

# Psychological problems of using digital technologies in developing speaking skills of students

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**Abstract:** This research explores the psychological challenges faced by students using digital technologies to develop their speaking skills. With the increasing reliance on digital tools in language learning, such as mobile apps, language learning platforms, and speech recognition systems, psychological issues such as language anxiety, social isolation, over-reliance on technology, and decreased motivation have surfaced. These challenges hinder the effectiveness of technology in enhancing students' speaking skills. Through a mixed-methods approach, the study investigates students' experiences, focusing on how digital tools impact their motivation, emotional well-being, and speaking confidence. The findings suggest that while digital technologies offer significant opportunities, they also require thoughtful integration to reduce anxiety and enhance engagement in speaking tasks.

**Keywords:** Digital technologies, speaking skills, psychological challenges, language learning anxiety, social isolation, lack of self-regulation, impact on self-perception, motivation, technological over-reliance, speaking skills development.

**Introduction:** The use of digital technologies in language education has transformed the way students acquire and improve their speaking skills. Tools such as language learning apps, virtual classrooms, and speech recognition systems provide innovative ways to practice speaking skills in a controlled environment. However, the psychological impact of these tools is often overlooked. Students face several psychological barriers, including language anxiety, fear of making mistakes, and reduced social interaction, which can impede their language learning progress. Understanding these psychological problems is crucial to optimizing the use of digital tools in language education.

## Literature review

The integration of digital technologies into language learning has been the subject of significant research. While the benefits of digital technologies are clear, there are also psychological obstacles that learners face in this context. Several studies have explored these challenges, including feelings of language learning anxiety, social isolation, lack of self-regulation, impact on self-perception and motivation. One of the most

commonly discussed psychological barriers is language learning anxiety. While digital technologies offer significant advantages, students face a range of psychological challenges that can hinder their effective use. Anxiety and frustration are common obstacles when learning through digital platforms. Research by Zhang found that learners' self-confidence may diminish when they struggle to navigate unfamiliar technologies or encounter technical difficulties, especially for students who lack prior experience with digital tools. This type of anxiety is particularly pronounced in language learners who already feel insecure about their linguistic abilities, making them reluctant to engage fully with digital language learning resources [1]. A common psychological issue is Foreign Language Speaking Anxiety (FLSA), which can intensify when students practice speaking through digital technologies. Studies by MacIntyre and Gardner show that anxiety can lead to avoidance of speaking tasks and decreased confidence in speaking abilities [2]. Another challenge is the issue of digital overload. According to Cohen, the vast amount of language learning materials available online can overwhelm students, leading to difficulties in choosing the right

tools and resources. This overload may contribute to learners' stress levels and hinder their ability to concentrate on language acquisition. Moreover, the constant availability of digital resources may lead to distractions, reducing the time and focus required to effectively learn a language [3]. Additionally, not all students have equal access to digital technologies. As pointed out by Anderson students from disadvantaged backgrounds may face barriers such as insufficient internet connectivity, limited access to devices, or inadequate digital literacy skills, further exacerbating inequalities in language learning opportunities. This digital divide can result in unequal participation in language learning activities and diminish the potential benefits of technology [4].

Another psychological challenge faced by learners using digital technologies for language learning is social isolation. While digital tools offer opportunities for independent learning, they may also reduce social interaction, leading to a sense of loneliness and detachment. Social isolation in online language learning environments can be particularly pronounced in asynchronous settings where learners do not engage in real-time communication with peers or instructors. A study by Kormos revealed that learners using online platforms often feel disconnected from the social context of language learning, which can negatively affect their motivation and language acquisition [5].

Despite the potential for digital tools to connect learners with native speakers through platforms like Tandem and Hello Talk, some students still experience isolation due to a lack of meaningful peer-to-peer communication. This may be attributed to learners' hesitance to engage fully with others in an unfamiliar and digital space, especially if they feel insecure about their language abilities. Moreover, without regular face-to-face interaction with instructors and peers, learners may struggle to develop their communicative competence in real-life situations, which is a crucial component of effective language acquisition [6]. Self-regulation, defined as the ability to plan, monitor, and evaluate one's learning, is another essential aspect of successful language learning. Digital technologies, while offering flexibility and personalized learning, can also present challenges related to the need for strong self-regulation skills. In the absence of traditional classroom structures, learners must be self-disciplined and motivated to engage with the materials consistently. However, many students struggle to manage their time, set goals, and remain focused when learning through digital tools.

Zimmerman outlined the importance of self-regulated learning, emphasizing that effective learners actively control their learning processes through goal-setting,

self-monitoring, and self-reflection. In digital environments, where distractions are abundant and the temptation to multitask is high, learners may find it difficult to maintain focus and structure their learning. Research by Tseng et al. found that students who lacked effective self-regulation were less likely to benefit from technology-based language learning programs. These learners often struggle with completing tasks on time or engaging with the digital content deeply enough to foster long-term retention [7]. Furthermore, the absence of immediate external motivation in digital settings can result in procrastination or lack of progress. As Karpicke and Roediger point out, learners who are not actively managing their own learning may miss out on opportunities for meaningful practice and feedback, both of which are crucial for language development. A lack of self-regulation can also lead to learners becoming disillusioned with their progress, decreasing their overall motivation to continue using digital tools for language learning [8].

### Research aim

The aim of this research is to examine the psychological problems students face when using digital technologies to develop speaking competence. Specifically, it explores how digital learning tools impact students' emotional responses, social interaction, and overall language acquisition in the context of speaking skills.

### Research objectives

1. To identify the psychological challenges students, face when using digital technologies for speaking practice.
2. To analyze the impact of these psychological challenges on students' language learning outcomes.
3. To explore students' perceptions of the effectiveness of digital technologies in developing speaking competence.
4. To provide recommendations for addressing psychological issues in digital language learning.

### Hypothesis

- H1: Students using digital technologies for speaking practice experience higher levels of language anxiety compared to those using traditional methods.
- H2: Lack of social interaction in digital learning platforms contributes to feelings of isolation and disengagement, negatively impacting speaking competence.
- H3: Over-reliance on technology for speaking practice leads to a reduction in spontaneous speaking skills in real-life situations.

### METHODOLOGY

This study will use a mixed-methods design, combining both qualitative and quantitative approaches. The quantitative component will involve surveys to gather data on students' psychological challenges, while the qualitative component will include interviews and observations to gain deeper insights into the emotional and cognitive factors influencing students' experiences. The combination of these methods will allow for a more thorough understanding of the psychological problems associated with using digital technologies for speaking skill development.

#### **Instruments:**

1.Survey: A structured questionnaire will be administered to students who use digital technologies for language learning. The survey will measure anxiety levels, motivation, social engagement, and perceptions of speaking competence.

2.Interviews: Semi-structured interviews will be conducted with a subset of respondents to gain deeper insights into their personal experiences with digital tools, the psychological challenges they encounter, and their coping mechanisms.

3.Observational Analysis: Observations of students using digital tools (e.g., language learning apps, speech recognition software) will be conducted to assess engagement levels, anxiety, and social interaction during speaking activities.

#### **Participants**

The participants of this study will be language learners enrolled in English as a second language (ESL) courses of Andijan state institute of foreign languages. The study will include both beginner and intermediate-level learners of English, as these levels often experience distinct psychological challenges when learning speaking skills. A stratified random sampling technique will be used to select students from different courses and proficiency levels to ensure a diverse representation of language learners. The final sample size will be approximately 250 students, with 250 students in the quantitative phase and 30-40 students in the qualitative phase.

#### **Data Collection Methods**

##### **Quantitative Data Collection**

**Survey Questionnaire:** A self-administered survey will be developed to collect quantitative data on the psychological problems experienced by students when using digital technologies for developing speaking skills. The survey will consist of closed-ended questions, using Likert scales (1–5) to assess the severity of various psychological factors. The survey will cover the following areas:

**Language Learning Anxiety:** Questions will explore the

level of anxiety students experience when speaking on digital platforms, such as video calls, language exchange apps, or speech recognition software.

**Self-confidence:** This section will focus on how confident students feel about their speaking abilities when using digital technologies.

**Social Isolation:** The survey will assess feelings of isolation and lack of interaction when using digital technologies for speaking practice.

**Self-regulation:** Questions will gauge students' ability to manage their learning processes and stay motivated when using digital platforms for speaking practice.

**Example questions:**

"I feel nervous speaking English on digital platforms."

"I have trouble staying motivated when using digital tools to practice speaking."

"I feel isolated when practicing speaking on digital platforms."

The survey will be piloted with a small sample of 250 students to ensure clarity and reliability before it is administered to the full sample.

#### **Qualitative Data Collection**

**Semi-structured Interviews:** In-depth semi-structured interviews will be conducted with a subgroup of approximately 250 participants. The purpose of the interviews is to explore the psychological issues more deeply and to understand how students perceive and respond to the challenges associated with using digital technologies in speaking practice. The interviews will be conducted individually, either in person or via video conferencing, and will last between 30 to 45 minutes.

**Key themes to be explored in the interviews include:**

Experiences of anxiety and fear of judgment when speaking on digital platforms.

Feelings of self-doubt or insecurity about speaking abilities.

Instances of social isolation or lack of interaction during speaking practice.

Perceptions of how digital tools have impacted motivation and focus.

Preferred methods for overcoming psychological barriers to using digital technologies.

**Example interview questions:**

"Can you describe a situation where you felt anxious while practicing speaking on a digital platform?"

"What aspects of using digital tools for speaking practice make you feel confident or insecure?"

"How do you stay motivated to use digital technologies for language practice?"

## Observations

Observational data will be collected by observing students as they engage in speaking activities using digital platforms, such as language exchange apps or video conferencing tools. These observations will focus on how students interact with the technology, their emotional responses, and any signs of anxiety or discomfort. Field notes will be taken to record observed behaviors, such as reluctance to speak, avoidance of certain activities, or difficulty concentrating during speaking practice.

The observations will be conducted over a period of two weeks, with each session lasting between 30 to 45 minutes. The researcher will observe a sample of students while they are using digital platforms for language practice, paying attention to any signs of psychological distress.

## RESULTS

The preliminary findings of the research provide a comprehensive view of how students perceive and interact with digital tools for speaking tasks, particularly in the context of language learning. The results are categorized into three main themes: anxiety levels, social isolation, and technology dependence.

### 1. Anxiety Levels

A significant proportion of students reported feeling anxious when using digital tools for speaking tasks. This anxiety was primarily associated with the use of speech recognition systems, which are often integral to these platforms. The immediate and impersonal feedback provided by these systems was particularly problematic for many students. Several participants mentioned that they felt self-conscious when their speech was inaccurately recognized, especially since there was no human presence to offer supportive or contextual feedback. This generated a sense of vulnerability and frustration, as students were often unable to control or understand why their speech was misinterpreted. Additionally, students who were less confident in their speaking abilities felt more pressure to perform perfectly, which only exacerbated their anxiety. In many cases, this anxiety hindered their willingness to engage with the tasks, leading to avoidance behaviors and decreased participation.

### 2. Social Isolation

Another notable finding was the sense of social isolation experienced by some students when using digital platforms for language learning. Students reported that the platforms with limited opportunities for real-time interaction with peers or instructors made them feel disconnected. Without the social aspects of traditional classroom settings—such as group

discussions, peer feedback, and teacher-student interactions—students struggled to maintain motivation. This sense of isolation was especially pronounced in environments where the speaking tasks were either completed in isolation or with minimal collaborative features. As a result, students indicated that they missed the social dynamics and learning that came from interacting with others in a traditional classroom setting, which led to a decrease in their overall engagement and enthusiasm for the learning process. The lack of human connection made the learning experience feel mechanical and less rewarding, which, in turn, diminished their intrinsic motivation to continue using these tools.

### 3. Technology Dependence

The third major finding highlighted the issue of technology dependence. Many students expressed frustration with the limitations of the digital tools they were using, particularly with speech recognition technology. Several students reported that the systems often failed to accurately recognize their speech, either misinterpreting words or failing to process their input altogether. This resulted in decreased confidence, as students began to question their speaking abilities and whether they were improving. Instead of focusing on actual communication or language development, they became preoccupied with the technical aspects of the platform, such as ensuring that their speech was properly recognized.

In some cases, this frustration led to an over-reliance on digital tools for practice, even when students could have benefited more from engaging in real-world conversations with peers or native speakers. Students who relied too heavily on technology reported that they missed the nuances of face-to-face communication, such as body language, tone, and the ability to receive immediate, personalized feedback from other people. While the technology provided a sense of practice and structure, it did not replace the value of real-world conversational experiences.

## DISCUSSION

The increasing use of digital technologies in educational contexts, particularly in language learning, has transformed how students develop their speaking skills. However, the findings of this study reveal several psychological challenges that students encounter when using digital tools for speaking tasks. These challenges, which include heightened anxiety, social isolation, and technology dependence, are critical to understanding the broader implications of digital technology in language learning. This section will discuss these psychological problems in detail, highlighting their causes, effects, and potential solutions [9]. Despite the



challenges posed by digital tools, many students developed coping strategies to manage their anxiety. One common approach was to use the tools gradually, starting with simpler tasks and progressively working toward more complex speaking exercises. This incremental approach helped students build their confidence and reduce the pressure of immediate feedback. Some students also reported taking breaks between practice sessions to avoid burnout and mitigate feelings of frustration. This helped them maintain a sense of control and prevent the negative emotions associated with continuous use of the technology.

Additionally, students found comfort in revisiting their work and receiving feedback from teachers or peers in a more supportive, human-centered context. They sought out opportunities for social interaction, either through online communities, language exchange programs, or real-time communication with instructors. By supplementing their digital practice with these human interactions, students were able to ease their anxiety and feel more confident in their speaking abilities.

To cope with social isolation, students adopted several strategies to re-establish a sense of community. Many sought out virtual language exchange partners or joined online speaking clubs to engage in real-time conversations with others. Others participated in group discussions or forums where they could share their learning experiences, receive feedback from peers, and offer support to one another. These interactions helped students maintain motivation and foster a sense of belonging, which was vital for their continued engagement with digital learning tools.

Furthermore, some students reported that they actively sought opportunities to engage with instructors outside of the digital platform, such as through video calls or live sessions. This allowed them to ask questions, clarify doubts, and receive personalized feedback, which reinforced their sense of connection and helped them feel less isolated.

To manage technology dependence, students began to seek out real-world speaking opportunities in addition to using digital tools. They understood that digital practice alone was insufficient for developing conversational fluency, as these tools often lacked the complexity and unpredictability of real-world interactions. Students who relied on digital tools reported making efforts to engage in face-to-face conversations, either with native speakers or fellow learners, to practice their speaking skills in authentic contexts. This shift from purely digital practice to more varied language learning experiences helped them

regain confidence and break free from the constraints of technology. Moreover, some students adjusted their expectations, recognizing that digital tools were not a substitute for human interaction but rather a supplementary resource. By combining digital practice with real-world conversations, they were able to develop a more balanced approach to language learning. Some also reported learning to troubleshoot or adapt to the limitations of digital tools, such as speaking more clearly or adjusting their accents, to improve recognition and avoid frustration.

## CONCLUSION

The research underscores the importance of addressing the psychological challenges that arise when students use digital technologies to develop speaking competence. While digital tools can enhance language learning, their psychological impact on students cannot be ignored. The findings emphasize the need for more interactive and humanized digital platforms, which incorporate social elements and personalized feedback to reduce anxiety and increase motivation. Future developments in language learning technology should strive for a balance between technological convenience and emotional, social, and cognitive engagement.

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