International Journal of Mathematical Theory and Applications
Vol 2, Issue 2 2026

Evaluation of Educational Professionals and Their Impact on Student Achievement in the Cavite Province of the Philippines

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Article Info
Received: 27-03-2026 Revised:02-04-2026 Accepted:11-05-2026 Published:22-05-2026

Abstract
The purpose of this paper was to examine the relationships between subject matter knowledge, pedagogical approaches like constructivism, collaboration, integrative, inquiry-based, and reflective practices, and the performance of teachers as evaluated by principals and students on the first periodic test of tenth grade. Participating schools were those in the North Cluster, Division of Cavite Province, Philippines, that offered the same health massage, information technology, and culinary arts programmes. The teachers' performance was deemed exceptional by the headteachers in terms of subject matter expertise and pedagogical techniques. The integrated approach to education came out on top among the many methods of instruction. The reflecting method had the worst average score. The descriptive technique and documentary analysis were used to examine the data on the performance of instructors and the learning outcomes of students on their first periodic examinations. The data needed for this study was likewise collected using these methods. Students had a very positive impression of the instructors' performance, according to the results. The constructivist method had the greatest mean score among the instructional techniques, while the reflective method had the lowest. In addition, there is a notable disparity in how headteachers and students evaluate teachers' performance. As for the learning outcomes of students' first periodic test, as well as their assessments of subject matter knowledge and pedagogical approaches (with the exception of reflective approach, which has a very weak positive correlation), there is a significant relationship and weak positive correlation between these two variables.

Keywords:
Teachers' Performance, Learning Outcomes Assessment, Pedagogical Approaches, Knowledge of the Subject Matter, Philippines

INTRODUCTION

The State is obligated to establish, maintain, and provide resources for an efficient, well-rounded, and cohesive educational system in accordance with Republic Act Number 10533, which is subtitled, "An Act Enhancing the Philippine Basic Education System by Strengthening Its Curriculum and Increasing the Number of Years for Basic Education, Appropriating Funds Therefore and for Other Purposes," or the Enhanced Basic Education Act of 2013. Article 7 of In order to ensure that educators are prepared to satisfy the performance and content criteria of the new K–12 curriculum, RA 10533 mandates that the DEP and CHED provide in-service training programmes in pedagogy and content.
Publishing Regional Memorandum Number 11 series 2015, titled The 2C-2I-lR Pedagogical Approaches: K to 12, was Director IV —Region IVA-CALABARZON's (Diosdado M. San Antonio) responsibility.

Methods for All Subject Areas That Foster Effective Teaching, should be used by all educators who put the curriculum into action. This handbook is a great resource for educators looking to better support student-centered learning by reviewing the five pedagogical methods stated in RA10533 (EBEC).
Supporting Regional Memorandum Number 11 series 2015 and RA 10533, Regional Memorandum Number 233 series 2016 restates the utilisation of 2C-2I-1R pedagogical approaches, which are constructivist, collaborative, inquiry-based, integrative, and reflective.
To boost pupils' academic performance, the government is hell-bent on implementing the lessons taught by instructors using the pedagogical approaches 2C-2I-1R. However, research on these methods of instruction is sparse in the Philippines, and what little there is is mostly centred on collaborative and integrative strategies. While this research was successful in the Philippines, it did not take into account or show the efficacy of other techniques.
The purpose of this study was to compare student performance on a standardised test based on

subject matter knowledge with instructor performance as evaluated by school principals.

instructors and students' performance on the first period exam of the 2019–2020 school year, as well as on five educational approaches: constructivism, collaboration, integration, inquiry-based, and reflective.

Subjects and variables included in the research were wellness massage instructors, information and communication technology (ICT) teachers, and students from Emiliano Tria Tirona Memorial National High School (ETTMNHS), Bagbag National High School (BNHS), and Rosario National High School (RNHS) in the Philippines' Division of Cavite-North Cluster. Students in tenth grade from the aforementioned Technical Vocational Track (information and communication technology, cooking, wellness massage) and their respective school principals from the Technology and Livelihood Education Department were also part of the study.

These three schools were selected from the rest of the north cluster—ETTMNHS, BNHS, and RNHS—because they all provide wellness massage, information and communication technology, and cooking as concentrations. Also, with 81-120 instructors, these institutions are considered big. For FY2017, ETTMNHS outperformed the previous three years(2016–2018), with the strongest results coming in 2016 and 2018. Better outcomes and top performance have been attained by BNHS for two years in a row. throughout the 2018 fiscal year. The top performance has been shown by RNHS for three years running.

Teachers' and principals' evaluations of their own performance using the researcher's research instrument and students' performance on the first periodic exam of the academic year served as the basis for this study's data. The pupils in each strand evaluated just their individual instructors. The first periodic exam of the 2019–2020 school year assessed learning outcomes, and its findings were used to judge the pupils' performance. The research also looked at whether or not there was a statistically significant difference in the ways in which students and principals were evaluated for topic knowledge and pedagogical techniques. Results from the first periodic test for the 2019–2020 school year in wellness massage, information and communications technology (ICT), and cookery were compared to those from the researcher's research instrument, which was used to evaluate teachers' performance according to both students' and head teachers' standards.

LITERATURE REVIEW

This research was based on understanding of the topic content and numerous pedagogical techniques to teaching, such as the

constructivist approach, collaborative approach, integrative approach, inquiry-based approach, and reflective approach.

Shulman (1986) stated that the concentration on knowledge and pedagogy regarding the subject matter of instructors was considered as mutually incompatible. The conceptual origins of constructivism began with Jean Piaget's educational research that led to the concept of change of learning and development; Lev Vygotsky contributed to the idea that learning and growth were integrally linked to communicative relationships with others, and John Dewey contributed to the idea that schools had to incorporate real-world issues into the curriculum. Mcleod (2019) noted in his research that learners generate their own knowledge by employing a coding system to arrange information and classify it. Mcleod (2019) says that the most effective approach to establish a coding system is to learn it, rather than the teacher instructing them. The principle of exploratory learning is that students are developing their own knowledge, sometimes described as a constructivist method for themselves. The role of the teacher should not be to impart information via rote learning but rather to encourage the learning process. The usage of the spiral strategy will aid with the discovery learning process. Mcleod (2019) said that both Bruner and Vygotsky stress the environment of a kid more than Piaget did, notably the social situation. All agree that parents should take an active role in teaching the boy. Mcleod (2019) also claimed that unlike Vygotsky, Bruner underlined the social side

of learning, claiming that the scaffolding process would assist a youngster gain skills via other persons.

RESEARCH METHODOLOGY

The study employed the descriptive technique of research in order to analyse the link between the instructors' Performance and the outcome of the Learning Outcomes Assessment. Mean was used to assess the performance of the instructors as measured by the headteachers and by the students in terms of the understanding of the subject matter and the different pedagogical techniques. Distribution was employed to assess students' Performance. Mann-Whitney U-Test was used to compare the evaluation of headteachers and students on teachers' Performance. Spearman Rank was used to investigate the association between the performance of instructors as assessed by the students using the testing instrument of the researcher and the findings of the evaluation of the learning outcomes based on the first periodic test of the students. The scope and limits of the research were Emiliano Tria Tirona Memorial National High School (ETTMNHS), Bagbag National High School (BNHS) and Rosario National High School (RNHS) Grade 10 Teachers of Information and Communications Technology (ICT), Cookery and Wellness Massage from the Division of Cavite-North Cluster. Also, this research included the Grade 10 students of the same instructors under the indicated strands of Technical Vocational Track (ICT, culinary, wellness massage) and the headteachers of Technology and Livelihood Education department of the same schools. These schools were picked because they are the ones in the north cluster, Division of Cavite, in the Philippines, delivering the same strands.

The data sources for this study were the Performance of the instructors as assessed by the headteachers and by the students using the testing instrument of the researcher and the findings of the evaluation of the learning outcomes on the first periodic student exam. The students assessed just their own professors in the strand they belong to. The first periodic exam of the 2019–2020 school year assessed learning outcomes, and its findings were used to judge the pupils' performance.

In addition, the research investigated the substantial difference between the evaluation of the understanding of the subject matter and the varied educational techniques of the headteachers and the

The significant relationship on teachers' Performance as assessed by the head teachers and by the students using the researcher's research instrument and the result of learning outcomes assessment on students' first periodic test for the S.Y. 2019-2020 in Information and Communications Technology (ICT), Cookery and Wellness Massage was also tested.

FINDING AND DISCUSSION

The teachers' performance was assessed by the headteachers as to the knowledge of the subject matter and pedagogical approaches. The responses range from poor to outstanding.

Table 1. Head Teachers' Ratings of Teachers' Performance in terms of Knowledge of the Subject Matter

Indicator	Mean	Verbal Interpretation
Teaches the lesson surely without opening the books all the time	4.75	Outstanding
Accomplishes the objectives and scope of the subject as contained in the course guide.	4.75	Outstanding
Explains the lesson well.	4.75	Outstanding
Does not rely on textbooks alone but utilizes other relevant and up-to-date materials	4.75	Outstanding
Grand Mean	**4.75**	**Outstanding**

The data shows that in all four items, the headteachers rated the Performance of the teachers outstanding and all have the same mean of 4.75. According to Abdul Manaf, Abdullah, & Osman (2015), a lecturer's knowledge and skills is related to and provided by the students during the class session. A lecturer with experience in a particular field could provide more comprehension, knowledge acquisition, and analytical skills to help students understand a subject better. Effectiveness of teaching requires that the instructor has adequate knowledge to allow them to present information by providing adequate explanations for achieving the course's objectives.

Table 2. Head Teachers' Ratings of Teachers' Performance in terms of Constructivism Approach

Indicator	**Mean**	**Verbal Interpretation**
Encourages students to think, ask questions, and express their own opinions	4.58	Outstanding
Develops learners' ability to consider ideas	4.58	Outstanding
Engages students in individual or group experiential learning (Group Activity, Project Planning, Product Creation, Hands-on Activity)	4.75	Outstanding
Guides the learning in the simplest way.	4.67	Outstanding
Promotes independent and lifelong learning.	4.67	Outstanding
Grand Mean	**4.65**	**Outstanding**

The results imply that teachers engage the students constructively in individual or group experiential learning (group activity, project planning, product creation, hands-on activity), and on most of the indicators given. So they are excellent in their teaching when applying the constructivist approach. As stated in the book, *What is a Constructivist Approach to Teaching* (2011), theoretical constructivist approaches to learning claim children have their own way of thinking? Students should be treated as individuals and should be given the opportunity to collaborate with others and learn through group observation, expression, and practice. Model students have ideas and skills that aren't fully developed but have the potential to be developed, particularly through this form of interaction with others. Constructivism also recognizes the importance of social and cultural influences on the intellect's development. In effect, these influences the way kids learn from each other.

Table 3. Head Teachers' Ratings of Teachers' Performance in terms of Collaborative Approach

Indicator	Mean	Verbal Interpretation
Integrates Information Technology in the lessons.	4.75	Outstanding
Reflects on group discussions.	4.67	Outstanding
Engages learners to work in small groups.	4.58	Outstanding
Lets students think through questions using three distinct steps: Think, Pair, Share	4.67	Outstanding
It requires the whole group to think of the entire project and all of its systems together.	4.50	Highly Satisfactory
Emphasizes connections and improve communication among students.	4.67	Outstanding
Involves learners in taking on a teaching role in the school setting.	4.58	Outstanding
Promotes independent and lifelong learning.	4.67	Outstanding
Grand Mean	**4.64**	**Outstanding**

Based on the results, the teachers incorporate information technology with outstanding performance and most of the indicators provided in their lessons, but it is highly satisfying when it comes to requiring the entire group to think together about the entire project and all its processes. Ultimately, with outstanding Performance, teachers use the collaborative approach in their teaching. Based on the results of Chime, Ene & Nnene's (2019) research, the collaborative learning approach will help learners achieve higher levels of achievement, increase time on tasks building cross-ethnic friendship, experience enhanced self-esteem, lifelong interaction and communication skills, and master the vital self-regulated creative habits of life that are required to work as a productive member of society.

Table 4. Head Teachers' Ratings of Teachers' Performance in terms of Integrative Approach

Indicator	Mean	Verbal Interpretation
It helps students learn from others.	4.67	Outstanding
He has a good command of the language of instruction and conveys his thoughts and his ideas within the level of understanding of his students.	4.75	Outstanding
Applies theories and principles to practical situations.	4.75	Outstanding
Integrates desirable Filipino values in the daily lesson.	4.75	Outstanding
Promotes independent and lifelong learning.	4.67	Outstanding
Provides complex projects.	4.67	Outstanding
Grand Mean	**4.71**	**Outstanding**

The results imply that the teachers have a good command of the instructional language and convey their thoughts and ideas within their students ' level of understanding, apply theories and principles to practical situations, and integrate desirable Filipino values into the daily lesson. Thus teachers are evidently practicing an integrative approach in their teaching with outstanding Performance. The use of an integrative approach is more effective than using a conventional method, according to the study by Emata & Nicolas (2018). Students perceived the strategy as a primary learning tool and an essential to foster self-mastery and focus and concentration sense development.

Overall results suggest teachers have outstanding Performance in applying the inquiry-based approach, particularly when it comes to asking open-ended questions that allow learners to reflect on their experience.

Table 5. Head Teachers' Ratings of Teachers' Performance in terms of Inquiry-Based Approach

Indicator	Mean	Verbal Interpretation
Demonstrate an activity or a process of a given content/topic.	4.67	Outstanding
Asks questions and makes comments to the prompt and to each other's posts.	4.67	Outstanding

Asks questions and makes comments to the prompt and to each other's posts.	4.67	Outstanding
It gives an idea of what the learners did and did not get from an activity or experiment.	4.67	Outstanding
Promotes independent and lifelong learning.	4.67	Outstanding
Grand Mean	**4.68**	**Outstanding**

In Aktamis, Highe & Ozden's (2016) study, it was found that the inquiry-based learning method used had far more significant effects on student achievement as opposed to the traditional teaching method.

Table 6. Head Teachers' Ratings of Teachers' Performance in terms of Reflective Approach

Indicator	Mean	Verbal Interpretation
Engages learners in writing journals.	4.58	Outstanding
Seeks facts before reaching conclusions.	4.58	Outstanding
Recognizes and accepts strengths and weaknesses and exerts efforts to improve them.	4.58	Outstanding
Post questions to get ideas or opportunities in an area that needs to be improved or developed.	4.67	Outstanding
Promotes independent and lifelong learning.	4.67	Outstanding
Grand Mean	**4.62**	**Outstanding**

The data imply that teachers have outstanding Performance in practicing reflective approach inside the classroom, especially when posting questions to get ideas or opportunities in an area that needs to be improved or developed and to promote independent and lifelong learning.

One important process in teacher education is a reflective teaching practice. It encourages teachers and students to develop different competencies such as decision-making, metacognition, and logical thinking (Khanam & Zahid, 2019).

The teachers' performance was assessed by the students in terms of the knowledge of the subject matter, and pedagogical approaches results were all Highly satisfactory.

Table 7. Head Teachers' Ratings of Teachers' Performance in terms of Knowledge of the Subject Matter

Indicator	Mean	Verbal Interpretation
Teaches the lesson surely without opening the books all the time	4.09	Highly Satisfactory
Accomplishes the objectives and scope of the subject as contained in the course guide.	4.23	Highly Satisfactory
Explains the lesson well.	4.45	Highly Satisfactory
Does not rely on textbooks alone but utilizes other relevant and up-to-date materials	4.08	Highly Satisfactory
Grand Mean	**4.21**	**Highly Satisfactory**

In his study, Jadama (2014) concluded that a teacher's knowledge of subject matter positively impacts the teaching and learning process in schools.

Table 8. Students' Ratings of Teachers' Performance in terms of Constructivism Approach

Indicator	Mean	Verbal Interpretation
Encourages students to think, ask questions, and express their own opinions.	4.43	Highly Satisfactory
Develops learners' ability to consider ideas	4.34	Highly Satisfactory
Engages students in individual or group experiential learning (Group Activity, Project Planning, Product Creation, Hands-On Activity)	4.28	Highly Satisfactory
Guides the learning in the simplest way.	4.36	Highly Satisfactory
Promotes independent and lifelong learning	4.19	Highly Satisfactory
Grand Mean	**4.32**	**Highly Satisfactory**

The results reveal that the Performance of the teachers in terms of the approach to constructivism is highly satisfactory, especially in encouraging students to think, ask questions, and express their opinions.

According to *What is a Constructivist Approach to Teaching* (2011), students should be involved in active learning, and that the role of the teacher is to assist their students in what they do. Students should be given the opportunity to explore a problem, to try out solutions, to build on this new knowledge to adapt, and to develop new solutions. Students should be encouraged to write, discuss, and draw on what they are learning. They should also converse with others while working actively and not just sitting in groups.

CONCLUSION AND FURTHER RESEARCH

The findings indicate that students' performance on the researcher's research instrument is significantly related to teachers' subject matter knowledge and pedagogical approaches, particularly constructivism, collaborative learning, integrative pedagogy, and inquiry-based learning. On the other hand, the data suggest that students' use of the researcher's study instrument to evaluate instructors' performance in connection to reflecting

strategy and the findings from the evaluation of learning outcomes on the first periodic exam presented to the students.
The study's authors emphasised the importance of instructors fostering an environment where students work together to consider the project and all of its interconnected systems as a whole. Students may hone their abilities in teamwork by participation in group projects and other similar activities. The Creative Reflection Techniques for Junior High School programme is an in-service training programme that aims to address the need for instructors to engage students in writing journals using a reflective approach. Future study is also advised to include more qualitative studies, such as Lived Experiences of Teachers in Relation to Their Performance.

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