



TEACHERS' INSTRUCTIONAL STYLES, PRACTICES AND ENTHUSIASM ON LEARNERS' ACADEMIC PERFORMANCE IN SCIENCE VI

Roberto S. Labonete^a

Teacher IIMatias A. Fernando Memorial School, Philippines

ABSTRACT:

This study determined the relationship between teachers' instructional styles, practices and enthusiasm and the Science academic performance of learners among public elementary schools in Angat District, Angat, Schools Division Office of Bulacan, School Year 2024–2025. With explanatory sequential as research design and 16 teachers, 23 school leaders and 123 learners as respondents of the study, findings showed that the teachers practiced effective instructional styles in terms of directing, discussing and delegating "very often." In the same manner, the teachers highly practiced effective instructional practices in terms of planning, delivery and assessment. Consequently, the teachers are highly enthusiastic in terms of interest, interaction, enjoyment and creativity.

Meanwhile, the learners' academic performance in Science 6 was described as "outstanding." Significant differences were found between the assessments of the two groups of respondents with regard to instructional styles in terms of directing and discussing, instructional practices in terms of planning, delivery and assessment, and enthusiasm in terms of interest, interaction and enjoyment. Teachers registered higher assessments as compared to school leaders. Highly significant relationship existed between the teachers' instructional styles, practices and enthusiasm and learners' academic performance in Science 6. Based on the findings of the study, the following conclusions were drawn: The learners performed outstanding in Science 6. The teachers' instructional styles, practices and enthusiasm are positively correlated to learners' academic performance in Science 6.

Keywords: Science 6, Instructional Styles, Teachers' Practices, Teachers' Enthusiasm

Introduction

In educational institutions, emphasis is laid on training teachers for effective classroom management as well as effective content delivery. Despite frequent personal development training of teachers, students are still found to be demotivated sitting in the classrooms, resulting in low participation and engagement. While a formal curriculum of the school along with effective content delivery by teachers may foster activities, every classroom is operated by a second hidden curriculum that somehow impacts the students' learning, which includes student teacher interaction in classroom. In order to motivate them, it is crucial to understand their beliefs and perceptions about their teachers in a classroom environment. The insight to their perceptions will give educators an opportunity to understand their students better, hence making learning engaging and meaningful. Meaningful learning will result in encouraging children to bring forth their talents and motivation and to direct their interest in academics productively. The present study aims to explore the relationship dimensions of perceived teaching style with students' engagement, curiosity and exploration in their learning environment.

The alignment of teaching styles with pupils' learning styles is a critical factor in determining academic performance. Carbonel (2021) highlights, when there is a disconnect between how a teacher imparts knowledge and how a student absorbs it, it can lead to a range of challenges. For instance, technological distractions, as emphasized by Ramirez (2022), can divert pupils' attention from the lesson, making it difficult for teachers to engage them effectively. This issue is exacerbated by the prevalence of digital devices in modern classrooms, which can create competition for students' focus. Moreover, Ariem and Cabal (2021) argue that misalignment between teaching styles and pupils' learning styles can result in difficulties in comprehension and retention, as the teaching approach may not resonate with every student's cognitive preference.

In the same manner, teachers use instructional strategies to help students become more independent and tactical learners. These strategies become effective learning strategies when students handpicked the suitable ones and use them to complete tasks. Instructional strategies can stimulate students and help them concentrate and merge information for understanding and remembering (Asio and Riego, 2019).

Even as research documents that teachers matter, there is less certainty about the attributes of teachers that make the most difference in raising student achievement. A study showed a promising result in professional and personal attributes and qualities of teachers. A handful of individuals have explored whether instructional practices predict student academic achievements. In a particular study, the writers ask what classroom practices differentiate teachers with a high impact from those with a lower impact on student achievement in middle school. The investigators found evidence that high value-added

teachers have a different profile of instructional practices than the low value-added ones. The differences were significant correlations for instructional practices, including explicit strategy instruction (Francisco and Celon, 2020).

On the other hand, enthusiastic teaching not only motivates, inspires, and excites learners but also improves learning and learners' achievement. Teacher enthusiasm has been identified as one of the defining features of good teachers and also as a key indicator of instruction quality. In addition, "enthusiastic teachers also appear to be happier and healthier", and are more effective in teaching. Also, teacher enthusiasm is regarded as a central characteristic of an effective teacher and also a predictor of student learning behavior, emotional states, and presentation (Lazarides et al., 2019).

Research has found that teachers who exhibit high levels of enthusiasm, through their expressed passion and energy for teaching, tend to have students who are more highly motivated and engaged in the learning process. Moreover, enthusiastic teachers create a motivated learning environment that fosters curiosity, interest, and a desire to learn. Beyond academic success, teacher enthusiasm also plays a crucial role in promoting students' emotional well-being. Enthusiastic teachers create a positive and supportive classroom environment where students feel valued and respected (Peng, 2021).

Additionally, some empirical studies have tried to link the enthusiasm expressed by the teacher with the quality of the teaching they provide or with the students' results. With regard to student outcomes, past research has analyzed the effects of enthusiasm on both motivation and achievement. It has consistently been shown that teacher enthusiasm has a positive effect on student motivation, defined as intrinsic motivation, or enjoyment. However, the effects of teacher enthusiasm on student achievement have not been similarly demonstrated by past research. Most studies have not found a relationship between teacher enthusiasm and student grades. Thus, corroborated the effect of enthusiasm on motivation but found only some indirect effects on achievement. Hence, the relationship between teacher enthusiasm and student achievement is far from being a simple relationship (Valentin et al., 2022). In light of the situation above, the researcher will investigate the relationship between teachers' instructional styles, practices and enthusiasm and the Science academic performance of learners in public elementary schools. Result of this study may serve as an avenue for the teachers to explore useful teaching styles, innovate lesson strategies and create instructional materials appropriate or suited to the learning styles of the learners. Aside from being able to assess their own style, strengths, and weaknesses, they will be also reoriented that there is a need to be guided with the necessary teaching styles to be employed in the classroom to cater the learning styles of pupils for improved learning.

Conceptual Framework

Teachers have a choice of how they approach the teaching-learning transaction. This approach is referred to as teaching style. The term teaching styles has been used in various ways in differing research. Some define teaching style in relationship to the characteristics of the teacher. These characteristics may include the ways that the teacher approaches problem-solving or making decisions related to teaching (Mazaheri & Ayatollahi, 2019) or their personal qualities and attitudes demonstrated in the methods and activities in teaching specific topics (. In this view, the teaching style combines personal factors such as motivation and beliefs and the techniques and strategies comfortably used in teaching (Karimnia & Mohammadi, 2019).

Although the term teaching style has been applied in various ways, overall, the teaching styles of teachers represent their behavior while teaching in the classroom (Sim & Mohd Matore, 2022). Despite these many nuances, the overall concept of teaching style can be defined as "the distinct qualities displayed by a teacher that are persistent from situation to situation regardless of the content". Teaching style is related to educational philosophy, and "in today's school, there are essentially two types of teaching philosophies, teacher-centered and student-centered teachers. Their philosophies are different" (Gibbs, 2021). These two philosophies differ fundamentally in the educator's view of the role of the teacher in the teaching-learning process. Research supports that these two styles are distinct constructs rather than "two sides of the same coin" (Shah, 2020).

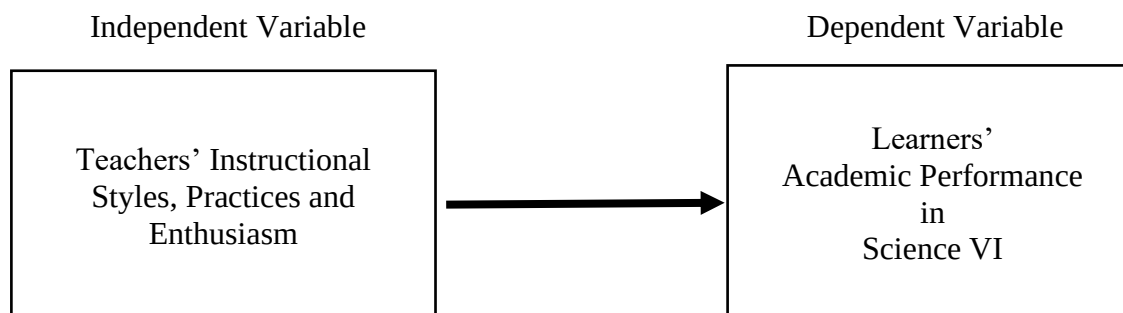
Meanwhile, Jimenez (2020) asserted that instructional practices are techniques that teachers use to help students become independent and strategic learners. These strategies become learning strategies when students select the ones and use them to accomplish tasks or meet goals. Instructional practices were used to describe planning strategies, instructional strategies, and the assessment practices of teachers. Instructional practices are about ongoing interaction between teachers and their students through the elements of teaching and learning. This includes a diversity of techniques, like organizing the physical environment, creating rules and procedures, preserving students' attention to lessons, and commitment in activities. Instructional practices are a matter of concern among teachers everywhere.

Definitions for the concept of "teacher enthusiasm" have evolved dramatically over time. During the 1970s, teacher enthusiasm was firmly equated with displayed enthusiasm and regarded as instructional behaviors including "vocal delivery, eyes, gesture, movements, facial expression, word selection, acceptance of ideas and feelings and overall energy level". Teacher enthusiasm referred solely to teachers' experienced enthusiasm, namely the subjective emotional experience of enjoyment in teaching that forms the integral part of teacher motivation. This two-dimensional conceptualization with an exclusion of behavioral expressions disconnected enthusiasm from the literature of displayed enthusiasm and made it difficult to disentangle it from teacher enjoyment. In addition, the exclusion of the behavioral expression of teacher enthusiasm also limited the conceptualization of the perception, transmission, and communication of teachers' enthusiasm in the classroom (Dewaele and Li, 2021).

In general, the theories, concepts and literature mentioned and discussed above will serve as guide in the conduct of the present undertaking.

It can be noticed from Figure I that the independent variables are the teachers' instructional styles, practices and enthusiasm. These variables were hypothesized to have a significant influence (as implied by the arrowhead) to the dependent variable which is the learners' academic performance in Science.

Figure 1.
Paradigm of the Study



Statement of the Problem

This study determined the relationship between teachers' instructional styles, practices and enthusiasm and the Science academic performance of learners among public elementary schools in Angat District, Angat, Schools Division Office of Bulacan, School Year 2024–2025.

Specifically, it sought answers to the following questions:

1. How may the teachers' instructional styles as assessed by themselves and school leaders be described in terms of:
 - 1.1 directing;
 - 1.2 discussing; and
 - 1.3 delegating?
2. How may the teachers' instructional practices as assessed by themselves and school leaders be described in terms of:
 - 2.1 planning;
 - 2.2 delivery; and
 - 2.3 assessment?
3. How may the teachers' enthusiasm as assessed by themselves and school leaders be described in terms of:
 - 3.1 interest;
 - 3.2 interaction;
 - 3.3 enjoyment; and
 - 3.4 creativity?
4. How may the learners' academic performance in Science 6 be described?
5. Is there a significant difference between the teachers' instructional styles, practices and enthusiasm when assessed by themselves and school leaders?
6. Is there a significant relationship between teachers' instructional styles, practices and enthusiasm and the learners' academic performance in Science?
7. What are the respondents' views and insights with regard to teachers' instructional styles, practices and enthusiasm?
8. What program of activities can be crafted from the results of the study?

Hypotheses

The following hypotheses were tested in the study:

1. There is no significant difference between the teachers' instructional styles, practices and enthusiasm when assessed by themselves and school leaders.
2. There is no significant relationship between teachers' instructional styles, practices and enthusiasm and the learners' academic performance in Science.

Significance of the Study

The present study is significant because it addresses a pressing issue of low academic achievement of learners in Science. Given the widespread implementation of various programs to improve learners' performance in the aforementioned subject, understanding the influence of teachers'

instructional styles, practices and enthusiasm on learners' academic performance in Science is critical for improving the teachers' teaching styles and practices. Ultimately, the findings of the study will be beneficial to the following:

Science Teachers. Findings of the study will provide the Science teachers useful data about the influence of their instructional styles, practices and enthusiasm on learners' academic performance in Science. Further, these teachers would be able to be more flexible in their teaching styles and practices that is suited to the needs of the learners. Moreover, these teachers will be more enthusiastic in teaching Science if the learners are more engaged and participative in class discussions.

Learners. The learners being the primary beneficiary of the study will learn more if the teachers are utilizing the most appropriate instructional styles and practices in teaching Science. Moreover, if they see the enthusiasm of their teachers, these learners will be more motivated in learning the lessons.

School Heads. Results of the study will provide the school heads vital information on the influence of teachers' instructional styles, practices and enthusiasm on learners' academic performance in Science. Additionally, they can offer programs that will positively develop the teachers' instructional styles and practices in teaching that will make them more enthusiastic in teaching Science.

Future Researchers. Results of the present study can provide future researchers essential data of the variables under study. They can consider adding other variables such as learners' learning styles and strategies in their studies to further validate the present research findings.

Scope and Limitation of the Study

This study was primarily focus on the determining the relationship between teachers' instructional styles, practices and enthusiasm and learners' academic performance in Science. This was conducted in public elementary schools in Angat District, Angat, Bulacan using explanatory sequential as research design. Selected learners from Grades 6 with their teachers and school leaders (master teachers and school heads) served as respondents of the study which was conducted in the third quarter of School Year 2024-2025.

The variables under study were limited only to teachers' instructional styles, practices and enthusiasm and learners' academic performance in Science. The teachers' instructional styles were described in terms of directing, discussing and delegating while their instructional practices focused only to planning, delivery and assessment. Meanwhile, the teachers' enthusiasm was limited only to factors such as interest, interaction, enjoyment and creativity. The learners' academic performance was based on their grades in Science in the second grading period.

RESEARCH METHODS

The information about the research and sampling procedures that were utilized by the researcher are provided in this chapter. The research design that will be employed, as well as the data gathering techniques, and data analysis scheme are also discussed in this chapter.

Research Design

In order to attain the objectives of the study, the researcher utilized the explanatory sequential design of mixed methods research. According to Creswell and Clark (2018), this research design emphasizes the quantitative phase, followed by the qualitative phase. The purpose of the second qualitative phase is often to explain the results discovered in the first quantitative phase, and sometimes to explain outliers that are not entirely consistent with the collected data. Since the analysis of qualitative data is used to explain the quantitative phase's results, thus the term 'explanatory'. Researchers often choose this design if they are quantitatively oriented and comfortable doing research in this manner.

In the study, the researcher determined the relationship between teachers' instructional styles, practices and enthusiasm and the Science academic performance of learners. This was done by collecting the quantitative data first by means of administration of closed-ended questionnaires which followed by statistical analysis. From the quantitative findings, open-ended questions were formulated to obtain the qualitative data through semi-structured interview. The collected data from this phase was then be analyzed and results were integrated to quantitative findings of the study to arrive at a more in-depth and comprehensive discussion of the research topic.

Sampling and Respondents

In collecting the quantitative data needed in the study, total enumeration was applied for the teachers and school leaders. All the 16 teachers who were teaching Science and 34 school leaders in the Angat District were requested to participate in collecting the quantitative data. For the learner respondents, proportionate stratified random sampling was employed in getting the samples. Only 10 percent of the learners in each school served as respondents of this research.

Table 1.
Respondents of the Study

No.	School	Teacher	Learner		School Leader	
			N	n	School Head	Master Teacher
1	Antonio C. Cruz-Sulucan Elem School	1	87	9	1	1
2	Atilano S. De Guzman Elem School	1	55	6	1	1
3	Baybay Elem School	1	24	2		1
4	Benito C. Cruz Elem School	2	66	7	1	1

5	Col. Vicente L. Salvador Elem School	1	30	3	1	1
6	Don Pablo Amisola Mem School	1	57	6	1	1
7	Dr. Antonio C. Villarama Mem School	1	75	8	1	1
8	Francisco F. Illescas Elem School	1	132	13	1	2
9	Marcelo L. Adriano Mem School	1	87	9	1	1
10	Matias A. Fernando Mem School	2	272	27	1	7
11	Osias M. Esteban Elem School	1	183	18	1	1
12	Pablo C. Capistrano Elem School	1	31	3	1	1
13	Paltok Elem School	1	45	5	1	1
14	Teodoso R. Manuel Elem School	1	67	7	1	1
Total		16	1211	123	13	21

For the qualitative part of the study, 1 teacher per school was selected at random using the lottery technique to participate in the interview. In this method all teachers' names were numbered on separate slips of paper of same size, shape and color. These papers were folded and mixed up in a box. A blindfold selection was made to select the 14 teachers who were subjected to interview

Instruments

In order to answer the problems provided in the preceding chapter, quantitative and qualitative data were collected.

For the quantitative data collection, closed ended adapted questionnaires which is composed of three parts will be used. Part I of the questionnaire was adapted from Tindog and Celestial (2021) will be utilized to describe the teachers' instructional styles. Meanwhile, Part II was adapted from Bibon (2022) will be utilized to describe the teachers' instructional practices. On the other hand, Part III which will be used to describe the teachers' enthusiasm was adapted from Punia and Bala (2021). These adapted questionnaires were modified in order to fit the current situation of education in the country. Further, some items were added/deleted in some categories for uniformity purposes. The learners' academic achievement in Science will be gathered from their teachers.

For the qualitative data gathering, self-made open-ended questions were formulated by the researcher in consonance with the quantitative findings of the study. Furthermore, consultation with the adviser was done to check the interview questions.

Data Gathering Procedure

Before conducting the study, the researcher accomplished all documents required by the DepEd-Bulacan and by the Institute of Education. After completing these requirements, a request letter was sent to the public elementary schools in Angat District, Angat, Bulacan as respondents of the study. Upon receiving the approved permit to conduct the study, the researcher coordinated with the principals of the schools for the schedule of the quantitative and qualitative data collection.

The researcher personally administered the questionnaire and conducted the interview with the public elementary school teachers and learners. In the administration of the survey questionnaires, respondents were given enough time to answer the said questionnaire. In the same manner, they were given the rights to refrain answering the questions being asked during the interview whenever they wish to.

Data Analysis

Mean was used to describe the teachers' instructional styles, practices and enthusiasm and the Science academic performance of learners. Finally, correlation analysis was performed to determine if significant relationship existed between teachers' instructional styles, practices and enthusiasm and the Science academic performance of learners. To interpret the collected qualitative data, thematic analysis was done.

Ethical Considerations

The researcher took necessary measures to adhere to ethical protocols during the conduct of the study. Before commencing the study, the researcher obtained permission from schools division superintendent of Bulacan. Additionally, informed consent was acquired from all respondents. The respondents were provided with comprehensive information regarding the study's objectives. While the respondents were encouraged to take part, they were assured that they have the right to decline participation without any obligation. Therefore, all participants completed the questionnaires were voluntary. To safeguard the privacy and confidentiality of the respondents, the researchers ensured that no personal information were disclosed. These ethical considerations were meticulously addressed, demonstrating the commitment of the researchers to conduct a high-quality and ethically sound study. Moreover, they were informed that all data collected were used solely for the completion of the study and after passing the final defense in March 2025, the gathered electronic data stored in the researcher's laptop was permanently deleted. Additionally, the hard copy of the questionnaires was destroyed through shredding.

RESULTS AND DISCUSSIONS

The Learners' Academic Performance in Science 6

Table 1 presents the academic performance of the learners which was based on their grades in Science 6.

Table 1.

The Distribution of Learners when Grouped According to Academic Performance in Science

Grading Scale	Frequency (N=123)	Percentage	Descriptor	Remarks
90 – 100	66	53.66	Outstanding	Passed
85 – 89	49	39.84	Strongly Satisfactory	Passed
80 – 84	8	6.50	Satisfactory	Passed
75 – 79	0	0.00	Fairly Satisfactory	Passed
Below 75	0	0.00	Do Not Meet Expectations	Failed
Mean			90.85	
VD			Outstanding	
SD			3.80	

It can be noted from the table that majority or 53.66 percent of the Grade 6 learners received grades that lie within the highest bracket of 90 to 100 with a verbal description of “outstanding” (passed). Meanwhile, only 6.50 percent obtained grades from 80 to 84 with a verbal description of “satisfactory” (passed). A closer look at the table shows that the mean was calculated at 90.85 (outstanding) while the standard deviation which measured the spread of the learners' grades from the mean was computed at 3.80.

This suggests that the grades are clustered more closely around the mean or average, meaning there is less variation and more consistency in learners' performance in Science 6.

The learners' higher grades in science can lead to improved future academic and career opportunities, enhanced problem-solving abilities, and potentially greater success in STEM fields. They can also boost confidence and motivation in learning, as well as offer a foundation for future educational pursuits and career paths.

The Difference between Teachers' Instructional Styles, Practices and Enthusiasm when Assessed by Two Groups of Respondents

Table 2 presents the results of the t-test analysis which was performed to determine if significant difference existed between the assessments of the two groups of respondents as regards elementary school teachers' instructional styles, practices and enthusiasm.

Table 2

Results of the t-test Analysis on the Difference between Teachers' Instructional Styles, Practices and Enthusiasm when Assessed by themselves and School Leaders

Item	Mean		Mean Diff.	t-value	p-value
	Teacher	School Leader			
<i>Instructional Styles</i>					
Directing	4.73	4.61	0.12	2.905*	0.029
Discussing	4.85	4.72	0.13	2.998*	0.018
Delegating	4.70	4.63	0.07	0.951ns	0.369
<i>Instructional Practices</i>					
Planning	4.69	4.60	0.09	2.613*	0.041
Delivery	4.75	4.66	0.09	2.618*	0.042
Assessment	4.81	4.61	0.20	3.829**	0.005
<i>Enthusiasm</i>					
Interest	4.88	4.68	0.20	4.585**	0.002
continuation of Table 13			0.10		

interaction	4.86	4.76		2.687*	0.040
Enjoyment	4.86	4.76	0.10	2.688*	0.040
Creativity	4.73	4.66	0.07	1.343ns	0.216

Legend: ns = not significant ($p > 0.05$) ** = highly significant ($p \leq 0.01$) * = significant ($p \leq 0.05$)

It can be noted from the table that significant ($p \leq 0.05$) to highly significant ($p \leq 0.01$) differences were found between the assessments of the two groups of respondents with regard to instructional styles in terms of directing and discussing, instructional practices in terms of planning, delivery and assessment, and enthusiasm in terms of interest, interaction and enjoyment. Results also showed that teachers are consistent of having higher assessments as compared to school leaders.

This means that teachers are confident that they utilized effective instructional styles and practices and showed enthusiasm in teaching. However, the school leaders observed that these teachers need some improvements in order to meet their expectations.

The Relationship between Teachers' Instructional Styles, Practices and Enthusiasm and Learners' Academic Performance in Science

Table 3 displays the results of the correlation analysis which was performed to determine if significant relationship existed between the teachers' instructional styles, practices and enthusiasm and learners' academic performance in Science 6.

Table 3

Results of the Correlation Analysis on the Relationship between Teachers' Instructional Styles, Practices and Enthusiasm and Learners' Academic Performance in Science

Item	Learners' Academic Performance in Science	
	r-value	p-value
Instructional Styles	0.837**	0.000
Instructional Practices	0.849**	0.000
Enthusiasm	0.802**	0.000

Legend: ** = highly significant ($p \leq 0.01$)

It can be examined in the table that highly significant relationship existed between the teachers' instructional styles, practices and enthusiasm and learners' academic performance in Science 6 as manifested by the computed probability value of 0.000 which is less than the 0.01 significance level. A close examination of the table reveals that highly positive correlation was found between the aforementioned variables as indicated by the computed r-values of 0.837 for instructional styles, 0.849 for instructional practices and 0.802 for enthusiasm. This suggests that an increase in the level of learners' academic performance in Science can be expected for every level of increase in the teachers' instructional styles, instructional practices and enthusiasm.

This signifies that when teachers are enthusiastic, utilize effective instructional styles, and create positive learning environments, learners tend to be more engaged, motivated, and ultimately, perform better academically. Further, enthusiastic teachers create more engaging learning environments, and learner-centered approaches can also boost performance.

Program of Activities Crafted from the Results of the Study

Since big gaps were found between the assessments of the teachers and the school leaders as regards the variables in the study, the researcher offers the program of activities which is presented in Table 4

Table .4

Proposed Program of Activities

Objectives	Action	Timeline	Persons Involved	Expected Outcome
To address the gaps between the assessments of the two groups of respondents	Meeting	1 st Quarter of S.Y. 2024-2025	Researcher, School leaders, Teachers	Same assessments from respondents.

Findings

This study determined the relationship between teachers' instructional styles, practices and enthusiasm and the Science academic performance of learners among public elementary schools in Angat District, Angat, Schools Division Office of Bulacan, School Year 2024–2025.

Using the procedures described in the preceding chapter, the answers to the problems raised in this study were ascertained and summarized as follows: Findings revealed that the teachers practiced effective instructional styles in terms of directing, discussing and delegating “very often.”

In the same manner, the teachers highly practiced effective instructional practices in terms of planning, delivery and assessment.

Consequently, the teachers are highly enthusiastic in terms of interest, interaction, enjoyment and creativity.

Meanwhile, the learners' academic performance in Science 6 was described as "outstanding."

Significant differences were found between the assessments of the two groups of respondents with regard to instructional styles in terms of directing and discussing, instructional practices in terms of planning, delivery and assessment, and enthusiasm in terms of interest, interaction and enjoyment. Teachers registered higher assessments as compared to school leaders.

Highly significant relationship existed between the teachers' instructional styles, practices and enthusiasm and learners' academic performance in Science 6.

Conclusions

Based on the findings of the study, the following conclusions were drawn: The learners performed outstanding in Science 6. The teachers' instructional styles, practices and enthusiasm are positively correlated to learners' academic performance in Science 6.

Recommendations

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

1. The schools may implement the program of activities crafted from the results of the study.
2. For future researchers, qualitative research can be conducted to validate the results of the present study.

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