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ENHANCING SELF-EFFICACY BY ADOPTING DIGITAL TOOLS FOR ENGLISH LANGUAGE RESEARCH: A SOCIO-COGNITIVE STUDY

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Abstract

The purpose of the current study was to measure the perceived self-efficacy of university students and teachers towards the usability of digital tools to enhance English language research competency under social cognitive perspectives. The quantitative study has adopted the questionnaire as the research tool, which consists of the five Likert scales. The data was collected through Google documents, and 62 individuals responded to the questionnaire. Using SPSS version 23, data is analyzed to calculate the frequencies, percentages, mean and standard deviation values. The research found that both students and teachers consider it significant to adopt and practice digital tools in English language research. They have positive intentions that adopting digital tools at the university level in English language research can enhance their personal, social, cognitive, exposure, knowledge, and other fields competency. The study recommends that digital tools be adopted, used, and practiced at the university level to explore subject confidence and subject areas. The study also mentioned the challenges and future gaps of research in the same field to front.

Keywords: *Adoptability, Behaviour, Digital Tools, English Language Research, Personality, Self-Efficacy, Social Cognitive Theory, Society.*

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1. Introduction

Establishing a research project that adds to the body of information already in existence depends heavily on the research topic (Poock & Love, 2001). The three most common sources used to generate research ideas are observation, firsthand experience, and literature reviews. The supervisors' experience and area of specialization, time and money limits, and personal considerations are some other elements that may influence working in a particular profession. Every element that can affect a topic's choice ultimately affects the caliber of research findings to a certain degree. Therefore, in an indigenous environment, it is vital to determine the factors that significantly influence students' topic selections (Gul et al., 2021).

Fundamentally, attitude toward research refers to thoroughly examining one's thoughts, beliefs, behaviour, and performance concerning research (Shaukat et al., 2014). However, students typically believe that research is arduous to study and challenging to conduct (Adam & Holcomb, 1986). Attitudes are meant to influence a student's performance. Therefore, it is essential to mold students' attitudes toward research (Bolin et al., 2012). Students' interest in a given subject is influenced by their positive or negative attitude (Zan & Martino, 2007).

Research skills are important for all degree programs (Angaiz et al., 2021). Research is compulsory in Pakistan at the BS, Masters and PhD levels, while it is optional at the M Phil level; substitute to the course work (Khalid et al., 2024).

English major students must research to enhance their research efficacy and subject exposure. Research systematically answers the existing problem and proposes new knowledge (Morgan et al., 1999). English major students must study all the subjects related to English at the graduation level in Pakistan (Noori, 2020).

The English language is much liked by the inhabitants of Pakistan, and it has great intentions of motivating the students (Abbas & Iqbal, 2018). Students feel more confident using English (Abbas & Iqbal, 2018). Task-technology Fit (TTF) is an emerging field of

completing a task with the help of technology and self-abilities. It helps people complete their task portfolio while the task requirements are entirely fulfilled through TTF (Goodhue, 1998). If the technology is perceived correctly by users, users consider its value. The technology is perceived as ease of use and usefulness become the task's base (Kim et al., 2010). Researches have demonstrated that more significant tasks than the level are also completed through the TTF due to the perceived effectiveness of the users of the technology, and it can result in the shape of effective learning, too (Al-Rahmi et al., 2022).

Technology is the set of instruments people use to complete a task, while digital tools are the instruments used as online (internet) sources to complete a task (Al-Rahimi et al., 2022). Digital tools may include online services, software, data, information, and assistance. TTF so helps to broaden the aim of uselessness and adaptability in the shape of sets, services, and policies (Al-Rahimi et al., 2022).

The emergence of digital sources like Turnitin, Grammarly, and Mendeley can enhance students' research competency. Digital libraries are great sources of information, and electronic material can be very helpful for researchers (Rosenberg, 2005). E-sources can facilitate people's embrace of needs (Rosenberg, 2005).

Several issues regarding research efficacy and skills at the university level are recorded in Pakistan. Irshad-ul-Haq et al. (2020) revealed that students are optimistic about research. However, their attitude is greatly influenced by their supervisors, existing accessibility difficulties, senior suggestions, and the intentions of the supervisors (Irshad-ul-Haq et al., 2020).

Students can develop valuable skills by ending in research like problem-solving, data analysis, literature review, communication, and experimental designing (Khan et al., 2023). The students' positive attitude can also improve their achievements in the subject (Khan et al., 2023). At the graduate level, research competency can ensure social progress, cultivate search dispositions, and make the future more purposeful (Ara et al., 2024). At the same time, the students carry a shortage of ideas, grammatical issues, weak spelling, and a lack of vocabulary, which can result in writing anxiety and motivation at the university level (Anwar et al., 2023). Due to unexplored areas of the future, the attitude can also be affected as the research is not interlinked with the new opportunities (Moberg et al., 2019). Due to consuming time, teachers in Pakistan do not have much time to study the literature and propose ideas to their students (Shahid et al., 2022). Self-direction toward research can also enhance the student's attitude (Natividad et al., 2019).

Self-efficacy is based on Bandura's social cognitive theory, describing how an individual believes in growing on their approach to any particular task or domain (Bandura, 1997). Self-efficacy is integral to research on motivation, performance, and engagement of learners in diverse areas of English language research, including foreign language acquisition, teaching methods, academic writing, and English for Specific Purposes. In this response, several recent studies indicatives of the critical role self-efficacies play in English research with learners as well as educators. Present study is also conducted to understand the role of self-efficacy in conducting English language research through digital tools in Pakistan.

1.1. Statement of the Problem

Research is the compulsory subject of graduation and post-graduation programs in Pakistan. At the same time, the students have many issues with topic selection, conducting research, plagiarism, formatting, data analysis, and idea development. Many studies have demonstrated that English language researchers, like others, need help conducting research. The emergence of digital tools and digital platforms can minimize the difficulty level of the students. The usability of digital tools with certain limitations can enhance the research skills of English language students, which can enhance the students' behavioral, personal, and social development.

1.2. Research Objectives

- To understand the issues of English language research faced by university-level students.
- To know the significance of emerging digital tools for English language research.
- To find the challenges in using digital tools for English language research.
- To investigate the perception of university students and teachers towards the usability of digital tools to enhance research capabilities under socio-cognitive perspectives.
- To propose a future direction for English language research enhancement at the university level.

1.3. Research Questions

1. What research issues do teachers and students at the university level face regarding English language research?
2. Which emerging digital tools can help enhance the research capabilities regarding English language research at the university level?
3. How the English language research can be ease by using digital tools?

4. Which steps should be taken regarding the usability of digital tools and their usage at the university level to enhance research in the English language?

1.4. Significance of the Study

The present study helps to understand the existing issues of English language researchers and demonstrates possible solutions with the emergence of digital tools. The study can demonstrate the roadmap for university English students to develop their personality, exposure, knowledge, skills, and cognition by using digital tools in their research. The research also demonstrates the dynamic approach of English language research, which can help the researchers advance in their subject and other areas of research and knowledge.

2. Literature Review

2.1. Self-efficacy and English Language Research

According to Wu et al. (2024), teachers who perceived themselves as effective in their profession were more likely to implement digital tools such as mobile-assisted language learning (MALL) in their English classrooms. Such assuredness fuels investigation in the area of teaching innovation, propelling effective educators to test different approaches.

A study by Huang, Wang and Zhang (2024) on AI self-efficacy among English teachers showed that teachers who believe in themselves are more likely to provide positive feedback, which leads to increased student engagement. This shows how important self-efficacy is in the field of ELT, the kind of research focused on teachers.

2.2. English for Academic Purposes (EAP)

In the field of EAP which often involves new or challenging academic writing and reading tasks for students and researchers, self-efficacy has a central role.

Students in Indonesia with high writing self-efficacy had significantly better performance in producing academic texts than their peers (Benniedyk et al., 2024). Demirel and Ayndin (2019) also reveal the feasibility of L2 writing model tasks based on AI and highly personalized images of self-efficacy factors. Self-efficacy has been highlighted in these studies as a predictor of success in EAP research.

According to Ucar and Zarfas (2023), corpus-based research is open to postgraduate students with the strongest self-efficacy who can see academic discourse

through an analytical lens. This implies that self-efficacy affected learning not only as a factor for learning but also as participation in research.

2.3. Digitalization and Multimodal Self-Efficacy

Self-efficacy mediates how learners and researchers in English interact with technologies research in English becomes more digital.

Huang et al. (2024) found that learners with high self-efficacy tend to accommodate themselves into AI-based online English learning platforms, and thus, their achievement may be increased more effectively. This is vital in TELL research where outcomes reflect on confidence when using tools. Liu et al. (2025) found that students with strong self-efficacy performed better on multimodal English tasks (e.g., video-based learning), indicating that the belief that one can cope with different types of media stimulates research on informal learning scenarios.

Connecting self-efficacy with self-regulated learning (SRL) in English contexts, Mazandarani (2024) found that, compared with less confident learners, those who were more confident to establish higher goals and were able to use strategies to achieve SRL, something which would be useful to inform longitudinal studies.

Setiawati, Ikhsanudin, & Riyanti (2023) talked about self-efficacy which is culturally related, hurting doing research on English in a multi-linguistic situation. This necessitates comparative studies, to enable the larger applicability of the variants developed.

2.4. Digital Tools and Their Usability in Research

Research in English language studies has not been short of innovations in its contemporary years with digital tools, influencing how to process analysis, teaching and practical applications of linguistics through its various subfields. With advancements in technology, researchers adopt these tools to improve data collection, analysis, and pedagogical outcomes in TELL, AI in ELT, EAP and digital multimodality. In this response, some key digital tools are presented for these fields and their feasibility based on recent academic literature (Lawrence et al., 2020).

2.4.1. Technology-Enhanced Language Learning (TELL)

Technological Tools (TPE)To explore research in the field of technology-enhanced language learning (TELL), digital tools are selected that play a key role in transporting the TELL research (Hasumi & Chiu, 2024).

2.4.2. Mobile Learning Applications

Tools such as Duolingo, Quizlet, etc. assist in learning vocabulary and grammar. Tran (2024) found that TELL research is prevalently dominated by MALL tools that promote English writing skill development and practice through engaging activities. This utility is through portability and instantaneous feedback, allowing researchers to investigate how well learners engage in various settings.

2.4.3. Google Classroom, Moodle Learning Management Systems

These platforms simplify course delivery and data collection. According to Nafidi and Batri (2023), such data play an important role in flipped learning, one of the main TELL pedagogies, * enabling researchers to obtain student performance metrics easily. These tools are very usable because of their scale and integration capabilities.

2.4.4. Digital Game Based Learning (DGBL) tools

Games such as Kahoot, and immersive virtual environments enhance motivation (Kiyanciecek & Uzun, 2022). Despite this, Sanchez, Langer and Kaur (2019) acknowledge their increasing presence in TELL, providing researchers with insights into the dynamics of informal learning through gamified data.

2.4.5. Artificial Intelligence in English Language Teaching(AI in ELT)

The learning of English through AI tools facilitates the work of ELT Research by individualizing the task and automating the analysis. (Virlan & Tomak, 2025).

2.4.6. Chatbots

ChatGPT and Grammarly offer feedback on writing and English speaking. According to Jamshed et al (2024), a study indicated that 80% of the students were more involved with AI chatbots and, therefore may potentially have value as research tools in the area of motivation and self-regulated learning. They are easy to use because they are flexible and can be scaled across levels of learners.

2.4.7. Intelligent Tutoring Systems (ITS)

ITS platforms cater to individual needs, such as Duolingo's AI tutor. Tajik (2025) highlight that it helps students improve pronunciation and grammar while providing researchers with extensive performance analytics. This accuracy in progress tracking ensures a higher reliability in research (Tajik, 2025).

2.4.8. Google Speech-to-Text

This tool analyses oral proficiency. According to Utami and Santosa (2023), those tools are efficient in pronunciation research, are user-friendly, and are accurate with their integration across multimodal platforms.

2.5. English for Academic Purposes (EAP) and Digital Sphere

The digital tools that facilitate EAP research help cover academic writing, reading, and communication skills:

2.5.1. Lexical Profiling Software

Tools such as AntConc and Sketch Engine allow researchers to analyze the linguistic corpora of academic texts for lexical features. In EAP, they are effective in the study of discipline-specific vocabulary (Hyland, 2023), with applicability limited by the large linguistic databases they are based on.

2.5.2. Plagiarism Detection Tools

Turnitin and Grammarly plagiarism detectors are effective in ensuring academic integrity (Negi, 2023). Furthermore, grammar checkers contribute to EAP needs analysis (Kohnke, 2024) by supplying researchers with data on originality in writing and the types of common errors. They are effective due to their comprehensive reporting features.

2.5.3. Online Writing Environments

Uses of Google Docs or collaborative features of Microsoft Word for peer feedback studies. It is aimed to enhance the usability of EAP writing research tools for analyzing group dynamics, as software platforms capable of facilitating real-time collaboration remain underexplored in this empirical area (Winis, et al., 2024).

2.6. Digital Multimodality

Since different modes (text, audio, video) contribute to English learning, this area almost always boasts the presence of advanced digital tools.

2.6.1. Video Annotation Tools

Software such as ELAN and NVivo enables multimodal interaction analysis (gestures and speech) These tools were found particularly useful by Lam & Habil (2021) for a study of communicative competence, with their usability being related to their ‘ability to provide fine-grained analysis.’

2.6.2. VR Platforms

Oculus Rift and similar suggestions create virtual language environments. Histories of their use for multimodality in speech and their development through simulation contexts to scaffold speaking experiences are provided by Sudiana and Santosa (2024). These are, however, crippled by accessibility issues but crustiness in their usability is bounded by the expensiveness of experience.

2.6.3. Social Media Platforms

Applications such as Twitter (now X) and YouTube serve as a source of informal learning data. Thakur (2022) suggest this as a defining trait of their work researching digital multimodality, with usability articulated through large, empirical datasets.

2.7. Cross-Field Digital Tools

Zoom and Video Conferencing Zoom is used for remote data collection during TELL, EAP, and multimodality. According to Archibald et al., (2019), its functionality in interviews has a recording function that eases usability.

2.7.1. Survey Tools

There can be usage of Qualtrics and Google Forms to gather learner sentiment across industries. Çelik & Karaca (2024) adopted these in AI in ELT studies due to their ease of implementation and data aggregation.

2.7.2. Mapping research trends (VOS viewer & Cite Space)

Wu et al. (2024) introduced usability based on visualization capabilities and applied them to TELL, resulting in emerging themes of usability.

2.7.3. Text-to-Speech (TTS) Tools

Natural Reader and Amazon Polly help with pronunciation and listening practice (Fitria, 2022)

2.7.4. Business Analytics

Tableau and Power BI scrutinize large sets of data. These were used by Parthe (2023), in the context of TELL, to display learning outcomes and provide intuitive interfaces for researchers.

2.8. Usability Considerations

The efficacy of using digital tools varies by area about the particulars of each instance, such as in the following:

2.8.1. User-Friendliness

LMS and survey tools are easy to use which means no or less training is required (Smal, 2023).

2.8.2. Accuracy

ITS and speech recognition works are precise and essential for trustworthy results (Al-Fraihat, 2024).

2.8.3. Accessibility

Like other VR and high-end corpus tools, these methods are limited by their cost and technical demand (Bercarcu & Pspescu, 2024).

2.8.4. Scalability

It is large cohort friendly, and it is a suitable option for expansive studies (Sudalairaj et al., 2024).

2.9. Social Cognition, Self-Efficacy, and Challenges in English Language Research

Social cognitions and self-efficacy are two closely related psychological constructs with a demonstrated impact on English language research, especially focusing on digital tools.

Social cognition is the mechanisms of social perception, social interpretation, and social response that impacts the processes of language learning and language teaching (Susan & Shelley, 2017). Self-efficacy (i.e., belief about one's ability to succeed, Bandura, 1997) serves as a mediator of both motivation and performance. And as research in English increasingly turns to new tools, their usefulness for this large and diverse field can prove to be both a boon and a burden. This addresses the roles that these constructs have played for research on the English language and explains hurdles in usability, referencing recent literature.

Although enhanced by digital tools, English research is limited by the usability of these tools as influenced by social cognition and self-efficacy.

2.9.1. Accessibility and Equity

The research tool of Virtual Reality (VR) is crucial for multimodal research but costly and limited in availability to many learners, which detracts from equitable participation (Chen et al., 2024). Learners low in self-authenticity may internalize these barriers as insurmountable which may serve to disengage them (Chen et al., 2024). This is compounded by social cognition, comparing what one has to peers.

2.9.2. Technical Complexity

While AntConc and NVivo are great tools, they require some advanced skills in their use that can scare users away, especially those with low self-efficacy (Limna, 2023).

Social cognition further reinforces this by emphasizing peers' competence, which in turn, may lead to diminished confidence in less tech-savvy researchers or students.

2.9.3. Training Deficits

One bottom line is that undertrained tools such as Kahoot have limited use in TELL, especially for lower-efficacy teachers (Altawalbeh & Irwanto, 2023). Seeing other peers struggling socially reinforces doubts and harms collaborative research.

2.9.4. Data Privacy and Ethics

As per Alsamhori and Alnaimat (2024), AI tools like Grammarly have an impact on trust and usability due to privacy concerns. The high social cognition among learners might lead to the fear of being judged based on shared data, resulting in low self-efficacy in the use of such tools.

2.9.5. User Interface and Engagement

Ambiguously interfaces in tools such as Tableau slow down motivation to engage in data-driven English research (Ajax et al., 2025).

Low self-efficacy users may simply discard these tools, and social cognition furthers disengagement by making comparisons between struggles and peers' ease.

2.9.6. Digital Divide

Ramil et al. (2024) mentioned that ELT research recognized unequal internet access as an obstacle that limits the usability of tools. However, social cognition increases awareness of this disparity, diminishing self-efficacy in disadvantaged learners.

2.10. Mitigating Challenges

To solve these usability problems one to incorporate considerations of social cognition and self-efficacy:

2.10.1. Scaffolded Training

According to Chuang et al. (2024), new AI tools can elicit self-efficacy with social modelling, in which tools are gradually improved to enhance human performance.

2.10.2. Intuitive User Interface

To reduce cognitive load and improve social acceptance, Abdelusi (2023) champions friendly interfaces.

2.10.3. Equity Efforts

Wang (2023) argues that to illustrate the social justice agenda of education research, VR should be free or provide some financial accessibility support.

2.11. Related Studies

Qureshi et al. (2021) did a study, "Students' Perception Towards Topic Selection For Research Studies: A Case Study Of BS English Students In Lahore." The study revealed that bachelor's degree programs have become the new international standard for education for many years. In their final semester, BS English students are required to complete projects or write research theses. The process of choosing a study topic presents significant challenges for students. The study aims to ascertain the students' opinions and gauge their attitudes toward the topic-choosing procedure. The study was quantitative in design and is being carried out to gauge students' attitudes toward topic choices. Forty BS English students from District Lahore were chosen as the study's sample. SPSS was used to evaluate the data, and the study's findings indicate that students require careful consideration and direction while choosing research project topics.

Angais et al. (2021) researched "An Investigation into Relationship Between Students' Attitude and Anxiety Towards Research and Their Research Self-Efficacy at A Local University in Gilgit-Baltistan, Pakistan." This study investigated the association between research self-efficacy and students' views and anxieties regarding research at a nearby institution in Gilgit City. One hundred two students completed a 30-item written questionnaire at a teacher education department. The findings showed that over 50% of students had favorable attitudes and high research self-efficacy. Conversely, fewer than half of the students displayed research anxiety. It was discovered that students in programs

where conducting research is required had more significant anxiety, self-efficacy, and favourable attitudes toward research than students in programs where research is optional. The findings also showed a strong positive relationship between students' research self-efficacy and attitudes toward research. Research-related anxiety and attitudes were found to be positively correlated, albeit weakly. Conversely, a slight inverse relationship existed between students' research self-efficacy and their concern about conducting research. Similar studies on research anxiety and research self-efficacy can be carried out in the future with a sizable sample.

Gul et al. (2021) studied "Factors Affecting the Selection of Research Topic in Pakistan: A Case of Private Sector Universities". The study was conducted on master's and PhD students at the University of Management and Technology Lahore. About 1000 students were selected as the study sample, but the response was given by 100 studying at the master's and PhD levels. A self-administered questionnaire was used to determine the factors that affected the topic selection at higher education. It was found that the personal experience of students, the area of expertise of the supervisors, and the gender factor were very evident. It was also found that there was no significant difference between the students of master's and PhD level perception. The study recommended that future research be conducted by considering the demographic variables and the information's role in topic selection.

Firdoos et al. (2023) researched "Measuring Students' and Teachers' Attitude towards Research at University Level". A survey study design was employed to gather information and determine the attitudes of teachers and pupils. The research population consisted of two universities. Two universities were chosen: one from the business sector and one from the public sector. Two hundred and fifty (250) male and female pupils and one hundred and fifty (150) female and male professors were chosen as the research sample from the whole population. The results showed a statistically significant difference in how students and teachers felt about research. The study's findings also suggested that teachers reflect on their students and that teachers with excellent and constructive views encourage students to pursue research. There is a connection between the research mindset and content authoring. To establish a research environment, efforts should be made to encourage university students to read and investigate.

Khalid et al. (2024) did a research study, "Perception of Pakistani English Major Students Towards Data Analysis Processing in English Language Research: A Case Study." The study was conducted on the English primary students regarding the data analysis process in research. The objective was to identify the problems during the data

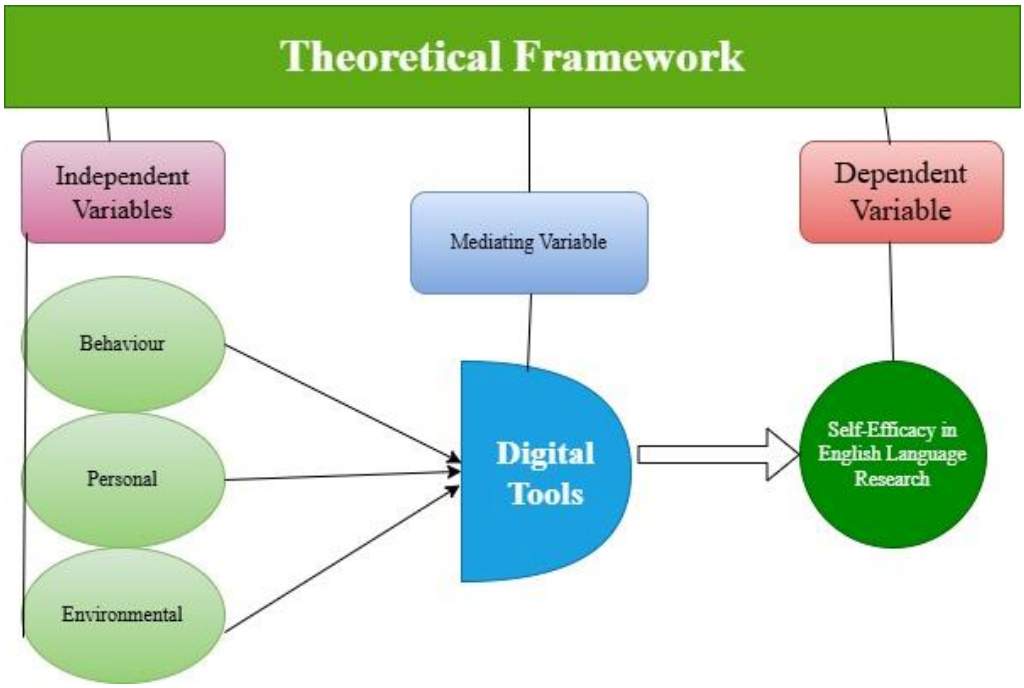
analysis and propose possible solutions. A sample of 50 participants was selected, and the data was collected through self-administered questionnaires based on a Likert scale. The data was analyzed in MS Excel 2016 to calculate the frequencies, percentages, mean, and standard deviation values. The findings revealed that students had many issues in adopting models, generalizing the data, discussing the research, adopting technology and new trends awareness, and formatting the research. The study recommended that classroom practices, internet sources usage, workshops, and participation in the decision can lead to the practical analysis of data regarding English language research.

3. Research Methodology

The present study is quantitative and descriptive, using a questionnaire as the research tool. The questionnaire consists of ten questions, prepared using social cognitive theory to understand the perceived self-efficacy of the students in the field of English language research.

3.1. Theoretical Framework

Self-efficacy has been foundational in English language research, been linked to English language learner motivation, teacher effectiveness, academic writing, and the adoption of technology. As recent work illustrates, it acts as a predictor of success as well as a variable that shapes research design. This is an important avenue to explore further, as targeted interventions designed to enhance self-efficacy may improve outcomes within each of these domains. Based on social psychology, three main aspects are postulated in Social Cognitive Theory: behavioral, personal, and environmental. These aspects can predict the individuals' and groups' behaviour towards certain aspects, which can help to identify the methods to modify the behaviors (Rana & Dwivedi, 2015). Behaviour mainly focuses on the usage, performance, and adoption aspects; personal elements are related to a person's personality, cognition, and demography, while environmental aspects include physical and social factors. Behaviour determines future intentions, personality characterizes the person, and the environment presents the relationship of a person with external aspects (Al-Rahmi et al., 2023).



In recent times, the study of the English language research has been changed dramatically because of the impact of globalization, technology, and new approaches to education. With the global status of English now firmly established, questions about its universality at local and global levels, about (pedagogical) needs and research on its use, acquisition and pedagogy, have become the center of attention that have defined entire new fields of research. Simultaneously, digital tools offer integrated and indispensable support for these research arenas to advance methodologies and support pedagogies. The questionnaire is developed by the researcher consisted of 10 questions based on behavioral, personal and environmental paradigm of the theory.

3.2. Population

The population consists of teachers and researchers studying and teaching research at the university level.

3.3. Sample

Convenient sampling selected 400 participants. Sixty-two participants answered the questionnaire, which was sent through Google Forms.

3.4. Tool of Research Data Collection

Data was collected through a questionnaire consisting of five Likert scales, in which the parameters strongly agree, agree, undefined, disagree, and strongly disagree were mentioned.

3.5. Process of Data Collection and Analysis

Data is analyzed using SPSS version 23, which calculates frequencies, percentages, means, and standard deviation values. To note the significance of the difference, the mean and standard deviation values are also calculated separately for students and teachers.

4. Data Analysis

Q. No.	Strongly Agree		Agree		Undefined		Disagree		Strongly Disagree		Mean	S.D	Student: 34		Teachers: 19		Both Teacher & Student: 9	
	F	%	F	%	F	%	F	%	F	%			Mean	S.D	Mean	S.D	Mean	S.D
1	38	61.3	23	37.1	0	0.0	1	1.6	0	0.0	4.58	.59	4.59	.50	4.58	.77	4.56	.53
2	42	67.7	17	27.4	2	3.2	1	1.6	0	0.0	4.61	.64	4.71	.52	4.58	.84	4.33	.50
3	28	45.2	33	53.2	1	1.6	0	0.0	0	0.0	4.44	.53	4.44	.56	4.47	.51	4.33	.50
4	24	38.7	34	54.8	3	4.8	1	1.6	0	0.0	4.31	.64	4.26	.67	4.37	.60	4.33	.71
5	28	45.2	31	50.0	3	4.8	0	0.0	0	0.0	4.40	.59	4.44	.61	4.47	.51	4.11	.60
6	25	40.3	30	48.4	2	3.2	5	8.1	0	0.0	4.21	.85	4.21	.88	4.16	.96	4.33	.50
7	21	33.9	38	61.3	1	1.6	1	1.6	1	1.6	4.24	.72	4.24	.65	4.21	.92	4.33	.50
8	22	35.5	35	56.5	1	1.6	3	4.8	1	1.6	4.19	.83	4.15	.74	4.32	1.11	4.11	.33
9	19	30.6	36	58.1	5	8.1	2	3.2	0	0.0	4.16	.71	4.06	.69	4.37	.60	4.11	.93
10	23	37.1	34	54.8	2	3.2	1	1.6	2	3.2	4.21	.85	4.18	.87	4.26	.99	4.22	.44

Question No. 1 was asked to the participants to know their perception of the significance of digital tools for research purposes. All the people agreed with the statement, except 1.6%, that there is no doubt that digital tools must be used for effective research on the English language. A strongly agreeing and agreeing attitude is received from 61.3 % and 37.1% of the participants. The obtained mean value of 4.58 and standard deviation of 0.59 indicate that digital tools are highly significant. Comparing the students

and the teachers, and both teacher and students, the obtained mean values are too high as respectively 4.59, 4.58, and 4.56 illustrate that there is no significant difference between the perception of the students and teachers about the significance of the digital tools' usage at the university level for English language research.

The second question is also about the teaching and practicing of digital tools at the university level for English language research. The obtained data, as shown in Table No. 4.1, describes that most participants consider it utmost necessary that digital usage be taught and practiced at the university level for research in the English language. 67.7% have shown this tendency as strongly agreeing and 27.4% as agreeing. On the other hand, undefined tendency is shown by 3.2% of the participants, while disagreeing attitude is also shown by 1.6% of the participants. Obtained mean and standard deviation values show a high tendency among the participants to think that digital tools must be taught and practiced while doing English language research. Comparing the status of students and teachers, there is no significant difference between their attitudes as the students' mean value is 4.71, and the teachers' is 4.58, while for the participants who are both teachers and students, it is 4.33.

Question No. 3 is asked to the participants, which is about enhancing the self-efficacy of the teachers and students by adopting digital tools in research. The obtained values strongly agree with 45.2% and agree with 53.2%, which describes the high tendency of the participants. At the same time, undefined is shown by 1.6%, while no disagreeing attitude is shown by the participants. The mean value and standard deviation value describe the high tendency of the participants as are respectively 4.44 and 0,53. Comparatively, there is no significant difference between the mean values of students, teachers, and both (student and teachers simultaneously) as the mean values are respectively 4.44, 4.47, and 4.33.

Question No. 4 is about the performance in the English language research field. As the field is vast in range, a number of aspects can be explored and studied through the adoption of digital tools in the research. This view is given by 38.7% as strongly agreeing and 54.8% of the participants as agreeing. It is despite the high tendency of the participants to adopt digital tools in research to enhance their performance in English language research. Opposing tendency is shown by 1.6% as disagreeing, while 4.8% of the participants remain undefined. Mean and standard deviation values show a high tendency and acceptance of the perspectives, which are 4.31 and 0.64. there is no significant difference between the mean values of students and teachers and students and teachers' intentions, as the mean values are 4.26, 4.37, and 4.33, respectively.

Under Question No. 5, the respondent agreed that digital tools can resolve research issues in the English language field. Agreeing tendencies are shown by 50% of the participants, while strongly agreeing tendencies are shown by 45.2%. Any participant shows no disagreeing attitude, while a neutral tendency is shown by 4.8% of the participants. The mean value is 4.40, and the standard deviation is 0.59, showing that the participants believe digital tools can help resolve research issues. No significant difference has been observed in the tendency of the students and the teachers, as their mean values are higher than 4.

Personal growth is necessary as higher qualifications should make a person change and become more dynamic. Digital tools can also help in personal grooming when applied in research and can build confidence levels. Question No. 6 is asked in this regard. This tendency is shown by 40.3% as strongly agreeing and 48.4% as agreeing, while a disagreeing attitude is observed by 8.1% of the participants. Neutrality is gained by 3.2% of the participants. Overall mean and standard deviation values of 4.21 and 0.85, respectively, show the high belief of the participants in this regard. 4.21, 4.16, and 4.33 are the respective values obtained by students, teachers, and both (student and teacher). These show no significant difference between the participants' belief that digital use can also groom a person's personality.

Question No. 7 is about the enhancement of the personal experience of the students by adopting the research tools. Research is the name of new knowledge and the advanced shape of learning. Personal experience can be enhanced through adopting digital tools and utilizing them in English language research. This view is agreed by 61.3% of the participants, while strongly agreeing is shown by 33.9%. Strongly disagreeing and disagreeing intentions are shown by 1.6% and 1.6%, respectively, while the same 1.6% are undefined. The obtained mean value and standard deviation values of 4.24 and 0.72 describe the high tendency of the participants. Comparatively, the mean value of student, teacher, and both (students and teacher) describe the participants' high tendency, which is also more than 4.

Mental growth and exposure are necessary at the graduate and postgraduate levels. Mental growth describes internal competency as well. Question No. 8 is asked in this regard, so the tendency is shown as higher as 56.5% agree, 35.5% strongly agree, 4.8% disagree, 1.6% strongly disagree, and 1.6% are undefined, meaning they have no intentions. The calculated mean value of 4.19 and the standard deviation value of 0.83 describe the high tendency of the participants to have a high belief that mental growth and exposure are developed by applying digital tools in English language research. Students

have a mean value of 4.15, teachers 4.32, and both (teacher and student) have 4.11, which describes their high tendency towards believing in mental growth.

Question No. 9 is asked about economic growth and social status enhancement by applying digital tools in research in the English language. 30.6% of the participants gave a strong, agreeing attitude, while 58.1% gave agreeing intentions. 3.2% of the participants have a disagreeing attitude, while 8.1% of the participants have undefined intentions. Overall mean and standard devotion values describe the participants' high tendencies, with values of 6.16 and 0.71, respectively. The mean values of students are 4.04, teachers 4.37, and both are 4.11. it describes that there is no significant difference between the participants' attitudes.

Research is a dynamic approach that makes it eligible to handle issues and increase problem-solving capacity. The gained results of question no. 10, 37.1% describe these intentions as strongly agreeing, 54.8% as agreeing, while the opposition is there minor,% as strongly disagreeing, 1.6% as disagreeing., In comparison, 3.2% of the participants gave undefined intentions. The calculated mean value of 3.2 and standard deviation value of 0.85 describe the high tendency of the participants in this regard. Comparing the mean values of students, teachers, and both (teachers and students), there is no significant difference between the participants' choices, as the calculated mean values are 4.18, 4.26, and 4.22, respectively.

5. Discussion

This study's findings signify both university students' and teachers' agreement on the need and importance of digital tools in improving English language research skills. Participants emphasized the positive effects of digital tools on research output such as self-efficacy; personal development, cognitive development, and social development. The current study is aligned with Social Cognitive Theory which emphasizes that behaviour, personality, and environmental factors in combination affect individuals ' preferences and adaptability to digital tools in research.

A wider range of participants felt that digital tools should be included in university curricula to assist with English language research, as the results demonstrate. The mean values for usability and necessity questions for each used digital tool also indicated a high value of agreement among both students and their teachers. The results found here are similar to earlier studies, which indicate an improvement in motivation, engagement, and academic output quality when technology is incorporated into research (Kim & Lee, 2023; Zhang & Yu, 2024).

The proven effect of self-efficacy on the successful use of digital tools in learning is apparent in the responses of the participants. According to the study, students who gain confidence in being able to use digital research tools will be more confident in their overall ability to conduct research. This corresponds with Bandura (1997) who states that self-efficacy is the basic predictor of whether an individual can reach a goal. Moreover, students' and teachers' positive responses also highlighted the notion that digital tools act as enablers of research efficiency by mitigating often overwhelming challenges like topic selection, data analysis, plagiarism issues and proficiency in academic writing.

In addition, the research brings awareness to how personal and social growth can be encouraged through digital applications. The students perceive that the digital tools help them improve critical thinking, problem-solving skills, and exposure to various research methodologies. These findings are in line with the current literature emphasizing the capacity for transformation that these digital platforms have to offer in increasing capacity for research and knowledge dissemination (Al-Rahmi et al., 2023). The results also indicate that digital tools make it easier for researchers to network with one another, collaborate or share resources, which bolsters academic communities even more.

Despite that favourable view, in the study, some concerns related to the usability of digital tools. However, barriers to the successful deployment of digital tools in research include accessibility, technical complexity, training deficits, and data privacy concerns. This matches with earlier research showing that digital literacy and institutional support are key factors to ensure that technology-enhanced research can add to the learning experience (Hyland, 2023; Shadiev et al., 2023). Tackling these commitments demands organized training, policy adjustments, and administrations establishing digital construction.

The results also urge university syllabi to incorporate research reviewing tools and other digital practices that should be at the core of academic training. Moreover, the accessibility of the digital repository, workshops and research-oriented culture — can help amplify students in research. Android example Funnel offer flow Future work could include targeted experimental studies on the effectiveness of digital tools presented in the flat narrative, comparative studies of perspectives among various demographic backgrounds, and research on the economic impact of digital research tools in the English language area of the humanities.

6. Conclusion

The study is based on the social cognitive theory consisting of three parameters: behavioral, personal, and social-environmental. The adoption of the theory is due to noting the perceived significance of digital tools of English language researchers concerning personal, behavioral, and social development. The data is collected from teachers and students. At the same time, the affecting variable is considered the status of the participants as teacher, student, or both teacher and student at the university level. This research highlights the importance of digital instruments in making progress in English studies in the university context. Digital tools hold great promise for optimizing the efficiency and efficacy of research, but equitable adoption, sustainability, and stewardship require institutional approaches to the challenges of accessibility, training, and support. Incorporating digital tools into academic curricula and nurturing a technology-infused research culture can play a vital role in equipping the field of English language studies with researchers who are full of competencies and confidence.

This study highlights the critical importance of digital tools to the development of university English research. The promise of digital tools for improving research effectiveness will only be achieved if issues of access, training and institutional support are considered alongside the tools themselves. By embedding some aspects of digital tools within academic curricula and creating an environment driven by the use of technology as a culture of research, universities can play a significant role in producing competent and confident researchers in English language studies.

The major findings of the study are as follows:

6.1. Findings

- The participants understand that it is significant that digital tools must be applied in research, and the students would be well aware of this.
- By applying digital tools, students can enhance their personal, exposure, research, social, and cognitive skills.
- Research that utilizes and makes students well aware of the digital tools employed can also develop students' behaviour.
- Enhancing their English language research skills allows students to explore their areas of research and understand the domains of other subjects and reporting, which can help them in freelancing.

- There is a significant difference in the perceptions of students, teachers, or both (students and teachers) regarding the usability of digital tools to enhance English language research skills.
- Digital tools are well regarded as invaluable tools for improving research in English language studies.
- There is an agreement between teachers and students that digital tools should be incorporated into university courses.
- Digital tools are one of the tools that help to make them grow at a personal level, getting exposure to the best of the things they can, and also the tools which help the students to grow mentally.
- Digital tools help to make research work easier by resolving issues including choosing topics, analytics, and plagiarism detection.
- Digital platforms facilitate collaboration networking and knowledge sharing among researchers.
- Digital tools provide many benefits, but they also pose challenges in terms of accessibility, technical complexity and data privacy.
- Only with adequate institutional support and formal systematic training can one use digital tools to their fullest research potential.
- University syllabi need to be revised to include digital tools and research methodologies as essentials.

6.2. Recommendations

6.2.1. Major Recommendations

- The syllabus can be revised for digital tools awareness and usability at the university level.
- Adoption and practices regarding the usability of digital tools help make effective research.
- Motivation and the sources of availability regarding digital tools can also reinforce research skills in the English language.

6.2.2. For Students

- By using these digital research tools, students can increase their self-efficacy and develop research competency.
- Students should attend workshops and online courses to develop digital literacy.
- Students would make use of university-subscribed online resources like academic databases and plagiarism detection software.
- Students should use digital platforms to engage peers and faculty members in sharing ideas and insights.

- Students should learn to manage time to incorporate digital tools into the research process.

6.2.3. For Teachers

- Teachers should weave digital throughout assignments and would lead students towards advance student learning.
- Teachers should have hands-on training and guidance on using digital research tools.
- Teachers should shake up their research methods and get students to experiment with technology.
- Teachers should be informed about next-generation digital tools and trends that can expand their teaching and research potential.
- Teachers should encourage a space where their students are comfortable using different digital tools to research.

6.2.4. For Institutes

- Most significantly, once the stakeholders innovate or adopt digital tools, it needs to follow through with integrating training on how to use them into the university curriculum to fully equip students and faculty.
- Institutions should build the institutional digital infrastructure; high-speed internet, research software, digital libraries etc.
- Institutions should conduct workshops and seminars to increase the awareness about and usage of digital research tools.
- Institutions should develop policies that promote ethical and ethical use of digital tools in research.
- Institutions should partner with technology providers and universities to give access to new digital research tools.

6.3. Gap for Further Research

- Experimental research in the same field can be conducted using digital tools.
- The research can also be conducted to understand the literature review study on the applied tools and their significance.
- There can also be research on the comparative analysis of gender and demographic-based perspectives. The research can also be conducted on the availability of the research tools and the impact of pricing in the field of the English language.

- Although this study sheds light on the current understanding of the use of digital tools in English review, there are plenty of avenues that need exploring. Research the future could address:
- Experimental studies can be conducted examining how the use of particular digital tools directly affects students' research performance through experimental and longitudinal studies.
- Comparative Studies can be conducted examining the effectiveness of digital tools in various disciplines and educational levels to inform best practices
- The research can also be conducted analyzing differences in socio-economic status, institutional policies, and region of the world on the adoption and usability of digital tools used in the research analysis.
- Faculty Development and Training can be conducted to evaluate pedagogies for digital literacy and digital tools within research mentorship programs.
- Conversion of Research Strategies How has the digital medium changed research strategies, data collection, and analysis methods
- The research can be also be conducted to assess the economic rationale for embedding digital research tools into universities and their associated return on investment for students and institutions
- With respect to Technology Acceptance Models, the researches can be conducted understanding the psychological and behavioral aspects behind students' and teachers' acceptance and usage of the technology
- Under Transnational Research Networks, the research can be conducted to examining the extent to which digital technologies enable university-led research to cross national borders and share knowledge.
- Studies can also be conducted to discover the barriers preventing educational institutions that work with limited resources from adopting digital tools and the potential solutions.

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