

Learning Styles and Academic Performance of IP Learners



Genevive N. Escabusa¹, Rochelle A. Luzano²

^{1,2}Southern de Oro Philippines College, Cagayan de Oro City, Philippines

ABSTRACT: Learning styles are determined by how individuals approach learning, understanding, and remembering information. The researcher employed descriptive type research. The respondents of the study were composed of one hundred twenty-nine (129) Grade V and VI learners of Manolo Fortich District IV namely, Impakibel Elementary School and Santiago Integrated School. The researcher selected the respondents through universal sampling method. The researcher adopted the learning style questionnaire of Ramos and Lopez (2020). Data were evaluated employing mean and standard deviation. Pearson Product Moment Correlation was used to distinguish the significant relationship between the learning styles and academic performance of IP learners. The study revealed that Visual Learning Styles was highly preferred learning style by IP learners. Kinesthetic Learning Style was undecided by IP learners. Furthermore, there is no significant relationship between auditory and visual learning style and academic performance. However, kinesthetic learning style and academic performance of IP learners have a significant relationship. Thus, teachers may design classes and activities that suit to the learning style preference of their learners. Therefore, action research is recommended

KEYWORDS: academic performance, IP learners, learning styles

I. INTRODUCTION

Learning is the lasting modification of behavior brought about by life's experiences. Learning style is an important aspect that should be considered while designing teaching. Learning style is the preferred way for learners to learn. It is an individual's natural pattern of acquiring and processing information in learning situation. Different learners have different learning styles, each learners have a preference for a certain style of learning. Learners respond in varied ways when involved in learning process.

It is also how the learners can easily comprehend and retain information (Mirza & Khurshid, 2020). It has a significant effect on the learners' learning strategies, which in turn affects learning outcomes (Syilvia & Bansa, 2022). When the learners are interested, it can motivate them to keep learning. The Indigenous People Rights Act of 1977 grants IPs rights, which are recognized by the Philippines. The legislation offers Indigenous Peoples' right to education a solid policy foundation. Concerned organizations and stakeholders took into account policies and programs that safeguard their welfare and preserve their rights when developing initiatives for them.

The Indigenous People (IP) of the Philippines have mostly maintained their pre-colonial customs, social structures, and means of subsistence. They often reside in remote, rural locations with little access to basic social services, regular employment possibilities, educational opportunities, and political engagement options. The country's Indigenous population is still anticipated to make up between 10% and 20% of the country's total population of 100,981,437, according to the 2015 population census (International Work Group for Indigenous Affairs, 2021).

Thus, Section 17 of the Constitution states, "The State shall recognize, respect, and protect the rights of Indigenous cultural communities to maintain and advance their traditions, institutions, and cultures." Constitution 1987 Article XIV Sec. 1 stated, "The State is responsible for defending and advancing every citizen's right to high-quality education at all levels and for taking the necessary actions to ensure that everyone has access to it."

These rights shall be taken into account while developing national goals and initiatives. Furthermore, Section 30 stipulates that "Indigenous learners have a right to receive public education at all levels and in all formats. The State shall ensure that the ICCs/IPs have equal access to the various cultural opportunities through the educational system, public or cultural entities,

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scholarships, grants, and other incentives, without prejudice to their right to establish and control their educational systems and institutions."

However, according to the United Nations (UN, 2017), IP and nomadic people have encountered several challenges in their pursuit of an education. Academically, indigenous learners frequently perform lower than their non-indigenous counterparts. According to them, the low enrollment rates indicated a number of negative outcomes in school, including dropout and completion rates, absenteeism, repetition rates, and literacy rates.

In the first 10 years of the Indigenous Peoples Education (IPEd) Program, 2.529 million IP learners were serviced in 42,176 public schools across the Philippines, according to the Indigenous Peoples Education Office of the Department of Education (2021) (IPsEO). The Department of Education's (DepEd) response to Indigenous communities and their right to a contextually appropriate education is known as IPEd.

According to Reedy (2019), a recurring issue that restricts Aboriginal and Torres Strait Islander people's access to and participation in their education is their lack of digital access. Despite this, Islanders have welcomed the use of digital tools in a range of educational scenarios, particularly in isolated locations.

The study by Ramos et al. (2019) states that it is necessary to determine the best learning style for Indigenous learners in school. In order for IP learners to be able to handle and compete with the obstacles in the mainstream, it is necessary to address the issues that are emerging in the sphere of education.

Additionally, the goal of this study was to investigate the difficulties and learning preferences of Indigenous Learners in the classroom. Additionally, to acknowledge and lessen the prejudice that IP learners experience in their educational access, as well as to ensure their economic, social, and political engagement as citizens of their states and communities.

The learning style preferences of IP learners at IP Implementing Schools in Manolo Fortich District IV were the main subject of this study. Accordingly, their goal was to identify the visual, auditory, and kinesthetic learning styles.

In this study, the application of the Visual, Auditory, Kinesthetic (VAK) learning model is one of the efforts made to accommodate the various learning styles of learners namely, visual, auditory and kinesthetic (Arsyad, 2019).

Every learner has different abilities and preferences in the method of data collection and processing data. Learners have different preferred learning styles. Some learners preferred visual learning styles the most (Chetty et al., 2019). Learners who learn best by listening preferred auditory learning style according to a study conducted by Hosseini and Mehraein (2022). Moreover, there were studies indicating that learners preferred kinesthetic learning styles the most (Payaprom & Payaprom, 2020).

Different learners learn differently. There are many interpretations of the term learning style. Learners prefer some modes when they are taking in or giving out information (Fleming & Bonwell, 2019). According to Mirza and Khurshid (2020), learning style refers to an individual's potential to easily comprehend and retain information. It is also how the learners acquire, store, and extract information (Syilvia & Bansa, 2022). RA and Indriani (2020) defined learning style as a dependable way for learners to respond and employ stimuli in learning. Learning style is also described as a natural way for learners to acquire knowledge (Ariastuti & Wahyudin, 2022).

According to the Visual, Auditory, and Kinesthetic (VAK) model, most learners have a dominant or preferred learning style and choose one among the three. Someone with a visual learning style favors seeing or observing things. These learners will work from lists and written directions and instructions. Auditory learners enjoy listening to themselves and others; these learners enjoy verbal instructions and remember everything they hear! Kinesthetic learners prefer hands-on, physical learning. These learners will say, "Let me try," and learn best by doing and never look at the instructions first (Nanaware & Baviskar, 2023).

The VAK model is a learning model that involves the senses to optimize learning. Involvement of all sensory organs in learning such as 1) eyes to see, observe, read, and examine, 2) ears to listen to store various sounds, resonances and verbal harmonization received as part of the auditory, 3) skin, hands, feet, and limbs of the other body physically become part of the kinesthetic. The application of the VAK learning model is one of the efforts made by the teacher to accommodate the various learning styles of learners, namely visual, audio, and kinesthetic (Arsyad, 2019).

II. METHODOLOGY

This study utilized the descriptive type of research with documentary analysis. The researcher attempted to get the answer to the mentioned research problems. It also tried to know the learning styles preferences for IP learners of Grade V and Grade VI learners in two (2) schools of Manolo Fortich District IV namely Impakibel Elementary School and Santiago Integrated School.

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According to Adedoying (2020), quantitative research is known as the study of phenomena using numerical data and statistical, analytical, or computing tools. Quantitative research comprises the use of computational, statistical, and mathematical tools to descend the results.

Data was evaluated employing Mean and Standard Deviation for Problems 1 and 2. While Problem 3, used the Pearson r Moment Correlation to distinguish the significant relationship between the learning styles and academic performance of IP learners. Tables, narrative summary format and content analysis were utilized to compile, analyze, and interpret the quantitative process. Simple descriptive statistics were used to analyze the Likert-scale responses of the respondents.

III. RESULTS AND DISCUSSION

Problem 1. What are the learning styles of indigenous people learners in terms of:

- 1.1 visual;
- 1.2 auditory; and
- 1.3 kinesthetic?

Table 1: Overall learning styles of IP learners

Learning Styles	Mean	SD	Description	Verbal Interpretation	Specific Interpretation
1. Visual Learning Styles	3.78	0.52	Often applies to me	Highly preferred learning style	Very Visual
2. Auditory Learning Style	3.49	0.76	Often applies to me	Highly preferred learning style	Very Auditory
3. Kinesthetic Learning Style	3.27	0.84	Undecided	Undecided	Moderately Kinesthetic
Overall	3.51	0.70	Often applies to me	Highly Preferred Learning Style	

Note: 4.21-5.00 Very Highly Preferred , 3.41-4.20 Highly Preferred, 2.61-3.40 Undecided, 1.81-2.60 Preferred, 1.00-1.80 Not Preferred

Table 1 presents the overall learning styles of IP learners. These findings highlight the significance of sensory-based learning modalities. It has an overall Mean of 3.51 with SD=0.70, described as Often applies to me and interpreted as Highly Preferred Learning Style. It means that IP learners are similar with students in the mainstream which they have their learning preferences. On the table above, it shows that IP learners preferred Visual learning style which has an overall Mean of 3.78 with SD=0.52, described as Often applies to me which is interpreted as Highly Preferred Learning style among the IP learners. This means that IP learners prefer to have visual and its close to auditory. It means that they understand better if they can see and hear.

In contrast, the kinesthetic learning style received a slightly lower Mean score of 3.27 with SD= 0.84, described as undecided, interpreted as undecided, specifically Moderately Kinesthetic. It suggests a degree of uncertainty or ambivalence among IP learners regarding this mode of learning. This implies that while visual and auditory approaches are commonly embraced, there may be less confidence or clarity among IP learners regarding the effectiveness or preference for kinesthetic learning experiences.

These results carry important implications for educational practice and curriculum design aimed at accommodating the diverse learning preferences of IP learners. Educators should prioritize the integration of visual and auditory elements into their instructional strategies to align with the predominant learning modalities observed among this population. Furthermore, efforts to incorporate kinesthetic components should be approached with sensitivity to the perceived uncertainty surrounding this learning style among IP learners.

The robust emphasis on visual learning style resonates with contemporary research highlighting the prevalence of visual learners across various educational contexts (Pashler et al., 2008). This underscores the importance of leveraging visual aids, multimedia resources, and graphic organizers to enhance learning outcomes among IP learners.

Similarly, the focus on auditory learning style is consistent with recent studies emphasizing the effectiveness of auditory cues and verbal instruction in promoting comprehension and retention (Moreno & Mayer, 2007). Educators can capitalize on techniques such as audio recordings, podcasts, and interactive lectures to cater to the auditory preferences of IP learners, thereby optimizing their learning experiences.

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Conversely, the relatively lower emphasis on kinesthetic learning style reflects findings suggesting a decreased emphasis on hands-on learning approaches within certain educational settings (Willingham et al., 2015). Further investigation into the factors influencing the perceived ambiguity towards kinesthetic learning among IP learners could yield valuable insights for the development of more inclusive and effective instructional practices.

Problem 2. What is the academic performance of IP learners?

Table 2. Academic performance of IP learners

Quarter	Mean	SD	Interpretation
First Quarter	83.11	5.14	Satisfactory

Note: 90-100 Outstanding, 85-89 Very Satisfactory, 80-84 Satisfactory, 75-79 Fairly Satisfactory, 60-74 Unsatisfactory

Table 2 shows the academic performance of IP learners. The analysis of First-Quarter grades among IP learners revealed a Mean of 83.11, with SD= 5.14 interpreted as *Satisfactory*. This finding suggests a consistent level of performance within this cohort during this academic period. This indicates a commendable performance level among IP learners during the first quarter. The relatively low SD suggests a moderate level of variance in academic performance within this group, indicating a degree of uniformity in grades achieved during this period.

Overall, the findings highlight the academic prowess of IP learners, demonstrating their ability to meet academic standards and excel in their studies. However, it also emphasizes the need for continued support and efforts to maintain and potentially enhance their academic performance over time. By understanding and addressing the factors contributing to their success, educators and stakeholders can further empower IP learners to achieve their full academic potential.

Problem 3. Is there a significant relationship between the learning styles and academic performance of IP learners?

Table 3. Relationship between learning styles and academic performance of IP learners

Learning Styles of Indigenous People Learners	First Quarter Grade		
	Pearson r	p-value	Decision on Ho
Visual Learning Style	0.12	0.17	Accept
Auditory Learning Style	0.09	0.33	Accept
Kinesthetic Learning Style	-.226**	0.01	Reject

Note: *significant at 0.05 level **significant at 0.01 level

Table 3 presents the relationship between the IP learners' learning styles and academic performance. In examining the relationship between learning styles and academic performance among IP learners, the study utilized Pearson Correlation Coefficients to explore the association between visual, auditory, and kinesthetic learning styles and first-quarter grades. The analysis uncovered no significant relationship between a preference for visual learning and auditory learning styles with academic performance among IP learners. This suggests a subtle tendency for individuals who favor visual learning methods to potentially achieve slightly higher grades. The fact that many studies show the dominance of the visual learning style explains why many learners lose their learning interest and focus, especially if the lesson only relies on long lectures (Ngatirin & Zainol, 2020). However, it is important to note that the observed relationship lacks statistical significance. In simpler terms, while there seems to be a hint of a positive association between visual learning and better grades, this link is not strong enough to be deemed significant or conclusive. Therefore, the null hypothesis stating no significant relationship between visual learning style and academic performance of IP learners is accepted.

Contrarily, the analysis found no significant correlation between auditory learning preference and academic performance among IP learners. This suggests that preferring auditory learning methods does not necessarily impact academic achievement within this population. The acceptance of the null hypothesis implies that auditory learning style does not significantly influence academic performance among IP learners. These findings prompt further exploration into potential reasons for the lack of correlation, including the effectiveness of instructional methods, individual differences in learning strategies, and external factors such as home environment or peer interactions. Moreover, these results underscore the need for educational practices to diversify instructional approaches to accommodate different learning styles among IP learners. Tailored support and interventions may be necessary to address individual learning needs effectively and enhance academic outcomes.

A noteworthy result emerged regarding kinesthetic learning style, revealing a significant relationship with academic performance among IP learners. As observed, the notable significant relationship between kinesthetic learning and academic

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performance suggests that learners who prefer hands-on, kinesthetic learning methods may encounter difficulties achieving higher grades within the context of IP learners. The statement of hypothesis stating there is no significant relationship between kinesthetic learning style and academic performance is rejected. Warren (2021) posited that learners learn best when touching or manipulating objects. Using hands-on, tactile learning activities helps the learners to learn every subject better. This finding implies that individuals who lean towards kinesthetic learning methods tend to achieve lower grades. Unlike the other styles examined, this relationship is both statistically significant and indicative of a stronger relationship, suggesting that learners preferring kinesthetic learning might face challenges achieving higher academic performance within this particular group. A study conducted by Yuliani (2019) revealed one of the kinesthetic learners' perspectives, which mentions that learning by doing is much better than getting an explanation without practicing the concepts or skills, especially since we realize that English is a skill, and it requires more practice.

In summary, our analysis revealed a slight inclination towards higher grades among those who favored visual learning, while no significant correlation was found for auditory learning preferences. However, our findings do support the rejection of the null hypothesis, indicating a significant correlation between kinesthetic learning style and the academic performance of IP learners. It is important to note that learning styles encompass the strategies individuals employ during studying or learning, with varying approaches used to tackle different tasks (Firat et al., 2021). Contrary to our findings, previous studies by Isa et al. (2021) and Karatas & Yalin (2021) did not find significant differences in academic achievement based on learning styles. These insights provide valuable context for understanding the complex relationship between learning preferences and academic outcomes among IP learner

IV. CONCLUSIONS

Based on the findings of the study, the following conclusions were formulated:

1. IP learners understand better through visual and auditory learning styles. They are uncertain if they understand using kinesthetic learning style.
2. IP learners needs to be guided more to improve their academic performance.
3. IP learners have their own way of learning. They are not into just sitting while listening or looking at something that they understand and learn. They could learn more by doing because the null hypothesis was accepted for visual and auditory learning styles but the null hypothesis was rejected for kinesthetic.

V. RECOMMENDATIONS

Based on the findings and conclusions drawn from the study, the following recommendations are set forth:

1. Given the significant relationship between the kinesthetic learning style and the academic performance of IP learners, it is recommended that educators strategically integrate art activities and hands-on experiences into their lesson plans. By incorporating such activities, teachers can effectively cater to the kinesthetic preferences of IP learners while simultaneously facilitating the attainment of academic objectives.
2. Recognizing the importance of guiding IP learners in activities such as listening to music while studying, educators should proactively provide support and supervision. By doing so, educators ensure that these strategies are implemented effectively, thereby maximizing their potential to improve learning experiences and enhance academic performance among IP learners.
3. To cater to a diverse range of learning styles, teachers should offer activities that are adaptable and inclusive. Incorporating "art projects" throughout various learning domains presents a promising strategy to meaningfully engage IP learners. This approach not only fosters creativity but also provides opportunities for hands-on exploration and expression, thereby facilitating a richer and more inclusive learning experience for learners.

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