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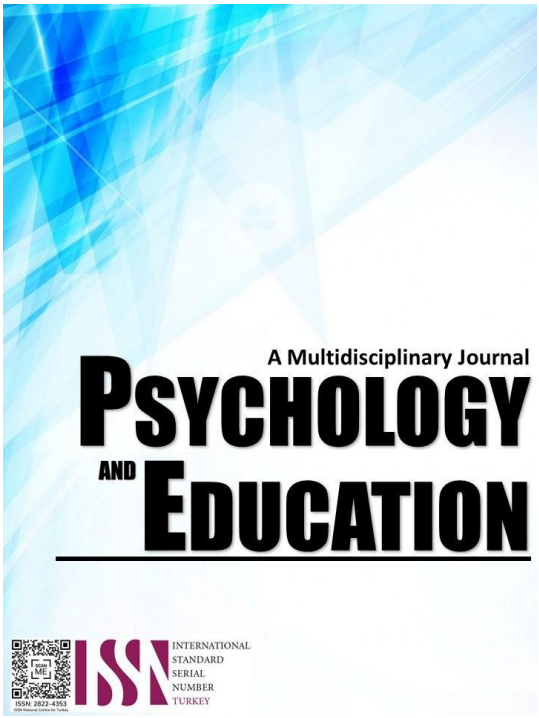

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Research Article

The Use of Cognitive Language Learning Strategies and Learning Styles: Basis for an Intervention

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Abstract

This study aimed to determine the significant difference in the cognitive language learning strategies of 130 public secondary Grade 10 learners at Lagawe District, Ifugao, for the school year 2023-2024 when grouped according to their demographic profile, and the significant difference in their cognitive language learning and learning styles. It also sought to craft an intervention material to address the least mastered competency - Use of information from news reports, speeches, informative talks, panel discussions, etc. in everyday conversations and exchanges (EN10LC-Ia 11.1). The study employed a quantitative design and total enumeration sampling. Data was gathered using a survey questionnaire. Frequency and Percentage were utilized to describe the profile of the respondents. Mean and Standard Deviation were used to describe the dominant cognitive language learning strategies and learning styles of the respondents. A paired sample t-test was used to determine whether there was a significant difference in learners' cognitive language learning strategies when grouped according to their demographic profile. Analysis of variance (ANOVA) was employed to determine whether there was a significant difference between the respondents' cognitive language learning strategies and their learning styles. Findings revealed that most respondents were male, and 82.3% studied English for one hour a day. The learners somewhat used cognitive language learning strategies to learn the English language. Group and auditory learning styles were most common among the learners. There was no significant difference in the learners' cognitive language learning strategies when grouped by sex, except for the amount of time spent studying the English subject each day. Similarly, no significant difference was found between cognitive language learning strategies and learning styles. The top three activities identified by the learners to be included in the intervention material were: group activities, translating difficult words into Filipino, and using ICT-based instructional materials such as PowerPoint presentations.

Keywords: *cognitive language learning strategies, learning styles, demographic profile*

Introduction

Teachers can use many ways to teach their lessons as stipulated in DepEd Order No. 42, s. 2016. They can mix and match different methods to help their students learn best. However, when they are choosing how to teach, teachers need to think about their students. They need to consider what their students are like, how they learn best, and what they need to know. This way, the teachers can pick the best methods that will really help their students learn.

Furthermore, Language learning strategies (LLS) have emerged as critical components in the pursuit of successful language acquisition, as they empower learners to take charge of their educational journeys. Ezzaidi (2020) highlights that Autonomous Learning (AL) fosters an environment where learners actively engage in their learning processes, thereby enhancing their language proficiency (LP) and the effective use of LLS. For instance, Kumar and Wipulanusat (2025) emphasize the importance of employing advanced analytical techniques, such as ensemble and deep learning models, to assess the effectiveness of learning strategies in diverse contexts. Their findings suggest that leveraging data-driven approaches can significantly improve the predictive accuracy of language learning outcomes. These are often steps of behaviors used by language learners to enhance the acquisition, storage, retention, recall, and use of new information (Oxford, 2017). Cognitive strategies involve mental processes such as summarization and inference, while metacognitive strategies encompass planning, monitoring, and evaluating one's learning process (Alzubaidi et al., 2021).

Therefore, teachers must acquaint themselves with the various language learning strategies employed by the learners so they can provide them with learning opportunities that can further develop these strategies.

In addition, awareness of preferred learning styles is crucial because it affects language learners' achievement in acquiring English. Salam et al. (2020) say that an inability or reluctance to adopt any style has the potential to hamper language learners' ability to learn effectively. For that reason, language learners need to be aware of the different learning styles they possess and how to use them to their advantage. Moreover, for language teachers, they must familiarize themselves with the different learning styles so they can intensify their teaching using different strategies that will suit the learning style of the students.

Many studies explored the associations between learning styles, learning strategies, and demographic profiles. However, a notable gap remains in addressing how these variables can inform targeted instructional interventions. Specifically, there is a need for research that goes beyond identifying correlations and instead translates findings into practical solutions that cater to students' learning needs. In the context of Lagawe District, Ifugao, a persistent issue has been observed across the four public secondary schools. Many Grade 10 learners struggle with the competency of using information from news reports, speeches, informative talks, and panel discussions in everyday conversations and exchanges (EN10LC-Ia-11.1). This highlights the urgent need to develop an intervention material anchored on students' learning styles and cognitive language learning strategies to help address this least mastered competency and improve their

overall communicative competence.

Therefore, this study aimed to explore the cognitive language learning strategies and learning styles of Grade 10 learners of the Lagawe District, Ifugao, and to craft an intervention material to address the least mastered competency mentioned.

Research Questions

The study was conducted to find out the difference between the learners' cognitive language learning strategies and their learning styles. Specifically, this study sought to answer the following questions:

1. What is the profile of the respondents in terms of:
   1.1. sex; and
   1.2. amount of time allotted in studying English subject in a day?
2. What is the dominant cognitive language learning strategies used by the Grade 10 learners?
3. What are the learning styles of the Grade 10 learners?
4. Is there a significant difference in the respondents' cognitive language learning strategies when grouped according to their demographic profile?
5. Is there a significant difference in the respondents' cognitive language learning strategies and learning styles? and
6. What intervention material could be crafted based on the results of the study?

Literature Review

Cognitive Language Learning Strategies

Ansah (2020) drew on the work of Skehan (1998) and Herrera & White (2000) to investigate the effectiveness of task-based instruction in facilitating second language acquisition. He grounded his analysis in the cognitive and psycholinguistic underpinnings of language learning, with a particular focus on the mechanisms involved in language processing. Skehan further emphasized the importance of individual cognitive differences in shaping language learning outcomes. At the same time, Herrera and White explored the contributions of cognitive linguistics to language learning within the context of economics education.

Since 2013, research on cognitive language learning strategies (CLLSs) has flourished, yielding a rich embroidery of insights into their nature, efficacy, and neural underpinnings. Researchers have delved deeper, examining the specific cognitive processes CLLSs engage in, such as metacognition (e.g., planning, monitoring) and self-regulation (e.g., effort allocation, revising). One line of inquiry has focused on the effectiveness of specific CLLSs. Studies have yielded mixed results, with some strategies demonstrating positive effects on language learning outcomes like vocabulary acquisition (Sarıoğlu & Karatepe, 2024).

Another area of active research concerns the interplay between CLLSs and other cognitive factors. Studies have explored how learners' working memory capacity moderates the effectiveness of strategies like elaboration (Lin & Qin, 2014).

Neuroimaging research has begun to shed light on the neural correlates of CLLS use. Studies using fMRI have identified activation patterns in brain regions associated with memory, attention, and language processing during strategy implementation (Tansey et al., 2024). These findings suggest that CLLSs are not simply conscious mental tools but involve complex interactions between cognitive and neural systems.

Several studies show that some student groups may use learning strategies more than others. Research by Aristovnik et al. (2020) and Ansarin and Zeynali (2012) found that female students often use more learning strategies. However, Nguyen & Godwyll (2010) revealed that there was no significant difference in the use of language learning strategies based on gender. Kashefian-Naeeini and Maarof (2010) also found that there was no significant statistical difference in all the learning strategies based on gender. On the contrary, Ansarin and Zeynali (2012) reported that there is a significant gender difference in the use of language learning strategies.

The connection between learning strategies and the time spent studying English is also unclear. Some students with more experience in English tend to use more strategies (Leung & Hui, 2011), while others do not (Habók et al., 2022).

A prominent strand of research highlights the synergistic relationship between cognitive styles and CLLSs. For instance, field-dependent (FD) learners, who favor concrete information, tend to gravitate towards metacognitive strategies like planning and self-monitoring (Li & Qin, 2014). Conversely, field-independent (FI) learners showed that they have a preference for metacognitive strategies, which are self-regulatory and self-evaluative of learning processes. FD learners, on the other hand, preferred social/emotional strategies, reflecting a dependence on collective and situational approaches to learning. This highlights the significance of identifying cognitive styles in educational contexts where reading comprehension is key (Yuan et al.,2024). This suggests that CLLSs can compensate for weaknesses associated with specific learning styles (Dörnyei & Skehan, 2015).

Furthermore, research indicates that aligning CLLSs with cognitive styles can enhance learning outcomes. Lin and Wu (2016) found that visual learners who used imagery and graphic organizers achieved higher vocabulary retention than those who relied solely on rote memorization. Similarly, auditory learners who engaged in self-talk and shadowing strategies demonstrated improved pronunciation compared to those who focused solely on grammar rules (Yildiz & Duman, 2014). These findings emphasize the importance of strategic

choice based on individual learning preferences.

However, the difference between CLLSs and LS is not always straightforward. Some studies have reported weak or non-significant correlations between one's cognitive language learning strategies and styles (Zeng & Sun, 2018; Chen & Li, 2019). This complexity likely stems from the multifaceted nature of both CLLSs and LS, as well as the influence of other factors like learner motivation and context (Oxford, 2017).

Learning Styles

While individual pedagogical journeys diverge, a symphony of learning emerges when learner styles harmonize with teaching methods—identifying these intrinsic preferences. The cognitive modes through which knowledge resonates, which empower both educators and students to participate in the knowledge construction process actively. This necessitates a nuanced understanding of the potential alignment or misalignment between the two, a complex interplay that has been documented in numerous studies (Naimie et al., 2010; Massa & Mayer, 2006; Tuan, 2011). Unraveling this intricate dance between facilitator and learner holds immense promise for fostering a dynamic and engaging learning environment.

Adnan and Marlina (2017) remind us that people have different ways they like to learn. This makes sense because everyone's brain works differently. Some people like to see things, others like to hear them, and still others like to do them. However, even though we all have different strengths, we usually tend to prefer one way of learning over the others. Magulod (2019) discovered that students who had visual, group, and kinesthetic learning styles were more successful when their preferences were being recognized. This implies that when teachers dismiss these styles, students might not be able to interact with the content, leading to poor academic performance. This highlights the need for teachers to modify their instructional approaches to suit different learning inclinations, hence creating a more supportive learning environment (Tanis, 2020)

Students all learn in their own special way, like picking different paths to get to the same place. Some like to hear things over and over, some like to write them down, and some like to jump right in and do them. This is because everyone has their own "learning style," which is like a set of tools they use to take in information. These tools include how they think, feel, act, and even how their bodies react when they are learning (Vaishnav, 2013)

In the view of Kanbach et al. (2023), learners with active learning preferences tend to thrive in collaborative settings. In contrast, reflective learners prefer solitary work to allow for deeper contemplation before taking action. Sensing learners excel at processing details, facts, and data through experimentation, while intuiting learners gravitate towards ideas and theories, seeking novelty and innovation. Verbal learners favor auditory information and relish discussions, while visual learners prefer words alongside pictures, symbols, flowcharts, diagrams, and written texts. Sequential learners excel in linear reasoning, step-by-step procedures, and readily absorb information presented in a stable format. Conversely, global learners shine as integrators and synthesizers, intuitively making connections and discovering the overarching system or pattern within the presented information.

In the 21st-century classroom, cultural and linguistic diversity is the norm. Every room brims with unique perspectives and characteristics, each young mind eager to learn. However, this very diversity presents a significant challenge for educators. To effectively meet the needs of their students, teachers must be mindful of individual learning styles and preferences.

The Philippine education system has long grappled with the reality of diverse classrooms, where students arrive with a range of learning preferences and styles. This complexity often presents a significant challenge: effectively addressing the unique needs of each individual. Traditionally, teachers have relied on a one-size-fits-all approach, delivering a single lesson aimed at the collective. While this may appear to be differentiation, it often misses the mark. Filipino, like any other academic subject, has unfortunately borne the brunt of this oversight. Students' diverse learning styles and preferences have been neglected, hindering their engagement and comprehension. This highlights the urgent need for a shift in pedagogical practice, one that acknowledges and embraces the richness of individual differences within the classroom.

The Philippines has long grappled with the challenge of diverse classrooms, where students possess varied learning preferences and styles. Traditionally, teachers employed a "one-size-fits-all" approach, mistaking it for differentiation, and neglected the needs of individual learners. This, particularly in Filipino language classes, hindered engagement and exacerbated learning difficulties. However, the "Education For All" initiative, envisioned in the Philippine Education for All (EFA) 2015 program, strives for inclusive education regardless of student differences. Recognizing this commitment, the government encourages teachers to embrace innovative pedagogies that cater to diverse learning styles. By moving beyond traditional methods, educators can cultivate dynamic classrooms where every student thrives.

For instance, El-Sabagh (2021) demonstrated how an environment tailored to students' learning styles fosters self-awareness and significantly increases participation, suggesting that students who are aware of their own preferences are more likely to engage actively in learning. In a different study, Sletten (2017) highlighted that student with particular learning style preferences may improve their performance in specific areas by adjusting their study methods to align with their primary modes of learning. The relationship highlighted here underscores the importance of self-knowledge in tailoring approaches to learning, and students who are aware of their preferences may choose more effective study methods.

Further, Morze et al. (2021) described the crucial aspect of adjusting learning content in accordance with the particular needs of individual learners. The use of personalized recommendations by learning styles not only informs and encourages learners but also allows teachers to prepare personalized and efficient learning environments. This flexibility is central in promoting an inclusive environment in which all learners have the opportunity to succeed. In addition, evidence from Raj and Renumol (2021) supports the idea that individualized learning environments that are informed by students' characteristics, such as learning styles, are critical to maximizing student achievement. The evidence indicates that learning environments personalized according to individual preferences are more likely to make students associate with the content, resulting in enhanced academic performance.

To support this, Tonog (2015) investigated the impact of teaching and learning styles on students' achievement in General Chemistry 1 at the University of Eastern Philippines. He surveyed 13 teachers and 123 students, finding that teaching styles leaned towards transitional methods, student groupings, and environments. Students generally preferred cooler temperatures and early mornings for learning. Notably, emotional preference emerged as a significant factor influencing academic achievement across all eight teaching style areas studied. He concluded that both teaching and learning styles play a role in shaping student success.

Methodology

Research Design

This study utilized a quantitative research design. Quantitative method of research was employed to explore the respondents' demographic profile, cognitive learning strategies, and learning styles.

In the quantitative method, the descriptive type of research was utilized to provide descriptive data in dealing with the profile, dominant cognitive language learning strategies, and the learning styles of the respondents to accurately and systematically describe the respondents, situation, responses, or phenomenon in their respective schools. Inferential statistics was used to determine a significant difference between responses on the cognitive language learning strategies and the demographic profile of the respondents. As well as to identify the difference in the respondents' cognitive language learning strategies and learning styles.

Respondents

The respondents of this study were the Grade 10 students from the four (4) Public Secondary Schools of Lagawe District for the School Year 2023-2024. Grade 10 learners of Lagawe District of Ifugao had the least mastered competency on their subjects in English, which is the use of information from news reports, speeches, informative talks, panel discussions, etc., in everyday conversations and exchanges in their respective schools.

The total population of Grade 10 students in the public secondary schools in the Lagawe District is composed of 130 students. Consequently, the sampling procedure is total enumeration sampling, where all persons in the population are considered as samples of the study. It is also known as total population sampling, derived from the concept that the sample of the study will represent the population. Stephanie (2021) cited that when the target group is small and distinguishable by a unique and well-defined trait, complete population sampling is used.

Instrument

Questionnaire. A questionnaire was used as an instrument in this study. The questionnaire was composed of four (4) parts.

The first part of the questionnaire elicited data to describe the profile of the respondents in terms of sex and the time allotted to studying the English subject in a day.

Then the second part is the Strategy Inventory for Language Learning Questionnaire, which is adapted from Oxford (1990). This part was designed to draw out data to determine the Cognitive Language Learning Strategies employed by learners. It has 14 questions that use the 5-point Likert scale, with qualitative descriptions as follows: 5- Always True, 4- Usually True, 3- Somewhat True, 2- Usually Not True, and 1- Never True.

While the third part is the Learning Style Preference Questionnaire, adapted from Joy Reid (1995), which is composed of 30 statements that utilize the rating scale as follows: 5- Strongly Agree, 4- Agree, 3- Undecided, 2- Disagree, and 1- Strongly Disagree. It also includes a self-scoring sheet that learners can use to identify their learning styles based on their answers to the Learning Style Preference Questionnaire.

Then the last part is an open-ended question about the teaching strategies suggested by the learners for their teachers, and what they can recommend for teachers so that they, as learners, can learn English better.

Procedure

The following steps were conducted in the data gathering relevant to the study.

Preparation for the Conduct of the Study

The researchers secured permission from the Schools Division Superintendent of Ifugao, as well as School District Supervisors and

School Principals, to conduct the study, particularly the administration of questionnaires. The researchers personally delivered the letter to ensure their 100% participation of the students and teachers.

After approval, the researcher asked for consent from the learners' parents to conduct the study, and anonymity when it comes to their scores was highly regarded. Parents' consent is necessary, as minors require their parents' approval. The students were asked as well if they want to be a part of the research study and can decline anytime if they want to decline even during the conduct, per se.

The researcher requested help from the advisers and subject teachers to convene students for the orientation itself.

Implementation of the Study

During the implementation of the survey, researchers requested the English subject teachers to utilize their English time allotment in answering the questionnaire. The researchers returned to the schools after one week to retrieve the survey questionnaires from the subject teachers.

Post Implementation

After the questionnaires were collected, the researcher tallied them to obtain their scores using MS Excel. Researchers then utilized the Statistical Package for Social Sciences (SPSS) for the computation and analysis of the said data.

Throughout the study, the researcher prioritized ethical considerations following the Data Privacy Act of 2012; their privacy and confidentiality were protected by all means. Informed consent was obtained from all respondents and their parents or immediate guardian/head of the family. The researcher adhered to ethical guidelines and regulations governing research involving humans.

Data Analysis

Quantitative data were analyzed using both descriptive and correlational statistical tools, namely: Frequency and Percentage, to determine the profile of the respondents, such as sex, and the amount of time allotted to studying the English subject in a day.; Mean and Standard Deviation to get the dominant cognitive language learning strategies and to determine the learning styles used by the respondents using the results from the self- scoring sheet attached to the questionnaire; Paired Sample T-test to find out if there is a significant difference on the learners' cognitive language learning strategies and their demographic profile (sex and amount of time allotted in studying English subject in a day.); and Analysis of Variance (ANOVA) to find out if there is a significant difference between the respondents' cognitive language learning strategies and learning styles.

Ethical Considerations

Utmost ethical considerations were observed in the conduct of the study, particularly regarding the respondents, based on the purposes of the study. A letter of request was given to the school head for the conduct of the research. The researchers sought permission from the target respondents before administering the research questionnaires. The data gathered were treated with utmost confidentiality according to the Data Privacy Act of 2012.

Results and Discussion

This section presents the findings based on the study's research questions. To compare the means and find out the significance between variables, ANOVA was performed using IBM SPSS 26.0.

Profile of the Respondents

Table 1 shows the profile of the respondents in terms of sex and the amount of time allotted to studying English subjects in a day.

As indicated, the majority of them were males, numbering 68 or 52.3 percent out of the total of 130. The females comprised of 62 or 47.7 percent.

Table 1. *Profile of Grade 10 Student- Respondents.*

Profile	*Frequency n =130*	*Percent*
Sex		
Male	68	52.3
Female	62	47.7
Amount of time allotted in studying English subjects in a day		
1 hour	107	82.3
2 hours	23	17.7

In terms of the amount of time allotted to studying the English subject in a day, the majority, with 107 or 82.3 percent among the respondents, spent one (1) hour studying the English subject in a day. The rest, numbering 23 or 17.7 percent, spent two (2) hours a day.

Therefore, the majority of the learners were males, and most learners spent only one hour studying English per day.

Cognitive Language Learning Strategies Used by Grade 10 Students

Table 2 reveals the extent to which different cognitive language learning strategies are used by grade 10 learners.

Table 2. *Cognitive Language Learning Strategies Used by Grade 10 Students*

Cognitive Language Learning Strategies	*Mean*	*Qualitative Description*
1. I say or write new English words several times.	3.13	Somewhat True
2. I try to talk like native English speakers.	3.27	Somewhat True
3. I practice the sounds of English	3.35	Somewhat True
4. I use the English words I know in different ways.	3.39	Somewhat True
5. I start conversations in the English	2.95	Somewhat True
6. I watch English language TV shows or go to movies spoken in English.	3.56	Usually True
7. I read for pleasure in English.	3.07	Somewhat True
8. I write notes, messages, letters, or reports in English.	3.23	Somewhat True
9. I first skim an English passage (read over the passage quickly) then go back and read carefully.	3.37	Somewhat True
10. I look for words in my own language that are similar to new words in English,	3.05	Somewhat True
11. I try to find patterns in English.	3.02	Somewhat True
12. I find the meaning of an English word by dividing it into parts that I understand.	3.14	Somewhat True
13. I try not to translate word for word.	2.88	Somewhat True
14. I make summaries of information that I hear or read in English.	3.05	Somewhat True
OVERALL MEAN	3.18	Somewhat True

Legend: 1.00-1.80 – Never True; 1.81-2.60 – Usually Not ; 2.61-3.40 - Somewhat True; 3.41-4.20- Usually True; 4.21-5.00 – Always True

As gleaned from the table, only 1 out of 14 cognitive language learning strategies was usually used (proper) by the respondents as revealed by the mean rating of 3.56. Thus, respondents usually watch English-language TV shows or go to movies spoken in English. At the same time, the rest of the strategies garnered a mean rating from 2.61 to 3.40, with a description of somewhat used (somewhat true). In addition, cognitive language learning strategies garnered a general mean of 3.18, with a qualitative description of "somewhat used" (somewhat true). It means that the respondents somewhat used various cognitive language learning strategies to learn the English language.

Learning Styles of the Respondents

Table 3 shows the learning styles employed by the learners in their studies.

Table 3. *Learning Styles Used by Grade 10 Students*

Visual Learning Styles	*Mean*	*Qualitative Description*
1. I learn better by reading what the teacher writes on the chalkboard.	3.52	Agree
2. When I read instructions, I remember them better.	3.29	Undecided
3. I understand better when I read instructions.	3.59	Agree
4. I learn better by reading than by listening to someone.	3.75	Agree
5. I learn more by reading textbooks than by listening to lectures.	2.78	Undecided
Total Mean	3.39	Undecided
Tactile Learning Styles		
1. I learn more when I can make a model of something.	3.02	Undecided
2. I learn more when I make something for a class project.	3.43	Agree
3. I learn better when I make drawings as I study.	3.17	Undecided
4. When I build something, I remember what I have learned better.	3.32	Undecided
5. I enjoy making something for a class project.	3.85	Agree
Total Mean	3.36	Undecided
Auditory Learning Styles		
1. When the teacher tells me the instructions, I understand better	3.50	Agree
2. When someone tells me how to do something in class, I learn it better.	3.45	Agree
3. I remember things I have heard in class better than things I have read.	3.36	Undecided
4. I learn better in class when the teacher gives a lecture.	3.53	Agree
5. I learn better in class when I listen to someone.	3.98	Agree
Total Mean	3.56	Agree
Group Learning Styles		
1. I get more work done when I work with others.	3.88	Agree
2. I learn more when I study with a group.	3.67	Agree
3. In class, I learn best when I work with others.	3.75	Agree
4. I enjoy working on an assignment with two or three classmates.	3.82	Agree
5. I prefer to study with others.	3.57	Agree
Total Mean	3.74	Agree

Kinesthetic Learning Styles			
1.	I prefer to learn by doing something in class.	3.21	Undecided
2.	When I do things in class, I learn better.	3.35	Undecided
3.	I enjoy learning in class by doing experiments.	3.46	Agree
4.	I understand things better in class when I participate in role-playing.	3.12	Undecided
5.	I learn best in class when I can participate in related activities	3.70	Agree
	Total Mean	3.37	Undecided
Individual Learning Styles			
1.	When I study alone, I remember things better.	3.46	Agree
2.	When I work alone, I learn better.	3.28	Undecided
3.	In class, I work better when I work alone.	3.43	Agree
4.	I prefer working on projects by myself.	3.22	Undecided
5.	I prefer to work by myself.	3.32	Undecided
	Total Mean	3.34	Undecided
	Overall Mean	3.44	Agree

Legend: 1.00-1.80 – Strongly Disagree; 1.81-2.60 – Disagree; 2.61-3.40 - Undecided; 3.41-4.20- Agree; 4.21-5.00 – Strongly Agree

Visual Learning Style. As can be seen in table, 3 out of 5 visual learning styles were employed by the learners which are: I learn better by reading what the teacher writes on the chalkboard, I understand better when I read instructions, and I learn better by reading than by listening to someone with a mean of 3.52, 3.59, and 3.75 respectively with a qualitative description of "Agree". The said category of learning style garnered a total mean of 3.39, "Undecided". It shows that the respondents were not employing the visual learning styles that much.

Tactile Learning Style. In terms of tactile learning style, 2 out of 5 were found to be employed by the Grade 10 student, namely: I learn more when I make something for a class project, and I enjoy making something for a class project, with a mean of 3.43 and 3.85, respectively. Tactile learning styles had a total mean of 3.36, "Undecide". It suggests that most respondents are not tactile learners.

Auditory Learning Style. As to the auditory learning styles, four out five were employed by the learners which are: When the teacher tells me the instructions, I understand better; When someone tells me how to do something in class, I teach it better; I learn better in class when the teacher gives a lecture; and I learn better in class when I listen to someone with a mean of 3.50, 3.45, 3.53, and 3.98 respectively. Auditory learning styles were acquired with a total mean of 3.56, with a qualitative description of "Agree". Therefore, it can be inferred that learners employ various auditory learning styles.

Group Learning Style. As shown in the table, 5 out of 5 group learning styles were used by the respondents specifically: I get more work done when I work with others; I learn more when I study with a group; In class, I learn best when I work with others; I enjoy working on an assignment with two or three classmates; and I prefer to study with others with a mean of 3.88, 3.67, 3.75, 3.82, and 3.57 respectively. Group learning styles gained a total mean of 3.74 with a qualitative description of "Agree". It can be concluded then that the majority of the respondents are group learners.

Kinesthetic Learning Style. In terms of kinesthetic learning styles, only 2 out of 5 styles were used by the learners, such as: I enjoy learning in class by doing experiments, and I learn best in class when I can participate in related activities, with a mean of 3.46 and 3.70, with a qualitative description of "Agree". The said learning style got a total mean of 3.37, "Undecided". This implied that learners were not fond of kinesthetic learning styles.

Individual Learning Style. As can be gleaned in the table, only 2 out of the individual learning styles were used by the respondents, namely: When I study alone, I remember things better; and in class, I work better when I work alone. With a mean of 3.46 and 3.43, respectively, with a qualitative description of "Agree". The total mean of individual learning styles is 3.34, labeled as "Undecided". Thus, it can be said that only a few respondents were employing the said learning style.

In general, the learning style acquired an overall mean of 3.44 with a qualitative description of "Agree," which means that learners were really employing various learning styles in learning. It can also be inferred that most of the Grade 10 learners belong to the group learning style. This finding aligns with Kanbach et al. (2023), who stated that learners with active learning preferences thrive in collaborative settings.

Comparison on the Respondents' Cognitive Language Learning Strategies when Grouped According to their Profile

Table 4 shows the difference in the respondents' cognitive language learning strategies and their profile variables.

Table 4. *Difference on the Respondents' Cognitive Language Learning Strategies when Grouped According to their Profile*

	Sex		*Amount of time allotted in studying English subjects in a day*	
	Corr	*Sig*	*Corr*	*Sig*
Cognitive Language Learning Strategies	-.038^{ns}	.665	.210*	.016

**Significant* *^{ns} Not Significant*

Based on the results, the correlation value of -.038 with a significant level of greater than 0.05, which is .665, signifies that there is no significant difference in the learners' cognitive language learning strategies and sex. Hence, learners' sex does not influence their utilization of cognitive language learning strategies.

The results regarding the relationship of language learning strategies and sex coincided with Nguyen and Godwyll's study (2010), which revealed that there was no significant difference in the use of cognitive language learning strategies based on gender, even though females had a higher tendency to employ more cognitive language learning strategies. Another study by Kashefian-Naeeini and Maarof (2010) also found that there was no significant statistical difference in all the learning strategies based on gender. On the contrary, Martina and Afifi (2024) reported that there is a significant gender difference in the use of language learning strategies. Female learners also tend to use overall language learning strategies more often than males. Another study of Isa et al. (2022) revealed that females reported significantly higher use of the cognitive language learning strategies.

In terms of the learners' cognitive language learning strategies and the amount of time allotted to studying English subjects in a day, the results show a significant difference between the two, with a correlation value of 0.210 and a significance level of 0.016. This implies that there is a significant difference in cognitive language learning strategies and the amount of time spent studying English each day. Chances are, the more time the respondents spend studying English in a day, the more they employ cognitive language learning strategies.

The findings affirmed the study of Leung and Hui (2011), who found that there was a positive relationship between the duration of language exposure and language learning strategy use. However, it contradicts Habók et al. (2022), who stated that no significant difference was found in relation to the duration of studying English and language learning strategies, although students with long duration reported using LLS most frequently.

Comparison on the Respondents' Cognitive Language Learning Strategies and Learning Styles

Table 5 reveals the difference in the respondents' cognitive language learning strategies and their learning styles.

Table 5. *Difference on the Respondents' Cognitive Language Learning Strategies and Learning Styles*

	F	*Sig.*
Cognitive Language Learning Strategies Learning Styles	.77^{ns}	.576

**Significant* *^{ns} Not Significant*

As shown in the table, the f-value of 0.77, with a significant p-value of 0.576, implies that there is no significant difference in the learners' cognitive language learning strategies and their learning styles. It means that the cognitive language learning strategies employed by the respondents do not correlate with their learning styles. Whatever cognitive language learning styles they employ, it was not influenced by their learning styles.

This aligns with Manalo's (2022) findings, which indicate that there was no significant relationship between the students' learning styles and the strategies employed. Similarly, Alog (2012) and Arbon and Pariña (2018) all reported non-significant associations between cognitive or learning styles and either strategy use or academic outcomes. These findings suggest that individual learning preferences do not always translate into strategic advantages or improved academic performance.

Conclusions

Gleaning from the findings of the study, these conclusions were drawn: Most of the students in Lagawe District were male and spent only 1 hour studying the English subject every day. The Grade 10 students in Lagawe District mostly watched English-language TV shows or went to movies spoken in English. The respondents used various cognitive language learning strategies to learn the English language in different ways. Most of the Grade 10 learners are group learners and auditory learners. They learn better when they have a partner to do something with, and when they hear the instructions or lessons. Learners' sex does not influence their utilization of cognitive language learning strategies. However, the more time they spend studying English in a day, the more they employ cognitive language learning strategies. Cognitive language learning strategies employed by learners do not influence their learning styles. The electronic strategic intervention material was created to align with the commonly used cognitive language learning strategies, six learning styles, and the topmost recommended teaching strategies.

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