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## Learning Styles and The Academic Performance of 1<sup>st</sup> Year Education Students: A Correlational Study

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### ABSTRACT

The primary objective of the study was to ascertain the correlation between learning styles and the academic achievement of first-year education students. This study employed a descriptive quantitative approach with a correlational research design to investigate the association between the two variables. The study employed a modified tool to assess learning styles and a verified questionnaire to measure academic success. The modified instrument comprised of a 30-item assessment, whereas the evaluation of academic ability was conducted by a 55-item multiple choice test, which was assessed by three English language instructors. The study revealed a notable correlation between learning styles and academic success. The outcome indicated that the academic achievement of the student was affected by their preferred method of learning.

### INTRODUCTION

In the realm of education, the acquisition of knowledge is shaped by a multitude of elements, including the educational setting, instructional approaches, and unique variations among learners. Learning styles are a significant component in influencing the learning results in education at all levels.

Moreover, it is imperative for successful instruction to recognize and adjust to the diverse learning modalities of students. This allows educators to tailor their teaching techniques to accommodate individual preferences, hence fostering improved learning outcomes. According to Doe (2023), this understanding allows educators to provide a range of teaching methods and materials that cater to the specific needs of each student, thereby minimizing disparities in performance that are often associated with mismatches between students' cognitive preferences and teacher expectations. While the importance of this research issue in enhancing the educational process is recognized, there is a clear dearth of studies conducted in Iran that investigate the correlation between thinking patterns and learning styles. This underscores the imperative for further inquiry in this domain. Essentially, having a comprehensive grasp of learning and thinking styles can greatly influence both academic success and personal development.

Shi (2017), as referenced by Oxford, defines learning styles as the consistent patterns of behavior that language learners use to enhance their capacity to absorb, store, retain, recall, and apply new information within a global framework. According to Oxford (1990), strategies can improve various aspects such as ease, speed, enjoyment, self-direction, efficacy, and the ability to use them in novel situations. Hence, possessing a profound understanding

of efficient learning techniques would optimize the process of acquiring language skills for individuals learning English.

In the Philippines, Lapinig (2006) found that the unhappiness or underperformance of students in academics cannot be entirely ascribed to the difficult or uninteresting courses, nor to the students' insufficient knowledge or abilities. It was inferred that a substantial proportion of students who are not achieving their full potential are falling behind because their preferred learning styles do not match the teaching methods used by their teachers (Morre & Casocot, 2022).

Recently, the researcher has seen a persistent issue at Davao de Oro State College - Compostela about the students' inadequate mastery of spoken and written English. This discovery is predicated on their proficiency. The investigation on determinants of academic achievement indicated that, apart from individual aptitudes, multiple factors exert an influence on academic performance. According to Raymunde and Mamonong (2022), learning styles refer to the specific and preferred strategies that individuals use to acquire and retain information.

Furthermore, performing research exclusively on these variables among first-year students could provide significant insights into the early identification of areas requiring improvement, hence facilitating more targeted language learning support. Proficiency in the English language is of utmost importance at Davao de Oro State College, Compostela Campus, as it can greatly influence one's chances of securing employment in the future.

The main aim of this study was to expand the existing understanding of the correlation between language acquisition and academic performance among students. Furthermore, it aimed to provide concrete suggestions to

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language instructors and legislators on how to improve the language acquisition results of first-year schooling students.

### Research Objectives

The primary aim of this study was to investigate the impact of language learning methods on the academic achievement of first-year Education students. The primary objectives of this study are to address the following main inquiries:

1. What is the level of learning styles of the 1st Year Education students in terms of:
  - 1.1 Visual
  - 1.2 Tactile
  - 1.3 Auditory
  - 1.4 Group
  - 1.5 Kinesthetic
  - 1.6 Individual
2. What is the level of the academic performance in of 1st Year Education students?
3. Is there a significant relationship between the learning styles of 1st year education students and their level of academic performance?

### Scientific Basis/Theoretical Framework

This study is grounded in the Dunn and Dunn Learning Styles Models (Dunn and Burke, 2002). There are particular concepts that can offer assistance for this query. The Dunn and Dunn Learning Styles Models, proposed by Dunn and Burke in 2002, serve as the primary hypothesis in this area of study. This theory presents the following principles: that learning style is a biological and developmental set of personal characteristics that makes the identical instructional environments, methods, and resources effective for some learners and ineffective for others; that most people have learning-style preferences and that these preferences differ significantly from individual to individual; that individual instructional preferences exist, and the impact accommodating these preferences can be measured accurately; that the stronger the preference, the more important it is to provide compatible instructional strategies; that accommodating individual learning-style preferences through complementary educational, instructional, teaching, and counselling interventions results in increased academic achievement and improved student attitudes toward learning; that given environments, resources, and approaches, people attain statistically higher achievement and attitude test scores in congruent (matched) rather than dissonant (mismatched) treatments; that most teachers can learn to use learning styles as a cornerstone of their instructional programs; that most individuals can learn to capitalize on their learning-style strengths when concentrating on new or difficult academic material; and that the lesser successful the individual is academically, the more important it is to accommodate learning-style preferences.

### METHODOLOGY

This study employed a survey questionnaire to assess the learning styles of first-year Education students at Davao de Oro State College, Compostela Campus. The Perceptual Learning Style Preference (PLSPS) questionnaire is a checklist of items derived from Reid's (1986) questionnaire. The students' academic achievement was assessed using an exam from their Purposive Communication course.

The Perceptual Learning Style Preference (PLSPS) is a tool designed to assess individuals' inclinations towards six specific style preferences: Visual, Auditory, Kinesthetic, Tactile, Group, and Individual preferences. The 30-item PLSPS is categorized into six groups, with each group consisting of five items that assess one of the six dimensions: Visual, Auditory, Kinesthetic, Tactile, Group, and Individual preferences. The Likert scale used ranges from "Strongly Agree" to "Strongly Disagree". The style preferences are categorized as Major, Minor, and Negative/Negligible according to the research conducted by Manfred-fat Wu (2010) in section 2.1. Furthermore, as highlighted by Reid (1987, 1990), the primary advantage of the PLSPS compared to other similar tools is its unique development and standardization on a population of adult ESL students, notably including Chinese ESL students. Furthermore, an additional advantage is its commendable internal consistency, as seen by a Cronbach's alpha of .70, as reported by Lin and Shen (1996).

The researcher's validators and research adviser were presented with the construction of the research instrument for their opinions and ideas. The enhanced instrument was replicated and administered to the participants of the designated study group according to the specified timetable. The questionnaires were validated by administering them to a cohort of students from a different department. The item analysis, reliability test, and validity test were assessed utilizing the relevant statistical formulas. Conducting a pilot test of the research instrument assists the researcher in efficiently carrying out the investigation. Based on the reliability test, the Cronbach's Alpha of the test questionnaire is 0.718, indicating that the internal consistency of the questionnaire is satisfactory.

Additionally, the researcher sought permission from the College President of the university to perform a study at the Davao de Oro State College, Compostela Campus. The authorized correspondence was sent to the Deans of Davao de Oro State College. Once approved, the endorsement letter is requested to enable the researcher to conduct the survey questionnaire with the study's participants. Moreover, the researcher asked the teacher's consent to disseminate the questions and elucidate the instrument, clearly stating the purpose of the study.

The researcher promptly delivered the modified questionnaire to assess the learning styles and academic achievement of the first-year education students. The study was undertaken over a period of two weeks, with

a sample size of 100 respondents. The respondents were provided with clear instructions and are given a one-hour time frame to answer. The research promptly gathered the data to guarantee a complete recovery once the respondents have completed the surveys. The test had undergone a comprehensive evaluation, during which the material was encoded, organized, statistically analyzed, assessed, and interpreted.

**RESULTS AND DISCUSSION**

Level of Learning Styles of 1st Year Education Students. Table 1 presented the mean scores for the students' learning styles and the measure of variability. The moderate level can be attributable to the respondents' moderate appraisal of all indicators, including visual, tactile, auditory, collective, kinesthetic, and individual. In addition, the mean scores and standard deviations for

each specified indicator were shown in the accompanying table, Table 1.1.

The table below demonstrates the different degrees of students' learning approaches. The table below indicates that pupils exhibit superior performance in individual learning, as seen by a mean score of 3.38 and a standard deviation of 0.7407. Group learning follows, with an average score of 3.35 and a standard deviation of 0.7484. The mean score for auditory learning is 3.34, with a standard deviation of 0.7076. The mean score for visual learning is 3.28, with a standard deviation of 0.7366. The mean score for tactile learning is 3.28, with a standard deviation of 0.6693. The data shows that students had a slightly lower level of skill in kinesthetic abilities, as indicated by an average score of 3.27 and a standard deviation of 0.6418, which is deemed moderate.

**Table 1:** Level of Learning Styles of 1st Year Education Students

Learning Styles	Mean	SD	Valid	Missing	Min.	Max.	Descriptive
Visual	3.28	0.7366	66	0	2.00	4.80	Moderate
Tactile	3.28	0.6693	66	0	2.00	4.80	Moderate
Auditory	3.34	0.7076	66	0	2.00	4.80	Moderate
Group	3.35	0.7484	66	0	2.00	4.80	Moderate
Kinesthetic	3.27	0.6418	66	0	2.00	4.80	Moderate
Individual	3.38	0.7407	66	0	2.00	4.80	Moderate

The visual learning style, as shown by the first indication, has an average score of 3.28 and a standard deviation of 0.7366, suggesting a moderate level. The data shown in the table above illustrates the respondents' observed hierarchy of significance. The average comprehension score for pupils when reading the instructions is 3.67, with a standard deviation of 0.4084, suggesting a significant degree of knowledge. Similarly, the average score for recalling instructions while reading them is 3.33, with a standard deviation of 0.5547, indicating a modest level of memory retention. The average score for learning from the teacher's chalkboard notes is 3.26, with a standard deviation of 0.5944, indicating a moderate level of learning. When individuals read instead of listening to someone, their average score is 2.78, with a standard deviation of 0.6980. This suggests a moderate level of learning. Ultimately, when individuals choose to read textbooks rather than attend lectures, they achieve an average score of 2.37, with a standard deviation of 0.7917. This suggests that the level of learning attained is relatively low. The pupils' learning style, as shown by the tactile indicator, has a mean score of 3.23 and a standard deviation of 0.651, suggesting a moderate level. The data shown in the table above illustrates the respondents' observed hierarchy of significance. The average score for the level of learning enhancement when creating a project for a class is 3.27, with a moderate standard deviation of 0.5969. Similarly, the average score for improved retention of learning throughout the process of constructing

anything is 3.26, with a standard deviation of 0.5899, which is likewise classified as moderate. In addition, the average score for improved learning through model creation is 3.23, with a standard deviation of 0.6515, which is still deemed moderate. Moreover, the average score for the level of enjoyment in the process of creating something for a class project is 3.05, with a standard deviation of 0.6185, which is considered moderate. Finally, the average score for enhanced learning when integrating drawings into studying is 2.62, with a standard deviation of 0.8904, which is also classified as moderate. The auditory indicator in students' learning style has a mean score of 3.34 and a standard deviation of 0.7076, suggesting a moderate level.

The data shown in the table above illustrates the respondents' observed hierarchy of significance. The average score for improved learning in the classroom during teacher lectures is 3.68, with a somewhat high standard deviation of 0.5010. The average score for comprehension during instruction delivery by the teacher is 3.52, with a high standard deviation of 0.53333. The average score for enhanced learning when someone provides instructions in a classroom setting is 3.26, with a modest level of variation indicated by a standard deviation of 0.6636. The average score for improved learning by active listening is 3.05, with a standard deviation of 0.5931, which is considered moderate. Finally, the average score for recalling auditory information from class is 2.68, with a standard deviation of 0.8257, which

is considered moderate. The group learning style, as the fourth indicator, has a mean score of 3.35 and a standard deviation of 0.7484, suggesting a moderate level. The data shown in the table above illustrates the respondents' observed hierarchy of significance. The average productivity when collaborating with others is 3.42, with a standard deviation of 0.7746, indicating a high level of variability. The average score for optimal learning in a collaborative setting is 3.05, with a modest level of variation indicated by a standard deviation of 0.6664. The average level of enjoyment when working on an assignment with two or three peers is 2.94, with a modest level of variation shown by a standard deviation of 0.7821. The average increase in learning when studying with a group is 2.89, with a modest level of variation shown by a standard deviation of 0.7469. Finally, the average score for having a propensity for learning with others is 2.70, with a standard deviation of 0.8032, which is similarly classified as moderate.

The kinesthetic learning style, identified as the sixth indication, has an average score of 3.27 and a standard deviation of 0.6418, suggesting a moderate level. The data in the table above shows that the respondents ranked the factors in terms of importance as follows: learning best in class when they can participate in related activities (mean = 3.35, standard deviation = 0.6443, described as moderate); enjoying learning in class by doing experiments (mean = 3.23, standard deviation = 0.6275, described as moderate); learning better when they do things in class (mean = 3.12, standard deviation = 0.6449, described as moderate); having a preference to learn by doing something in class (mean = 3.02, standard deviation = 0.6678, described as moderate); and understanding better in class when they participate in role-playing (mean = 2.91, standard deviation = 0.6732, described as moderate). The sixth element in students' learning style, often known as "individual," has an average score of 3.38 and a standard deviation of 0.7407, indicating a moderate level. The data shown in the table above illustrates the respondents' observed hierarchy of significance. The mean score of 3.50 and a standard deviation of 0.5616 suggest a significant enhancement in memory recall when studying in isolation. The mean score for those who independently improve their learning is 3.14, with a standard deviation of 0.8206. This degree of enhancement is regarded as modest. The average score for the inclination to work independently is 3.08, with a standard deviation of 0.7506, suggesting a moderate degree of preference. Similarly, the average score for the inclination to work on projects independently is 2.92, with a standard deviation of 0.8997, which likewise suggests a moderate level of preference. Finally, the average score for performing better in class when working independently is 2.86, with a standard deviation of 0.8392, which once again suggests a moderate degree of enhancement.

Moreover, the findings on the visual learning style of students, with an average score of 3.28 and a standard deviation of 0.7366, indicate a moderate preference

for visual stimuli. This aligns with prior research that emphasizes the significance of visual elements in the learning process. The high mean score (3.67) in understanding instructions suggests that the written information is effective for this specific group of learners (Fleming & Mills, 1992). Furthermore, the moderate average (3.33) for remembering instructions when read suggests a well-balanced reliance on visual memory, corroborating earlier studies that highlight the significance of visual recall in the learning process (Dunn & Dunn, 1993). However, the lower mean (2.37) for gaining knowledge from reading textbooks in comparison to listening to lectures indicates a potential challenge with traditional lecture approaches. This finding aligns with research suggesting that those who have a preference for visual learning may find lectures less engaging when compared to teaching methods that are more interactive and visually-oriented (Felder & Brent, 2005).

The findings for the second indicator of students' learning style, specifically tactile, provide an average score of 3.23 with a standard deviation of 0.651. This indicates a moderate preference for acquiring knowledge through practical and physical experiences. This aligns with the existing corpus of research that emphasizes the significance of using tactile elements in instructional approaches. The mean score of 3.27 suggests that students who actively engage in class projects have a greater opportunity for improved learning. This discovery provides evidence that individuals who learn by touch benefit from participating in practical tasks, as proposed by Dunn and Dunn (1993). Moreover, the mean score of 3.26 for enhanced memory during the process of building something emphasizes the correlation between physical engagement and improved capacity to retain information (Silverman & Gardner, 2008).

The results on the third indicator of students' learning style, which focuses on the auditory aspect, show a modest inclination towards auditory learning experiences. This is corroborated by a mean score of 3.34 and a standard deviation of 0.7076. This aligns with contemporary scholarship that recognizes the importance of auditory stimuli in educational environments. The efficacy of traditional lecture formats for auditory learners is underscored by the notable average score of 3.68 for enhanced classroom learning when educators provide lectures (Harp, 2018).

Moreover, the mean score of 3.52 suggests that individuals who are auditory learners benefit from receiving spoken instructions, as proposed by Nelson and Schunn (2009). The mean score of 3.26 for improved learning through verbal explanations aligns with research findings that emphasize the effectiveness of verbal explanations for certain learner profiles (Pashler *et al.*, 2008). However, the fact that the average score for storing auditory information is 2.68, lower than that for written information, highlights the need to use multiple instructional modalities to accommodate the diverse learning preferences of students (Dunn & Dunn, 2016).

The results regarding the fourth, fifth, and sixth markers of students' learning styles offer valuable insights into their inclinations towards collaborative and individual learning experiences. The fourth indicator, relating to group learning, has an average score of 3.35, suggesting a well-balanced inclination towards collaborative work. The mean score of 3.42 for increased efficiency when collaborating with others aligns with contemporary research that highlights the benefits of cooperative learning, such as heightened productivity and the development of collective knowledge (Panadero *et al.*, 2017). However, the somewhat lower mean scores for optimal learning in a collaborative environment (3.05) and enjoyment of group assignments (2.94) suggest that while students acknowledge the advantages of working in groups, they may not necessarily prefer it for their own learning style.

In relation to the fifth criterion, which is kinesthetic learning, the findings indicate a modest preference for learning through hands-on activities and direct experience, with an average score of 3.27. The study done by Dunn and Dunn (2016) found that kinesthetic learners get greatest learning benefits while actively engaging in activities closely related to the course topic, as indicated by the substantial mean score of 3.35. The mean ratings for affectionate experiments (3.23) and a

proclivity for hands-on activities in the classroom (3.12) underscore the importance of including dynamic and interactive elements into instructional methods to cater to the inclinations of kinesthetic learners.

The sixth indicator, which assesses individual learning preferences, has an average score of 3.38, indicating a moderate inclination towards independent study. The mean score of 3.50 for enhanced memory recall during independent study aligns with other studies that emphasizes the benefits of solitary studying for certain types of learners (Kornell & Bjork, 2007). The average scores for learning efficacy in solitude (3.14) and for persons with a preference for independent work (3.08) indicate a balanced approach to individual learning. This suggests that individuals recognize the advantages of self-directed study but may not fully prefer it.

**Level of the Academic Performance of 1<sup>st</sup> Year Education Students in terms of Language Proficiency**

Academic performance pertains to the students' linguistic proficiency scores. The provided results indicate the level of achievement that the students have attained in a language proficiency test. The high average score for students' academic performance can be attributed to the outstanding performance of students in terms of language proficiency.

**Table 2:** Level of the Academic Performance of 1st Year Education Students in terms of Language Proficiency

Academic Performance	Mean	SD	Class Proficiency	Performance Level	Quality Index	Descriptive
Language Proficiency	42.97	4.1731	78%	91%	Students have mastered the skills in the subject.	Outstanding

The table above shows that the students' academic achievement, namely in language proficiency, was considered outstanding, with a class proficiency rate of 78% and a performance level of 91%. Furthermore, it reveals that the mean score was 42.97, which can be linked to the outstanding performance of students in language proficiency. This indicates that the pupils have attained a significant level of expertise in the subject matter. The table also presented the standard deviation, which was recorded as 4.1731. This score indicates a substantial degree of variability in the data. It indicates a substantial difference between the highest and lowest results of students in the language proficiency test when compared to the average score.

The reported data emphasize the outstanding academic achievement of the students, particularly in terms of their language proficiency, with an average score of 42.97. This finding aligns with contemporary research that emphasizes the importance of language proficiency as a critical determinant of academic success (Griffiths, 2019). An extensive mastery of language is often associated with effective communication, logical thinking, and overall cognitive development, hence bolstering students' performance in several academic disciplines (Cummins, 2017). The mean score, which is higher than average, demonstrates the children' impressive performance and

showcases their proficiency in linguistic skills. However, the considerable standard deviation of 4.1731 emphasizes the notable variation in students' language competency ratings. The variability in language acquisition among students can be impacted by various factors, such as individual learning preferences, teaching methodologies, and environmental stimuli (Sundqvist & Sylvén, 2017). In order to attain more consistent language proficiency outcomes, educators must address this dispersion and tailor instructional techniques and interventions to match the needs of diverse learners.

**Significance on the Relationship between the Learning Styles of 1<sup>st</sup> Year Education Students and their Level of Academic Performance in terms of Language Proficiency**

The aim of this study is to investigate whether there is a notable correlation between the learning styles of first-year education students and their language competency in terms of academic achievement. Subsequently, Pearson's correlation coefficient (Pearson-r) was employed to ascertain the link between the variables. Table 3 displays the studied and interpreted results of the considerable correlation between students' learning styles and their level of academic performance in language proficiency.

The table presents the association between the independent

**Table 3:** Significance on the Relationship between the Learning Styles of 1st Year Education Students and their Level of Academic Performance in terms of Language Proficiency

IV	DV	r-value	r-square	p-value	Decision
Visual	Academic Performance	0.583	0.3399	0.001	Reject H <sub>0</sub>
Tactile		0.524	0.2746	0.001	Reject H <sub>0</sub>
Auditory		0.599	0.3588	0.001	Reject H <sub>0</sub>
Group		0.669	0.4476	0.001	Reject H <sub>0</sub>
Kinesthetic		0.781	0.6100	0.001	Reject H <sub>0</sub>
Individual		0.778	0.6053	0.001	Reject H <sub>0</sub>

\*Significant at 0.05 level of significance

variable indicators, namely the visual, tactile, auditory, group, kinesthetic, and individual learning styles of students, and their linguistic proficiency as a measure of academic performance. The initial indicator shows a correlation coefficient (r-value) of 0.583\* with a p-value of 0.001, indicating a statistically significant link. The correlation between the variables is somewhat positive, with a coefficient of determination of 0.3399. This indicates that 33.99% of students' academic performance may be ascribed to their visual learning style. The second indicator has a correlation coefficient (r-value) of 0.524\* and a significance level (p-value) of 0.001, indicating a statistically significant link. This association exhibits a moderate positive correlation. The coefficient of determination is 0.2746, indicating that 27.46% of the variation in students' academic achievement can be accounted for by their level of tactile learning style. The third indicator exhibits a strong correlation with an r-value of 0.599\* and a p-value of 0.001, suggesting a statistically significant link. The association between the students' academic performance and their level of auditory learning style is characterized by a moderate positive correlation. The coefficient of determination, which is 0.3588, indicates that 35.88% of the variation in students' academic performance can be attributed to their level of auditory learning style. The fourth indicator exhibits a correlation coefficient (r-value) of 0.669\* with a p-value of 0.001, signifying a statistically significant link. The association between these variables is moderately positive. The coefficient of determination is 0.4476, indicating that 44.76% of the variation in students' academic achievement can be accounted for by their level of group learning style. The fifth indicator has a robust positive correlation, with an r-value of 0.781\* and a statistically significant link, as indicated by a p-value of 0.001. The coefficient of determination is 0.6100, signifying that 61.00% of the variation in students' academic performance can be explained by their level of kinesthetic learning style. The sixth indicator exhibits a robust positive correlation, with an r-value of 0.778\* and a p-value of 0.001, signifying a statistically significant link. The coefficient of determination is 0.6053, indicating that 60.53% of the variation in students' academic performance can be accounted for by their level of individual learning style.

The statistics demonstrate a substantial association between students' learning strategies and their academic performance in language proficiency. The strong positive correlations (r-values) observed among all six learning style variables

highlight the importance of considering different learning preferences in educational settings (Pashler *et al.*, 2018). The robust positive correlation coefficients between kinesthetic and individual learning styles suggest a substantial impact on academic achievement, aligning with contemporary research emphasizing the significance of active engagement and tailored instructional approaches in enhancing student outcomes (Vermunt & Verloop, 2017). The substantial coefficients of determination indicate that a significant proportion of students' language proficiency in academic performance can be ascribed to their particular learning style. This underscores the significance of customizing teaching approaches to align with these preferences in order to optimize educational results.

The results of this study are consistent with the theoretical framework of the Dunn and Dunn Learning Styles Models. According to this framework, when individuals have a stronger preference for a specific learning style, it is important to provide instructional strategies that are compatible with that style (Dunn and Burke, 2002). The findings suggest that kids exhibit a wide range of learning style preferences, and they also demonstrate high levels of academic accomplishment in language proficiency. This emphasizes the necessity of implementing appropriate educational strategies. Furthermore, Robert Sternberg's Triarchic Theory of Intelligence (1980) offers evidence in favour of the concept of creative intelligence, as demonstrated by the wide array of learning styles observed in every student. According to the concept, persons who possess a high degree of creative intelligence demonstrate great ability in combining seemingly unrelated facts to produce original ideas, as seen by their outstanding language skills in competitive environments.

### CONCLUSION

There is a significant association between students' learning styles and their academic achievement in language proficiency. The data analysis indicates a moderate link between the modalities of visual, tactile, auditory, and group learning and academic performance in language proficiency. Moreover, there exists a robust association between kinesthetic and individual learning styles and the level of academic achievement in language competence among students. The association between kinesthetic and individual learning styles and academic performance is stronger than the correlation between visual, tactile, auditory, and group

learning styles and academic success.

Furthermore, there exists a robust association between kinesthetic and individual learning styles, as seen by students' propensity to thrive in classroom environments that allow for active participation, and their enhanced capacity to remember material more efficiently during solitary study sessions. This implies that children who have a stronger preference for kinesthetic and individualized learning methods experience a significant improvement in their language skills and academic performance.

## RECOMMENDATIONS

Considering the strong correlations found between students' learning styles and their language competency, we can suggest numerous practical approaches to improve teaching and learning results:

1. Acknowledge and adjust to various learning styles by employing a variety of educational methods. For instance, integrate visual aids and multimedia to accommodate visual learners, offer practical tasks for tactile learners, and encourage group discussions for students who favor collaborative learning. This tailored approach has the capacity to enhance engagement and understanding among all pupils.

2. Create flexible educational environments that allow students to choose or adapt learning methods that align with their preferred learning styles. This could involve providing a variety of resources, allowing students to select different project formats, or incorporating technology to cater to auditory, kinesthetic, or individual learning preferences.

3. Place emphasis on engaging in active learning activities, particularly for individuals who learn best via physical movement and prefer to work independently. To optimize the preferred learning techniques of these kids, include hands-on activities, learning projects that need direct application, and opportunities for self-directed study.

4. Implement ongoing teacher professional development programs focused on understanding and implementing diverse teaching techniques. Equipping educators with knowledge about different learning styles and successful teaching methods can aid in creating inclusive and efficient learning environments.

5. Implement continuous assessment methods that are suitable for various learning preferences. This may involve a blend of written assessments, oral presentations, group projects, and practical demonstrations. Moreover, provide precise and valuable feedback tailored to the distinct learning preferences of each person to foster continuous development and advancement.

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