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Differentiated Learning Instruction Strategy on Learners' Academic Achievement in Edukasyon Sa Pagpapakatao

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ABSTRACT: In modern times, teaching strategies are evolving from traditional ones to modern ones. Differentiated learning instruction is one of the teaching strategies that is diverse in nature and is flexible. This study was conducted to determine the effects of differentiated learning instruction strategy on learners' academic achievement in EsP at Hinaplanan National High School, Hinaplanan, Claveria, Misamis Oriental, School Year 2023-2024. It specifically sought to find the effects of differentiated learning instruction strategy on learners' academic achievement in Edukasyon sa Pagpapakatao, examine the learners' attitude towards Edukasyon sa Pagpapakatao, determine the significant difference in the learners' academic achievement in the EsP pretest and posttest when grouped according to their attitude towards EsP, and determine the effect of differentiated learning instruction strategy on learners' academic achievement in Edukasyon sa Pagpapakatao. The respondents were the sixty (60) Grade 7 learners. It made use of quasi-experimental method of research with the instrument that was adapted from the self-learning modules (2020) of Edukasyon sa Pagpapakatao 7 and a researcher-made questionnaire on learners' attitude towards the subject. Descriptive statistics such as frequency, percentage, mean and standard deviation as well as T-test were used to determine the significant difference in the learners' academic achievement in EsP pretest and posttest and their attitude towards EsP. The findings of the study highlighted that the psychomotor domain has the highest mean which rated as outstanding. It revealed that there was a significant effect of differentiated learning instruction strategy on learners' academic achievement in Edukasyon sa Pagpapakatao. Through the revision and modification of the lesson's subject matter, delivery and strategies, it increases student involvement, and it increases also their participation. With it, the academic achievement of learners improved. Further, on the learners' attitude towards Edukasyon sa Pagpapakatao, the result for both groups, experimental and control, was described as agree and positive. Learners already hold a positive attitude of the subject they are studying since then. Thus, the positive attitude increased motivation, engagement, and a stronger desire to learn. It can be concluded that differentiated learning instruction strategy is effective when it comes to improving learners' academic achievement in Edukasyon sa Pagpapakatao 7. It is recommended that school administrators and teachers should work collaboratively in utilizing differentiated learning instruction strategy to sustain learners' achievement in Edukasyon sa Pagpapakatao.

KEYWORDS: differentiated learning instruction strategy, academic achievement

I. INTRODUCTION

Differentiated learning instruction is the strategy of adapting teachings to each learner's unique interests, abilities, and strengths. It allows teachers to modify learning while providing learners with choice and flexibility in how they learn. Because of its specific instruction and learning goals, it helps learners better achieve learning objectives. The strategy might help enhance learners' academic achievement in the ESP subject.

Edukasyon sa Pagpapakatao is a subject that teaches the basic principles of life and its influence on human behavior. Formerly, the subject was called Values Education, then Edukasyon sa Pagpapahalaga, and now it is called Edukasyon sa Pagpapakatao and is part of the Curriculum of K to 12. The learning area is taught twice a week based on the "Policy Guidelines on the Implementation of Grades 1 to 10 of K to 12 Basic Education Effective School Year 2012-2013" (DO.No. 31, s. 2012) . The time allotted is only two hours a week.

As observed, classes on Edukasyon sa Pagpapakatao are often taken for granted by the learners. This may be because of the time allotment. They look at the subject as not as important as the other subjects and feel uninterested in it. For this reason,

the researcher believes that making the subject interesting is done by using a differentiated learning instruction strategy and varied activities to develop learners' interest in learning and love of the subject.

According to Sapan and Mede (2022), differentiated instruction is a teaching strategy that addresses the difficulties of accommodating the diverse needs and characteristics of students in an inclusive learning environment. In meeting the needs of varied learners, differentiated instruction usage in the teaching-learning process is essential. Based on the Classroom Assessment guidelines of the K to 12 Basic Education Program it is necessary for the curriculum because It allows the teachers to track learners' progress and to modify instruction accordingly. It helps change the instruction according to the needs of the learners. The use of differentiated instruction in the class is applicable to tracking the learners' needs and progress.

Furthermore, Republic Act No. 10533 uses the right teaching and learning languages to make education learner-oriented and sensitive to the requirements, circumstances, diversity, and cognitive and cultural capabilities of students, schools, and communities. Education is learner-centered and responsive to the needs of the learners. In addressing learners' needs, teachers have a great role in adjusting instruction appropriately and using differentiated instruction in the class. "Enclosure No. 1 Understanding by Design and the Differentiated Classroom: Responding to the Needs of Learners" (DepEd Memorandum No. 431 s. 2009). Matching your instructional approach to the needs and interests of every student is one way to address the learners' needs in teaching and learning. With this, the teacher will be able to find ways to handle the class with the use of a differentiated instruction strategy.

Lastly, the teacher must accept that students vary in many perspectives and "prepare and design curriculums according to the student's interests and abilities, using various channels of presenting the lessons and with varied complexity. Adjusting the assessment is significant in every lesson, for it may achieve appropriate assessment and satisfactory learner achievement" (Desinguraj and Gnanam, 2021).

In the School Year 2022-2023 of Hinaplanan National High School, Curriculum Management Support System (CMSS) result revealed that Edukasyon sa Pagpapakatao particularly in Grade 7; during Quarter 1, out of 125 learners, 3% of the population has the lowest achievement result which was fairly satisfactory, on Quarter 2, it became 8%, on Quarter 3, it became 10%, and on Quarter 4 it increased to 15%. The low achievement result for Grade 7 in the ESP subject was growing. Through this, the researcher believes that there is a need to make the subject interesting to facilitate learning. Hence, this study is premised on the result of differentiated learning instruction strategy on learners' achievement in Edukasyon sa Pagpapakatao at Hinaplanan National High School, Claveria, Misamis Oriental.

II. METHODOLOGY

This study used the quasi-experimental method of research, a pretest-posttest design. It involved the experimental group and control group with pretest and posttest. The experimental group received treatment under observation, while the control group received treatment in a usual teaching manner (Schweizer, Braun & Milstone, 2016).

The study utilized the same set of individuals, which was assessed both before and after the intervention in a pretest-posttest for the two groups of Grade 7 classes from a regular section. This was carried out to differentiate the cause-and-effect relationship and to teach the effectiveness of the treatment. The objective is to track how the treatment influences the participants' behavior or traits.

Having collected and recorded the data gathered in the study, the following statistical tools were used:

Descriptive statistics, such as frequency, percentage, mean, and standard deviation, were used to describe the variables in the study. T-test was used to determine the significant difference in the learners' academic achievement in EsP pretest and posttest when grouped according to their attitude towards EsP. Regression analysis was employed to determine the effect of differentiated learning instruction strategy on the learners' achievement in Edukasyon sa Pagpapakatao.

III. RESULTS AND DISCUSSION

Problem 1. How effective is a differentiated learning instruction strategy on learners' academic achievement in Edukasyon sa Pagpapakatao pretest and posttest of the experimental and control group in terms of cognitive, affective, and psychomotor domains?

Table 1 presents the summary of the learners' academic achievement in EsP pretest and posttest of experimental and control group in terms of cognitive, affective and psychomotor domains. It reveals that an overall result had a significant change on their mean scores. This means that before the differentiated instruction was exposed to the experimental group, it had an overall mean of 0.57 (SD=0.49), described as Satisfactory and the mean of 0.39 (SD=0.54) for the control group. After the differentiated instruction was applied, the experimental group performed much better in their posttest than the control group with an overall mean of 0.9 (SD=0.35), described as Outstanding, while the control group with traditional teaching had an overall

mean of 0.52 (SD=0.54) described as Satisfactory. This indicates that those group that differentiated instruction of learning were introduced and applied, resulted with a positive and encouraging outcome especially in the three domains the cognitive, affective and psychomotor. This proves that applying differentiated instruction makes a significant difference than the traditional learning. Acknowledging and responding to students' varied requirements, skills, and interests which greatly improves learners' learning. Differentiated learning instruction strategy provides a more individualized, interesting, and encouraging learning environment than traditional education, which frequently uses the same approach with every learner. Learners perform better overall, achieve greater academic results, and are more motivated as a result. The intervention is a useful substitute for usual teaching techniques because of its ability to provide comprehensive, efficient, and interesting learning experiences, even though it needs considerable preparation and resources.

In the study of Mendoza (2019), the use of differentiated instruction has found to be an effective strategy in increasing student's individual achievement while addressing their individual needs. Differentiated instruction strategy significantly improved learners' achievement in values education, particularly in terms of their understanding of values and moral principles.

Thus, these three domains are essential for the learning of the students. The cognitive helps the learners know the topic at hand and what they learned on the other hand the affective connects their behavior and emotions to what they believe, values and interests. Students have the ability to carry out lessons through execution and implementation in cognitive learning. Students have the active attention and proper motivation to learn, are willing to respond, feel satisfied and have the attitude of worth, beliefs, acceptance, preference and commitment of values in effective learning. Students can relate to body movement, visuals, auditory, touch or coordination and the ability to take information from the environment in psychomotor learning" (Mallillin, 2020; de Leon& Oco, 2024).

Table 1. Learners' Academic Achievement in ESP Pretest and Posttest of Experimental and Control Group

			Ex	perimental					Cor	ntrol		
DOMAIN		PRE	TEST	POSTTEST				PRE	ΓEST		POST	TEST
	Mean	SD	Description	Mean	SD	Description	Mean	SD	Description	Mean	SD	Description
COGNITVE	0.42	0.58	Fairly Satisfactory	0.82	0.47	Very Satisfactory	0.32	0.60	Did not Meet Expectation	0.40	0.60	Fairly Satisfactory
AFFECTIVE	0.56	0.53	Satisfactory	0.91	0.34	Outstanding	0.34	0.55	Fairly Satisfactory	0.46	0.66	Fairly Satisfactory
PSYCHOMOTOR	0.74	0.37	Very Satisfactory	0.98	0.20	Outstanding	0.50	0.45	Satisfactory	0.69	0.38	Satisfactory
OVERALL	0.57	0.49	Satisfactory	0.90	0.35	Outstanding	0.39	0.54	Fairly Satisfactorv	0.52	0.54	Satisfactory

Legend: 0.9-1.0 (90-100) Outstanding 0.5-0.6 (80-84) Satisfactory 0.2-below (Below 75) Did not Meet Expectations 0.7-0.8 (85-89) Very Satisfactory 0.3-0.4 (75-79) Fairly Satisfactory

In addition, the table shows that the experimental group has the highest mean from pretest in the psychomotor domain which is 0.74 (SD=0.37), described Very Satisfactory to posttest mean of 0.9 (S. D=0.35) described as Outstanding. It means that the group maintains its high performance in the said domain. It implies the importance of differentiation in the instruction to see the improvement of learners' achievement. It was observed in the results the difference of mean between the experimental and control groups. The results give a conclusion that when applying differentiated instruction it has a significant impact on the test scores of the experimental group. The experimental group's performance in the psychomotor domain has significantly improved, going from being very satisfactory to exceptional. The success of the intervention is demonstrated by the little change in standard deviation, which shows that this improvement was relatively consistent across the group. This development shows that learners have mastered the skills and are now more proficient at completing psychomotor tasks. The findings stresses that the teaching strategies employed were very successful in assisting learners in developing high-level, long-lasting skills. The experimental group that received differentiated instruction had a significant improvement in their achievement in values education compared to the control group.

On the other hand, the lowest mean for the experimental group is in the cognitive domain, which is 0.42 (SD=0.58), described Fairly Satisfactory in pretest to posttest mean of 0.82 (SD=0.43), described as Very Satisfactory. It means that there is an improvement in their cognitive result. This implies that the group has shown considerable enhancement in the cognitive domain, demonstrating notable advancement in the domain. It was seen that the intervention fostered improvement in the

learner's performance. The strategies employed were particularly effective in enhancing the learner's capacity to comprehend, apply, and engage with cognitive tasks. The results are encouraging, and with ongoing support, learners have the capacity to achieve even greater heights in cognitive skills and comprehension. With proper guidance and resources, they can utilize on their existing progress and further improve their critical thinking, problem-solving abilities, and effective application of knowledge.

The result of Supena, Darmuki, and Hariyadi (2021) studies showed the significant values in cognitive, psychomotor, and affective domains through learning models. It influences the students' learning outcomes and improves them.

Furthermore, for control group, the table shows that the highest mean from pretest to posttest is in psychomotor domain, which was 0.50 (SD=0.45) in the pretest described as Satisfactory to posttest mean of 0.69 (SD=0.38) described also as Satisfactory. It means that the group showed a slight enhancement in the psychomotor domain. This implies that although some advancement was made, the group's performance remained at an average level. In addition, the reduction in standard deviation (from 0.45 to 0.38) stresses that learners performances became more consistent following the intervention. However, the findings give awareness that the traditional instructional methods employed for the control group may not have been as effective in developing high-level psychomotor skills compared to the intervention implement to the experimental group.

Moreover, for the control group, the table shows that the lowest mean from pretest to posttest is in cognitive domain, which was 0.32 (SD=0.60) in the pretest described as fairly satisfactory to posttest mean of 0.40 (SD=0.60) described also as Fairly Satisfactory. It means that learners' cognitive capabilities in this domain were somewhat limited, and although there were some developments, it was minimal. It implies also that both test fall within the same description which is fairly satisfactory, indicating that the learners' cognitive abilities did not show significant improvement following the intervention. It was observed that the instructional strategy implemented for the control group may not have been effective in promoting advanced cognitive skills. The cognitive tasks assigned were either too difficult for the learners or that the intervention did not sufficiently target the cognitive deficiencies of the learners. It may be that the methods used have not offered adequate opportunities for learning, critical thinking activities. "According to numerous research studies, the advantages of modern teaching methods are more prominent. The modern teaching method can better cultivate the talents of students, can be used in special education, and so on" (Wang & Li, 2020).

Problem 2. What is the learner's attitude towards Edukasyon sa Pagpapakatao?

Table 2. Distribution of Learners' Attitude Towards Edukasyon sa Pagpapakatao of the Experimental Group

Indicators	Mean	SD	Description			
In the grade where I am now, EsP is one of my most liked subject.	3.41	2.92	Agree			
I receive teachings or applications for life in the field of EsP.	3.09	2.72	Agree			
EsP subject helps me in distinguish on what is good and bad.	3.41	3.06	Agree			
I am much concerned to learn the EsP subject.	3.09	2.70	Agree			
The good thing about EsP subject, it aids me improve my personality.	3.28	2.92	Agree			
I enjoy the way that the EsP subject is taught.	3.03	2.60	Agree			
I take part in group projects and class discussions in EsP.	3.13	2.73	Agree			
I find ESP as a simple and easy subject.	2.75	2.37	Agree			
In the EsP class, I feel amazing and deserving.	3.44	2.98	Agree			
I became more self-assured, driven, and delighted in our EsP classes every time.	3.31	2.89	Agree			
I study ahead of time before our teacher tackled the topic.	2.84	2.45	Agree			
I submit my journal and project in advance in EsP subject.	3.13	2.73	Agree			
In our class, I am free to voice out my opinions, views and beliefs.	3.03	2.68	Agree			
I am happy with the knowledge I've gained from the EsP subject.	3.03	2.67	Agree			
I can think creatively in EsP subject.	3.16	2.75	Agree			
Overall	3.14	2.74	Agree			

Legend:

3.51 – 4.50 Strongly Agree	Very Positive	1.76 - 2.50	Disagree	Negative
2.51 – 3.50 Agree	Positive	1.00 - 1.75	Strongly Disagree	Very Negative

Table 2 presents the distribution of learners' attitude towards EsP subject on experimental group with an overall mean of 3.14 (SD = 2.74), described as Agree. This means that learners' attitude towards Edukasyon sa Pagpapakatao of the experimental group is positive. This implies that learners valued the subject with positivity. As observed, most students accept or approve the subject, which may be due to more significant content, interesting teaching strategies, or a stronger bond with the subject matter.

Additionally, ESP is valuable to the experimental group, which promotes ongoing interest and involvement. Edukasyon sa Pagpapakatao is not just a subject, but it gives changes in the lives of the learners. The of study of Santos (2020) concluded that values education had a positive impact on students' academic achievement, particularly in terms of their attitude and behavior towards learning.

Further, the indicator In the EsP class, I feel amazing and deserving has the highest mean of 3.44 (SD = 2.98) described as Agree. This means that this indicator of learners' attitude towards Edukasyon sa Pagpapakatao of the Experimental Group is positive. This implies that the learners really feel great and worthy in the subject. They are confident in the subject. It was noticed that most of the students found it agreeable that they felt great about the subject matter. In addition, a very positive outlook indicates that ESP is a source of emotional engagement, self-worth, and personal support for many learners. However, teachers might need to look more closely at how to continuously encourage these emotions in the entire class, making sure that every student feels equally respected and in control. According to the study by Cruz (2020), differentiated instruction had a positive impact on learners' attitudes toward values education, leading to increased motivation and engagement in the subject.

Furthermore, the indicator I find EsP as a simple and easy subject has the lowest mean of 2.75 (SD = 2.37), described as Agree. This means that this indicator of learners' attitude towards Edukasyon sa Pagpapakatao of the Experimental Group was positive but with more steps to do for enhancement. It implies that learners find the subject manageable. It was seen that regardless of the result toward agreement, some students find EsP simple and easy to understand, while others may find it more difficult. This discrepancy results from varying prior knowledge or instructional methods. Educators must consider reviewing the methods used to ensure that the subject is both accessible and sufficiently engaging, providing learners with opportunities to think critically and reflect on deeper issues. It is necessary to maintain an approach that fosters confidence while also challenging learners to grow intellectually and personally.

According to Santos (2020) and Oco (2023) most students perceived Values Education as important, relevant, and effective in teaching them important values such as respect, responsibility, and empathy. Values education helps children succeed academically and socially and is essential in forming their personal growth. The curriculum is in line with students' life experiences and personal development when they believe it to be pertinent, significant, and effective.

Table 3. Distribution of Learners' Attitude Towards Edukasyon sa Pagpapakatao of the Control Group

Indicators	Mean	SD	Description
In the grade where I am now, EsP is one of my most liked subject.	3.55	2.86	Strongly Agree
I receive teachings or applications for life in the field of EsP	3.32	2.86	Agree
EsP subject helps me in distinguish on what is good and bad.	3.35	2.95	Agree
I am much concerned to learn the EsP subject.	3.19	2.82	Agree
The good thing about EsP subject, it aids me improve my personality.	3.16	2.76	Agree
I enjoy the way that the EsP subject is taught.	3.03	2.60	Agree
I take part in group projects and class discussions in EsP.	3.03	2.68	Agree
I find ESP as a simple and easy subject.	2.90	2.48	Agree
In the EsP class, I feel amazing and deserving.	3.10	2.75	Agree
I became more self-assured, driven, and delighted in our EsP classes every tir	me. 3.13	2.70	Agree
I study ahead of time before our teacher tackled the topic.	3.03	2.63	Agree
I submit my journal and project in advance in EsP subject.	3.13	2.68	Agree
In our class, I am free to voice out my opinions, views and beliefs.	3.13	2.74	Agree
I am happy with the knowledge I've gained from the EsP subject.	3.13	2.69	Agree
I can think creatively in EsP subject.	3.00	2.59	Agree
Overall	3.15	2.72	Agree
egend: 3.51 – 4.50 Strongly Agree Very Positive 1.76 – 2.50	Disagree		Negative
2.51 – 3.50 Agree Positive 1.00 – 1.75	Strongly Disagro	Strongly Disagree Very Negativ	

Table 3 presents the distribution of learners' attitude towards EsP subject on control group with an overall mean of 3.15 (SD = 2.72) described as Agree. This means that learners' attitude towards Edukasyon sa Pagpapakatao of the control group is positive. This implies that they valued the subject also with positivity. It is seen that the control group had valued the subject same with how the experimental group valued it. It was seen also that EsP subject has an inherent appeal to the learners, even in the face of different teaching intervention or strategy, they value the subject alike. Regardless of whether the learners are in the

control group or an experimental group, the subject have aspects that appeal to them all. These may result from the subjects to learners, such as its emphasis on social duty, character education, and personal growth.

In addition, the indicator In the grade where I am now, EsP is one of my most liked subject has a highest mean value of 3.55 (SD = 2.86), described as Strongly Agree. This means that the students in the control group strongly agree with the statement, and it was interpreted as very positive. It implies that Edukasyon sa Pagpapakatao was one of their favorite and liked subjects. Learners often see the subject as one of their favorites, for it teaches moral values and helps them develop to be better person. ESP echoes with students because it provides real-life experience, promotes emotional and social intelligence, and empowers them to become more responsible individuals. According to Cruz and Delos Santos (2019), students viewed Values Education (Edukasyon sa Pagpapakatao) as a valuable subject that helped them develop important values such as respect, responsibility, and empathy.

On the other hand, the indicator I find ESP as a simple and easy subject has the lowest mean of 2.90 (SD = 2.48), described as Agree. This means that this indicator of learners' attitude towards Edukasyon sa Pagpapakatao of the control group is positive. It implies that most of the students find it agreeable. However, it was observed that they find EsP as not that easy and effortless subject for the result almost falls to a disagree rating. It was also observed that both groups have the same indicator with the lowest mean, "I find ESP as a simple and easy subject". They both have individual experiences toward EsP and both also have the positive opinion on valuing the subject.

According to the study of Cruz and Santos (2019), results on perceptions of high students about Values Education as a learning challenge showed that 75% of students viewed Values Education as a challenge, 60% mentioned inconsistency as major reasons. It was also found that students with higher levels of academic achievement and greater interest in learning reported fewer difficulties in understanding the material.

Problem 3. Is there a significant difference in the learners' academic achievement in EsP pretest and their attitude towards EsP?

Table 4 shows the comparison of the learners' academic achievement in the pretest of the experimental and control group and their attitude towards EsP. It reveals that there is a significant difference in the mean value between experimental group and control group and therefore rejected the null hypothesis. The highest mean is on the experimental group which is 18.42 (SD = 4.39) with a t-value of 23.75 and a p-value of 0.000, interpreted as Significant. It means that the experimental group has the higher mean and it reveals that there is a significant mean difference on learner's academic achievement between the group and control group during pretest and their attitude towards EsP. This indicates that the experimental group gained higher scores through a positive attitude. It was perceived that learners' attitudes and motivations play an important role in their academic achievement. The more learners are motivated and show a favorable attitude on the subject, the more they perform well. This finding gives awareness that experimental settings (such as teaching strategies, resources, or interventions) improved academic achievement or that the experimental group had a more favorable or positive attitude about EsP. Melad (2022) stated that Learners' attitudes towards the subject play an essential role in the learning achievement of learners. It revealed that attitudes have a significant relationship to the academic achievement of the learners.

Table 4. Comparison of the Learners' Academic Achievement in EsP Pretest and their Attitude Towards EsP

Group	Pretest				
	(Attitude towards EsP)				
	Mean	SD	t-value	p-value	Interpretation
Experimental	18.42	4.39	23.75	0.000	Significant
Control	15.32	6.11	13.95	0.000	Significant
annal C Cinnificant	:f D 0 0F	NC N	-+ C:::f:+ :f	D	

Legend: S- Significant if P-value < 0.05 NS- Not Significant if P-value is > 0.05

On the other hand, the control group has the lowest mean value of 15.32 (SD=6.11) and its p-value < 0.05 is interpreted also as significant. It means that the performance of the group is remarkable and is not by chance. This indicates that although the group has a lower mean than the experimental group, the performance is significant. The observed difference is significant and represents a real difference between the two groups' pretest performance, even if the control group's mean score is lower than the experimental groups. It was noticed also that the scores were impacted by variables other than intervention, like prior knowledge, student motivation, and on the subject familiarity.

The study of Steinmayr, Weidinger, Schwinger, and Spinath (2019) stated that achievement motivation is not a single phenomenon but encompasses a variety of different dimensions such as self-efficacy perceptions, job values, goals and

achievement motivation. Few existing studies examined different types of motivation as predictors of school students' academic achievement and job values have greater predictive power of their academic achievement than goals and achievement motivation.

Problem 4. Is there a significant difference in the learners' academic achievement in EsP posttest and their attitude towards EsP? **Table 5. Comparison of the Learners' Academic Achievement in EsP Posttest and their Attitude Towards EsP**

Group	Posttest							
	(Attitude towards EsP)							
	Mean	SD	t-value	p-value	Interpretation			
Experimental	36.11	3.63	56.30	0.000	Significant			
Control	17.28	7.06	13.63	0.000	Significant			

Legend: S- Significant if P-value < 0.05

NS- Not Significant if P-value is >0.05

Table 5 shows the comparison of learners' academic achievement in EsP Posttest and their attitude towards EsP. It shows that there is a significant difference on the mean value between experimental group and control group and therefore rejected the null hypothesis. There is a significant difference in the learners' academic achievement in the EsP posttest of the experimental and control and their attitude towards EsP. Possibly observe that there was an improvement of scores of all the participants in the experimental group. Comparing the mean of the control group (17.28) with the experimental group (which had a higher mean) gives an advantage or additional effects of interventions aimed at improving attitudes towards EsP learning. This helps assess whether interventions designed to induce behavior flight effectiveness result in significant improvements in academic achievement compared to formal instructional methods alone.

The experimental group in the table gained a higher mean difference on learners' academic achievement in EsP posttest when grouped according to their attitude with a mean of 36.11 (SD = 3.63) and p-value > 0.000 described as significant. It means that after the intervention, experimental group boosted in terms of their academic achievement. This shows that students' attitude towards learning Edukasyon sa Pagpapakatao plays an important role in their academic success. Specifically, changes in positive mood were associated with better test scores. It was perceived that the improvement of performance was largely due to the intervention as well as the learners view on EsP subject. The posttest also was the result of positive attitudes combined with successful teaching or intervention which is both statistically and educationally significant.

With these, teachers must not only focus on teaching the curriculum but also encouraging a positive mindset towards the subject. It proves also the study of Cruz (2020) that differentiated instruction had a positive impact on learners' attitudes towards Values Education, leading to increased motivation and engagement in the subject.

Further, the control group has the lowest mean difference of 17.28 (SD = 7.06) and p-value > 0.000 interpreted as significant. It means that learners in the control group showed a little improvement from their previous test scores of 15.32 to 17.28 points. This indicates that the group, that followed the traditional instructional approach without any interventions targeting their attitudes toward EsP, still demonstrated a little increased in their posttest scores. However, the significant difference is real, the lower score is not just random, rather it is a result of conditions, learning experiences, or absence of a particular intervention that were unique to the control group. As perceived also, traditional instructional methods for EsP are somewhat effective in boosting student learning outcomes but unlike the result on the intervention used on the experimental group that shows effectivity. Wang and Li (2020) showed that values education had a positive effect on students' academic achievement. It helps us see that through the learning area, learners tried to achieve what values done to their lives.

Problem 5. Is there a significant effect of differentiated learning instruction strategy on learners' academic achievement in Edukasyon sa Pagpapakatao?

Table 6. Regression Analysis on the Effect of Differentiated Learning Instruction Strategy on Learners' Academic Achievement

Strategy	Learners' Acader	Interpretation	
	t-value	p-value	
Differentiated	2.042	0.000	Significant
Learning Instruction Strategy			

Legend: S- Significant if P-value < 0.05

NS- Not Significant if P-value is >0.05

Table 6 presents the regression analysis on the effect of differentiated learning instruction strategy on learners' academic achievement. The t-value of 2.042 indicates the strength and direction of the effect of differentiated learning instruction strategy

on learners' academic achievement. A p-value of 0.000 shows that the effect of differentiated learning instruction strategy on student academic achievement is statistically significant. The result rejected the null hypothesis that there is no significant effect of differentiated learning instruction strategy of learner's academic achievement in Edukasyon sa Pagpapakatao. It implies that it has a genuine and trustworthy effect, not by chance but by the intervention used. The findings revealed that integrating differentiated learning instruction into teaching can improve learners' academic achievement, and the strategy's statistical significance revealed that it is a genuine and successful way to improve learners' learning outcomes. It was also observed that the use of a differentiated learning instruction strategy has a positive impact on learners' academic achievement compared to traditional learning styles. It is effective when it comes to improving learners's academic achievement on EsP subject and it consistently improves learners' academic achievement. Differentiated instruction was effective in enhancing learners' self-esteem and confidence in values education, leading to improved academic performance. Differentiated learning instruction strategy involves cooperative and collaborative work by learners to perform academically. In the study of Torres and Corpuz (2024), it was found that cooperative learning significantly improves students' academic performance and positively impacts their attitude toward Mathematics. It was effective in improving learners' academic performance in nurturing the attitude of learners toward learning.

Further, the significant t-values and p-values indicate that differentiated learning instruction strategy is related with higher academic achievement among students. This finding supports the effectiveness of individually targeted instructional strategies tailored to students' individual learning needs, interests, and readiness levels. In the study of Kado et al. (2021), those learners with differentiated instruction strategy excelled more than those who received a typical one-size-fits-all approach. Students with different learning strategies performed better than those who received one common traditional approach. Based on the results, differentiated learning improved the academic achievement of low and moderately underachieving students (Salar & Turgut, 2021).

IV. CONCLUSIONS

The following conclusions are hereby drawn from the study:

The study found that the differentiated learning instruction strategy is effective in Edukasyon sa Pagpapakatao. It greatly improves students' academic achievement. It highlighted the psychomotor domain in the experimental group that has the highest mean which rated as outstanding. Thus, outstanding psychomotor ability result is a significant mark of engaging teaching methods, curricular relevance, and student involvement.

On the other hand, on the learners' attitude towards Edukasyon sa Pagpapakatao subject, the result for both groups, experimental and control was described as agree. The study found that learners have a positive attitude towards the subject. Learners already held a positive attitude toward the subject they are studying since then, which was Edukasyon sa Pagpapakatao. Thus, the positive attitude increased motivation, engagement, and a stronger desire to learn.

In comparison of the learners' academic achievement in EsP Pretest and Posttest when grouped according to their attitude, the result was interpreted as significant for both groups, experimental and control group. Both groups, the experimental group, which uses differentiated learning instruction strategy, and the control group, which uses the traditional teaching, demonstrated a significant improvement in their academic performance when comparing their scores before and after the implementation using pretests and posttests. Their learning outcomes and success were significantly influenced by their positive attitudes toward the subject.

Moreover, on the overall result, the study discovers that there is a significant effect of differentiated learning instruction strategy on learners' academic achievement. It is effective when it comes to improving learners' academic achievement and consistently improving learning outcomes.

V. RECOMMENDATIONS

Based on the result of the study the following are recommended:

- 1. Teachers should apply the use of differentiated learning instruction strategy to improve academic achievement by promoting critical thinking and problem-solving abilities on their respective classrooms. It highlights skill development in determining whether cognitive abilities such as problem-solving and critical thinking need to be strengthened and learners can practice skills at their own pace with a variety of activities and learning experiences, leading to increased capability.
- 2. Teachers should help the learners to value the subject more as a tool in improving academic achievement and values in life.

3. School administrators should help teachers with the usage of differentiated learning instruction strategy to continue and increase curriculum that improves learners' engagement and understanding and modify classes to a variety of learning preferences, interests, and readiness levels.

REFERENCES

- 1) Abdurrahman, M. S., Sani, M. M., & Aliyu, B. (2023). Effect of Differentiated Instruction in Teaching Anti-Derivative Functions Concept on Polytechnic Students' Academic Performance. Rima International Journal of Education, 9-17.
- 2) Ahn, J., Lee, Y., & Lee, Y. (2019). Differentiated Instruction and Learners' Critical Thinking in Values Education. Journal of Education Research, 112(3), 265-276.
- 3) Ali, F. M. (2018). 1. The Relationship Between Learning Style and Academic Achievement in Values Education: A Study of Differentiated Instruction. Journal of Educational Research and Development, Vol. 12, No. 2.
- 4) Alsalhi, N., Abdelkader, Atef, Abdelrahman, R., & Ahmad Riad, S. (2021). Impact of Using the Differentiated Instruction (DI) Strategy on Student Achievement in an Intermediate Stage Science Course. International Journal of Emerging Technologies in Learning (iJET) · June 2021.
- 5) Al-Shammari, M. A. (2020). Values Education and Cognitive Development: An Analysis of the Relationship with Academic Achievement. International Journal or Research in Education, Vol. 13, No. 2.
- 6) Awofala, A. O., & Lawani, A. (2020). Increasing Mathematics Achievement of Senior Secondary. Journal of Educational Sciences, 4(1), 1-19.
- 7) Beale, J. (2020). The Value of a Cognitive Approach Towards Values Education. Impact: Journal of the Chartered College of Teaching, Issue 8, on Cognition and Leraning.
- 8) Bloom, B. (1956). Taxonomy of Educational Objectives, The Classification of Educational Goals. David McKay Company.
- 9) Celik, A., Aksu, E., & Gulbahar, A. (2020). Exploring the Impact of Differentiated Instruction on Students' Motivation and Academic Achievement: A Mixed-Methods Study. Journal of Educational Administration and History.
- 10) Comighud, S. M., Futalan, M. Z., & Pillado, I. A. (2020). Factors on Memory Retention: Effect to Students' Academic Performance. ReseachGate.
- 11) Corno, R. A., Mullen, J., Kritzer, M., & Hermon, A. (2020). The Role of Study Time and Academic Achievement: A Longitudinal Study. Journal of Educational Psychology.
- 12) Cruz, A. L., & Santos, J. (2019). Learners' Perceptions of Values Education as a Difficult Subject: A Study of High School Students. Journal of High School Education, 24(2), 1-10.
- 13) Cruz, J. a. (2020). An Exploratory Study on the Impact of Differentiated Instruction on Learners' Attitudes towards Values Education. Journal of Educational Studies, 22(1), 1-10.
- 14) Cruz, J. R., & Delos Santos, J. (2019). Philippine Students' Rerceptions of Values Education: A Study of High School Students. Journal of Values Education, 17(1), 1-14.
- 15) Davis, R., Thompson, J., & Martinez, M. (2020). Impact of Physical Activity and Movement on Academic Performance. Educational Psychology Journal.
- 16) de Leon, A. G. & Oco, R. M. (2024). Parental Support & Pupils' Observed Values. International Journal of Multidisciplinary Research and Analysis DOI: 10.47191/ijmra/v7-i06-43
- 17) DepEd Memorandum No. 431, s. 2009 Understanding by Design, October 2009.
- 18) DepEd Order No. 21, s. 2012 Policy Guidelines on the Implementation of Grades 1 to 10 of the K-12 Basic Education Curriculum (BEC) Effective School Year 2012-2013, April 12, 2012
- 19) DepEd Order No. 8, s. 2015 Policy Guidelines on Classroom Assessment of K-12 Basic Education Curriculum (BEC), April 1, 2015
- 20) DepEd Order No. 25, s. 2016 The Learning Action Cell (LAC) as a K to 12 Basic Education Program School-Based Continuing Professional Development Strategy for the Improvement of Teaching and Learning, June 7, 2016
- 21) DepEd Order No. 21, s. 2019 Policy Guidelines on the K to 12 Basic Education Program, May 26, 2019
- 22) Deringol, Y., & Devasligil, U. (2019). The Effect of the Differentiated Mathematics Program on Academic Self-concept Gifted and Talented Students. National Education/ Milli Egitim, 48(223), 159-177.
- 23) Desinguraj, D. S., & Gnanam, J. S. (2021). Differentiated Instruction in Education. Research Ambition: An International Multidisciplinary e-Journal Area: Multidisciplinary: Social Sciences, Law, Arts & Humanities, 11-14.
- 24) du Toit-Brits, C. (2020). Unleashing the power of self-directed learning: Criteria for structuring self-directed learning within the learning environments of higher education institutions. Africa Education Review, 17(2), 20–32. https://doi.org/10.1080/18146627.2018.149450.

- 25) Ekpenyong, J. A., Owan, V. J., Mbon, U. F., & Undie, S. B. (2023). Family and Community Inputs as Predictors of Students' Overall, Cognitive, Affective and Psychomotor Learning Outcomes in Secondary Schools. Journal of Pedagogical Research, Vol. 7, Issue 1.
- 26) El-Shafei, A. M., Soliman, M. M., Hassan, S. S., & Abdel-Rahman, M. E. (2019). The Effectiveness of Differentiated Instruction on Students' Academic Achievement and Affective Learning Outcomes: A Systematic Review. International Journal of Educational Development and Research.
- 27) Fernandez, L. S., & Tangalin, I. A. (2020). Effects of Differentiated Instruction on the Grade 11 Students' Academic Performance in Mathematics. International Journal of Advanced Research in Engineering and Technology (IJARET) Volume 11, Issue 9, September 2020, pp. 207-215, Article ID: IJARET 11 09 021.
- 28) Gaitas, S., & Martins, M. (2017). Teacher Perceived Difficulty in Implementing Differentiated Instructional Strategies in Primary School. International Journal on Inclusive Education, 21(5): p. 544-556.
- 29) Garcia, J. C. (2020). Differentiated Learning Strategies for Values Education: A Study of Student Achievement. International Journal of Research in Education and Science, Vol. 6, No. 2.
- 30) Gheyssens, E., Freixenet, J. G., & Struyven, K. (2023). Differentiated Instruction as an Approach to Establish Effective Teaching in Inclusive Classrooms. R. Maulana et al. (eds), Effective Teaching Aroung the World.
- 31) Grain, H. S., Neamah, N. R., Al-gburi, G., Abduzahra, A. T., Hassan, A. Y., Kadhim, A. J., . . . Yahea, S. A. (2022). Differentiated Instructions Effect on Academic Achievements of Level 2 English Students. A Case on Iraq Public Sectors Universities. Eurasian Journal of Applied Linguistics, 87-95.
- 32) Hassan, M. A., Hassan, A., & Elshamy, M. (2020). The Relationship Between Physical Education and Academic Achievement in High School Students. Journal of Sports Science and Medicine
- 33) Holon, Ma. Concordia Pinoy (2023). Lived Experiences of Edukasyon sa Pagpapakatao.
- 34) Iqbal, J., Khan, A. M., & Nisar, M. (2020). Impact of Differentiated Instruction on Student Learning: Perception of Students and Teachers. Global Regional Review, V(I), 364-365. doi:10.31703/grr.2020 (V-I),40.
- 35) Javanmardi, F., Rashidi, N., Jokar, B., & Khaghaninejad, M. (2024). The Cognitive, Affective, and Behavioral Outcomes of EFL University Instructors' Relational Goals: Mediating Role of Teaching Self-Efficacy. Iranian Journal of Language Teaching Research, v12 n2 p77-95.
- 36) Kado, Dorji, N., Dem, N., & Om, D. (2022). The Effect of Differentiated Instruction on Academic Achievement of Grade Eleven Students in the Field of Derivative in Bhutan. International Journal of Educational Studies in Social Sciences, 27-34.
- 37) Kang, S. H., & Kinzie, M. (2019). The Effectiveness of Retrieval Practice in Enhancing Learning: A Systematic Review. Educational Psychology Review.
- 38) Kaur, S., & Kaur, R. (2020). Emotional Intelligence, Values Education, and Academic Achievement: A Systematic Review. International Journal of Educational Research Reviews, Vol. 5, No. 2.
- 39) Khamis, H., Samdin, M. A., Ahmad, A. L., Yaacob, M., Razak, S. M., & Ideris, I. H. (2022). The Affective Domain Achievement Level for Fielding Game Category in Year 5 Physical Education Subject. International Journal of Academic Research in Progressive Education and Development, Vol.11, No.2.
- 40) Kotob, M., & Arnouss, D. (2019). Differentiated Instruction: The Effect on Learner's Achievement in Kindergarten. International Journal of Contemporary Education Vol. 2, No. 2; October 2019.
- 41) Kuo, K., Batool, S., devi, S., Tahir, T., & Yu, J. (2024). Exploring the Impact of Emotionalized Learning Experiences on the Affective Domain: A Comprehensive Analysis. Heliyon Volume 10, Issue 1, 15 January 2024.
- 42) Lee, E. J., Brown, M. T., & Johnson, S. K. (2021). Effectiveness of Kinesthetic Learning Approaches on Academic Performance. Journal of Educational Psychology.
- 43) Lee, J. K., Kim, S., & Lee, J. (2020). The Effects of Differentiated Instruction on High School Students' Academic Achievement and Psychomotor Skills in Physical Education Classes. Journal of Sports Science.
- 44) Li, J., Xue, E., Li, C., & He, Y. (2023). Investigating Latent Interactions between Students' Affective Cognition and Learning Performance: Meta-Analysis of Affective and Cognitive Factors. Behav Sci (Basel).
- 45) Lyndoh, A., Neelam, A., Sheorey, P., & et, al. (2021). Assessing student engagement and learners' behaviour in collaborative learning. International Journal of Technology Marketing 15(2-3), 266-286.
- 46) Magableh, I. S., & Abdullah, A. (2020). On the Effectiveness of Differentiated Instruction in the Enhancement of Jordanians Students' Overall Achievement. International Journal of Instruction, 533-548.
- 47) Mallillin, L. L. (2020). Different Domains in Learning and the Academic Performance of Students. Journal of Educational System Volume 4, Issue 1.
- 48) Mekonnen, F. S. (2020). Evaluating the Effectiveness of 'Learning by Doing' Teaching Strategy in a Research Methodology

- Course. African Educational Research Journal Vol. 8(1), 13-14.
- 49) Melad, A. F. (2022). Students' Attitude and Academic Achievement in Statistics: A Correlational Study. Journal of Positive School Psychology, Vol. 6, No. 2, 4640-4646.
- 50) Mendoza, H. (2019). Differentiated Instruction in Teaching Edukasyon sa Pagpapakatao among Grade 10 Students of Dacanlao G. Agoncillo National High School. Ascendents Asia Journal of Multidisciplinary Research Abstracts, 1-3.
- 51) Miller, D. R., Thompson, L. A., & Smith, J. R. (2022). Integration of Hands-on Activities and Academic Achievement in Science. Research in Education.
- 52) Most Essential Learning Competencies (2020)
- 53) Mohan, K., & Gowramma, Y. (2022). Assessing the Cognitive Levels of the Students Based on Their Learning Styles. Springer, Singapore: Emerging Research in Computing, Information, Communication and Applications. Lecture Notes in Electrical Engineering, vol 790.
- 54) Oco, R. M. (2023). Social Development and Volunteerism of Current Generation: An Inquiry. International Journal of Research Publications. doi:.10.47119/IJRP10013911220235801
- 55) Rodriguez, J., & Gonzalez, M. (2020). Predictors of Academic Underachievement: A Longitudinal Study. Learning and Individual Differences.
- 56) Safawi, S. S., & Akay, C. (2022). The Effect of Differentiated Instruction Approach on Student's Academic Achievement and Attitudes: A Meta-analysis Study. Integrity Journal of Education and Training Volume 6(6), pages 120-132, December 2023.
- 57) Salar, R., & Turgut, U. (2021). Effect of Differentiated Instruction and 5E Learning Cycle on Academic Achievement and Self-efficacy of Students in Physics Lesson. Science Education International.
- 58) Salas, S. R., Garcia, J., Fernandez-Dols, J., & Harackiewicz, J. (2019). Differentiated Instruction and Student Engagement: A Meta-analysis. Journal of Educational Psychology, Vol. 111(3).
- 59) Santos, M. T. (2020). Attitudes of Grade School Students towards Edukasyon sa Pagpapakatao (Values Education): A Study of Their Perceptions and Practices. Philippine Journal of Education, Vol. 92, No. 2.
- 60) Sapan, M., & Mede, E. (2022). The Effects of Differentiated Instruction (DI) on Achievement, Motivation, and Autonomy among English Learners. Iranian Journal of Language Teaching Research, 127-144.
- 61) Schweizer, Braun, and Milstone (2016). Research Methods in Healthcare Epidemiology and Antimicrobial Stewardship-Quasi-Experimental Designs. Infect Control Hosp Epidemiol.
- 62) Shi, Y., & Qu, S. (2022). Analysis of the effect of cognitive ability on academic achievement: Moderating role of self-monitoring. Front Psychol.
- 63) Shi, Y., & Qu, S. (2022). The Effect of Cognitive Ability on Academic Achievement: The Mediating Role of Self-discipline and the Moderating Role of Planning. Front Psychol.
- 64) Shi, Y., Chen, Z., Wang, M., Chen, S., & Sun, J. (2024). Instructor's Low Guided Gaze Duration Improves Learning Performance for Students with Low Prior Knowledge in Video Lectures. Journal of Computer Assisted Learning, v40 n3 p1309-1320.
- 65) Simpson, R. M., Smith, S. J., & Johnson, J. D. (2022). Understanding Student Failure: A Qualitative Exploration of Academic Challenges. Journal of Educational Psychology.
- 66) Singh, S. P., & Mishra, A. (2020). The Relationship Between Emotional Intelligence and Academic Achievement of Students in Values Education. Journal of Education and Human Development, Vol. 5, No. 2.
- 67) Smith, J., Johnson, K., & Kim, J. (2020). Assessment of Psychomotor Skills and Academic Performance in Secondary Education. Educational Assessment Journal.
- 68) Steinmayr, R., Weidinger, A. F., Schwinger, M., & Spinath, B. (2019). The Importance of Students' Motivation for their Academic Achievement Replicating and Extending Previous Findings. Frontiers in Psychology.
- 69) Supena, I., Darmuki, A., & Hariyadi, A. (2021). The Influence of 4C (Constructive, Critical, Creativity, Collaborative) Learning Model on Students' Learning Outcomes. International Journal of Instruction, v14 n3 p873-892 Jul 2021, p873-892.
- 70) Tomlinson, C. A. (1995). The Differentiated Classroom: Responding to the Needs of All Learners. ASCD.
- 71) Torres, K., & Corpuz, G. (2024). Effectiveness of Cooperative Learning on Learners' Performance in Mathematics. Journal of Emerging Technologies and Innovative Research (JETIR), Vol.11, Issue 6, June 2024.
- 72) Wang, X., & Li, M. (2020). The Impact of Values Education on Academic Achievement: A Meta-Analysis. Journal of Educational Psychology, Vol. 112(3), 643-655.
- 73) Wang, Y., & Zhang, J. (2020). Academic Underachievement and Cognitive Abilities: A Systematic Review. Frontiers in Education .
- 74) White, K. E., Harris, R. J., & Anderson, P. A. (2022). Psychomotor Skills and Learning Outcomes: A Review of Evidence in

- Educational Settings. Journal of Educational Research.
- 75) Yongxin Zhang, e. a. (2020). Effects of Differentiated Instruction on Cognitive Development and Academic Achievement in Elementary School Students: A Meta-Analysis. Journal of Educational Psychology, American Psychological Association.
- 76) Zhang, J., & Liu, X. (2020). The Impact of Parental Education on Children's Cognitive and Academic Achievement: A Systematic Review. Journal of Family Issues, 41(10), 3421-3446.
- 77) Zheng, Z., & Mustappha, S. M. (2022). A LITERATURE REVIEW ON THE ACADEMIC ACHIEVEMENT OF COLLEGE STUDENTS. Journal of Education and Social Sciences, Vol. 20, Issue 1, (June).



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