% of the students obtained Pretest scores that lie within the bracket of 13 to 18. On the other hand, a considerable portion or 15.4% of the respondents received scores that lie within the bracket of 9 to 24. Meanwhile, the remaining 3.8% got scores from 7 to 12. Further perusal of the same table reveals that the Pretest scores of the students ranged from 10 to 20. The mean was recorded at 15.89. The standard deviation which measures the spread of the students' scores from the mean was registered at 2.52. This result discloses that 26 students who are in the obtained Pretest scores within the bracket of 10 to 20.

As referring also to the table above, more than half or 57.7% of the students obtained Posttest scores that lie within the bracket of 25 to 30. On the other hand, a considerable portion or 38.5% of the respondents received scores that lie within the bracket of 19 to 24. Meanwhile, the remaining 3.8% got scores from 13 to 18. Further perusal of the same table reveals that the Posttest scores of the students ranged from 15 to 28. The mean was recorded at 23.96. The standard deviation which measures the spread of the students' Posttest from the mean was registered at 2.88. This result discloses that 26 students who are in the obtained Posttest scores within the bracket of 15 to 28.

Table 7

Descriptive Statistics for BSED English 3B (CAP Group)

Scores	Pretest		Posttest	
	F	%	F	%
25-30	0	0%	11	25.6%
19-24	3	7%	27	62.8%
13-18	31	72.1%	5	11.6%
7-12	9	20.9%	0	0%
0-6	0	0%	0	0%
Range	7-20		16-28	
Mean	14.58		22.21	
Stand. Dev.	2.75		3.20	

It can be noticed from the table that more than half or 72.1% of the students obtained Pretest scores that lie within the bracket of 13 to 18. On the other hand, a considerable portion or 20.9% of the respondents received scores that lie within the bracket of 7 to 12. Meanwhile, the remaining 7% got scores from 19 to 24. Further perusal of the same table reveals that the Pretest scores of the students ranged from 7 to 20. The mean was recorded at 14.58. The standard deviation which measures the spread of the students' scores from the mean was registered at 2.75. This result discloses that 43 students obtained Pretest scores within the bracket of 7 to 20.

As displayed also in the table, more than half or 62.8% of the students obtained Posttest scores that lie within the bracket of 19 to 24. On the other hand, a considerable portion or 25.6% of the respondents received scores that lie within the bracket of 25 to 30. Meanwhile, the remaining 11.6% got scores from 13 to 18. Further perusal of the same table reveals that the Posttest scores of the students ranged from 16 to 28. The mean was recorded at 22.21. The standard deviation which measures the spread of the students' Posttest from the mean was registered at 3.20. This result discloses that 43 students obtained Posttest scores within the bracket of 16 to 28.

From the results presented above, Tables 1 to 3 shows an implication that students' scores in Ethics 100 may be enhanced by the Traditional Approach but the implication of the results from Tables 4 to 6 indicates that a better improvement may be observed when the students were exposed to CAP as a motivational strategy in facilitating performance-based assessment.

In conjunction with the research findings, Albadid (2019) investigated the impact of activity-based learning on student accomplishment in comparison to passive learning and identified students' attitudes toward activities. According to the findings of the study, activity-based learning had a beneficial impact on student accomplishment. Students feel that activity-based learning improves comprehension, fosters a greater sense of responsibility, produces an engaging learning environment, and boosts accomplishment.

Difference between the students' scores in pretest and posttest when they were exposed to Traditional Approach and Contract Activity Package

The data were analyzed using inferential statistics; specifically, a paired-sample t-test was employed to compare the pretest and posttest results and determine the significant difference between the two scores. The result of the paired-sample t-test analysis which was done solely to determine if a significant difference existed between the pretest and posttest scores of the students who were exposed to Traditional Approach and CAP were presented on Tables 7 to 9.

Table 8

Paired-Sample T-Test: Pretest vs. Posttest Scores for BSBA Program

Section and teaching approach	Test	Mean	SD	Mean Difference	t-value	p-value
BSBA 1A (CAP)	Pretest	14.04	3.00	5.93	-11.89	0.001
	Posttest	19.96	3.52			
BSBA 1B (TA)	Pretest	15.61	2.91	2.98	-7.04	0.001
	Posttest	18.59	2.43			

Note. This table presents the paired-sample t-test results comparing pretest and posttest scores for the BSED English program. TA = Traditional Approach; CAP = Contract Activity Package. The mean difference represents the disparity between the posttest scores of the Traditional and CAP groups. The t-values of -3.51 and -12.71 indicate the strength of the mean differences from pretest to posttest for each group. ^aParticipants in the TA group were from Section BSBA 1B. ^bParticipants in the CAP group were from Section BSBA 1A. * $p < .01$ results are highly significant, indicating less than a 1% probability that the differences occurred by chance.

It can be inferred from the table that a highly significant difference was found between the Pretest and Posttest scores of the students from BSBA 1A who were exposed to CAP ($p=0.001$). This highly significant difference was brought about by the fact that the computed probability values for these variables are smaller than the 0.01 level of significance.

In connection, a highly significant difference was also found between the Pretest and Posttest scores of the students from BSBA 1B who were exposed to Traditional Approach ($p=0.001$). This highly significant difference was brought about by the fact that the computed probability values for these variables are smaller than the 0.01 level of significance.

Table 9

Paired-Sample T-Test: Pretest vs. Posttest Scores for BSED Science Program

Section and teaching approach	Test	Mean	SD	Mean Difference	t-value	p-value
BSED Science 2A (CAP)	Pretest	15.85	2.52	8.12	-10.44	0.001
	Posttest	23.96	2.88			
BSED Science 2B (TA)	Pretest	15.48	2.83	1.96	-3.00	0.006
	Posttest	17.44	3.23			

Note. This table presents the paired-sample *t*-test results comparing pretest and posttest scores for the BSED English program. TA = Traditional Approach; CAP = Contract Activity Package. The mean difference represents the disparity between the posttest scores of the Traditional and CAP groups. The *t*-values of -3.51 and -12.71 indicate the strength of the mean differences from pretest to posttest for each group. ^aParticipants in the TA group were from Section BSED Science 2B. ^bParticipants in the CAP group were from Section BSED Science 2A. **p* < .01 results are highly significant, indicating less than a 1% probability that the differences occurred by chance.

It can be inferred from the table that a highly significant difference was found between the Pretest and Posttest scores of the students from BSED Science 2A who were exposed to CAP (*p*=0.001). This highly significant difference was brought about by the fact that the computed probability values for these variables are smaller than the 0.01 level of significance.

Likewise, it can be seen also from the table that a highly significant difference was found between the Pretest and Posttest scores of the students from BSED Science 2B who were exposed to CAP (*p*=0.006). This highly significant difference was brought about by the fact that the computed probability values for these variables are smaller than the 0.01 level of significance.

Table 10

Paired-Sample T-Test: Pretest vs. Posttest Scores for BSED English Program

Section and teaching approach	Test	Mean	SD	Mean Difference	t-value	p-value
BSED English 3A (TA)	Pretest	14.76	2.32	1.48	-3.51	0.001
	Posttest	16.24	2.14			
BSED English 3B (CAP)	Pretest	14.58	2.75	5.63	-12.71	0.001
	Posttest	20.21	3.20			

Note. This table presents the paired-sample *t*-test results comparing pretest and posttest scores for the BSED English program. TA = Traditional Approach; CAP = Contract Activity Package. The mean difference represents the disparity between the posttest scores of the Traditional and CAP groups. The *t*-values of -3.51 and -12.71 indicate the strength of the mean differences from pretest to posttest for each group. ^aParticipants in the TA group were from Section BSED English 3A. ^bParticipants in the CAP group were from Section BSED English 3B. **p* < .01 results are highly significant, indicating less than a 1% probability that the differences occurred by chance.

A highly significant difference was found between the Pretest and Posttest scores of the students from BSED English 3A who were exposed to Traditional Approach (*p*=0.001). This highly significant difference was brought about by the fact that the computed probability values for these variables are smaller than the 0.01 level of significance.

Moreover, a highly significant difference was found between the Pretest and Posttest scores of the students from BSED English 3B who were exposed to CAP (*p*=0.001). This highly significant difference was brought about by the fact that the computed probability values for these variables are smaller than the 0.01 level of significance.

Results that reflected from Tables 7 to 9 implies that the students who were exposed to Traditional Approach have different pretest and posttest from the students who underwent CAP as a motivational strategy in facilitating performance-based assessment.

Following the results of the study, Bloom (2017) draws the same consensus how students grow through CAP in comparison with traditional instruction in his experimental research. According to his findings, the pre- and post-test performance of students who learned through CAP was comparable to that of students who learned

through traditional instruction. In addition, pre- and post-test gains for boys and females who learned through CAP were proportionally equivalent. The introduction of learning-style methods such as CAP can offer an alternate mode of instruction for children who are not being adequately served by traditional instruction.

Analysis of Posttest Mean Differences Between Traditional and CAP Groups

The result of the paired-sample t-test analysis which was done solely to determine if a significant difference existed between the posttest scores of the students who were exposed to Traditional Approach and CAP were presented on Tables 7 to 9.

Table 11

T-Test Analysis of Posttest Scores: Traditional vs. CAP Group

Section and teaching approach	Posttest Mean	SD	Mean Difference	t-value	p-value
TA (BSBA 1B, BSED Science 2B, BSED English 3A)	17.46	2.71	5.18	-13.035	0.001
CAP (BSBA 1A, BSED Science 2A, BSED English 3B)	22.64	3.38			

Note. TA = Traditional Approach; CAP = Contract Activity Package. The mean difference represents the disparity between the posttest scores of the Traditional and CAP groups. ^aThe Traditional Approach group consisted of sections BSBA 1B, BSED Science 2B, and BSED English 3A. ^bThe CAP group consisted of sections BSBA 1A, BSED Science 2A, and BSED English 3B. * $p < .01$ results are highly significant, indicating less than a 1% probability that the differences occurred by chance.

It can be gleaned from the presented table that a significant difference was found between the scores of students who were exposed to Traditional Approach and CAP ($p=0.001$). In connection, this analysis was brought about by the fact that the computed probability values for these variables are smaller than the 0.01 level of significance. Further examination of the table shows that a direct difference was found between the two teaching approaches because of the -13.035 amount of t-value, indicating that the entities are different for having a large t-value.

The above result may give an implication that students' scores who experienced the Traditional Approach were different from the students' scores who made it through the CAP. CAP was found more effective than Traditional Approach as a motivational strategy in facilitating performance-based assessment.

In contrast to the findings of the present study, Bartlett (2017) examined the level of boredom experienced by sixth-grade students enrolled in an accelerated math course, as well as appropriate ways to help students avoid it. Results indicated that there were no statistically significant changes in the degrees of boredom between sixth-grade children who got CAP and those who did not, regardless of gender or ability. These results suggest that the use of CAP may not be an effective technique for preventing classroom boredom, or that the CAPs were not constructed successfully.

Conclusions and recommendations

With the purpose of investigating the effectiveness of the implementation of Contract Activity Package (CAP) as a motivational strategy in facilitating performance-based assessment, the conclusions that there is a significant difference between the students' scores in pretest and posttest when they were exposed to Traditional Approach and CAP; and there is a significant difference between the students' scores when they were exposed to Traditional Approach and CAP were drawn. The higher the exposure to CAP as a motivational strategy in facilitating performance-based assessment, the higher the scores that students may get from their Ethics 100 class.

In line with the conclusions of the study presented above, several recommendations were drawn such as the Instructors should utilize CAP in teaching since it was proven in this study that this is more effective than the Traditional Approach, In-Service Trainings (INSET) in regards to CAP should be provided for instructors to upgrade their pedagogy, instructors should continue to discover better instructional strategies in teaching Social Science courses by conducting researches regarding this concern and for future researchers, a pure qualitative

research regarding CAP should be done to arrive at more in-depth analysis on the factors that may affect students' learning.

Conflict of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. The research was conducted in an environment of academic integrity, and the financial support provided by Bulacan Agricultural State College (BASC) was used solely for the technical execution of the study and did not influence the objectivity of the findings.

Author contribution

Jose Marie F. De Guzman: Conceptualization, Methodology, Data Curation, Formal Analysis, Investigation, and Writing – Original Draft. Yosef Eric C. Hipolito: Validation, Supervision, Writing – Review & Editing, and Technical Oversight of the research design.

Data availability statement

The raw data and statistical outputs (SPSS/Excel files) supporting the conclusions of this study are available from the corresponding author, Jose Marie F. De Guzman, upon reasonable request. The data are maintained in accordance with the ethical guidelines of Bulacan Agricultural State College to ensure participant anonymity.

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