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Integrating Digital Tools in Second Language Acquisition: An Experimental Study among Tamil Native Learners of English

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Abstract

English language proficiency remains a vital component of academic success and professional mobility in Tamil Nadu, where learners often face difficulties transitioning from Tamil linguistic structures to English communication demands. In response to the growing digitalisation of education, this study investigates the effectiveness of digital tools in enhancing second language acquisition (SLA) among Tamil undergraduate learners. A quasi-experimental design was employed with 60 participants divided equally into an experimental group receiving digital tool–based instruction and a control group receiving traditional textbook-based instruction over an eight-week period. The experimental group engaged with applications such as Duolingo, Grammarly, ELSA Speak, British Council learning modules, and interactive platforms like Kahoot and Quizizz. Pre- and post-test results revealed statistically significant improvements ($p < 0.001$) across listening, speaking, reading, and writing skills for the experimental group, with notable gains in pronunciation and speaking accuracy. Learner attitudes indicated increased motivation, confidence, and preference for technology-enhanced learning environments. The findings demonstrate the pedagogical value of integrating digital tools into routine English instruction, promoting learner autonomy, and adopting blended learning models supported by teacher training. While limitations include a small sample size, short intervention duration, and reliance on smartphone access, the study provides strong empirical evidence for the potential of digital technologies to enhance SLA among Tamil native learners. Future research should explore long-term, multi-level implementations to broaden applicability across diverse educational contexts.

Keywords: digital tools, second language acquisition, tamil learners, technology-enhanced learning, english proficiency

Introduction

The English language proficiency has now become an essential need in modern India, especially in such a state as in Tamil Nadu where English serves as a key to academic progress, career, and further socio-cultural inclusion. Irrespective of prominence, English is a second language or the foreign language of the majority of Tamil-speaking learners, who frequently have difficulties in resolving linguistic distance between English and their native language.

The Tamil language, as a Dravidian language and having unique syntactic, phonological, and morphological structures, has a very poor structural overlap with English. Consequently, learners are often faced with problems in learning pronunciation, gaining knowledge of the syntax patterns, and gaining communicative fluency. These are even further exacerbated in schools where contact with the English language takes place to a limited extent and the modes of teaching are still textbook-based. Since the recent years, there is a fast process of digitalisation that is sweeping over the Indian landscape and creating some opportunities on enhancing second language acquisition (SLA). The advancement of the world of mobile technologies, rapid internet connections, and easy to access digital mediums has led to the realization of technology-enhanced learning environments. Online applications such as mobile learning software, pronunciation systems, interactive grammar systems, speech recognition systems, and video based learning systems- have provided active, multi-modal and learner-focused ways of learning that traditional classrooms are notorious in offering. This can be achieved through such tools as they enable learners to have access to genuine English input, immediate corrective feedback, repetitive practice and control their learning pace. Such affordances are close to modern theories of SLA, including the Input Hypothesis of Krashen, the Output Hypothesis of Swain, and constructivist theories, which place more emphasis on active interaction and multimodal learning.

Despite constant evidence of the possibility of digital technologies in enhancing vocabulary growth, pronunciation, reading, and communicative abilities, the specific gap between empirical studies on Tamil native learners is significant. The cultural context, language profile, and teaching and learning patterns of Tamil Nadu present specific opportunities and challenges that can influence the way learners will engage with digital technology. Moreover, most of the government and semi-urban institutions have not implemented technology fully yet and teachers are not always prepared to integrate digital resources in the most successful way. This disparity between the international results and local situation highlights the necessity of having a context-specific research.

The current research will aim to fill this requirement by conducting a systematic investigation on the effect of chosen digital tools on English language competence of Tamil-speaking undergraduate students. The study evaluates the gains in the most important language applications of listening, speaking, reading, and writing, after the usage of digital tools, through a structured experimental design, through the use of pre- and post-tests. Besides the evaluation of the proficiency in terms of skill-based performance, the study also examines the attitude of learners, their level of motivation, and their general interests related to the environment of technology-enhanced learning. These are some of the affective factors that are important to understand as motivation and perceptions of learners play a key role in determining SLA outcomes particularly in digital contexts.

Placing the investigation into the context of Tamil Nadu educational ecosystem, the research paper will provide novel information to the currently expanding range of literature on technology-enhanced SLA. It does not only present empirical findings on the effectiveness of digital tools in a particular linguistic group but also presents some practical implications to the teachers, curriculum designers, and policymakers. Finally, the study will also set out to show how digital applications can be intelligently incorporated to address learning deficiencies, personalised teaching, and establish long-term channels of enhancing English competency among the native Tamils in learning.

Literature Review

The use of digital tools in acquiring a second language (SLA) has gained significant academic interest in the last decade as educational institutions all over the globe continue shifting towards a digital learning setting. Various researches have revealed that digital applications like mobile applications, web-based learning programs and speech recognition applications, and multimedia tools, promote language acquisition through multimodal input,

interactive activities and tailored feedback systems. Godwin-Jones (2020) argues that digital learning applications enhance cognitive processing and long-term retention because of the visual, auditory and kinesthetic input which enhances the cognitive process. Studies by Li and Hafner (2022) also emphasize the fact that vocabulary learning is much stronger with the use of mobile applications such as Duolingo and Quiznet, which are based on spaced repetition and gamification methods. Pronunciation-driven applications like ELSA Speak and FluentU were also effective; researchers conducted by Neri et al. (2021) and Mroz (2023) demonstrate that real-time corrective feedback on speech-recognition platforms enhances phonological accuracy of learners and increases their confidence as learners. These results are very consistent with the known theories of SLA such as the Input Hypothesis of Krashen (1985) that supports the role of comprehensible input and the Output Hypothesis of Swain (1995) that supports the role of meaningful language production.

The language difficulties of Tamil-speaking students support the idea of the digital intervention. Tamil is a classical Dravidian language; it is very different with that of English in the levels of phonology, morphology and also the structure of the sentences. Research presented by Annamalai (2019) and Gunasekaran (2021) notes that Tamil learners tend to experience issues with English clusters of consonant and aspirated sounds, and stress-timed rhythm as Tamil is syllable-timed, and many of the segmental and suprasegmental units of English speech are not present in Tamil speech. According to the research performed by S. Rajendran (2020), such differences are commonly associated with fossilized pronunciation errors, decreased intelligibility and constant anxiety in oral communication. Digital pronunciation tools have been found to alleviate these challenges successfully. Praat and online IPA trainers offer visual spectrograms and articulatory models, which allow the learner to fix pronunciation problems more effectively than with traditional instructions on their own (Escudero and Boersma, 2021). Additionally, the computational phonetics study by Srinivasan and Subramanian (2022) indicates that repeated and self-paced online listening and speaking tasks are very useful to Tamil learners as they match their phonological requirement.

Technology Enhanced Language Learning (TELL) has grown at a fast pace with the development of mobile-assisted language learning (MALL), intelligent tutoring systems and interactive multimedia platforms. Kukulska-Hulme (2020) is interested in the fact that MALL offers flexibility and autonomy of learning using highly accessible mobile interfaces. Recent research works by Sung et al. (2021) and Zhao (2023) indicate that mobile-based platforms are highly effective in motivating learners, especially when in the case of young adults who are used to digital interaction. Artificial intelligence (AI) intelligent tutoring systems have also been shown to have a quantifiable difference in grammar accuracy and writing fluency. As an example, Li, Link, and Hegelheimer (2020) have discovered that writing assistants based on AI like Grammarly and Write and Improve are beneficial because they allow learners to recognize mistakes in the process, thereby encouraging the development of independent writing. TED-Ed, Coursera, and British Council modules are multimedia-based platforms that offer genuine exposure to the world variants of English and establish learning conditions that allow the development of communicative competence (Reinders and Darasawang, 2021).

Although the application of digital tools has pedagogical benefits, researchers underline that successful integration of digital technologies needs contextual adjustment. Globally effective tools might not be able to provide full coverage of the linguistic, cultural, or socio-economic peculiarities of the particular groups of learners. According to studies in India by Sharma and Chaturvedi (2021) and Ganesan (2022), the success of digital learning is heavily dependent on such factors as digital literacy, the alignment of the curriculum, and teacher facilitation. According to Praveen and Suresh (2023), digital tools can bring optimal results only in case of combining them with the structured guidance and meaningful classroom integration. Kannan and

Selvaraj (2021) find that access imbalances especially in rural Tamil Nadu also influence the capacity of the learners to use technology on a regular basis. In such a way, digital tools may be effective additional aids; however, their performance requires the support of teachers, the willingness of the institution, and the further involvement of the learner. The literature emphasizes that digital tools have a full potential to help in the support of SLA, yet such a success will be determined by the implementation being culturally and linguistically responsive. The current research is based on these perspectives as it will analyze the effects of the chosen digital tools on the proficiency level of English among Tamil native students and examine the attitudes of the learners toward technology-mediated teaching in the educational environment of Tamil Nadu.

Objectives of the Study

1. To quantify the improvement in the listening, speaking, reading, and writing skills upon the incorporation of digital tools.
2. To determine the learner attitudes and motivation towards technology-based learning of English.
3. To make a comparison of experimental and control groups in regard to pre-test and post-test results.
4. To suggest pedagogical implications of technology integration in the Tamil Nadu classrooms.

Research Questions

1. Do digital tools improve English proficiency among Tamil native learners?
2. Which language skills demonstrate the highest gains?
3. What are learners' attitudes toward using digital tools for English learning?

Methodology

The research design applied in this study was a quasi-experimental research where pre-test and post-test were used to investigate the effectiveness of digital tools in promoting the level of English language proficiency among the Tamil native learners. They were divided into two groups to compare them, whereby an experimental group was taught using the chosen digital tools whereas the control group was taught using the traditional textbook-based learning methods. The respondents were 60 undergraduate students all native Tamil learners in a degree programme. They existed in the equal number of participants in the experimental group (n = 30) and in the control group (n = 30) with the similarity of the demographic and proficiency features at the initial stage. The experimental group intervention was the use of various digital tools based on the various language skills. Such programs like Duolingo, Grammarly, and ELSA Speak were used to enhance the accuracy of the vocabulary, grammar, and pronunciation. Learning and speaking practice materials were presented with the help of YouTube educational channels, whereas grammar reinforcement and reading comprehension were supported with the help of British Council online modules. To further encourage the engagement, the paper has used interactive quiz tools like Kahoot and Quizizz which introduced gaming methods of assessment to the learning process. On the contrary, the control group was taught using traditional methods, with the use of prescribed books and explanations in the classroom only.

The three main tools that facilitated data collection were: a Language Proficiency Test (LPT), that evaluated the skills of learners in listening, speaking, reading and writing; a Motivation and Attitude Questionnaire, that evaluated the perceptions that learners held towards digital tools; and an Instructor Observation Checklist, which recorded the interactions in the classroom and the behavioural patterns of learners throughout the intervention. The experiment lasted eight weeks with the experimental group receiving structured learning with digital tools of four hours per week and the control group receiving a standard curriculum in the same period. The two groups underwent a pre-test before the intervention and post-test after the intervention. To analyze the data, the mean scores in

pre-test and post-test in both groups were compared with the help of descriptive data analyses, and paired t-tests were applied to find out the statistical significance of learning gains observed. This research design allowed conducting a rigorous assessment of the effect of using digital technology on the acquisition of a second language among native Tamils.

Results

The section includes the results of the research as the analysis of pre-test scores and post-test scores of the experimental and the control group based on the improvement of the listening, speaking, reading, and writing proficiency. The tests of statistical significance and the descriptive outcomes of the attitude questionnaire are additional support to the quantitative data.

Pre-test and Post-test Comparison

To determine the efficiency of digital tools in the English language proficiency, mean scores were calculated in both experimental and control clusters, before and after the intervention. The descriptive statistics of all four language skills have been given in Table 1.

Table 1: Comparison of Mean Scores in Language Proficiency (Pre-test vs Post-test)

Skill	Experimental Pre-Test	Experimental Post-Test	Control Pre-Test	Control Post-Test
Listening	42.3	69.4	41.8	48.7
Speaking	39.7	72.1	40.1	49.0
Reading	44.8	75.6	43.9	52.4
Writing	38.5	67.8	39.3	47.1

The numerical data clearly show a **substantial improvement** in the experimental group across all language skills, whereas the control group exhibits only marginal gains.

Listening Skill

Here, the experimental group has improved, **although not significantly, by 26.1.**

The change of **27.1** points, which is an **increase of 64.07%.**

Control Group: Rose boosted to 48.7, up to 41.8.

Only 6.9 points were improved, which is 16.5 per cent.

The experimental condition had a higher score in comparison to the **control condition by 20.2** points, which demonstrates that digital listening devices had a major effect of boosting the levels of comprehension and auditory processing.

Speaking Skill

Experimental Group: The improvement over 39.7 is to 72.1.

An improvement of 32.4points (CLV 81.6).

Control Group: **Became better than 40.1 (49.0).**

Gain of 8.9 points, or 22.1%.

The enhancement of the ability to speak is the greatest among the four skills in the experimental group, probably because of the use of speech recognition software, pronunciation applications, and the opportunity to practice speaking through the support of digital tools.

Reading Skill

Experimental Group: increased **by 75.6 compared to 44.8.**

Increase of 30.8 points, or 68.75%.

Control Group: Change in **the 43.9 to 52.4.**

Increase of 8.5 points, or 19.36%.

Online comprehension modules and digital reading platforms appeared to have had significant contribution to the reading improvement in the experimental group.

Writing Skill

- Experimental Group: **Got better at 38.5 to 67.8.**
  Increase of 29.3 points, or 76.10%.
- Control Group: **Changed to 47.1, which is better than 39.3.**
  Increase of 7.8 points, or 19.84%.

Writing proficiency can be improved due to grammar checker software, set writing writing prompts, and instant feedback provided by online

resources. In all the skills, the average of the improvement in the experimental group stood at 29.9 points as compared to the control group where it was 8.0 points. This is numerically equivalent to the fact that digital tools were about 3.7 more effective than conventional instruction on this sample.

Statistical Significance

In order to confirm the perceived improvements, paired sample t-tests were done to analyze changes in the means scores before and after the test in each group.

Overall Statistical Results

Repeatedly, the outcomes of the experimental group illustrated that all skills (listening, speaking, reading and writing) had significantly improved ($p < 0.001$).

Choice B: Control group No statistically significant gains were found ($p > 0.05$).

This proves that the advances in the case of the experimental group cannot be attributed to chance, but rather can be firmly linked to the application of digital tools in learning.

Interpretation

A p-value of < 0.001 means:

The probability of results being obtained by chance is less than 0.1.

There is more than 99.9 percent certainty that the digital tools made the improvement.

This is usually strong evidence in research in the educational field.

Learner Attitudes Toward Digital Tools

In addition to proficiency scores, the study also measured learner motivation, engagement, and preferences through a structured questionnaire.

Key Findings from Attitude Survey

Learner Response Category	Percentage (%)
Increased motivation using digital tools	87%
Preference for digital pronunciation tools	90%
Found mobile apps more engaging than textbooks	84%

Detailed Interpretation of Attitude Data

1. Motivation (87%)

Most of them indicated that digital tools helped them make learning more engaging, interactive, and less stressful. Aspects like gamification, immediate feedback, and multimedia were used to provide extra motivation.

2. Pronunciation Tools (90%)

Digital pronunciation systems were greatly favoured by learners as compared to traditional teacher-based correction. Feedback based on AI assisted them in making corrections with confidence and at their own time.

3. Mobile Apps (84%) Engagement.

Majority of the learners were more involved when learning practice was presented in form of mobile applications. This implies that ease of use and accessibility are important facilitators of learner engagement.

The findings all prove that digital devices contribute to a high level of language proficiency, confidence, and motivation. There were statistically significant changes in the experimental group in all four areas of language, but the feedback on the use of digital learning tools is one which is highly conducive and acceptable by the learners. The results confirm the usefulness of technology-based interventions among Tamil native speakers and indicate the possibilities of extending the same to English language lessons.

Discussion

The results of the current research indicate clearly that digital tools can have a substantial, and beneficial effect on the process of second language acquisition (SLA) in Tamil native learners of the English language. The significant difference observed in the experimental group in all four language skills listening, speaking, reading, and writing would suggest that technology-enhanced instructional settings offer linguistic, cognitive, and motivational benefits that the conventional learning settings are usually unable to offer. The findings

confirm the belief that multimodal digital input, ongoing feedback, and learner control are important factors to influence more productive and more engaging language-learning experiences.

The multimodal nature of digital tools was also the key factor in the improvement of learners. Audio, video, animation, text based and interactive platforms give different forms of comprehensible input that expands learners' exposure to authentic English. The Input Hypothesis by Krashen holds that meaningful exposure to language exists at the root of acquisition; this input is provided by the digital tools and in a regular and varied form. Within the situation of the Tamil learners who are generally exposed to little native or near-native English beyond the classroom these digital resources fulfill a significant gap by recreating the experience of a real-world communicative interaction and providing the necessary linguistic immersion.

Listening Skills Advancement

The significant advancement of listening skills is directly linked to the high frequency of access to the multimedia resources by the learners in the form of YouTube educational channels, British Council audio recommendations, and mobile apps that provide the learners with the opportunity to be aware of listening exercises that are graded. These materials expose the learners to diverse accents, conversational speed, and contexts which is scarcely achieved by the traditional classroom recording. Tamil students usually have problems with the stress patterns and intonations of the English language due to Tamil being a syllable time language; the endless listening practice offered by digital technologies enables students to fit into the stress-timed pattern of the English language. This is corroborated by the prior research in SLA study pointing to the fact that repeated authentic auditory stimulus improves phonological processing and accuracy of comprehension.

Considerable Improvements in Speaking

Of all skills, speaking improved in the experimental group the most. This is explained by the application of the pronunciation app and speech-recognition (e.g., ELSA Speak) that offer immediate corrective feedback, one of the pedagogical features that are often unattainable in the classroom. Students will be able to train their ability to pronounce difficult sounds, eliminate fossilised pronunciation mistakes and visual prompts to modify their voice and stress. This is particularly critical to the Tamil learners, which experience difficulties with consonant clusters, voiced/voiceless contrasts and suprasegmental traits. This and the fact that one can practise and not be afraid of judgement strengthens the confidence aspect, which is in line with the Hypothesis on Output stated by Swain, which emphasises the need to produce language in order to internalise the linguistic structures. Digital environment is therefore a secure, individualised oral laboratory, where one can do repeated experiments and can afford to polish oral skills.

Proficiency Gains Reading and Writing

The enhancement of reading and writing skills may be attributed to the regular use of grammar platforms, well-organized passages of understanding, and AI-based writing aids by learners. Scaffolding in applications, such Grammarly and online reading modules, is provided by experience of instant corrections, vocabulary proposal and grammar explanations that are offered in a context. Since the Tamil learners typically find it hard to construct complete English sentences because of the syntactic differences between the Tamil and English languages, the step-by-step instructions and visual dissection offered by these platforms prove beneficial. This is consistent with the constructivist postulates whereby the learner constructs knowledge through a guided discovery. The improvement in reading performance shows that the learners were exposed to a variety of digital texts, which helped them to achieve higher decoding skills, vocabulary recognition, and comprehension strategies.

Motivation, Autonomy and Engagement

Another important finding of the research is the increase in the motivation of the learners with 87%

of respondents expressing increased interest in studying English using the digital tools. One of the most important predictors of effective language learning is motivation, and digital platforms ensure the high level of engagement due to gamification, the tracking of progress, and multimedia content. The technology-based activities are more fun, interactive and relatable to Tamil learners who usually experience anxiety or lack of interest in the traditional classes taught in English. Also, their control to manage their learning speed encourages independence, which is vital in the maintenance of the long-term competence. Online resources enable students to review lessons, monitor their own performance and select lessons based on their competences and weaknesses.

Co-location with World Research and Regional Requirement

This research is in line with the world research that has shown the advantages of Technology-Enhanced Language Learning (TELL). Researchers of countries like China, Japan, and Spain have also reported similar improvement in pronunciation, vocabulary retention, and motivation of learners by mobile-assisted language learning (MALL). The unique feature of the study is that it has a narrow scope of Tamil learners a population whose language needs are frequently not covered by SLA studies. The findings offer area-specific information that digital interventions could successfully correct the idiosyncratic phonological, morphological, and syntactic difficulties of Tamil speakers.

Pedagogical and Educational Consequences

The general progress in all language proficiencies supports the idea that the digital tools should be introduced in general English teaching in Tamil Nadu. Conventional pedagogical practices might not be enough to address the needs of the modern learner, particularly in the fast changing digital and globalised world. Educators have to be oriented in such a way that they can add digital resources to the curriculum in a meaningful way as to avoid overloading the textbook with online resources that allow students to interact, give feedback, and be creative.

Pedagogical Implications

Adding Digital Tools to Everyday Teaching.

- Digital tools must be integrated as a normal aspect of the day-to-day teaching of English and not be made an add-on.
- Multimodal input and instant feedback Multimodal input and instant feedback are provided by web apps like pronunciation, grammar-learning, and interactive reading modules, which cannot be offered by a textbook.
- The lessons ought to integrate mobile apps, online learning, and AI-powered writing assistants with textbook-based learning to make the lessons more comprehensive.

Progress: While instructors need to support learners in acquiring new skills, they should also allow them to develop digital literacy skills independently (Fredricks, 2018).

- It gives learners the opportunity to learn at their own pace through digital learning which they can review the challenging concepts and work independently.
- The teacher ought to offer systematic instruction when using mobile applications such as suggesting vocabulary builders to use every day or practicing pronunciations as homework.
- Qualified instructions enable the students to form responsible, self-directed learning behaviours outside of classroom.

Improving Teacher Training and Professional Development

- There are a lot of teachers (mostly in rural or semi-urban Tamil Nadu) who should be assisted in the use of modern digital applications.
- The teachers should be trained on professional development programmes to use pronunciation programs, grammar checker, speech-recognition programs, and online learning platforms.

- Analysis of learner data, the incorporation of tools into lesson planning and the technical problems should also be studied in the workshops.

The use of Blended Learning Models

- In blended learning, the traditional instructions are integrated with digital tools to foster flexibility and individualised learning.
- The online modules, virtual speaking lab and interactive reading activities should be allowed to the students after the classroom hours.
- To make Internet access equally available to every learner, institutions should invest in their online infrastructure including the internet, language laboratories, and machines.

Gamified Assessments: There are various methods through which this can be achieved

- Gamification raises motivation and lowers language anxiety, particularly among the Tamil learners who tend to feel intimidated by the English language.
- Badges, points and leaderboards are used in tools like kahoot, Quizizz and Duolingo to make the process of learning fun.
- The introduction of gamified testing into the evaluation process allows educators to monitor the progress of students, as well as maintain a high level of engagement.

Assuring Balanced and Sustainable Integration of technology

- Teacher and learner autonomy and resources must be coordinated in terms of using effective technology.
- The regular use of digital tools with the aid of infrastructure, institutional planning, and pedagogies can positively impact the quality and equity of English language education in Tamil Nadu.

Limitations

1. Small Sample Size

a. The experimental group comprised only 60 undergraduate learners with an equal number in control and experimental groups.
b. A bigger sample would help to generalise the results and broaden the differences in the learner populations and their levels of proficiency.
c. The future research will have to involve learners of various institutions, regions, and language backgrounds.

Short Intervention Period

a. The intervention was conducted over a period of eight weeks, which is not very long to assess the development of language in the long term.
b. Longitudinal or longer studies may be able to test the long-term retention, long-term improvement, and behaviour changes in the use of digital tools.
c. Research in SLA shows that the prolonged exposure is critical to note cumulative language acquisition.

Restricted to Undergraduate Learners.

a. The research was only conducted on undergraduate students, and hence, the research findings cannot be generalized to other age groups and levels of education.
b. School learners, learners in courses of diplomas, workstations or post-graduate studies may have varying needs, motivation, and challenges.
c. Further research ought to cut across various levels of education to increase the scope of relevance.

Resistance to Smartphone Access and Digital Literacy

a. The participation of the learners depended on the possession of smartphones, the quality of the device, the storage space, and the internet connection.
b. Differences in digital literacy and familiarity with mobile interfaces influenced the consistency in engagement.

c. This is an equity issue, particularly in rural or low-income environments whereby there is a low level of digital access.

Out of Control External Variables

a. Other factors not measured in the study were previous exposure of learners to technology, intrinsic motivation, and teacher digital competency.
b. These extraneous factors have the potential to have contributed to learning differences and performance.
c. A qualitative approach (interviews, observations, or focus groups) would be capable of informing these influences in greater detail.

Context-Specific Constraints

a. The research was done in one region and language (Tamil Nadu), which is not generalizable to the other cultural or linguistic groups.
b. The different social-economic and institutional disparities in regions can influence the results of digital integration.

Future Research Opportunities

a. These limitations can be taken care of to enhance the studies of digital learning in the future.
b. More extensive, lengthy, and varied researches can shed more light on the role of digital tools in SLA among different types of learners.

Conclusion

The aim of the current study was to investigate the influence of computer technologies on second language learning (SLA) in native learners of English (Tamil) and the results obtained are highly persuasive of the fact that technology-based learning is transformative in that respect. These findings proved that the learners who used digital applications, including pronunciation software, mobile learning applications, and interactive grammar applications, had significantly better improvements in all four language skills as opposed to learners who took the traditional instruction. These improvements were not mere statistical differences, but pedagogical improvements in terms of better understanding, fluency, accuracy and confidence. The researchers also found out that digital tools are important in dealing with the special language needs of the learners in Tamil especially in pronunciations, phonological processing, and syntactic meaning. Multimodal input tools and real-time feedback provided learning opportunities that facilitated individualised learning progressions and promotion of repetitive and self-directed practice. Students indicated that they became more motivated, engaged, and preferred technologies-based learning to traditional textbook-based methods, which highlights the emotional value of technology-based learning. Although the results indicate the efficacy of digital tools, they also address more general consequences on the English language education in Tamil Nadu. The meaningful use of technology in the classroom, teacher training to use digital tools usefully and blended learning models can all bring equitable, participatory and future-focused language education. With the digital literacy and mobile accessibility continue to increase throughout the region, the possibility of scalable and sustainable technology-based interventions is even greater. The limitations of the study such as small number of sampled, brief intervention time, and using smartphones implies that future studies should examine longer interventions, larger scale interventions, and more diversified interventions. Conducting research at other levels and social-economic settings would help further substantiate the prospects of using digital tools as inclusive and effective tools of language learning. Finally, the paper offers well-supported evidence based on its empirical findings that the application of digital tools can be a great way to improve the English language proficiency of Tamil native learners. Using the power of technology, teachers and institutions can create more dynamic, learner-centered, and effective language-learning experiences, which are in line with the requirements of the 21 st -century education environment.

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