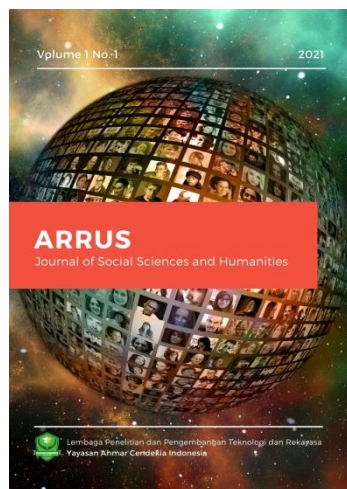




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RESEARCH ARTICLE

The Use of Technology in Instruction, Students' Learning Styles and Their Academic Performance in English

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Abstract: Technology integration in educational settings impacts students' learning styles, enhances engagement through personalized learning approaches, and improves academic performance in English. This study explored the relationship between technology integration, learning styles, and academic performance in English among Grade 12 SHS students in an institution in Ozamiz City. A quantitative study with a descriptive-correlational design was utilized involving 241 Grade 12 students selected through random sampling. Questionnaires were used to assess technology use in instruction, students' learning styles (visual, auditory, kinesthetic), and academic performance, analyzed using Mean, Standard Deviation, Frequency, Percentage, and Pearson Product Moment Correlation Coefficient. The findings revealed that despite high levels of technology use in education and good learning styles among students, these factors do not significantly impact their academic performance in English. The result suggests that other variables have influenced academic outcomes more than technology use and learning styles. The research findings consistently indicate no significant correlation between teachers' use of technology in instruction and students' academic performance in English. Similarly, there is no significant relationship between students' learning styles and their academic performance in English. To enhance academic performance in English despite varying learning styles and the lack of significant correlation with technology use, educators should employ diverse instructional methods, foster positive interactions, and set meaningful goals to motivate students.

Keywords: Academic Performance, Auditory Learning Style, Communication, Collaboration, English Language

1. Introduction

Education is key to unlocking the potential within every individual, fostering growth, knowledge, and opportunity in a rapidly evolving world. Outstanding instruction is an essential part of the 2030 Sustainable Development Agenda of the United Nations. It attempts to guarantee ensure each and every student has an inclusive, superior education.

The educational system has been significantly impacted by these technologies. (Haleem, 2022). People in the modern world need to be able to think critically, be creative, communicate, be digitally literate, and operate in a team, according to (Martin, 2022). These



skills and knowledge will boost their competitiveness and help them adapt to contemporary culture (Shadiev et al., 2022).

Modern times see the widespread use of technology, especially in education (Van et al., 2021). The primary goal of education is for students to interact and form social bonds within the classroom. (Ahmad et al., 2022). According to (Backfisch et al., 2021), the use of technology in the classroom is seen as a substantial innovation in education that will enhance the processes of teaching and learning in the century twenty-first. In the early phases of innovative education, teacher motivation is especially important and has been seen as an essential requirement for the effective incorporation of technology in the classroom.

The advent of new technology causes the development rate to rise more quickly, continuous improvement, and quick changes (Digal, 2022). Therefore, incorporating technology tools is crucial to assisting students in overcoming challenges like speaking the language of instruction (Ying et al., 2021). According to (Schmidt & Petko, 2019), the integration of computers into classroom learning is anticipated to be of special significance to schools. Technology such as laptops, tablets, smartphones, and PCs should be used in a way that is appropriate for adolescent education.

Language teachers must be aware of innovation and have confidence in incorporating digital integrating technology into their teaching (Xiao, 2019). In the context of cultural globalization, English is widely acknowledged as one of the most widely used and favored languages (De La Cruz et al., 2022). English has been used more frequently as a medium of teaching in educational systems around the world in recent years, as evidenced by observations made in several nations, including areas where English is regarded as a second language (Visaltanachoti et al., 2021).

According to Himmelsbach (2019), internet access allows students to acquire information anytime, anywhere, with regularly updated content. This enables access to study materials, interactive software, and resources from top universities. Technology also allows students to immerse themselves in learning environments through online platforms. According to (Hollebrands, 2020), staying current with digital advancements and thoroughly understanding course material is vital as education and the workforce become more tech-focused. While technology is valuable in the classroom, its effective use depends on teachers knowing when and how to integrate it.

Learning styles can be described in many ways, often as a set of factors, behaviors, and attitudes that enhance learning in various situations. They affect how students absorb information and how teachers deliver instruction, shaping their interactions. Each learner has a distinct, consistent way of perceiving, organizing, and retaining information. Teachers, while still authoritative, take on the role of facilitators and guides in supporting diverse learning preferences (Lathan, 2021). Every student has a unique learning style, which is crucial for both the learning process and the desired outcomes (Wahyudin & Rido, 2020). Learners process information based on their understanding, typically classified as visual, auditory, or kinesthetic. Visual learners depend on images, auditory learners excel through listening, and kinesthetic learners prefer hands-on activities. Self-motivation also plays a key role, enabling students to complete tasks independently. Recognizing learning styles helps teachers tailor effective strategies for instruction.

Learning styles are valuable tools for customizing teaching methods and materials to suit individual student preferences and needs. The rise of technology has revolutionized learning, making it more accessible and flexible. Online courses, educational apps, and digital content enables students to learn at their own pace and based on their preferences. As society evolves, so does how people learn. Recent years have witnessed a significant transformation in learning, with modern, technology-driven methods supplanting traditional approaches. This transformation is primarily driven by the increasing integration of technology into daily life and the evolving expectations of learners. Modern students tend to favor visual aids such as

videos, infographics, and diagrams over traditional text-based materials, finding them more engaging and conducive to understanding complex concepts (Madhu & Bhattachryya, 2023).

By knowing students' learning styles, teachers would be able to assist classroom learning in the ways that students prefer. Students will be uncomfortable if the teacher instructs in an unsatisfactory manner. In addition, (Marzulina, 2019) discovered that the students' varying learning styles contributed to their varying levels of English proficiency. Identifying students' learning styles and intelligences helps schools better support their success (Pocaaan, 2022).

Students' Academic Performance (SAP) is a key measure of student progress in an educational setting. It helps educators assess students' standing across courses and signals areas for improvement. Predicting SAP is vital for optimizing students' academic success.

Although many studies on technology in instruction, learning styles, and academic performance are available online, there is still a notable absence of research that thoroughly explores the relationship among these three variables. Despite the existence of separate research pieces, a comprehensive study that delves into how technology, learning styles, and academic performance interact has not yet been developed, indicating a pressing need for further investigation in this field.

The researchers' impetus was the scarcity of studies investigating the relationship between technology in instruction, learning styles, and academic performance among the students. This study seeks to bridge this gap by examining how different learning styles interact with technology instruction to affect academic performance, potentially offering new insights for educational strategies and technology integration.

The scope of the study involves exploring the interactions between technology integration in instruction, various learning styles, and academic performance, specifically among Grade 12 Senior High School (SHS) students. It aims to provide insights that could inform educational strategies and enhance instructional practices by aligning technology use with diverse learning styles. The study focuses on understanding how these factors collectively impact academic outcomes, offering a clearer picture for both students and teachers. However, the study's limitations include its specificity to Grade 12 SHS students, which may limit the generalizability of the findings to other educational levels. Additionally, the study may not fully account for other influential factors such as socioeconomic status, prior knowledge, and individual motivation, which also play significant roles in academic performance. The reliance on specific learning style models like VARK may not capture all variations in learning preferences, and the variability in technology types and implementation can affect the consistency of the results.

2. Research Method and Material

2.1 Research Design

This quantitative study utilized a descriptive–correlational design. Descriptive–correlational research aims to characterize the association between variables without attempting to infer a causative relationship, focusing instead on identifying patterns, trends, and the strength of the relationships among variables within a given context (Devi et al., 2022). The correlational study involves measuring two variables and analyzing the statistical relationship between them without the effect of any other variables (Mekonnen, 2020). This design is appropriate for exploring the relationship between the use of technology in instruction, students' learning styles, and the academic performance in English of Grade 12 Senior High School students of Misamis University. Hence, this study examined every domain of the entrepreneurial competencies to investigate whether each of the competencies would be directly affecting the women micro-entrepreneurs business success. The investigation is based on the following hypotheses:

2.2 Research Setting

The study was conducted in one of the universities in Ozamiz City, Misamis Occidental, which falls under the Northwestern Mindanao Region, Philippines. It was granted by the Commission on Higher Education as Autonomous University Status in Misamis Occidental and one of the four Universities in Northwestern Mindanao and Zamboanga Peninsula. It envisions being a globally recognized institution of learning by providing quality and accessible education to students.

2.3 Respondents of the Study

The respondents of the study comprised 241 Grade 12 Senior High School students, representing a sample size derived from the total population of 639 using the Raosoft Sample Size Calculator. Participants were selected through random sampling, a method where each member of the population has an equal probability of being chosen. This approach ensures that the sample is an unbiased representation of the larger group. The respondents were selected using the following criteria: (1) Bonafide SHS students of the institution, (2) Willing to participate in the study.

2.4 Instruments

This study utilized the following questionnaire:

(a). Technology Integration in Instruction Questionnaire.

This is a researcher-made questionnaire that aims to gather data on participants' perceptions and experiences concerning technology integration in instructional practice. Also, it was used to provide insights into how technology utilization and learning preferences influence students' English academic outcomes. The questionnaire consists of two constructs: Communication & Collaboration and Digital Literacy. The questionnaire consists of ten statements for each construct, with respondents rating using a 5-point scale. This questionnaire underwent validation and reliability, which involved expert review and feedback to ensure that it effectively measured the intended constructs. This questionnaire was pilot-tested on the students who were not included in the study. The result was subjected to Cronbach's alpha, and it yielded a result by constructs: Communication and Collaboration: 0.70 and Digital Literacy: 0.81.

Using the 5-point scale below, they rated the following statements by selecting the appropriate scale.

Responses	Continuum	Interpretation
5- Strongly Agree	4. 20 – 5. 00	Very High
4- Agree	3. 40 – 4. 19	High
3- Neutral	2. 60 – 3. 39	Moderately High
2- Disagree	1. 80 – 2. 59	Low
1- Strongly Disagree	1. 00 – 1. 79	Very Low

(b). Learning Styles Questionnaire.

This is a researcher-made questionnaire that aims to assess and gather data on the students' perceptions of their learning styles as perceived by themselves. This accommodates diverse learning styles and creates a conducive atmosphere for learning. It comprises three constructs: visual, auditory, and kinesthetic. The questionnaire consists of ten statements for each learning style, with respondents rating using a 5-point scale. This questionnaire underwent validation and reliability, which involved expert review and feedback to ensure that it effectively measured the intended constructs. This questionnaire was pilot-tested on the students who were not included in the study. The result was subjected to Cronbach's alpha, and it yielded results by constructs: Visual Learning Style: 0.73, Auditory Learning Style: 0.76, and Kinesthetic Learning Style: 0.71.

Using the 5-point scale below, they rated the following statements by selecting the appropriate scale.

Responses	Continuum	Interpretation
5- Strongly Agree	4. 20 – 5. 00	Very High
4- Agree	3. 40 – 4. 19	High
3- Neutral	2. 60 – 3. 39	Moderately High
2- Disagree	1. 80 - 2. 59	Low
1- Strongly Disagree	1. 00 – 1. 79	Very Low

2.5 Data Collection

The data collection process for this research study on "The Use of Technology in Instruction, Students' Learning Styles, and Their Academic Performance in English" commenced with securing approval from the school administration, including the Senior High School principal and relevant academic coordinators. Once approval was obtained, the researchers prepared a formal request letter addressed to the school principal, outlining the purpose and objectives of the study and seeking permission to conduct the research with Senior High School students. Approval from the research teacher was sought before the study could be conducted. After receiving approval from the school principal, the researchers conducted a pilot test to ensure the reliability and validity of the questionnaire. Following the successful pilot testing, the researchers arranged a meeting with the Senior High School students to introduce and explain the intention and protocol of the study. Upon receiving student approval, the researchers distributed the researcher-designed questionnaire to the respondents in print format, ensuring clear instructions for completion. Once the questionnaires were distributed and completed by the students, the researchers collected the instruments and reviewed the responses to ensure accuracy and completeness. The data collected were carefully organized, analyzed, tallied, and tabulated through statistical analysis and interpretation.

2.6 Ethical Considerations

This study took measures, focusing on the participants' voluntariness. The researchers followed the ethical guidelines established by the university. The paper passed through the Ethics Board (MUREB), where necessary forms were filled out, including, but not limited to, the Ethical Review Assessment form, Informed Consent form, and Technical Review of the Research Proposal. Respondents were completely aware of the study and confirmed approval to allow the researcher to ask questions.

Before the collection of data, the researchers obtained an approval letter from the principal of the SHS department regarding the study. The researcher then personally explained the study's objectives and offered the respondents enough time to decide whether or not to participate in the survey. The respondents were informed of their freedom to decline participation if threatened. If there were doubts, the researchers provided sufficient opportunity to clarify the nature of the study. The researchers followed the missions of Republic Act No. 10173 or the "Data Privacy Act of 2012" to ensure the respondent's right to personal security, specifically their right to privacy.

2.7 Data Analysis

The following statistical tools were used in the study:

Mean and standard deviation were used to determine the level of use of technology in instruction and the student's learning styles.

Mean and standard deviation were used to determine the students' English academic performance.

Frequency and Percentage were used to determine the students' English academic performance.

The Pearson Product Moment Correlation Coefficient was used to explore the significant relationship between the teachers' use of technology in instruction, students' learning styles, and students' academic performance.

3. Research Method and Material

3.1. Technology Integration in Instruction

Table 1 presents the use of technology in instruction in terms of communication & collaboration and digital literacy. Communication and Collaboration received a very high rating of ($M = 4.23$, $SD = 0.81$). These findings highlight the significance of these competencies in promoting effective learning environments. Similarly, the evaluation of Digital Literacy resulted a high rating of ($M = 4.12$, $SD = 0.80$), which enhances teaching effectiveness through the proficient use of technology in instructional practices and communication.

The findings reveal that both communication and collaboration, as well as digital literacy, are integral and consistently implemented in instructional practices. The high mean ratings with relatively low standard deviations indicate that these competencies are not only prevalent but also uniformly valued and applied across the board. This integration is crucial as it supports effective teaching and learning environments, enhancing both instructional delivery and student engagement through proficient technology use. Students utilize technology as a tool that enhances their ability to express ideas and thoughts effectively in academic settings and find it easy to communicate with their peers and instructors using technology. The findings emphasize the importance of these competencies in creating effective learning environments where students can actively engage, collaborate meaningfully, and develop the skills needed for academics

Professional achievement in English-language settings.

Overall, the mean of using technology in instruction in terms of communication & collaboration and digital literacy received a high rating in the study, emphasizing the importance of these competencies in facilitating successful learning environments in education.

As a result, the integration of information and communication technology (ICT) has become more expensive for educational institutions across the globe in recent years (Fernández-Gutiérrez et al., 2020). Distance learning has accelerated the usage of digital technology, increasing concerns over the scope, kind, and usefulness of school digitalization. (Cachia et al., 2021; König et al., 2020). Recent research has examined how advanced technology affects teaching and learning. In contrast to usual lectures, Garzón Acevedo (2019) found that augmented reality applications had a medium influence on students' learning outcomes. It was discovered that digital technology enhanced students' capacity for lifelong learning (Haleem et al., 2022).

Continuous professional development is essential for educators to incorporate technology into their teaching techniques successfully. By leveraging digital tools, educators not only enhance instructional delivery but also prepare students for success in academic and professional contexts. This approach improves learning outcomes and fosters a collaborative educational environment that utilizes technology for meaningful engagement and skill development.

Table 1. Use of Technology in Instruction in Terms of Communication and Collaboration and Digital Literacy.

Variables	Mean	SD	Remarks
Communication and Collaboration	4.23	0.81	Very High
Digital Literacy	4.12	0.80	High
Overall Mean	4.18	0.81	High

Note: Scale: 4.20-5.0 (Very High); 3.40-4.19(High); 2.60-3.39(Moderately High);

1.80-2.59(Low);1.0-1.79(Very Low)



3.2. Students' Learning Styles

Table 2 depicts the students' visual, auditory, and kinesthetic learning modalities. Visual Learning Style obtained a good remark rating: ($M = 4.47$, $SD = 0.76$). The high mean score and relatively low standard deviation indicate that visual learning styles are highly prevalent and consistently practiced among students. Auditory Learning Style also obtained a positive remark rating ($M = 4.01$, $SD = 0.9$). Auditory learning style shows that it is also common and consistently practiced in instructional practices to support students' learning methods. Kinesthetic Learning Style also rated a good remark rating of ($M = 4.00$, $SD = 0.83$). The result indicates a strong preference for learning through physical activities and movement. This finding implies the importance of incorporating kinesthetic activities to cater to students who thrive through active engagement and physical involvement in their learning process.

The findings of the student's learning styles in terms of visual learning style, auditory learning style, and kinesthetic learning style reveal that students consistently manifest all three learning styles. Understanding students' learning preferences might help them adopt study approaches that match their abilities, leading to improved academic performance and self-confidence. These findings emphasize the need to use multiple teaching strategies to accommodate students' diverse learning styles. The overall mean of students' learning styles in terms of visual, auditory, and kinesthetic styles received a good rating, which means that students have a balanced proficiency in these learning styles.

Certain students acquire knowledge quickly through a variety of methods, such as reading, writing, and listening. This indicates that those particular learning methods are advantageous to the students. Certain students acquire knowledge quickly through a variety of methods, such as reading, writing, and listening. This indicates that those particular learning methods are advantageous to the students. According to another study, some students prefer to study alone, but others find that they can comprehend the course information when they work in groups (Aminatun & Oktaviani, 2019). According to another study, some students prefer to study alone, but others find that they can comprehend the course information when they work in groups (Aminatun & Oktaviani, 2019). The ability of the teacher to effectively communicate a lesson is one element that promotes students' success in learning it. Enhancing the quality of learning is a shared responsibility between educators and students (Lewis et al., 2019).

Understanding how students prefer to learn—whether through visual, auditory, or kinesthetic has practical implications across education. The study emphasizes the necessity of understanding students' different learning styles, specifically visual, auditory, and kinesthetic preferences. Educators are urged to adopt flexible teaching approaches that incorporate visual, auditory, and kinesthetic methods. This multimodal strategy caters to different learning styles, improving engagement and learning outcomes. Aligning teaching practices with students' preferences fosters an inclusive learning environment, boosting academic performance and confidence. This study supports holistic education approaches that respect individual learning differences, aiming to optimize educational experiences.

Table 2. Students' Learning Styles in Terms of Visual Learning Style, Auditory Learning Style, and Kinesthetic Learning Style

Variables	Mean	SD	Remarks
Visual Learning Style	4.47	0.76	Very Good
Auditory Learning Style	4.01	0.96	Good
Kinesthetic Learning Style	4.00	0.83	Good
Overall Mean	4.16	0.85	Good

Scale: 4.20-5.0 (*Very Good*); 3.40-4.19(*Good*); 2.60-3.39(*Fair*); 1.80-2.59 (*Poor*); 1.0-1.79 (*Very Poor*).

3.3. Students' Academic Performance in English

Table 3 displays the students' academic performance in English. From the data provided, 114 students, representing 47.30%, achieved a very satisfactory performance. Additionally, 64 students, representing 26.56%, achieved a satisfactory performance. Furthermore, 40 students, representing 16.60%, achieved an outstanding performance. Moreover, 13 students, representing 5.39%, achieved a fair performance. However, six students, representing 2.49%, achieved an unsatisfactory performance. Lastly, four students, representing 1.66%, failed. Overall, the performance was rated as satisfactory, with a mean percentage of 83.00.

The data on students' academic performance in English indicates that a majority of students are achieving at satisfactory levels or higher. Nearly half of the students reached a very satisfactory level, suggesting strong overall performance and effective teaching methods. A significant number achieved satisfactory results, indicating they meet basic expectations but have room for improvement. Furthermore, a notable portion attained outstanding performance, demonstrating exceptional mastery of the subject. However, there is a minority of students with fair or unsatisfactory performance, indicating areas that require targeted support and interventions. Overall, the performance is rated as satisfactory, highlighting a solid foundation while also pointing to the need for continuous improvement and tailored educational strategies.

Fahriah (2021) also discovered that students with visual, auditory, and kinesthetic learning styles did not differ much in their listening abilities. Students with diverse learning styles do not significantly differ in their reading comprehension. Furthermore, (Marzulina, 2019) discovered that the students' varying learning styles contributed to their varying levels of English proficiency. In the kinesthetic learning style, students were shown to have no significant link, also the visual learning style was found to have a substantial influence on English proficiency. According to these results, students' levels of English proficiency vary depending on their preferred learning style (Sahriyah et al., 2021). In other words, students choose the procedures they want to learn depending on how simple the task is to do and how much fun it is, both of which will eventually help them become more motivated and resilient when learning a language (Sari, 2020). Furthermore, because they employ learning tactics frequently, students' use of them can have an impact on how well they learn English.

The overall satisfactory rating indicates a strong foundation in English instruction. However, it also highlights the significance of constant examination and improvement. Teaching strategies and curriculum design. The findings underscore the need for both the reinforcement of effective practices and the implementation of targeted support for students who are underperforming. Addressing these needs is vital for enhancing overall educational outcomes and ensuring that all students have the opportunity to reach their full potential.

Table 3. Students' Academic Performance in English

Satisfaction Level	Frequency	Percentage	M	D	Min	Max
Outstanding	40	16.60	97.85	0.88	95	98
Very Satisfactory	114	47.30	91.53	1.67	89	94
Satisfactory	64	26.56	86.14	1.69	83	88
Fair	13	5.39	80.07	1.49	78	82
Unsatisfactory	6	2.49	75.66	1.24	76	77
Failed	4	1.66	68.5	2.59	64	70
Overall Performance		100	83.00	Satisfactory		

Note: Performance Scale: 95-100 (Outstanding); 89-94 (Very Satisfactory); 83-88 (Satisfactory); 78-82 (Fair); 72-77 (Unsatisfactory); 71 < (Failed)

3.4. Relationship Between the Teacher's Use of Technology in Instruction and the Students' Academic Performance in English

Table 4 presents the correlation analysis evaluating the relationship between Teacher Use of Technology in Instruction and the student's Academic Performance in English. Communication and Collaboration and their Academic Performance in English received a rating of (R-value = -0.072, P-value = 0.268). Digital Literacy and Academic Performance also received a rating of (R-value = -0.007, P-value = 0.919). This data suggests that there is likely no statistically significant relationship between Communication and collaboration, digital literacy, and academic performance in English.

The correlation analysis indicates that there is no significant relationship between communication and collaboration, as well as digital literacy, with academic performance based on the given R-values and p-values. These results indicate that factors other than these variables

could have a more significant impact on academic performance. Overall, the findings suggest that while digital literacy plays a minor role in academic performance, communication and collaboration skills show a weak negative association that does not reach statistical significance. Further research and consideration of other influencing factors are recommended to better understand these relationships.

The integration of technology in education has had a significant impact on the field. Since its inception, studies into the effects of technology on education, particularly in students have been ongoing. Studies demonstrate how the adoption of technology has enhanced pupils' academic achievement. Effective use of technology in the classroom requires instructors to understand when and how to use it (Hollebrands, 2020). Teachers' success depends on their ability to use technology and adapt instruction. Concurrently, recent research revealed a relationship between the amount and level of technology integration and the expected usefulness of technology for educational objectives (Backfisch et al., 2020). One of the most important things that educators can do to help students learn and be ready to engage with a digitalized world is to integrate technology into the classroom (OECD; US Department of Education, 2020). As a result, flipping instructional moments also effectively empowers students' critical and upside-down thinking. Students have a favorable attitude toward learning as a result of all of this. (Awidi, 2019). Teachers now use various technology tools in the classroom, making digital technology essential in higher education. Research focuses on using these technologies to enhance learning and improve students' academic success.

These findings emphasize the need to focus on teachers' significant professional characteristics and utilizing technology successfully in the classroom. By addressing these areas, educators can improve student satisfaction and academic achievement, leading to more effective teaching practices and better educational outcomes. The lack of a significant relationship between the use of technology in instruction and students' academic performance in English implies that the integration of technology alone does not necessarily lead to improved academic results. This finding suggests that effective use of technology requires more than just its presence in the classroom; it must be strategically implemented and aligned with instructional goals. Therefore, there is a need for further research to explore additional factors that influence academic performance and to refine approaches to integrating technology in education. It is essential to ensure that teachers are adequately trained in utilizing technology in ways that enhance learning and support educational objectives.

Table 4. Technology in Instruction and the Students' Academic Performance in English

Variables	r-value	p-value	Remark	Decision
Communication and Collaboration and Academic Performance	0.07	0.27	Not significant	Do Not Reject Ho
Digital Literacy and Academic Performance	-0.00	0.92	Not significant	Do Not Reject Ho

Ho: There is no significant relationship between the teachers' use of technology in instruction and the students' academic performance.

*Note: ** $p < 0.01$ (Highly Significant); * $p < 0.05$ (Significant); $p > 0.05$ (Not significant)*

3.5. Relationship Between the Students' Learning Style and their Academic Performance in English

Table 5 presents the correlation analysis evaluating the relationship between students' learning styles (visual, auditory, and kinesthetic) and their academic performance in English. Visual Learning Style and Academic Performance received a rating of (R-value = 0.083, P-Value = 0.197). Auditory Learning Style and Academic Performance also received a 30 rating of (R – value = - 0.043, P- value = 0.507). Kinesthetic Learning Style and their Academic Performance also received a rating of (R-value = -0.060, P – value = 0.357). Similar to the others, there is a weak negative correlation between kinesthetic learning style and academic performance in English subjects.

Overall, the study does not find strong or statistically significant relationships between visual, auditory, or kinesthetic learning styles and academic performance in English among Grade 12 students. While there are weak negative correlations observed, these do not reach statistical significance levels, indicating that other factors beyond learning style preferences likely have a more significant influence on academic achievement. Further research with larger sample sizes or different methodologies may be beneficial to explore these relationships more comprehensively within educational contexts.

Alonso asserts that while people use a variety of learning styles, one is usually preferred. This proves that everyone has multiple learning styles, some are more dominating than others, but it is still crucial to understand and use them when learning (Widana et al., 2020). A combination of two learning styles, or the predominant learning style, can also have an impact on a student's academic success and process of learning. While some students learn best through diagrams, drawings, and graphs, others may learn best through lectures and are primarily visual learners (Ariastuti & Wahyudin (2022). According to Shamsuddin and Kaur (2020), a learning style is a unique approach to gaining knowledge, abilities, or attitudes via study. Learning styles can help instructors identify and resolve the learning difficulties that pupils encounter (Shah et al., 2022). As a result, learning will be more efficient for the pupils, and teachers will be able to select a curriculum that best suits each student's learning preferences.

These correlations are not statistically significant, suggesting that learning style preferences alone may not significantly influence academic achievement in this context between visual, auditory, and kinesthetic learning styles and academic performance in English among Grade 12 students. Others have explored various learning styles, including visual, auditory, and kinesthetic, in relation to academic outcomes. However, findings often suggest weak correlations that are not statistically significant, indicating that while students may have preferred learning styles, these do not necessarily translate to better academic performance in specific subjects like integrated English subject. These correlations are not statistically significant, indicating that learning style preferences alone may not significantly influence academic achievement in this context. These findings suggest several implications. Educators should adopt a variety of teaching strategies beyond catering to specific learning styles. While acknowledging the relevance of learning styles, educators should also consider other crucial factors influencing academic success, such as motivation levels, quality of instruction, and socioeconomic backgrounds. This holistic approach ensures a comprehensive support system for students.

Table 5. Test of Relationship Between the Students' Learning Style and their Academic Performance In English

Variables	r-value	p-value	Remark	Decision
Visual Learning Style and their Academic Performance	-0.083	0.20	No Significant	Do Not Reject Ho
Auditory Learning Style and their Academic Performance	-0.043	0.51	No Significant	Do Not Reject Ho
Kinesthetic Learning Style and their Academic Performance	-0.060	0.36	Not Significant	Do Not Reject Ho

Ho: There is no significant relationship between the students' learning style and their academic performance in English.

*Note: ** $p < 0.01$ (Highly Significant); * $p < 0.05$ (Significant); $p > 0.05$ (Not significant)*

4. Conclusion

The findings show that students demonstrate a high level of engagement with digital tools, which suggests they are well-equipped to use modern educational technologies to enhance their learning experiences. Students can learn through various methods but display a stronger preference for visual learning, indicating proficiency across different learning styles. In terms of academic performance in English, most students are meeting the expected standards, and with satisfactory results. However, there is no significant correlation between teachers' use of technology in education and students' academic performance in English. This performance is influenced by multiple factors such as student motivation, home environment, and teacher-student interactions, indicating that technology alone does not significantly affect outcomes. Additionally, there is no significant relationship between students' learning styles—whether visual, auditory, or kinesthetic—and their academic performance in English. Factors like motivation, study habits, and background knowledge have a greater impact on performance than learning styles.

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