CHAPTER 2
LITERATURE REVIEW

This section will discuss key concepts, previous studies, and the theoretical framework that informs this research. It will highlight the role of technology in supporting autonomous pronunciation learning and provide a context for understanding how tools like ToPhonetics can enhance students' language skills.

2.1 Conceptual Framework of the Study: Autonomous Learning

This study adopts the concept of autonomous learning as framed by Benson (2011), which serves as the primary theoretical lens for exploring students' independent pronunciation learning. Benson's framework emphasizes learners' control over various aspects of learning, including learning management, self-regulation, and content selection. In this context, autonomous learning refers to the ability and willingness of students to set their goals, find appropriate resources, and conduct self-evaluation (Holec, 1981). It involves learners taking control of their learning journey and making informed decisions throughout the process. This foundational definition remains relevant today, particularly as students increasingly rely on digital platforms to self-direct their learning (Reinders & Darasawang, 2022). In web-based contexts, learners take responsibility for managing online resources and tools, such as pronunciation software, to meet individual learning goals.

Benson (2011) clarifies that autonomous learning is not merely about studying independently but about having control over different aspects of learning. He identifies three main areas where students can exercise control: managing their learning, regulating their cognitive processes, and selecting their learning content. Learning management involves how students organize their studies, including setting schedules, determining practice frequency, and tracking progress (Smith & Conti, 2016). In pronunciation learning, students need to schedule practice, set realistic goals, and maintain consistency, which digital tools like ToPhonetics can facilitate. Cognitive regulation refers to the process by which students engage with and process their learning, continually assessing their understanding, identifying

areas needing improvement, and adjusting their strategies accordingly (Zhao & Luo, 2020). In pronunciation learning, this means students listen to their speech, compare it to phonetic transcriptions, and refine their pronunciation based on feedback. ToPhonetics provides immediate phonetic transcriptions, enabling learners to analyze their pronunciation accuracy and make necessary adjustments (Derwing & Munro, 2015). Self-monitoring and self-correction are key factors in successful autonomous learning (Reinders, 2020). Meanwhile, content selection allows learners to focus on the pronunciation challenges that are most relevant to them. Unlike traditional classroom settings, where materials are predetermined, autonomous learners can decide which aspects of pronunciation they need to improve, such as vowel sounds, intonation, or stress patterns (Little, 1991). ToPhonetics supports this process by allowing learners to input specific words or phrases they struggle with and practice them repeatedly, giving them control over their learning content (Chik, 2017). This ability to make personalized learning choices not only enhances motivation but also helps students develop a study approach that best suits their individual needs (Deci & Ryan, 2000).

To become successful autonomous learners, students must develop specific skills and habits. Omaggio (1978) highlights that independent learners understand their learning styles, analyze tasks from different perspectives, take risks, and develop problem-solving skills. These characteristics are reflected in today's autonomous learners who navigate technology-enhanced learning environments, demonstrating critical thinking, digital literacy, and the ability to self-regulate learning with the help of digital tools (Zhang & Lin, 2021).

In this study, autonomous learning is examined in the context of pronunciation practice using ToPhonetics. By applying Benson's (2011) framework, this research examines how students manage their pronunciation practice schedules, monitor progress through phonetic transcription feedback, and select specific pronunciation features to target for improvement. Understanding how students exercise autonomy in pronunciation learning provides valuable insights into how digital tools, such as ToPhonetics, support independent learning and help students become self-sufficient language learners (Reinders & Darasawang, 2012).

2.2 Web-Based 2.0 for language learning

Web 2.0 technologies make significant changes in language learning by making it more interactive, collaborative, and flexible. Some tools, such as social media, blogs, wikis, and mobile apps, enable students to practice language skills in innovative ways beyond the traditional classroom. In language learning, Web 2.0 tools have become invaluable as they provide spaces for learners to practice, communicate, and connect with peers in real-time, promoting authentic language use. According to Charlina et al. (2024), the use of Web 2.0 enables students to participate in creating and sharing content actively, allowing them to practice the language in context and develop critical skills, particularly in listening, speaking, and pronunciation. Soulé et al. (2021) also noted that the flexibility of Web 2.0 tools enables language learners to experience language as a living, dynamic medium, rather than a static set of rules, which is essential for meaningful language acquisition.

The principle of autonomous learning is also a crucial component of Web 2.0, enabling students to direct their learning based on personal goals, pace, and preferences. Students can set their own goals, work at their own pace, and focus on areas such as pronunciation, receiving instant feedback to help them self-correct (Reflinda & Roza, 2024). Platforms that enable such autonomous practice align with Web 2.0's learner-centered approach, where students have access to a range of resources to tailor their learning experience effectively (Nguyen et al., 2024).

Pronunciation tools such as ToPhonetics within a Web 2.0 framework enhance language acquisition by providing learners with specific pronunciation practice and feedback, which are crucial for mastering phonetics. According to Godwin-Jones (2024), structured tools like ToPhonetics support language competency through repetition and self-assessment, making them valuable for those aiming to improve their pronunciation. For second-language learners, such tools are game-changers, allowing them to engage more deeply with the sounds and nuances of their new language (Turunen, 2023).

2.3 ToPhonetics Website

The ToPhonetics website (https://tophonetics.com/) is a user-friendly online tool

that helps learners convert English text into phonetic transcription using the International Phonetic Alphabet (IPA). It provides a straightforward way for users to hear how words should sound, making it a valuable resource for anyone seeking to improve their pronunciation.

What sets ToPhonetics apart is its intelligent algorithm, which adapts transcriptions based on context. For example, the word "read" is pronounced differently depending on whether it is used in the past or present tense, and the tool adjusts accordingly. Additionally, it allows users to choose between American and British accents, catering to the specific needs of learners who want to focus on one accent over the other.

As part of the Web-Based 2.0 environment, ToPhonetics supports autonomous learning by being consistently available and easy to access. Unlike tools that only provide audio feedback, ToPhonetics gives both visual cues through IPA transcription and audio samples. This dual approach appeals to different learning styles, helping students better understand and internalize pronunciation patterns (Amalia, 2020).

The simplicity and accessibility of ToPhonetics make it an excellent tool for students to practice independently. It is easy to use, and its flexible approach allows learners to fit practice into their schedules, enhancing their pronunciation skills outside of the classroom. By blending classroom learning with independent practice, ToPhonetics enables students to take control of their learning journey and improve their pronunciation in a way that suits them best.

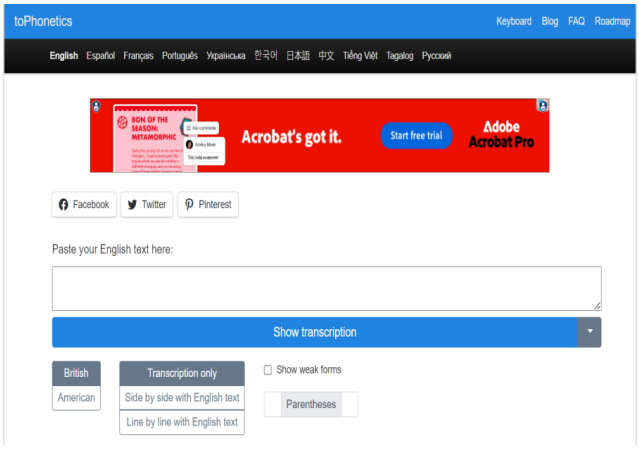

Figure 1. ToPhonetics Website

2.4 Study of Relevant Research

Before conducting this research, the researcher had previously studied digital platforms for pronunciation learning and autonomous learning using technology.

This research is relevant to the study by Alharthi (2024), which investigated how technology can be leveraged to improve pronunciation skills among EFL learners, with a specific focus on the interactive nature of Siri as a pronunciation coach. Using an experimental design including a comparison group and an experimental group of 40 university students, the research showed that Siri is more accessible and familiar to most students compared to other speech recognition software and Siri also can provide feedback in context that makes it more effective than minimal pair drills often use in language learning research.

Another related study was conducted by Bashori (2022), who investigated the effectiveness of Auto Speech Recognition (ASR) on students' pronunciation skills. The research analyzes two central systems: ILI (I Love Indonesia) and the NOVO application. This research employs an experimental design, including a comparison group and an experimental group, consisting of 128 students from four class groups at vocational high schools in Indonesia.

A study by Sariani et al. (2022) is also related to this research. The research was about the mobile app ELSA Speak, which provides pronunciation feedback and has been found to enhance students' ability to learn independently. By offering immediate and detailed feedback, the app enables learners to improve their pronunciation skills independently. This is especially important in the context of autonomous learning, where students often depend on self-assessment tools to track their progress.

Based on previous studies, it is evident that most research has focused on examining various digital media, such as Siri, ILI, NOVO, and ELSA Speak, as tools for students' pronunciation practice. Additionally, the research primarily employed a quantitative method, conducted at both university and vocational high school levels. Therefore, to fill this gap, this research will investigate the benefits of a website called Tophonetic, using a descriptive qualitative method, for university students in the Introduction to English Pronunciation course. In this

study, the researcher will investigate how students use the ToPhonetics website as a medium for autonomous learning in pronunciation.

In line with these findings, a meta-analysis conducted by Tseng et al. (2022) highlighted the effectiveness of Mobile-Assisted Language Learning (MALL) tools in improving L2 pronunciation. The review emphasized that learners benefit most from tools that provide both visual and auditory feedback, enable repeated practice, and support self-monitoring—all features offered by the ToPhonetics website. Additionally, Reinders and Darasawang (2022) argue that autonomous learning with digital support enhances learners' engagement and outcomes. These studies collectively reinforce the importance of investigating web-based phonetic transcription tools, such as ToPhonetics, as part of autonomous pronunciation learning, especially in EFL contexts. Thus, this study aims to fill the gap by exploring learners' experiences with ToPhonetics through a qualitative approach.