

CHAPTER I

INTRODUCTION

This dissertation begins with a comprehensive background of the research. It then presents the problem statement, which is derived from an in-depth analysis of the existing literature on the use of information and communication technology (ICT) in the context of self-directed language learning (SDLL). The literature review examines how these sources specifically address the intersection of SDLL and ICT, highlighting the key insights, trends, and gaps in knowledge. The research questions, research objectives, and significance of the study are all presented.

1.1 Background of the Research

Self-directed learning (SDL) has been demonstrated to be an essential aspect of 21st-century education. SDL supports student autonomy and engagement in their learning process, giving them a leadership role and positioning the educator as a facilitator or guide of that learning rather than a simple transmission of knowledge. Tekkol & Demirel (2018) refer to SDL as an essential skill and argue that higher education needs to place more emphasis on teaching–learning strategies to enhance SDL. Memorization and replication of facts, which may become obsolete in the near future, will not prepare students for the demands of the 21st-century workplace. Students in the twenty-first century should be able to take responsibility for their own lifelong learning. They should also be able to effectively collaborate and interact with others, think creatively and critically, as well as overcome previously unsolved problems while continually adapting to new technology (Artman & Crow, 2022; Hadiyanto et al., 2021).

SDL is an approach to education where students take responsibility for their learning process (Bosch et al., 2019; Mentz et al., 2019). Students who actively participate in and control their own learning process are referred to as self-directed

learners. These students have the ability to select their own learning strategies, resources, and objectives in order to achieve their goals. Self-directed learning is seen as a solution for students to keep up with the rapidly changing technological society of the 21st century where traditional teacher-centred learning environments and rote learning no longer provide satisfactory answers. Teachers, as facilitators of learning, have to constantly explore ways for students, as self-directed learners, to actively participate in their own learning in order to prepare them for their future (Bosch et al., 2019; Damrow & Faye, 2022).

Another issue of SDL is that it remains a challenge for teachers and facilitators to design an effective SDL environment that also employs technology (Payne, 2021). Researchers in SDL depend on different theories for understanding the essence of SDL. SDL can be described from three perspectives: a personal attribute, a process, or a design characteristic of the learning environment. The degree of self-direction is largely dependent upon learners' personal characteristics required for SDL, including skills and attributes related to motivation, self-monitoring, self-management, and self-control (Fisher et al., 2001; Garrison, 1997). For SDL, learners should possess the necessary personal characteristics at a certain level, because the degree to which learners have these SDL characteristics influences the extent of their control over their own learning. Self-directed learning is an approach to learning that promotes the active engagement of students in the learning process to acquire higher-order thinking skills, such as problem-solving, critical thinking and reasoning. A self-directed student should have the ability to acquire new knowledge (what) and the competence in managing the learning process (how) easily and skilfully for the rest of his or her life (Mentz & Bailey, 2019).

SDL is as a process consisting of five steps: (a) diagnosing learning goals; (b) formulating learning goals; (c) identifying human and material resources for learning; (d) choosing and implementing appropriate learning strategies; and (e) evaluating learning outcomes (Knowles, 1975). SDL is also considered as a design characteristic

of a learning environment which fosters the control of learners over learning. A learning context can be designed to incorporate elements that influence to what extent learners' control and direct their own learning process (Loeng, 2020). For example, online learning environments can provide learners with a learning context involving resources, structure, tasks, feedback from instructors, and peer collaboration to facilitate or enhance SDL. Therefore, SDL is likely to occur in a learning context that supports learners in planning, implementing, and evaluating learning with the use of skills and attributes such as motivation, self-management, and self-control (Saks & Leijen, 2014).

In the context of language learning, Krashen (1985) stated that learners do not necessitate extensive use of grammatical rules or tedious practise; rather, acquisition necessitates meaningful interaction in the target language in which speakers are concerned with the messages they convey and understand. These strategies are not meant to force early production in the language learning, but rather enable students to produce when they are ready, recognizing that learning comes from providing communicative and understandable input rather than forcing and correcting production. It implies that learners can benefit from a variety of language resources, such as authentic materials, multimedia resources, and language exchange opportunities through technology as beneficial input to improve their language learning journey.

One approach to addressing the issues of students' self-directed language learning is to integrate technology for language learning. When referring to self-directed language learning (SDLL) with technology, it includes any information and communication technology (ICT) devices and digital learning environment to promote self-directed in language learning. All of these environments have one common characteristic: the use of some form of technology in language learning. The affordances of ICT can provide learners with opportunities to experience and enhance the SDLL process. For example, the capacity to access abundant and diverse information resources; capture, store, manipulate, and display information; and have

contact with online experts and peers can allow learners to use ICT to identify their learning needs, choose and implement appropriate learning content, resources and strategies, and evaluate their learning outcomes, which stimulate self-direction in their learning process. SDLL with ICT refers to the use of ICT tools for learning experiences that enable individuals to take control of planning, implementing, and evaluating their own learning (Lai et al., 2022).

Additionally, the study by Yan & Singh (2023) found that the use of technology associated with independent learning. They reported that using mobile phones to learn a language serve as a moderator in the relationship between self-management and beliefs about how their language skills are improving. Besides, Sumuer (2018) found that the use of information and communication technology (ICT) influences students' decisions on SDL practices by enabling them to access a wide range of information resources, locate and evaluate information, follow their interests, and interact with experts and peers. Examples of how ICT can influence the SDLL process include collaboration with people, convenient and persistent access to worldwide information resources and opportunities, online communities involving a number of people from various disciplines for collaborative working and learning, and creative abilities cultivated through digital technologies. Learners can diagnose and formulate their learning needs, identify learning paths, or evaluate their learning outcomes with the help of these ICT. He also highlighted that the use of Web 2.0 tools for learning significantly mediated the influence of students' online communication self-efficacy and computer self-efficacy on their self-directed learning with technology.

In addition, Zhang & Pérez-Paredes (2019) found that learners' use of mobile technologies such as email, smartphone, Internet, and social media positively influenced their levels of SDL. Moreover, Zhu et al. (2020) found that massive open online course (MOOC) enhance learners' skills for self-directed learning. MOOC instructors facilitated learners' self-management skills from four perspectives: the enactment of learning goals, time management, management of resources and support,

as well as navigation. Consequently, technology-rich environments have the potential to provide flexible opportunities and capabilities for learners to facilitate SDL.

Digital learning environments can provide a conducive context for SDL personal characteristics and process. The flexible structure of these learning environments enables learners to accommodate their own needs in their own time, place, and pace and consequently makes it possible for them to have more control over their own learning (Beach, 2017). As a result, a well-designed online learning environment that provides a flexible structure, collaboration opportunities, and choice and control over learning can provide learners with the opportunity to pursue SDLL process effectively. The integration of digital learning environment can enhance students' performance and 21st century skills practice in their classroom (Hadiyanto et al., 2022).

To reach self-directed language learning, learners should be ready for self-direction. SDLL readiness is defined as the extent to which learners have the attitude, abilities, and personality traits required for SDLL. According to Fisher et al. (2001), this definition inherently assumes that readiness for SDL changes along a continuum and that learners are placed somewhere on it. Consistent with this perspective, Sumuer (2018) explored learners' SDL readiness as having an important influence on their online learning effectiveness in a Web-based learning environment. Similarly, a study conducted by Pan (2020) found that students' technology acceptance and technological self-efficacy were related to their attitude toward technology-based self-directed learning. In addition, Yavuzalp & Bahcivan (2021) reported that the university students' readiness for e-learning was effective on their self-directed skills, satisfaction, and academic achievement. These findings suggest that learners' SDLL readiness is an important antecedent of SDLL with technology. If learners have the attitude, abilities, and personality traits required for SDLL, they are more likely to take advantage of the affordances of technology devices for SDLL. Therefore, it is

important to examine the extent to which learners' SDLL readiness contributes to SDLL with technology.

Given the prevalent use of technology, ICT is one of the most important aspect that support SDLL activities due to their capabilities for formal conversation, dialogue, collaborative content creation, and knowledge sharing, which help learners be more autonomous in their own learning (Sadeghi, 2018). Firstly, by using these technologies, learners can explore, express, and share their thoughts, understanding, and experiences independently and publicly (Hamidi & Chavoshi, 2019; Jiang et al., 2021). These features enable learners to express their understanding of content and self-reflect on their learning experiences. Secondly, ICT enable learners to challenge, contribute, and co-create knowledge, questions for exploration, and ideas collaboratively with not only other learners or instructors, but also with others around the globe who have similar interests (Yavuzalp & Bahcivan, 2021). Moreover, the collaborative nature of ICT makes it possible for learners to receive help, support, and feedback from peers and experts in order to guide their learning experiences (Rafiee & Naghneh, 2021).

Furthermore, one of the most important points is that the use of ICT mediated social interaction with peers, instructors, or experts also enables learners to critically test and confirm their understanding (Gaur et al., 2015). These collaborative efforts can help learners not only to fulfil their learning goals through collaboration and social interaction, but also to make informed decisions on, or revise, their learning goals, learning resources, strategies, and evaluation of their learning results. Lastly, ICT provide a range of tools and services which learners can use based on their needs and preferences (Hu et al., 2022; Shanthi et al., 2021). These tools and services provide learners with a context or resources for learning. Consequently, the opportunities and abilities of ICT has a significant potential to facilitate and foster SDLL.

In order to take advantage of ICT for SDLL, it is important to understand the factors that foster and facilitate SDLL with technology. Such evidence would make it possible for learners, instructors, or instructional designers to employ appropriate

scaffolding strategies for effective SDLL with technology. Similarly, in a study in which a self-report instrument was developed to measure SDL with technology among EFL university students. Some researcher placed emphasis on the need for further studies that examine factors influencing SDL with technology (Lai et al., 2022; Pan & Shao, 2020). For these, they suggested the investigation of constructs that affect SDL and user demographics. Although studies have mostly focused on the influence of technology use on SDL, there is scant research to be found on the factors influencing SDLL with ICT. Therefore, this current study investigates self-directed language learning through the use of information and communication technology.

To response the current issue on SDLL with technology, particularly in the context of EFL in Indonesia, the researcher views a need for further investigation into students' self-directed language learning with ICT. The study is framed by the research question does ICT promote students' self-directed language learning? and also, to examine factors influencing self-directed language learning with ICT. The study is focused particularly on the determinants of using the ICT to facilitate SDLL and how this shapes their behaviour and employment of SDLL. This dissertation begins with problem statement based on the literatures on SDLL in the online setting and how these literatures relates specifically to SDLL and ICT. The research method is followed by a discussion of the methods to answer the research question. The data analysis process and findings are presented and discussed. The dissertation is concluded by summarising the key findings and reflecting on the limitations of the study as well as potential directions for future research.

1.2 Identification of the Problem

According to Krashen's input hypothesis of Second Language Acquisition (1985), the process of acquiring a language does not necessitate extensive use of grammatical rules or repetitive practice. Instead, it relies on meaningful interaction in the target language, where speakers focus on conveying and understanding messages rather than the forms of their speech. For language acquisition to occur, comprehensible

input plays a crucial role. Therefore, the most effective methods are those that provide understandable input in low-pressure settings, encompassing content that genuinely interests students. These methods do not compel immediate production in the second language; instead, they allow students to produce language when they are ready. It is recognized that progress stems from receiving communicative and comprehensible input, not from forcing and correcting output. Consequently, Krashen's theory implies that learners can enhance their language acquisition journey by utilizing diverse language resources such as authentic materials, multimedia resources, and opportunities for language exchange.

This current study focuses on the use of ICT to promote students' self-directed language learning (SDLL). Universities in Indonesia are competing to improve ICT facilities in order to improve the quality of learning. They did so for many reasons: (a) to overcome the obstacles of on-site or campus learning, mainly time and location; (b) to introduce the country to the latest technology innovations in education; (c) to keep up with educational developments in the rest of the world, and (d) to give more high school graduates and working people the opportunity and flexibility to study for an academic qualification. But unfortunately, EFL learners, especially in Indonesia, have not been able to take advantage of the integration of ICT in learning English. Therefore, this study aims to investigate EFL university students' Self-directed language learning with technology.

ICT uses the power of networked computers to deliver customized learning materials to diverse local and distant communities, and is currently in widespread use all over the world, including developing countries, such as in Indonesia where the current study presented in this dissertation is located. It is noted that the EFL university students had various difficulties when they are expected to use technology for self-directed language learning. The problem of the research associated with relation of using ICT for self-directed language learning are identified, as follows:

1. The rapid development of ICT has resulted in a paradigm shift in language learning, enabling educators and students to utilise technology in teaching and learning process.

In the last decades, the theory and practice of English language teaching in higher education institutions have evolved rapidly. The reasons for this recent paradigm shift include (a) the changing political and economic landscape which has forced universities to become more stakeholder and market oriented; (b) the expanding number of students studying off campus by online learning and (c) the development of ICT associated with online or e-learning (Chouthaiwale & AlKamel, 2018; Ghasemi & Hashemi, 2011).

2. The learning needs of the 21st century education emphasize lifelong learning and self-direction, so the use of technology is important in promoting Self-directed language learning.

Through the association of learning networks in different learning situations, and the effective integration from bottom to top by learners, the free scheduling of learners can be realized and self-directed learning activities can be achieved in the distributed learning environments. As a new research direction, technology-based learning space is constructed on the basis of technology development in order to realize learners' autonomous, flexible and committed learning (Reinders & White, 2016). However, the existing research mainly discusses on how to use technology to share resources, construct learning situations, and interact socially. There are few studies on the impact of technology on English as a Foreign Language (EFL) students' self-directed language learning and its mechanism. Relevant studies have pointed out that EFL learning supported by technology highlights the key role of self-directed learning (Holzweber, 2018).

3. There is a greater need for students to develop SDL ability following the shift from teacher-centered traditional classrooms to student-centered approaches with advanced technologies.

With the development of network technology, diverse learning approaches, such as online learning, e-learning and other informal learning, expand students' learning time and space (Reinders & White, 2016). Those new ways of learning usually do not rely on the classroom, characterized with relatively flexible learning structures and learners' self-directed learning according to their own interests and needs Li et al. (2021) believed that the individual learning space constructed by modern technology focuses on the connection of learner-centered professional knowledge with learning environments.

4. EFL students, particularly in Indonesia, have been unable to benefit from the incorporation of ICT in learning English.

ICT can improve student's language skills. Students also perceive that the use of ICT in English language learning make the learning process more enjoyable. But unfortunately, the majority of students spent more time in using ICT for general purposes (entertainment) such as accessing social media, watching film, Youtube, and playing games than for English learning purposes (Al Arif, 2019; Tri & Nguyen, 2014).

5. The use of ICT can promote students' self-directed language learning (SDLL), but in the context of EFL it is still unrevealed what factors influence the students' use of ICT for SDLL.

Several studies have demonstrated the capacity of ICT for SDL. There is a statistically significant difference in the participants' SDL between the pre and the post SDL Test (Khodary, 2017). Hence, it can be concluded that ICT helped the participants develop their SDL. Moreover, in a study on the use of online learning in higher education, Karataş (2022) found that students with high self-directed learning skills were able to keep their motivation and maintain their academic self-efficacy. In addition, based on the study of the influence of the tools of Information and Communication Technologies (ICT) on students' self-directed learning experiences, Hashad (2019) showed that the tools of ICT were found to facilitate

self-direction in learning with participants showing a higher preference for online learning platforms and an extensive utilization of the various tools of ICT in their learning practices. These studies have not revealed which factors influence the usage of ICT for SDLL.

6. Students have difficulty in diagnosing their learning needs, formulating learning goals, identifying resources for learning, choosing appropriate learning strategies, and evaluating learning outcomes.

Zhu & Bonk (2019) investigated instructors' perceptions of self-directed learning (SDL) and the design of MOOCs to facilitate student SDL. Their study revealed that the impact is mainly on learner self-monitoring and motivation. Since students continue to struggle with defining learning objectives, choosing appropriate learning strategies, and evaluating learning goals, this study recommends that teachers or instructors should motivate learners through high quality resources, helping set learning goals, course accessibility, short learning units, providing feedback, meaningful activities, and social learning opportunities.

7. The EFL students perceive that they have been facing various barriers to use ICT for self-directed language learning, including lack of knowledge and skills, lack of discipline and time management, and lack of motivation to use ICT for learning English.

A study conducted by Plews (2017), explored SDL in the online context from the perspective of traditional and non-traditional undergraduate learners. The study found that Learner self-efficacy and technology access, use, and skills impact readiness for SDL in the online context. Consequently, it is clear that the use of ICT for learning inherently offers considerable potential for SDLL. Hence, his study suggests that students should be encouraged to improve their knowledge and skills to use ICT for language learning purposes, which is likely to contribute to SDLL with technology.

8. EFL students lack confidence in using online applications (e.g., email, discussion forum, and social media), expressing themselves (e.g., ideas and feelings) using ICT, and posting questions and/or replies in online discussions in order to effectively connect with others.

The use of ICT for learning significantly mediated the influence of students' online communication self-efficacy and computer self-efficacy on their self-directed learning with technology (Sumner, 2018). Therefore, students should be encouraged to be confident in using online application to enhance their self-directed language learning. However, the fact shows that students are still lacking confidence in using ICT to learn English, they are also embarrassed to share their opinions and feelings, as well as answer or ask questions, in online discussion forums.

9. EFL Students think that guidance/ assistance is not available to them on the use of ICT for learning English.

Students perceive that there is no assistance/guidance available in utilising ICT to improve their self-directed language learning. To take advantage of ICT for SDLL, it is necessary to first understand students' learning needs that can promote and facilitate SDLL with technology. The students' needs to gain self-directed language learning would enable learners, educators, or instructional designers to use effective scaffolding strategies for SDLL using technology. The collaborative nature of ICT allows learners to obtain assistance, support, and feedback from peers and professionals to improve their learning experiences (Rafiee & Naghneh, 2021).

Since there are numerous factors that influence SDL and the usage of computer technology for SDL in various contexts, the present study proposed a model to investigate the interplay of and relationships between the constructs of SDLL with ICT, SDLL readiness, attitude towards ICT, subjective norms, facilitating condition, online communication self-efficacy, and ICT self-efficacy in a specific domain English as a foreign language (EFL) learning at Indonesian university. As a result, this current research covers a set of factors that have not previously been thoroughly examined in

the context of English language learning. The potential to separate the determinants of SDLL using ICT and connect each of them to a variety of outcome variables is a significant contribution of this research. By determining which SDLL with ICT factor predicts which results, educators will be able to construct interventions that target specific outcomes by encouraging specific SDLL factors to university students. This multidimensional view of SDLL with ICT is more advantageous to instruction than a unidimensional view.

When the researcher identified the research gaps in this study, the researcher started by conducting literature studies. A research gap is, simply, a topic or area where there is missing or inadequate information to make a conclusion for a question. Kumar (2020) proposed one of various technique and approaches to identify research gaps. As a result, the researcher identified several research gaps in this study, as follows:

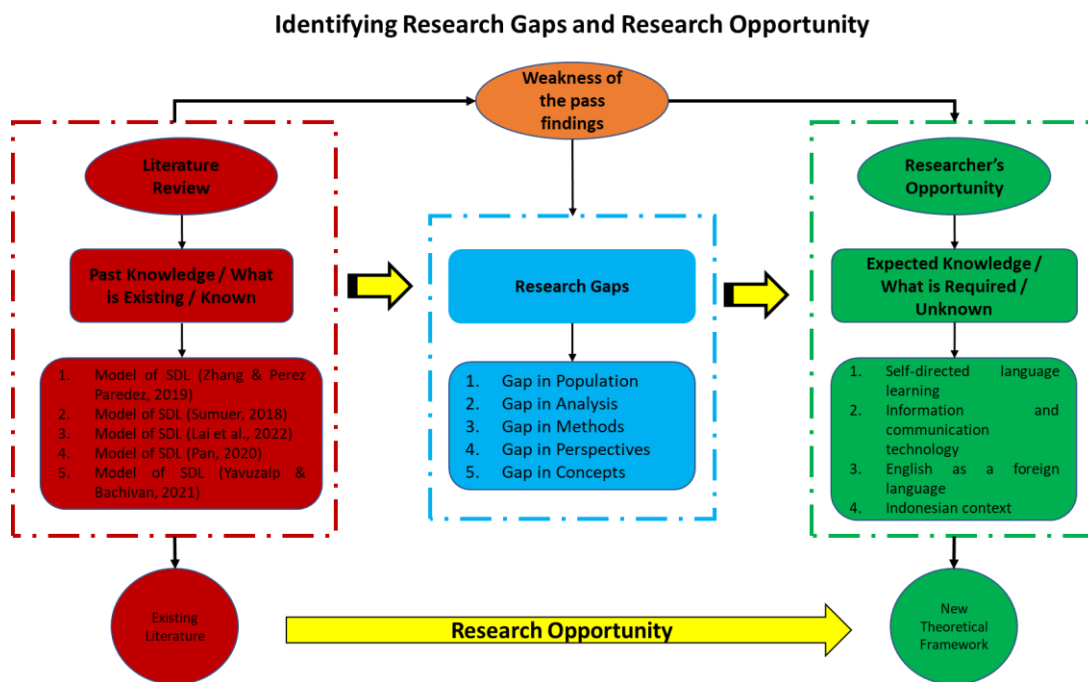


Figure 1. 1. Identifying the Research Gaps and Research Opportunity

Furthermore, when the researcher explored the research opportunity with the aid of technological application (publish or perish and VOSviewer) with the keywords self-directed learning, it was discovered that there are still very few researchers in the world who investigate self-directed language learning with technology, particularly in EFL students in the context of Indonesia. The steps of exploring research opportunity using publish or perish and VOSviewer are the following:

1. Open publish or perish application
2. Search for bibliometric data with the keyword “self-directed learning”
3. The result from publish or perish application then be saved in ris format file
4. Open the VOSviewer application
5. Choose Create a map based on text data
6. Choose Read data from reference manager files
7. Open the ris file that we saved before
8. Choose title and abstract files, follow the instructions in the application and click finish

After the researcher has conducted a data search through the Publish or Perish application and inputted it using the VOSviewer application according to the steps, the researcher will obtain the results from VOSviewer. Then, the results from the VOSviewer are analyzed to identify research opportunities related to the predetermined topic.

The result of Vosviewer is demonstrated by the figure below;

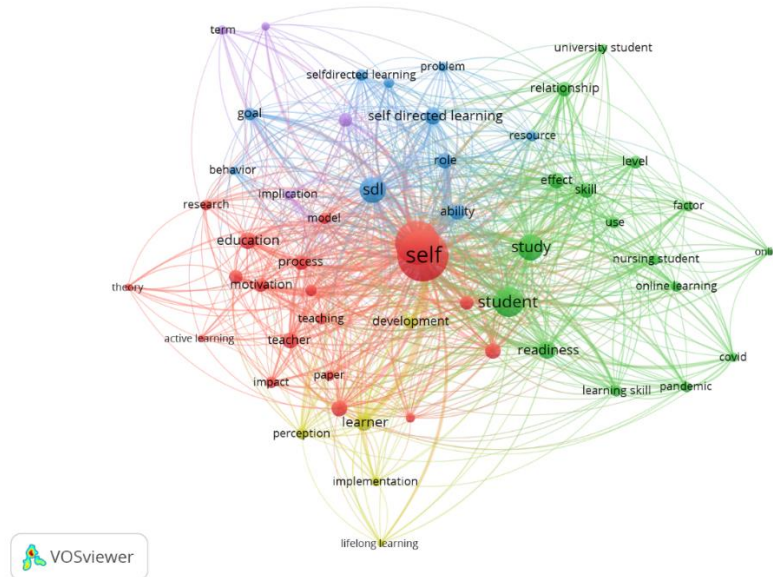


Figure 1. 2. Exploring the Research Opportunity by Using VOSviewer

The figure above demonstrates that most research on self-directed learning were conducted by connecting it to student readiness, development, pandemic, abilities, students, instructor, model, motivation, and method. However, very few studies have linked specific self-directed language learning for EFL university students with ICT and in the Indonesian context.

1.3 Scope of the Research

Based on the background and identified problems above, there should be a limitation that enables to set a focus of the research. In this case, the researcher limited the problems of this current research into some considerations. First, this research was limited on investigating the potentials of ICT use in promoting students' self-directed English language learning. Second, the determinants of students' self-directed language learning with ICT that is addressed in this study covers seven constructs (1) ICT self-efficacy, (2) online communication self-efficacy, (3) facilitating conditions, (4) subjective norms, (5) attitude towards ICT, (6) Self-directed language learning

readiness, and (7) Self-directed language learning with ICT. Third, the population under study consists of EFL University students in Jambi, Indonesia. This limitation allowed the researcher to focus on investigating potentials and determinants of students' self-directed language learning through the use of ICT in an EFL context.

1.4 Research Questions

This study is aimed to investigate the potentials use of ICT in promoting students' self-directed language learning and examine factors affecting EFL university students' self-directed language learning (SDLL) with ICT. This study addressed the following research questions:

1. What are the potentials use of ICT in promoting students' self-directed English language learning?
2. What are determinant factors of self-directed English language learning using ICT among EFL university students?
3. How well do SDLL readiness, Attitude towards ICT, online communication self-efficacy, ICT self-efficacy, facilitating condition, and subjective norm predict SDLL with ICT of EFL university students?
4. Does the attitude towards ICT mediate the influence of online communication self-efficacy, ICT self-efficacy, facilitating condition, and subjective norm on students' SDLL with ICT?

1.5 Objectives of the Research

This study aims to investigate the potentials of ICT use in promoting SDLL and examine determinant factors of EFL university students' Self-directed language learning with ICT. It focused particularly on the extent to which SDLL readiness, attitude towards ICT, online communication self-efficacy, computer self-efficacy, facilitating condition, and subjective norm are conducive to SDLL with ICT, and

whether the use of ICT mediate the relationships between computer self-efficacy, Online communication self-efficacy, and facilitating condition on SDLL with ICT.

These are some Specific Objectives;

1. To investigate the potentials of ICT use in promoting students' self-directed English language learning.
2. To investigate determinant factors of self-directed English language learning using ICT among EFL university students.
3. To examine relationships among EFL university students' SDLL readiness, attitude towards ICT, their online communication self-efficacy, ICT self-efficacy, facilitating condition, and subjective norm on SDLL with ICT.
4. To examine whether the attitude towards ICT mediate the influence of online communication self-efficacy, ICT self-efficacy, facilitating condition, and subjective norm on students' SDLL with ICT.

1.6 Significance of the Research

SDL is an approach to learning that is in line with 21st century learning that emphasizing lifelong learning, where students are responsible for their own learning. In addition, within the framework of 21st century learning competencies, students must be able to think creatively (creative thinking), think critically and solve problems (critical thinking and problem solving), communicate (communication), and collaborate (collaboration) and adapt to technology. The current issue is that students are more likely to use technology in learning foreign languages. Language learning in today's technological era is an effective and efficient way, because students can learn independently outside the classroom with the help of technology so that students can learn anywhere and anytime. Therefore, researcher believe it is necessary to investigate the extent to which students' self-directed learning in learning English with technology.

This study has academic, practical, and personal significance. Primarily, it contributes to the expanding literature on self-directed language learning with technology. This study provides important information for developing and improving EFL university students' self-directed language learning through ICT integration. The findings of this study serve as a resource and reference for those who interested in researching the SDLL with ICT in an EFL context. Secondly, it provides practical recommendations to help improve the quality of English language learning in Indonesia. This study provides information for policymakers to increase and develop ICT facilities in order to improve the English language learning quality of EFL teacher education in Indonesia. Thirdly, it creates a platform from which further research on self-directed language learning with technology at Jambi University may be pursued.

1.7 Definition of Key Terms

Attitude towards ICT (AICT): attitude towards ICT in this study, is defined as an individual's overall affective reaction in using ICT for English Language Learning.

Facilitating Conditions (FC): Facilitating conditions in this study, is defined as the degree to which an individual believes that an organizational and technical infrastructure exists to support use of ICT for learning English.

Information and Communication Technology (ICT): Information and communication technology (ICT) in this study, is defined as the use of computer technologies, the Internet, and other technological devices, such as laptops, smartphones, tablets, and other devices for language learning purposes. ICT use for language learning purposes refers to the students' everyday use of ICTs (digital technology and Internet) for information search, communication, listening to music, watching videos, using dictionaries through various tools and applications in order to deliberately learn the English language anywhere, anytime, at home, or at school.

ICT Self-Efficacy (ICTSE): ICT Self-efficacy in this study, is defined as the degree to which individual's confidence in his or her capability to use ICT.

Online Communication Self-Efficacy (OCSE): Online communication self-efficacy in this study, is defined as the degree to which learners are comfortable and confident in online communication.

Self-directed language learning (SDLL): Self-directed language learning in this study, is an approach to education where students take responsibility for their language learning process. Students who actively participate in and control their own learning process are referred to as self-directed learners. These students have the ability to select their own learning strategies, resources, and objectives in order to achieve their goals.

Self-Directed Language Learning Readiness (SDLLR): self-directed language learning readiness in this study, is defined as the extent to which learners have the attitude, abilities, and personality traits required for SDLL.

Self-Directed Language Learning using ICT (SDLLICT): self-directed language learning using ICT in this study refers to the use of ICT for learning experiences that enable individuals to take responsibility for planning, implementing, and evaluating their own learning.

Subjective Norms (SN): subjective norms in this study, is defined as the degree to which an individual perceives that important others believe he or she should use ICT for learning English.