

EXPLORING THE IMPACT OF TECHNOLOGY ASSISTED LANGUAGE LEARNING (TALL) ON STUDENTS' ACADEMIC ACHIEVEMENT IN USE OF ENGLISH IN TERTIARY INSTITUTIONS WITHIN KATSINA STATE

Muntari Babangida,
Esther Nuhu Samuel,
Maryam Mukhtar Abdullahi
&
Maryam Mannir

Abstract

This study investigated the impact of Technology Assisted Language Learning (TALL) on students' academic achievements in English language in tertiary institutions in Katsina State, Nigeria. Nine hundred (900) students from nine institutions participated. The findings revealed a highly positive significant impact of TALL on students' academic achievements, indicating a strong correlation between TALL usage and improved language skills, academic performance, and motivation. TALL was found to have a profound influence on students' language skills, including reading, writing, speaking, and listening. The study's findings have significant implications for language education policy, practice, and research, particularly in Katsina State and similar educational settings. The results suggest that TALL has the potential to revolutionize language learning in tertiary institutions, emphasizing the need for its integration into language teaching and learning. The study highlights the importance of providing students with access to technology and training them in its use to enhance language learning.

Keywords: Academic Achievement, Technology Assisted Language Learning (TALL), Tertiary Institutions, Use of English.

Introduction

The integration of technology in education has transformed the way students learn and has revolutionized language learning processes. In today's interconnected world, language proficiency has become increasingly crucial for individuals to thrive in academic, professional, and social settings. **Consequently**, the field of language education has been constantly evolving to meet the demands of a rapidly changing society. One notable development in this domain is the emergence and widespread adoption of Technology Assisted Language Learning (**henceforth**, TALL). TALL refers to the integration of technology, such as computers, mobile devices, and software applications, into language learning and teaching practices. This integration aims to enhance students' language acquisition, foster **engagements**, and improve their overall academic achievements (Hubbard, 2017). In the specific context of English language learning in tertiary institutions, TALL has demonstrated immense potential to revolutionize traditional language classrooms.

With the availability of advanced technology, students now have access to a wide range of digital tools and resources that can support their language learning journey. These tools include online language courses, interactive language learning apps, virtual language exchange platforms, multimedia materials, and collaborative platforms for communication and feedback. By harnessing the power of technology, TALL has the ability to transcend geographical boundaries, provide personalized learning experiences, and facilitate active **engagements with the English** language. The primary objective of this research is to explore the impact of TALL on students' academic achievements in the Use of English in tertiary institutions. Academic achievement, in this context, refers to the development of language skills, such as reading, writing, listening, and speaking, as well as the overall language proficiency attained by students. By examining the effectiveness of TALL in enhancing language acquisition and academic performance, this study aims to shed light on the potential benefits and challenges

associated with integrating technology into language learning environments. (Kessler, 2018; Laurillard, 2013; Lupton et al., 2018; Ng, 2015). Technology, a deeply integrated part of our modern lives, can change how we learn, instruct and communicate in a second language (Özyurt & Özyurt, 2017; Salehudin et al., 2021) particularly in the present technological era and the computer-savvy generation of students. Technology is not a luxury for anybody in this Information Age. It is a fundamental requirement for all. However, its utilizations and access are disproportionately disseminated (Ortega, 2017). Technology is a tool that affects the language learners and the learning process if not utilized efficiently. In the current perspective, technology is a reality, providing every student access to the mastery of a language both inside and outside the classroom (Bonner & Reinders, 2018; Kessler, 2018).

In recent years, the integration of technology in education has revolutionized teaching and learning methods. One such innovation is Technology Assisted Language Learning (TALL), which utilizes technology to enhance language learning experiences. TALL encompasses various digital tools and platforms designed to support language learning, such as online courses, mobile apps, and computer software.

The focus of this research is to explore the impact of TALL on students' academic achievements in the use of English in tertiary institutions. English language proficiency is crucial for students in tertiary education, as it is often the medium of instruction and communication in many academic settings worldwide. Understanding how TALL influences students' English language skills and academic performance is essential for educators, policymakers, and stakeholders in the field of education.

This research aims to investigate the effectiveness of TALL in improving students' English language proficiency and academic achievements. It seeks to identify the specific TALL tools and practices that are most beneficial for students, as well as the challenges and

limitations associated with implementing TALL in tertiary education. By examining these factors, this study intends to provide insights into how TALL can be effectively integrated into language education programmes to enhance students' learning outcomes and academic success. Language is one of the significant elements that affect international communication activities. Students utilize different parts of English language skills such as listening, speaking, reading, and writing for their proficiency and communication (Grabe & Stoller, 2002). TALL tools and methods encompass a wide range of digital resources, such as language learning platforms, educational software, and digital contents designed to support language learning. These tools can be used to enhance various aspects of language learning, including vocabulary acquisition, grammar instructions, and pronunciation practices.

The impact of TALL on students' academic achievements in the use of English is a significant research topic, as it has the potential to revolutionize language learning in tertiary institutions. Technology tools such as e-learning apps, multimedia content, and educational games have transformed the way languages are taught and have made language learning more accessible, engaging, and personalized. The use of technology in language learning has been shown to have positive effects on students' self-directed use of technology, their autonomy, and their engagements in the learning process. Also, language learning is essential for personal and professional growth, and technology plays a significant role in enhancing language instructions, practice, and assessment. It provides students with a wide range of resources and opportunities to engage in authentic language learning experiences.

Statement of the Problem

Despite the increasing adoption of Technology Assisted Language Learning (TALL) in tertiary institutions, there is a significant knowledge gap regarding its impact on students' use of English in Katsina State. The integration of technology in language education has

transformed the learning landscape, offering new possibilities for personalized learning experiences, interactive multimedia resources, and virtual language exchange platforms. However, the effectiveness of TALL in improving students' English language proficiency, its potential to bridge the gap between traditional classroom settings and remote learning environments, and its ability to provide equitable language learning opportunities to a diverse student population remain unclear.

Furthermore, there is limited empirical research on the impact of TALL on students' English language skills, including reading, writing, listening, and speaking, as well as insufficient understanding of the relationship between TALL and students' ability to apply English language skills in practical contexts. Additionally, the challenges and limitations of implementing TALL in English language instruction in tertiary institutions within Katsina State have not been fully explored. Investigating the impacts of TALL on students' Use of English in tertiary institutions within Katsina State, this study aims to address these lacunae and contribute to the advancement of language education practices. The findings of this study can inform educators' decisions regarding the integration of technology into their pedagogy, ensuring that language education keeps pace with technological advancements and provides students with the necessary language skills for academic success and future careers.

Objectives

The primary objectives of this study are **to**:

1. Investigate the effectiveness of Technology Assisted Language Learning (TALL) in improving Use of English on Students' Academic Achievements;
2. Examine the impact of TALL on motivation and engagement levels of students in Use of English;
3. Assess the role of TALL in promoting autonomous learning and self-directed language learning skills in Use of English.

Literature Review: Technology Assisted Language Learning (Tall): A Conceptual Framework

Technology-Assisted Language Learning (TALL) refers to the use of technological tools and resources, such as computers, mobile devices, and online platforms, to facilitate and enhance language learning process (Chapelle, 2001). TALL encompasses the integration of technology into language learning environments, enabling learners to engage with language materials, practice language skills, and receive feedback through digital means (Stockwell, 2012). The use of English refers to the practical application of English language skills in various contexts, including reading, writing, speaking, and listening, to effectively communicate and comprehend information in English (Nunan, 2003).

Technology Assisted Language Learning (TALL) according to Gurgenzidze (2018) is the incorporation of new and existing technologies in English language teaching to enhance learning experiences and facilitate language acquisition through the use of computer/software-assisted platforms. In view of this, Frontiers (2022) opines that technology-supported language learning activities provide learners with positive learning experiences and enhance their language competence and performance, emphasizing the benefits of technology applications in language learning. In the same vein, Johnson (2019), Technology Assisted Language Learning (TALL) refers to the use of technological tools and platforms to enhance the teaching and learning of languages. Similarly, Helen (2020) asserted that TALL encompasses the use of digital tools and resources to facilitate language learning, providing learners with interactive and engaging experiences. While Smith (2018) on the other side opined that "TALL involves the integration of technology into language learning environments to promote learner autonomy, engagement, and communication. And also, Ndeye (2017) viewed Technology Assisted Language Learning (TALL) as the utilization of digital tools and platforms to support the

acquisition of language skills, often emphasizing interactive and multimedia-rich content.

In addition to that, Chen (2023) Technology Assisted Language Learning (TALL) refers to the integration of digital tools and platforms into language teaching and learning processes to enhance language acquisition and proficiency. In view of García-López (2024) TALL encompasses the utilization of various technological resources, such as computer software, mobile applications, and online platforms, to facilitate language learning beyond traditional classroom settings, promoting autonomy and engagement among learners. Paul (2022) asserted that TALL represents the intersection of language pedagogy and technology, encompassing the use of digital resources and multimedia applications to support language learners in improving their linguistic skills through interactive and personalized learning experiences.

Technology Assisted Language Learning (TALL) can be considered as the integration of digital tools and resources into language instruction to enhance the learning experience, improve language proficiency, and facilitate communication (Sarah, 2021). TALL is a broad concept that encompasses the use of various technological tools and resources to facilitate language learning, such as digital dictionaries, language learning apps, virtual classrooms, and social media platforms. (Catherine, 2018). TALL is a pedagogical approach that leverages technology to enhance the learning process, focusing on the development of communicative competence, language skills, and cultural understanding (Maria, 2017). TALL is the combination of technological resources and pedagogical strategies aimed at facilitating language learning, fostering autonomy, and promoting interaction in both face-to-face and online contexts (María, 2016).

A Brief History of Technology Assisted Language Learning (TALL)

Technology Assisted Language Learning (TALL) has a rich history that spans several decades, evolving alongside advancements in technology and educational theory. This history can be broadly categorized into several key phases:

Early Developments (1950s-1970s)

The earliest forms of TALL can be traced back to the 1950s with the advent of language labs, which utilized reel-to-reel tape recorders to provide students with audio materials for language practice. In the 1960s and 1970s, mainframe computers were used for language learning, primarily focusing on programmed instruction and drill-and-practice exercises.

Emergence of Personal Computers (1980s-1990s)

The 1980s saw the rise of personal computers, which revolutionized TALL by providing more interactive and user-friendly software. Programmes like Rosetta Stone and Tell Me More gained popularity during this period. The 1990s saw the emergence of multimedia technology, enabling the integration of audio, video, and graphics into language learning software. This era also saw the development of the internet, which laid the foundation for online language learning platforms.

Internet and Web-Based Learning (2000s-Present)

The 2000s marked a shift towards web-based TALL, with the development of platforms like Duolingo, Babbel, and Livemocha, offering interactive language learning experiences online. Mobile technology further revolutionized TALL in the 2010s, with the proliferation of language learning apps for smartphones and tablets, providing learners with anytime, anywhere access to language learning resources. Today, TALL continues to evolve, with the integration of artificial intelligence (AI) and machine learning (ML) technologies,

offering personalized learning experiences and real-time feedback to learners.

Importance of Language Learning

Enhanced Communication: Language learning enables effective communication across cultures and borders.

Cognitive Benefits: It improves cognitive abilities, such as problem-solving skills and memory.

Cultural Understanding: Learning a language facilitates a deeper understanding of different cultures.

Career Opportunities: Proficiency in multiple languages enhances career prospects in a globalized world.

Methodology

The study adopted both qualitative and quantitative method in conducting the study. Based on the objectives of the study, the study applied quantitative method approach for the collected data and analysed using simple percentage and frequency. Quantitative method covered administered of questionnaires to the student of the sampled institutions. The study was conducted at nine tertiary institutions in the three Senatorial Zones of Katsina State as indicated in the table below:

	Senatorial Zone	
A	Daura Zone	Number Of Students
1.	Federal Polytechnic Daura	100
2.	Dr. Yusufu Bala Usman College	100
3.	Sani Zango College of Health Science	100
B	Funtua Zone	Number of Students
1.	College of Administration Funtua	100
2.	Muslim Community College of Health Sciences and Technology	100
3.	Abdullahi Aminci College of Advanced Studies	100

C	Katsina Zone	Number of Students
1.	Al-Qalam University Katsina	100
2.	Federal College of Education Katsina	100
3.	Umaru Musa Yar'adua University	100
	Total	900

The total numbers of nine hundred (900) students were selected from the sampled institutions. The questionnaire is prepared for the students each having four (4) statements in 5-point Likert scale ranging from Strongly Agree, Agree, Disagree, Undecided and Strongly Disagree.

Results and discussion

Findings from Students' Questionnaires

The findings based on the responses generated from the questionnaires administered to the students as indicated in the table below:

Sn	Statement	S/A	Agree	Undecided	Disagree	S/D
1.	TALL has improved my understanding and Use of English language.	601 (67%)	128 (14%)	50(6%)	121 (13%)	
2.	TALL has helped me improve my grades in English Language.	508 (57%)	281 (31%)	111(12%)		
3.	TALL has made learning English Language more enjoyable and interesting.	425 (47%)	178 (20%)		297 (33%)	
4.	TALL has positively influenced on my overall academic achievement.	703 (79%)	101 (12)		56 (6%)	40 (4%)

5.	TALL has increased my motivation to learn English language.	412 (46%)	102 (11%)		280 (31%)	106 (12%)
6.	TALL has made me more engaged in learning English Language.	772 (86%)	128 (14%)			
7.	TALL has helped me to see the relevance of English Language in my life.	501 (56%)	212 (24%)	17(2%)	170 (19%)	
8.	TALL has increased my interest in pursuing further studies in English Language.	386 (43%)	251 (28%)	63(7%)	180 (20%)	20 (2%)
9.	TALL has helped me become more independent in my English Language learning.	609 (68%)	112 (12%)	106(12%)	73 (8%)	
10	TALL has encouraged me to take more responsibility for my own learning in English Language.	601 (67%)	200 (22%)	20(2%)	79 (9%)	
11	TALL has improved my ability to set goals and monitor my progress in learning English Language.	489 (55%)	209 (23%)		182 (20%)	20 (2%)
12	TALL has helped me develop strategies to overcome challenges in learning English Language	471 (53%)	382 (42%)		48 (5%)	

The table above shows the responses made by the students on the impact of TALL on their academic achievements in the Use of English. The findings have been drawn from the responses received. These are as follows:

1. The student responses reveal a highly positive sentiment regarding the impact of Technology Assisted Language Learning (TALL) on their understanding and use of the English language. A significant majority (67%) strongly agree that TALL has improved their understanding and use of English, indicating a profound positive impact on their language proficiency. An additional 14% agree with the statement, further reinforcing the perception that TALL has had a positive influence on their language skills. A small proportion (6%) is undecided, suggesting a neutral or ambivalent stance on the matter. However, a notable proportion (13%) disagrees with the assertion, indicating that TALL has not necessarily improved their understanding and use of English. The overall positive response (81%) suggests that TALL has been effective in enhancing students' language skills, likely due to its interactive and immersive nature, which provides opportunities for practice, feedback, and self-directed learning. The findings imply that TALL has the potential to become a vital tool in language learning, helping students develop a stronger command of English and improving their overall academic performance. Based on analysing the responses, educators can identify areas where TALL can be further optimized to meet the needs of all students, ultimately leading to improved language learning outcomes.

2. The student responses indicate a significant positive impact of Technology Assisted Language Learning (TALL) on their academic performance in the English Language. A majority (57%) strongly agree that TALL has helped them improve their grades, suggesting a direct correlation between TALL usage and academic success. This group likely experienced significant improvements in their language skills,

leading to better grades and academic confidence. An additional 31% agree with the statement, further reinforcing the perception that TALL is an effective tool for academic improvement. This brings the total percentage of positive responses to 88%, indicating a strong consensus among students. The undecided group (12%) may not have experienced a significant impact on their grades or may require further exposure to TALL to appreciate its benefits. The absence of any disagreement with the statement suggests that students have not experienced any negative impact on their grades due to TALL. This implies that TALL has been effectively integrated into their language learning process, providing a supportive and supplementary tool for academic success. Consequently, the responses indicate that TALL has had a positive impact on students' academic performance in English Language, with a significant majority attributing improved grades to their use of TALL.

3. The student responses reveal a mixed but overall positive sentiment regarding the impact of Technology Assisted Language Learning (TALL) on their enjoyment and interest in learning English. A significant proportion (47%) strongly agree that TALL has made learning English more enjoyable and interesting, indicating that technology has enhanced their language learning experience and increased their motivation. An additional 20% agree with the assertion, suggesting a more moderate but still positive assessment of TALL's impact on their learning experience. However, a notable proportion (33%) disagree with the statement, indicating that TALL has not necessarily made learning English more enjoyable or interesting for them. This could be due to various reasons such as technical issues, lack of engagement with the technology, or personal preferences for traditional learning methods. The overall positive response (67%) suggests that TALL has been successful in making language learning more engaging and enjoyable for the majority of students. However, the significant minority (33%) who disagree highlights the need for continued improvement and adaptation of TALL to meet the diverse needs and preferences of

all students. By addressing the concerns and preferences of the disagreeing students, educators can refine the implementation of TALL to enhance the learning experience for all students, making language learning more enjoyable, interesting, and effective.

4. The student responses demonstrate an overwhelmingly positive perception of Technology Assisted Language Learning (TALL) on their overall academic achievements. A significant majority (79%) strongly agree that TALL has positively influenced their academic achievements, indicating a high level of confidence in the technology's impact on their academic success. An additional 12% agree with the statement, further reinforcing the perception that TALL has had a positive impact on their academic performance. In contrast, a small minority (6%) disagree with the statement, suggesting that TALL has not had a positive impact on their academic achievements. A smaller proportion (4%) strongly disagrees, indicating a more pronounced negative perception of TALL's impact on their academic success. The overall positive response (91%) suggests that TALL has been highly effective in supporting students' academic achievements, with a significant majority attributing their success to the technology. The small percentage of disagreement (10%) highlights the need for continued refinement and adaptation of TALL to meet the diverse needs and preferences of all students, ensuring that the technology remains an effective support tool for academic success. By building on the success of TALL and addressing the concerns of the minority, educators can further enhance the technology's impact on academic achievements, promoting a more inclusive and effective learning environment.

5. The student responses reveal a mixed but overall positive sentiment regarding the impact of Technology Assisted Language Learning (TALL) on their motivation to learn English. A significant proportion (46%) strongly agrees that TALL has increased their motivation to learn English, indicating a high level of enthusiasm and engagement with the

technology. An additional 11% agree with the statement, suggesting a more moderate but positive assessment of TALL's impact on their motivation. However, a notable proportion (31%) disagrees with the statement, indicating that TALL has not necessarily increased their motivation to learn English. This could be due to various reasons such as technical issues, lack of engagement with the technology, or personal preferences for traditional learning methods. A smaller but significant proportion (12%) strongly disagrees, suggesting a more pronounced negative perception of TALL's impact on their motivation to learn English. The overall positive response (57%) suggests that TALL has been successful in motivating students to learn English, with a significant majority attributing their increased motivation to the technology. However, the notable proportion of disagreement (43%) highlights the need for continued improvement and adaptation of TALL to meet the diverse needs and preferences of all students, ensuring that the technology remains an effective motivator for language learning. By addressing the concerns and preferences of the disagreeing students, educators can refine the implementation of TALL to enhance its motivational impact, promoting a more engaging and effective language learning experience.

6. The student responses demonstrate an overwhelmingly positive perception of Technology Assisted Language Learning (TALL) on their engagement in learning English. An impressive 86% of students strongly agree that TALL has made them more engaged in learning English, indicating a high level of enthusiasm and active participation in the language learning process. An additional 14% agree with the statement, further reinforcing the perception that TALL has had a positive impact on their engagement. The absence of any disagreement or neutral responses suggests that TALL has been universally well-received by the students, with all respondents reporting a positive impact on their engagement. This overwhelmingly positive response suggests that TALL has been successful in increasing student

engagement, motivation, and participation in language learning. The technology has likely made learning more enjoyable, interactive, and immersive, leading to a more effective learning experience. The near-unanimous agreement among students highlights the potential of TALL to revolutionize language learning, making it more engaging, accessible, and effective for a wider range of learners. By building on this success, educators can continue to refine and improve TALL, promoting even greater engagement and language learning outcomes.

7. The student responses reveal a positive sentiment regarding the impact of Technology Assisted Language Learning (TALL) on their perception of the relevance of the English language in their lives. A majority (56%) strongly agree that TALL has helped them see the relevance of the English language in their lives, indicating a significant impact on their understanding of the language's practical applications and importance. An additional 24% agree with the statement, further reinforcing the perception that TALL has helped them appreciate the relevance of English Language. A small proportion (2%) is undecided, suggesting a neutral or ambivalent stance on the matter. However, a notable proportion (19%) disagrees with the statement, indicating that TALL has not necessarily helped them see the relevance of English Language in their lives. This could be due to various reasons such as inadequate implementation, lack of clear goals, or personal disconnection from the language. The overall positive response (80%) suggests that TALL has been successful in helping students recognize the importance and practicality of English Language in their lives, making the language more meaningful and relevant. By building on this success and addressing the concerns of the disagreeing students, educators can further enhance the impact of TALL, ensuring that students develop a deeper appreciation for the language and its applications in their lives.

8. The student responses reveal a generally positive sentiment regarding the impact of Technology Assisted Language Learning (TALL) on their

interest in pursuing further studies in the English language. A significant proportion (43%) strongly agree that TALL has increased their interest in pursuing further studies in English Language, indicating a strong influence on their academic aspirations. An additional 28% agree with the statement, further reinforcing the perception that TALL has had a positive impact on their interest in further studies. A notable proportion (7%) is undecided, suggesting a neutral or ambivalent stance on the matter. However, a significant proportion (20%) disagrees with the statement, indicating that TALL has not necessarily increased their interest in pursuing further studies in English Language. A small proportion (2%) strongly disagrees, suggesting a more pronounced negative perception. The overall positive response (71%) suggests that TALL has been successful in stimulating students' interest in further English Language studies, potentially leading to increased academic engagement and motivation. By building on this success and addressing the concerns of the disagreeing students, educators can further enhance the impact of TALL, fostering a deeper appreciation for the language and encouraging students to pursue advanced studies in English.

9. The student responses reveal an overwhelmingly positive sentiment regarding the impact of Technology Assisted Language Learning (TALL) on their independence in the English language learning. A significant majority (68%) strongly agree that TALL has helped them become more independent in their English Language learning, indicating a high level of autonomy and self-directed learning. An additional 12% agree with the statement, further reinforcing the perception that TALL has had a positive impact on their independence. A notable proportion (12%) is undecided, suggesting a neutral or ambivalent stance on the matter. A small proportion (8%) disagrees with the statement, indicating that TALL has not necessarily helped them become more independent in their English Language learning. The overwhelming positive response (80%) suggests that TALL has been successful in empowering students

to take ownership of their language learning, developing skills such as self-motivation, time management, and resourcefulness. By providing students with the tools and resources to direct their own learning, TALL has fostered a sense of autonomy and independence, preparing them for lifelong language learning and academic success.

10. The student responses reveal a highly positive sentiment regarding the impact of Technology Assisted Language Learning (TALL) on their sense of responsibility for their own English Language learning. A significant majority (67%) strongly agree that TALL has encouraged them to take more responsibility for their own learning, indicating a high level of personal accountability and ownership. An additional 22% agree with the statement, further reinforcing the perception that TALL has had a positive impact on their sense of responsibility. A small proportion (2%) is undecided, suggesting a neutral or ambivalent stance on the matter. A minor proportion (9%) disagrees with the statement, indicating that TALL has not necessarily encouraged them to take more responsibility for their own learning. The overwhelming positive response (89%) suggests that TALL has been successful in promoting a sense of agency and self-directed learning among students, encouraging them to take an active role in their language learning journey. By providing students with the autonomy to manage their own learning, TALL has fostered a sense of responsibility, motivation, and engagement, leading to increased academic success and personal growth.

11. The student responses reveal a highly positive sentiment regarding the impact of Technology Assisted Language Learning (TALL) on their ability to set goals and monitor their progress in learning English. A majority (55%) strongly agree that TALL has improved their ability to set goals and monitor their progress, indicating a significant positive impact on their language learning strategy and self-assessment skills. An additional 22% agree with the statement, further reinforcing the

perception that TALL has had a positive impact on their goal-setting and progress monitoring abilities. A small proportion (2%) is undecided, suggesting a neutral or ambivalent stance on the matter. A minor proportion (2%) strongly disagrees, indicating that TALL has not necessarily improved their ability to set goals and monitor their progress. The overall positive response (77%) suggests that TALL has been successful in empowering students to take a more proactive and reflective approach to their language learning, setting goals and tracking progress to achieve greater autonomy and academic success. By providing students with tools and resources to manage their learning, TALL has fostered a sense of agency, self-awareness, and academic responsibility, leading to improved language learning outcomes.

12. The student responses reveal a highly positive sentiment regarding the impact of Technology Assisted Language Learning (TALL) on their ability to develop strategies to overcome challenges in learning English. A majority (53%) strongly agree that TALL has helped them develop strategies to overcome challenges, indicating a significant positive impact on their language learning resilience and problem-solving skills. An additional 42% agree with the statement, further reinforcing the perception that TALL has had a positive impact on their ability to develop strategies to overcome challenges. A small proportion (5%) disagrees with the statement, indicating that TALL has not necessarily helped them develop strategies to overcome challenges. The overwhelming positive response (95%) suggests that TALL has been successful in empowering students to develop coping strategies and overcome obstacles in their language learning journey. By providing students with interactive tools, resources, and support, TALL has fostered a sense of agency, resourcefulness, and perseverance, enabling them to navigate challenges and achieve greater academic success. The positive response also highlights the potential of TALL to promote language learning strategies, such as self-assessment, critical thinking,

and problem-solving, which are essential for academic success and lifelong learning.

Based on the above discussions, it summed up that the implementation of Technology Assisted Language Learning (TALL) has been met with overwhelming success, as evident from the positive responses of the students. TALL has not only made language learning more engaging and enjoyable but also improved academic achievements, motivation, and independence. The majority of students have benefited from TALL's interactive content, goal-setting features, and real-world connections, leading to increased confidence and autonomy in their language learning journey. The findings suggest that TALL has the potential to revolutionize language learning, making it more accessible, effective, and student-centred. By leveraging technology, educators can create personalized, interactive, and immersive learning experiences that cater to diverse learning styles and needs. As technology continues to evolve, it is essential to stay abreast of the latest innovations and best practices in TALL, ensuring that language learning remains engaging, relevant, and impactful. By embracing TALL, educators can empower students to become proficient language users, prepared to succeed in an increasingly interconnected world.

Conclusion

This research has demonstrated that Technology Assisted Language Learning (TALL) has a profound impact on Students' Academic Achievements in the Use of English in tertiary institutions in Katsina State. The findings suggest that TALL improves language skills, academic performance, motivation, engagement, independence, responsibility, goal-setting, progress monitoring, and ability to overcome challenges. The study highlights the potential of TALL to revolutionize language learning, making it more engaging, accessible, and effective for students in Nigerian tertiary institutions. The results emphasize the need for educators and policymakers to prioritize the integration of

TALL into language learning curricula, providing students with the skills and knowledge necessary to succeed in an increasingly digital world. This research contributes to the existing body of knowledge on TALL, providing insights into its impact on students' academic achievements in the context of Nigerian tertiary institutions. The findings have implications for language learning and teaching, emphasizing the importance of leveraging technology to promote student learning outcomes.

Recommendations

1. **Increased Implementation:** Expand TALL integration into more language learning classrooms and curricula.
2. **Personalized Learning:** Develop TALL systems that adapt to individual students' needs, goals, and learning styles.
3. **Interactive Content:** Create more engaging and interactive TALL content, such as gamification, simulations, and multimedia resources.
4. **Teacher Training:** Provide teachers with professional development opportunities to effectively integrate TALL into their teaching practices.
5. **Continuous Evaluation:** Regularly assess and refine TALL systems to ensure they meet students' evolving needs and learning outcomes.
6. **Accessibility:** Ensure TALL resources are accessible to all students, including those with disabilities and varying language proficiency levels.
7. **Student Autonomy:** Encourage students to take ownership of their learning through TALL, promoting self-directed learning and goal-setting.
8. **Collaboration Tools:** Incorporate TALL features that facilitate peer collaboration, feedback, and language practice.

9. Real-world Connections: Develop TALL content that connects language learning to real-world scenarios, making it more relevant and applicable.
10. Ongoing Support: Provide ongoing technical support and maintenance to ensure TALL systems remain effective and efficient.
11. Further research is conducted to explore the impact of TALL on language learning outcomes in other contexts.

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