

CHAPTER I

INTRODUCTION

This chapter outlines the introduction of the research that comprises several points. First, the researcher discusses the background of the research. Second, the research describes the identification of the issue. Third, the research assures the research focus. Fourth, the research raises the question of the research. Fifth, the research demonstrates the aims of the research. Sixth, the research reveals significance of the research. Seventh, the research elaborates the theoretical foundation. Eighth, the research links the previous studies. Ninth, the research demonstrates the frame of thought of the research. Last, the research introduces a research method that guides the research to conduct the research.

1.1 Research Background

Requirements are something that must exist in life. One of these things is education. In essence, all humans definitely need education in life, both formal and informal, or even science knowledge or life knowledge. The next requirements analysis becomes an important point that must be followed up in order to get results or things that are sufficient in accordance with the needs that are currently needed. Furthermore, the author uses the term requirements as the equivalent of needs. The equivalent of this word is considered the same because both have the same meaning, namely that both must be fulfilled.

Departing from this, the author found that there is one thing that until now is indeed needed by all aspects of life and will always be needed, namely the need for technology. Technology is one of the things that continue to develop in this life. This ever-evolving technology plays a role, one of which is to simplify and accelerate human work and activities such as interacting across places and times, even in terms of education. But in a world of new technologies that are constantly emerging are also challenging the field of education while at the same time presenting exciting opportunities. The strategic use of technology in education today can improve learning. However, to be effective, educational technology must be supported by

innovative pedagogical approaches that in turn enable collaboration, communication and mobility. Such education includes cyberspace, wireless technology and the increasing use of mobile devices.

Moreover, the times are constantly changing, including technological changes that are increasingly advanced and facilitate all human work, including learning. Then the need and human dependence on technology becomes increasingly necessary and dependent because with the help of technology work becomes more effective and efficient. Foreign language learners are no exception, including English, they take advantage of technology (ICT) in one way is to use ICT as an intermediary to practice English in real life.

In the past, it was enough to master the "Three Rs" (reading, writing, and arithmetic). However, in today's modern world, "Three Rs" is not enough. If today's students want to compete in this global society, they must also be adept communicators, creators, collaborators and critical thinker (4Cs) who are all connected to technology (Erdogan, 2019, p. 114). Therefore, learners also need to master the skills related to the use of ICT so that the learning they do can answer the needs and challenges that occur in this century.

In addition, one that is tied to technology is literacy. Meanwhile, the term literacy has been around for a long time. The ancient meaning of literacy is the ability to read and write only (Pounaki, Givi, & Fahimnia, 2016, p. 14). This definition is firmly pegged from many generations and is still used by the school's thinking all along. It is still attached from the traditional decade to the modern decade as it is today. Moreover, it is well known this is the 21st century, which presents technologies developing and evolving, needed by many sectors in life as well as the condition places a number of demands on teachers in disseminating information, using computers, and social media technology that has gained access to all segments of society making this issue important (Saracho, 2017, p. 299). The understanding of the term literacy as mentioned above is still very narrow and it is not in line with the conditions in the present era where technology cannot be separated from life. This advanced technology has brought about massive changes in many areas

including education, especially in English teaching and learning. With the advancement of technology, it has improved new opportunities to share information, resources, and experiences between learner peers, learners to teachers, or even teachers to teachers (Fozdar, 2015, p. 9). In addition, technology can also create an enjoyable classroom environment for students and support communicative activities in the classroom as the development of skills is currently in the process of adaptation (Sanchez, Garduno, & Sarracino, 2016, p. 15).

In the stage of adapting, the genuine understanding and defining literacy in the 21st is completely different from what the century understood before the 21st century. It means that literacy understanding becomes a more complex process than solely writing and reading ability. This creates a not monotonous literacy that is only glued to the text of the book (Phuapan et al., 2016, Moto et al., 2018). In this era, the understanding and scope of literacy is broader and deeper than the above understanding. As result, the understanding of term capabilities, abilities, competences, or even skills is often used instead of literacy (Erstad, 2016, p. 85).

Furthermore, one of the literacy that has just resonated in the present century and inclined to raise awareness of present and future challenges for the education system is digital literacy (Erstad, 2016, p. 85). Many organizations have explained and provided the scope of the term digital literacy. One of them defines that digital literacy as a combination of concepts, including information literacy, media literacy and information and communication technology (ICT) literacy (Khlaisang, & Koraneekij, 2019, p. 112). However, digital literacy will get ready for learners to obtain knowledge and skills beyond merely academic applications, including learning and innovation skills, information skills, media and technology skills, as well as life and career skills (Khlaisang, & Koraneekij, 2019, p. 112). Therefore, there are terms used under of digital literacy, such as information literacy, media literacy, and ICT literacy (Erstad, 2016, p. 85).

In order to meet many perspectives and understanding of using those terms, thus there is some explanation about them. Information literacy is a

level of knowledge and understanding in using existing information accurately and that matches the needs (Khlaisang, & Koraneekij, 2019, p. 117). Then, media literacy is defined as ability to access, analyze, evaluate and create the content in a variety of contexts, aware of the impact of media exposure, choose to receive useful content and avoid unwanted content that the media offers (Khlaisang, & Koraneekij, 2019, p. 119). Next, ICT literacy is the ability to use digital technology, communication tools, and/or networks to access, manage, integrate, evaluate, and create information for learning society (Khlaisang, & Koraneekij, 2019, p. 121).

Moreover, related to ICT literacy that has been discussed in this research is linked with the name Information communication technology literacy skills (ICTLS). It is one of the most important skills for 21st century learning that help promote other skills such as life and career skills as well as learning and innovation skills (Khlaisang & Koraneekij, 2019, p. 111). Besides, there are levels set from stages intended as assessments of students' ability and proficiency in using ICT in their learning. The stage is five stages, namely: highest, high, medium, low, and lowest as well as all of which have their own assessment indicators (Khlaisang, Koraneekij, 2019, p. 121). Withal, this research will focus more on ICT literacy because this literacy is reputed as the most complex literacy than other literacies above. It can be seen at the scope. ICT literacy has the most scopes and measurement. It can be counted number 69 measurements (Khlaisang, & Koraneekij, 2019, p. 121).

One of the other issues of learning that changed and occurred this century in teaching and learning especially English is supporting the requirements of learners. It is determined by the role of online learning. The change in EFL learning in current century is massive. The analysis of the requirements makes it possible to discuss and discover the real and potential requirements of learners in their EFL learning accordance with the current technological developments and demands (Poedjiastutie & Oliver, 2017, p. 2). By gathering information and analyzing data on learners requirements, educational elements such as teachers, students, and researchers in the field of

education can take on new insight that are in line with this era. Then, specific for teachers, their enable to identify the gap between what is currently taught and what requirements to be taught for future learners careers (Poedjiastutie & Oliver, 2017, p. 3). Today requirement analysis is a generic term used to describe various methods that investigate all the different aspects of the needs of learners, especially the learning needs of this century. Until now, need analysis has been used to explore requirements for learners to promote their English learning more meaningful (Poedjiastutie & Oliver, 2017, p. 3).

Departing from the above understanding, one of the use of different terms but at a glance it can seem same, release of research related to technology and literacy that appears in language learning and in line with the 21st century demand and needed such as, literacy understanding (Phuapan et al, 2016), learning and teaching approach with technology (Nurbekova, et al, 2020, Zhou, et., al., 2018, Ganapathy, 2016), computers support literacy (Wahyuningtyas & Idris, 2020, Stojanovic et al., 2017, Tahir, 2015), integrating mobile device (Cinganotto & Cuccurullo, 2015) and computer newtwork technology and ICT in language learning (An, 2019, Hu & Xiao, 2019, Bagon, 2018, Guo & Xu, 2016), Challenges in ICT integration for teacher and student (Razak, et., a., 2019), fostering ICT competency in learning (Tan et al., 2017, Hewagamage, & Hewagamage, 2015), Readiness for 21st century educating (Tan, et., al., 2017, DiBenedetto & Myers, 2016, Garba, et., al., 2015), challenges in literacy development (Razak, Jalil, & Ismail, 2019, Drigas & Kokkalia, 2014), urgency of literacy (Saputra & Siddiq, 2020), learners and teachers perception of technology integration in English learning and teaching (Nguyen, 2020, Yundayani, Kardija, & Herawan, 2019, Lubis, 2018, Guo & Xu, 2016), assessment for literacy skills (Khlaisang et al., 2019, Thammasaeng et al, 2016), until requirement and need analysis in English learning and material (Mahbub, 2018, Poedjiastutie & Oliver, 2017, Andi & Arafah, 2017) or even more specific analysis need in English speaking material (Menggo, et. al., 2019).

Then, the review of ICT, in the especially ICT literacy related to the place and education level of the research is still rare that is in the senior high

school especially vocational high school in Indonesia. Most of the research that has been done is outside the country that is focused on higher education and junior high school (Nguyen, 2020, Khlaisang, & Koraneekij, 2019, Moto, Ratanaolarn, Tuntiwongwanich, & Pimdee, 2018, Poedjiatutie & Oliver, 2017, Thammasaeng, Pupat & Petchaboon, 2016, Tahir, 2015, Amornkitpinyo & Piriyasurawong, 2015, Hewagamage & Hewagamage, 2015) even in kindergarten level (Drigas & Kokkalia, 2014). Those researches are researches which have been studied in previous contemporary research.

Based on the cluster that has been described from previous studies above, analysis of students' requirements of ICT literacy integration in English language learning in pharmacy schools has not been explored. Meanwhile, places or levels of education that become research subjects are conducted at the junior high school level and lectures compared to vocational schools (Nguyen, 2020, Khlaisang, & Koraneekij, 2019). In addition, ICT literacy is the least area of literacy among the fields of literacy in the 21st century that has been studied and also ICT literacy is a complex literacy that can accommodate in terms of information, communication, and technology.

Reflecting on the main focus of previous studies, of course, this problem is not entirely in line with the focus set by the researchers. It does not address the mode of English learning that integrates ICT literacy in pharmaceutical schools that is actually needed to meet the demands of today's times. Therefore, because students' requirement for technology is not mentioned so this research will discuss it in integrating English language learning with ICT literacy that is expected to improve the quality of their English language learning (Tan et al., 2017, Hewagamage, 2015). In previous research has been discussed about the current competency status of ICT with respect to the knowledge and skills requirements of knowledge workers in the job market. It only stated the needs of workers in the job market and no learners' needs in EFL. This is revealed regarding the preparation of students at the university level to apply for work in this era.

Then, other researchers compared recreational and school-related computer use, frequency and attitude towards computer use (Wahyuningtyas & Idris, 2020). This is not clearly related to this focus research. It only discusses how long students use computers based on gender and only reveals how they operate computers in both classrooms with computer-backed and classrooms without it. In fact, it can't be linear by gender or computer-powered but it has to be demonstrated by different student abilities, needs, and interests than other learners. Meanwhile, the idea of previous research can be explored more deeply as it has previously been the understanding and ability of learners in ICT literacy to support their academic abilities and social development skills, confidence, and courage.

This study does state the requirements of students related to English language learning through learning approaches in ESL (Ganapathy, 2016) and IT students (Nurbekova, et al., 2020), but still not in the realm of student requirements that are the focus of research in ICT literacy and only focus in student perception in the implications and integration of ICT in their learning materials. Recent research in the field of ICT literacy has discussed the discovery of tick conditions and ongoing situations to provide virtual educational arrangements that provide effective materials that can be accessed to help participants learn. It uses a task-based approach to it. It is based on the need for students to practice authentic English through meaningful tasks. It investigates students' perceptions of the implementation of ICT integration into English material.

Finally, this study is actually closely related to this focus research, the needs of learners. But the English subject is ESP not the EFL. Thus, there can be gaps and space to do focus like this research. In addition, it is done at the higher education level or universities using stakeholder perceptions. Meanwhile, the current research will analyze the development of ICT literacy integration into English language learning so as to create useful and valuable learning in the present century.

Based on all the explanations stated above, as the final point, the researchers reiterate that the issue of ICT literacy in the present century is

very important to discuss because in this era the role of technology is very large in human life including education. Human life in today's century cannot be far from technology. As a result, researchers chose the analysis of learners' requirements in EFL learning that integrates ICT literacy and it's reflection in EFL learning practically as the focus of research and students of pharmaceutical vocational schools as a one of data source of research as well as a source of information. Thus, those are the issues that will be discussed in this study.

1.2 Identification of the Issue

In Indonesia English is a foreign language that has been the subject of learner's schools starting from junior high school to senior high school level. Learners of EFL are to be static, reticent, and passive (Santoso, 2017, p. 184). In fact, most of them focus more on academic achievement than on the skills required in this era such as critical thinking, problem solving, communication, and reflection. Those specific terms are not separated from technology. Additionally, nowadays, Information and Communication Technology (ICT) influences on humans in many sectors include those skills. ICT has an important role to improve human's quality of life also in learners' studies. To improve human capacity and learners' quality, it is needed to help them to be well-rounded; having some important skills in order to learn and live effectively. The significant skills for the 21st century are such as learning and innovation skills, information, media and technology skills, life and career skills (Thammasaeng, Pupat, Petchaboon, 2016, p. 9).

Learners requirements analysis that reflects the lectures to determine students' necessities, wants, lacks, and inputs related to types of their learning activities, media platforms, exercises and tasks, classroom setting, assessment, etc. (Menggo, Suastra, Budiarsa, & Padmadewi, 2019, p. 741). Moreover, necessities can be confirmed as a demand by the learner to function effectively in the target situation. Then, 'wants' terms are related to the learners' expectation after taking the course and 'lacks' term refers to learners' difficulties to cope with their target situation. Meanwhile, learning needs consists of four components including input, procedure, setting, and

learner's role (Menggo, Suastra, Budiarsa, & Padmadewi, 2019, p. 742). Furthermore, learners not just learn English, but more importantly to understand complex perspectives, use multiple media and technologies, and work creatively with others.

Associated with the present era, the 21st century, the role of technology in teaching and learning English as a foreign language cannot be seen with one eye. It means that it cannot be taken lightly by its technological role. The development of information communication technology (ICT) has made significant innovations in the quality of education generally and positive changes in English learning and teaching, especially in the 21st century (Nguyen, 2020, p. 221). Information and communications technology literacy is the capability to use technology to develop 21st century content knowledge and skills, in the context of learning. Learners must be able to use technology to learn content and skills. It can be they know how to learn, think critically, solve problems, use information, communicate, innovate and collaborate. ICT literacy skills have become an intact component of an individual's everyday life.

ICT Infrastructure and internet connectivity in educational institutions provides learners and teachers the opportunity of adopting 21st century teaching and learning methods that enhances the development of 21st century skills (Garba, Byabazaire, Busthami, 2015, p. 72). One of the 21st century skills is ICT literacy. ICT literacy is described to mean that if an individual has the ability to use a computer, communication tools such as smartphones, and social network appropriately, then they can define, access, manage, evaluate, integrate, create and communicate effectively and responsibly (Khlaisang, & Koraneekij, 2019, p. 121). Achieving ICT literacy skills is also crucial for research and evaluating information, which further enhance effective learning (Moto, Ratanaolarn, Tuntiwongwanich, & Pimdee, 2018, p. 88). In addition, the one issue that can be separated from ICT is online or courses. It is to be subordinate to ICT. ICT is directed to use of e-mail, threaded discussion forums, and online chat sessions. Thus, it is one of becoming the current issue that is important to be more explored.

In addition to the basic ICT infrastructure and facilities provided, virtual learning platform are being introduced in schools (Garba, Byabazaire, Busthami, 2015, p. 72). Virtual learning can be termed by open and distance learning or almost similar with online learning. Open and distance as well as online learning has close meaning with e-learning and the solution for solving the gap between learners who have had access to ICT literacy and who have not (Fozdar, 2015, p. 9). Online learning mode can be a way for learners to explore their understanding of learning by themselves. Meanwhile, this learning manner is as a mode and educational process in which teaching conducting is not in one place and or the same time between teacher and learner and as an upholder and proponent use technology to succeed in learning (Rupande, 2014, p. 2). Thus, online learning must be integrated with ICT as the alternate face-to-face learning, affording two-way electronic communication, the other aspects that should be caught in this 21st century. So that way, online learning is the focus element of this research. Therefore this method of distance learning is one packaged and cannot be separated by learning that requires ICT.

1.3 Delimitations and Focus of the Study

EFL learners in Indonesia can be seen from the beginner until medium level. It means that they start form junior high school to senior/vocational high school. English foreign language (EFL) learners inclined to have varied backgrounds, a multiplicity of achievement levels, and diverse learning styles, which impact their ability to learn and use the foreign language (Fandino, 2013, p. 190). In order to get more various data, the specific EFL learners will be adopted from vocational high as the subject and sources of data. Today's English classroom requires an extended understanding and enactment of technology and teachers must accept the changing and flexible demanding that directs areas as diverse as technology as well as ICT (Fandino, 2013, 190).

ICT utilization is one of the requirements for English learning in the 21 century beside all of learners inside ability such as critical thinking, communicative, etc (Moto, Ratanaolarn, Tuntiwongwanich, & Pimdee, 2018,

p. 88). ICT literacy can be mastered by 21 EFL learners in order to obtain successful learning in this era. ICT utilization accommodate learners' learning through technology, multimedia, communication tools that should be as profound in today's learning English especially as foreign languages (Fandino, 2013, p. 190). Thus, the specific area to this research is ICT utilization and integration in EFL.

The use of innovative technology in the teaching learning process as desired in a 21st century learning environment requires teachers or educators to have good pedagogical knowledge of technology (combining technology and pedagogy) and their application and application skills in the content of teaching subjects (technology, knowledge of pedagogical content). Educators should now acquire ICT literacy and competencies and be focused on developing knowledge of technology interplay and pedagogical approaches in teaching school subjects (Garba, Byabazaire, Busthami, 2015, p. 15). Acquiring this category of knowledge in addition to knowledge of the necessary teaching subjects is also sufficient for the effective use of modern technology integration in teaching.

The global drive to build sustainable knowledge-based learning has led education stakeholders to recognize the potential need for ICT integration in education (Garba, Byabazaire, Busthami, 2015, p. 100). This certainly results in all elements of education not least students and teachers must have an adequate understanding of ICT literacy for the fulfillment of demands in the present century. In addition, one of the unified aspects of ICT literacy is the importance of analyzing the requirements or needs of students. Students' requirements analysis is to be an important topic of the century. It will also reveal well about student requirements that define meaningful and useful ways in EFL learning to promote their learning and ability to use ICT properly. However, because the issue raised in this study is ICT literacy, which is a technical supporting factor (from outside students, not motivation and desire), therefore, the focused needs are on the realm of learning needs (technical) such as learning inputs, procedures, settings that are integrated with their ICT literacy. So it is very important to investigate what are

students' requirements in EFL learning that integrates ICT in its process as well as synchronize and adapt it in real situation of EFL learning at Pharmaceutical Vocational High School.

As a limitation of the results based on the explanations presented above, the researchers asserted that this study explores the requirements of students in EFL learning of the current century, namely by utilizing ICT as the demand and how the real practicing in EFL learning as well as its patching as the solution to maximize the learning. Thus it will be expected can create more meaningful, useful and successful English learning in this century.

1.4 Research Questions

1. What are learners' requirements theoretically in EFL learning with utilize ICT as a demand in the 21st century?
2. How is the real portrait of ICT utilization in EFL learning?
3. How is the patching of the real portrait gap occurred of ICT utilization in EFL learning?

1.5 Aims of the Research

1. To determine learners' requirements in EFL learning theoretically in the 21st century by utilizing ICT
2. To investigate real portrait of ICT utilization in EFL learning
3. To investigate the patching of the real portrait gaps of ICT utilization in EFL learning

1.6 Significance of the Research

By conducting research on EFL learning in the 21st century that is integrated and utilized with ICT, researchers hope that the results of this study will be useful to contribute some contribution to EFL teaching and learning:

a. Theoretically

This research can enrich literature and references in the current era (21st century) of EFL teaching and learning related to the integration and utilization of ICT in schools with specialized majors (pharmacy) and also

to contribute to the development of knowledge in English teaching and learning especially to explore teaching and learning requirements in the 21st century with ICT.

b. Practically

Practically, this research can be useful for students, English teachers and other researchers.

1. For students

It is hoped that the exploration of learning needs in this century can have a significant impact to promote English learning by using and utilizing ICT learners in accordance with the demands of the times.

2. For teachers

It is hoped that teachers can accommodate learning that can improve the quality and create more meaningful and useful EFL teaching and learning in the present century.

3. For other researchers

This is expected to be the foundation and reference for developing learning materials and methods for researchers, curriculum makers, or anyone involved in education.

1.7 Theoretical Foundation

The existing theories in the learning, language learning, and ICT integrating and utilizing are reviewed as the basis of the research. This embraces theories which frame the data collection, and further, create framing for data analysis, which will guide to the conclusion of the research. The next section describes the following theoretical foundation: EFL Learning in 21st Century, ICT and its literacy, and Requirement Analysis.

1.7.1 Requirements Analysis

One analysis that will not be consumed by the times is the analysis of requirement or needs. Requirement analysis is defined as a gradual process for gaining information on the needs, desires, and issues of the learners that are identified with subjective (the learners) and objective (the

course designers, teachers, graduates) opinions to fit the learners' language learning requirements (Andi & Arafah, 2017, p. 420).

Requirements analysis (RA) involves learners' habits and routines, especially in learning English by utilizing ICT in an effort to identify and determine technical and non-technical related information that learners need to develop the basic skills of language learners in general. According to Byrd, Cossick, & Zmud explained that the process of finding such information is closely related to the acquisition of the learner's own knowledge. To bridge this, according to Byrd, et. al. that an elicitation mode is required. Based on Byrd, Cossick, & Zmud explained that the techniques for this requirements analysis can be in the form of: (1) Observation Techniques, (2) Unstructured Elicitation Techniques (3) Mapping Techniques, (4) Formal Analysis Techniques, and (5) Structured Elicitation Technique.

Moreover, based on Giorgini, Rizzi, & Garzetti (2008) explains that one of the approaches used for requirements analysis is a goal-oriented approach (p. 5). Then, it is narrowed down more specifically to a demand-driven (or requirement-driven) approach. This starts with determining the information needs/issues in the 21st century. On an approach that fits the learner's needs, meets the requirements of the foreground, ensuring that EFL learning will be strictly adapted to the changing century. Close to the conditions by this application using organizational modeling is intended as a major role analysis in order to allow seeing what is happening.

The techniques above are ways that a researcher can choose to analyze the requirements or needs of a matter or issue. In this discussion, the author uses observation and elicitation techniques which then find things that are related and are expected to be fulfilled in learning English in the 21st century. The following aspects are carried out in the 21st century. This elicitation mode is then used by the author to explore two dimensions: (1) requirements or needs of a technical nature of learning (2) requirements or needs of a non-technical nature of learning.

Quoted from the partnership for 21st Century Skills Framework: Rethinking How Students Learn (2010) that the subject of English is included in the core subject of the 21st century. Then, information, media, and technology skills also enter the 21st century. Then, the author intended this to be used as a basis that technology (ICT) in learning English becomes two very important things to discuss including the needs and requirements for these two things in the current century.

Then, another aspect expressed in the 21st century skills framework partnership is about learning innovation skills, namely creativity and innovative, critical thinking and problem solving, communication and collaboration, which is then shortened to 4Cs (creativity, critical thinking, communication, and collaboration) (Erdogan, 2019, p. 115). Therefore, based on the issues addressed in the 21st century, the author tries to analyze the needs/requirements of students in their English learning by utilizing technology to create meaningful English learning.

The learners' requirements are regarded as an integral aspect to be considered in the creation of successful learning. Moreover, according to Mahbub (2018) need analysis of learning is divided into two categories namely target needs and leaning needs. Target need refers to what the learner needs to do in the target situation and learning need is intended to what the learner needs to do in order to learn. In target needs is about necessities, wants, and lacks of students. Meanwhile, in learning needs are about learning styles, appropriate or ineffective learning methods. Besides, learning needs cover more than just their explicit needs—things that learners know they want—but also their implicit needs—things that learners may not express as needs but that their teacher may notice buried in learning activities (Huang, et. a., 2019, p. 100). The criteria can be interpreted as a prerequisite for the learner to work efficiently in the target situation. In addition, shortcomings apply to the difficulties of learners in coping with their target situation. After taking the course, wishes are linked to the desires of the learners. Meanwhile, Nunan (2004) learning

specifications consist of four components, namely data, method, environment, and position of the learner (as cited in Menggo, et. al., 2019, p. 744).

1.7.2 Learning English in the 21st Century

The 21st century is a condition where information is available anywhere and anytime, the implementation of machine usage (computing), being able to reach all routine work (automation) and can be done from anytime and anywhere (communication) (Sasmoko, 2017). Other sides, English is the only Foreign Language included as a compulsory subject at university level in Indonesia (Andi & Arafah, 2017, p. 419). The government's regulations legally stipulate this status. Based on the decree of the Ministry of Education and Culture No. 096/1967, which governed the recommendation of teaching English as a compulsory subject in junior and senior high schools, English in schools began to be taught in 1968. At university level, English is taught in compliance with Article 9 of Government Regulation No.19/2005, which specifies that the curriculum for undergraduate students in higher education should include higher education.

English is a required subject that students of non-English education study programs can take. In order to facilitate the learning process in line with each discipline, English mastery is a must (Yundayani, Kardijan, & Herawan, 2019, p. 29). In developing countries in general, and in our country in particular, teaching English as a foreign language is a difficult job (Akbari, 2015, p.1). In addition, the emphasis of EFL learning should no longer be on grammar, memorization and rote learning. It should instead be conceived as a place to learn how to use language and cultural awareness as a way of communicating with others around the world. (Fandino, 2013, p. 200). There is a case for a reconceptualized field that is more learners centered, collaborative and technologically driven. As part of that reconceptualization of the EFL classroom, teachers can resort to new and innovating frameworks and approaches. Furthermore, Cheng

(2000) found that Asian learners appeared to be reticent and passive in learning English as a Foreign Language (EFL). Since higher education learning usually needs more self-monitoring and a style of self-regulatory learning, surface approaches may influence the quality of learning (as cited in Santoso, 2017, p. 185).

1.7.2.1 EFL Learning by utilizing ICT

EFL teaching and learning in current era is inseparable with ICT (information, communication, and technology). The ICT has inspired the birth of new concepts of learning through computer and other tools of information and communication such as smart phones. Moreover, the last 2 years of learning in schools are done through virtual. From that condition gave birth to the fact that the role of ICT is very important. Therefore, the issue of learning that has occurred lately is the involvement of ICT in learning (Hadiyanto, 2019, p. 462). The use of new technology in language learning or referred to as e-learning seems to be the same as distance learning. Undoubtedly, it has become part of the pedagogy known as online learning or online education (Neupane, 2016, p. 22). Technology in the present century is considered important and can support all activities. One of them is in the field of English learning. In learning, modern technology is increasingly used in the classroom, including aspects of online learning (Zhang, 2018, p. 136).

21st century learning's vision developed by Partnership for 21st Century Skills that can be seen at Figure 1.1. The vision gives a new paradigm of how education functionary (teachers, researchers, curriculum maker) can conceptualized and reinvigorate public education, picking up all the elements in the reality of teaching and learning. Therefore, it becomes new grip to how students outcomes that should be expected when they leave school to successful venture into higher education, workplaces, and independent life. The student

outcomes are the design of partnership that has crafted encompassing vision for 21st century education system.

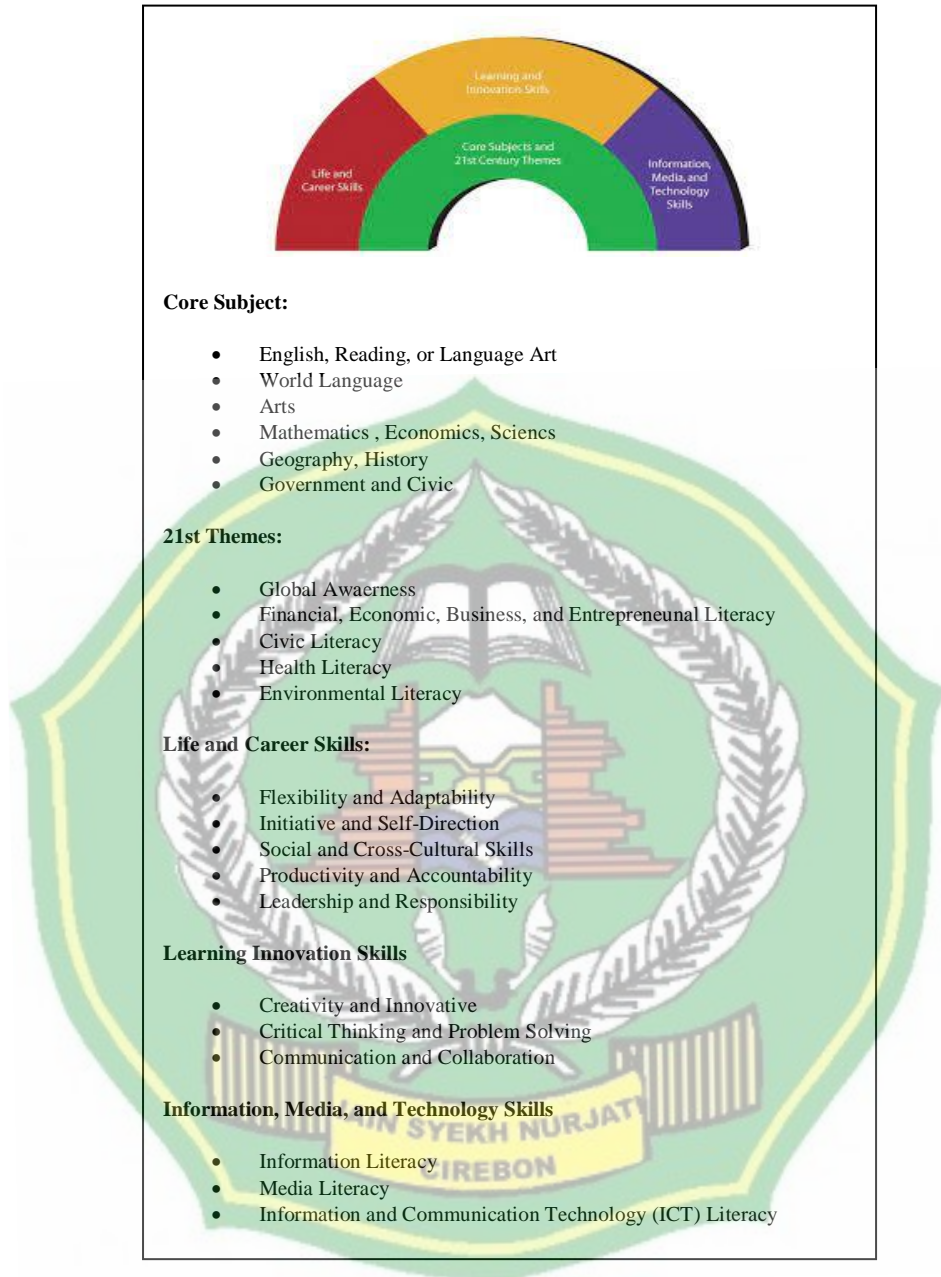


Figure 1.1 The Partnership for 21st Century Skills Framework for 21st Century Learning. Adopted from 21st Century Skills: Rethinking How Students Learn, 2010

Learners have the right to develop skills by utilizing technology for educational purposes. They need to have sufficient knowledge and skills in using technology in order to acquire knowledge for them

sustainably that follows the demands of the times (Amornkitpinyo & Piriyasurawong, 2015, p. 68). This is actually one of the ways of changing the learning of the 21st century. In order to succeed in such defense, the aspect that must support it is ICT literacy skills. ICT, known as information and communication technology, is becoming a very relevant means of language teaching in the current situation. It is able to transform some aspects of the creation of the ELT (Yundayani, Kardijan, & Herawan, 2019, p. 31). It provides many existing opportunities for a wealth of ready-made ELT materials to be accessed. In addition, through many new forms, ICT offers ease for educators in the teaching process as well as for learners to keep that content. Furthermore, ICT is seen as a technical tool that can be innovative and interactive in the sense of English learning. In four main aspects of language skills, listening, speaking, reading and writing, it offers students the exposure to practice.

In addition, in English learning, for example, several forms of ICT media genres may be added, such as animations, digital texts, images, audio, or the combination of those media known as multimedia (Yundayani, Kardijan, & Herawan, 2019, p. 33). ICT offers digital age literacy, high efficiency, creative thought, higher-order thinking, sound thinking, and productive communication to students. Furthermore, to ensure full participation in the information society, ICT and English have become important literacy skills for an increasing number of non-native speakers of English. There is little question that the use of ICT is seen as an impressive means of learning to be used in the field of modern language education. It is an emergency that gives life a new outlook on how language is taught and learned effectively. The use of ICT has the ability to change the paradigm of students toward learning English. The use of ICT gives a beneficial influence on inspiring students as part of the instructional strategy (Yundayani, Kardijan, & Herawan, 2019, p. 33).

Meanwhile, Chapelle (2001) says that teachers or academic community especially English teachers who care about the teaching and learning of English in the 21st century should need to understand the nature of tasks collaborated with ICT that can be involved in the acquisition and success of English learners. With the participation of ICT in teaching and learning English, certainly create a new form that is one of the transition from the traditional way to the modern way. It has resulted in new contexts for learning, new ways of learning and new roles and responsibilities for learners have also transformed the roles of teachers and students from traditional to modern and versatile or active (as cited in Neupane, 2016, p. 23).

Based on Lubis (2018) explored the implementation of ICT integration covers three major points, namely:

1. Stimulus for students to search, process, store, present, and share data and information in order to support the learning continuity
2. Stimulus for students to develop self-esteem in conformity to their own needs, potentials, talents, interests, aptitudes and characteristics by employing ICT as a means of exploring the learning resources
3. Encouragement for teachers to utilize ICT in: developing learning resources and learning media, preparing the lessons, conducting and evaluating the learning process, and reporting the learning results

Furthermore, there are several benefits of new technologies form utilize in the field of English language teaching (ELT), Shyamlee (2012) investigates the following necessities of application of multimedia technology to English teaching and learning as well as help it in many aspects, such as to increase students' interest in study, to improve students' communication capacity, to extend students' knowledge to obtain insightful worldwide understanding, to promote teaching effect, to promote the interaction between teacher and student,

to create a context for language teaching and learning, and to provide flexibility to course content (as cited in Neupane, 2016, p. 23).

Advantages given to learners from the utilization of ICT

ICT helps English language learners by enabling them to communicate, edit, annotate and arrange text quickly and flexibly. Moreover, by using ICT learners can : - access, select and interpret information - recognize patterns, relationships and behaviors - model, predict and hypothesis - test reliability and accuracy - review and modify their work to improve the quality - communicate with others and present information - evaluate their work - improve efficiency - be creative and take risks - gain confidence and independence (Akhmedov & Shuhkrat, 2020). ICT can be used to integrate speaking, listening, reading and writing. It enhances interactive teaching and learning styles. It also extends pupils' ability to exercise choice, work independently and make connections between their work in English and in other subjects.

ICT helps learners: - use a wide range of strategies to explore contrasts, comparisons and connections dynamically - annotate text in innovative ways - enrich or broaden the context of literary study - see texts in alternative versions - use a wide range of analytical and critical techniques - sort and process text and data quickly and efficiently - order and arrange text and data experimentally, using combinations of word, image, sound and hypertext - save, record, edit and adapt their work quickly and efficiently - retain evidence of the editing process so that it can be examined - change the organizational structure and qualities of texts to suit different audiences and purposes - compose multi-authored texts - select from a wider range of audiences, throughout the world - exercise choice of medium and design while composing.

A good learning environment should not neglect human needs to socialize and interact with one another. A good learning environment needs to coexist with a good teaching environment.

1.7.2.1.1 ICT Literacy

The 21st century framework has identified elements essential to future success in many aspects of life unless education field. One of the crucial aspects is literacy (Moto, et al., 2018, p. 87). Literacy is a very necessary language in the 21st century. Literacy in the present century has undergone a shift and development. No exception in the sense of the term. The term literacy has been around for a long time. However, the ancient meaning of literacy is the ability to read and write only (Pounaki, Givi, & Fahimnia, 2016, p. 14) as well as literacy is the ability to read, interpret, and produce valued texts in a community (Kaeophanuek & Songkhla, 2019, p. 22). The sincere and defining understanding of literacy in the 21st century is completely different from what this century understood before the 21st century. This means that understanding literacy becomes a more complex process than just writing and reading ability. This creates a monotonous literacy that is simply fixated on the text of the book (Phuapan et al., 2016, Moto et al., 2018). Meanwhile, the meaning of literacy in the current decade largely develops terms and understanding as well as it is as the condition or quality of being knowledgeable in a particular subject or field Milic & Skoric, 2010, p. 60).

The development of literacy is growing rapidly and trying to address the needs of the 21st century. Literacy tells not only about the text in a book, but more than that. Literacy in this era means such skills that must be mastered in every aspect of life. Literacy becomes an aspect that can measure and support future success. In addition, literacy can be said to be a skill to operate a thing and involves skills that correlate with writing and reading to literacy in the use of technology.

Furthermore, new literacy in this century materialized as social practices evolved that broke through the boundaries of

face-to-face social practices mediated by technology. The use of the term literacy language has been redefined by 21st century literacy practices and therefore, it is realized that engagement with this new literacy requires that it has specific literacy skills for certain technologies (Byefield, Caffey, Bacon & Shen, 2016, p. 41). Reminding the changing definition of literacy and its implementation, all elements including educational elements related to literacy are required to be literate human beings. Of course it makes educators and students create new social paradigms that expand the boundaries of language and literacy. This requires an examination of the various uses of new technologies and media in classroom at various levels. In essence, consider the implications of the use of technology in the educational and evolutionary space and its impact on the teaching and learning process and that makes the term literacy become diverse and has a broader meaning.

From the above language that is assembled literacy, the new term literacy that appeared in this century is digital literacy. Literacy digital has just resonated in the present century and inclined to raise awareness of present and future challenges for the education system (Erstad, 2016, p. 85). Digital literacy is a set of competencies owned by a person with the aim of applying digital devices correctly in the digital age, easily accessing, implementing, evaluating, analyzing and synthesizing data, as well as creating new knowledge. With that, students will be able to communicate and present content through a variety of digital technologies.

Moreover, digital literacy, particularly in academic institutions, helps students to begin navigating this new set of expectations. If literacy is the ability to read, interpret, and produce valued text in a community, then academic digital

literacy is the ability to read, interpret, and produce information in a digital format that is valued in academia. There are three skills: Information skills, digital use, digital transformation (Kaeophanuek & Songkhla, 2019, p. 22). However, the conceptual position of digital literacy in research in the current research is not patented by standard. Therefore, digital literacy is said to be an umbrella or general term of media literacy, information literacy, and ICT literacy (Erstad, 2016, p. 85).

ICT literacy (information, communication, and technology) is one element of digital literacy. This is as mentioned in the above paragraphs. Integrating ICT in learning has become a new platform in the learning process in this century. ICT provides new conditions for face-to-face educators with no space and time limits. The use of ICT in learning is also proven to improve communication and collaboration skills between students, leadership skills, and student motivation (Khlaisang & Mingsiritham, 2016, p. 103).

In addition, there is some literature that has confirmed that the factors of learning success are largely determined by the individuals themselves, instructors, institutions, courses, and the environment (Romi, 2017, p. 4). Therefore, integrating the use of ICT in learning becomes urgent to provide a fun way of learning and also to establish an effective learning environment (Wahyuningtyas & Idris, 2020, p. 74). Moreover, information and communication technology (ICT) can support innovative teaching practices, and the creation of a learning environment intended to develop student competencies for success in the 21st century (Moto, et al., 2018, p. 87.).

ICT literacy is one of the most important skills of the 21st century. It can promote other skills such as life and career skills as well as learning and innovation skills (Khlaisang

& Koraneekij, 2019, p. 2019). Of course it is better if it is linked to the analysis of needs. Needs analysis is expected can be useful for knowing what students should have indispensable this century. Until now, it is necessary that analysis has been used to explore the requirements for learners to become ready learners in current era (Poedjiastutie & Oliver, 2017, p. 2017).

According to Amornkitpinyo & Piriyasurawong (2015), Phuapan, et al. (2016) stated that the basic elements of ICT literacy are access, manage, integrate, evaluate, create, and communicate. The five components are representative of skills and knowledge that demonstrate an increase in cognitive complexity sequentially. Here is the description of the above components, namely:

1. Access

Access means the ability to know how to search information, to set strategies to search and to collect information and/or retrieve information.

2. Manage

Manage means the ability to organize information with basic system, to classify and to retain information further use as well as apply an existing organizational or classification scheme.

3. Integrate

Integrate means the ability to interpret and represent information involving summarizing, comparing and contrasting.

4. Evaluate

Evaluate is establishing judgments about quality, relevance, usefulness and efficiency of information.

5. Create

Create is producing information such as adapting, applying, designing, inventing, or authoring information as well as using information to communicate with others.

Meanwhile, based on Thammasaeng, et al. (2016) added two components that were placed before and after the five components stated above, namely:

1. Define

Define means ability for finding required information, reliable information and considering benefits and initial values.

2. Communicate

Communicate means ability to utilize technology tools to present, communicate and receive information.

1.7.2.2 EFL Learning Mode

The learning mode of this century should develop a practical and feasible mode to make information and communication technology integrated organically, make students and teachers effectively unified and improve the quality and result or outcomes of learning. On the other hand, from the perspective of information transmission, the learning mode must also be in a two-way or multidirectional dynamics process to transfer information to students effectively. Thus, it can be improved that the aspects of the EFL learning mode proposition in this century that should be integrated with ICT literacy, as follows:

1.7.2.2.1 Sustainable Learning

Sustainable learning perhaps becomes one of the important term of learning in this era. It will induce optimum and enduring learning as well as an evident when students are feeling well and confident about their knowledge, attitudes, skills and values. It is also an essential attribute for an individual future in every changing era and an attribute for adaptive living in the years ahead (Graham, et. al., 2016, p. 3).

Sustainable learning is taken from concepts associated with education for sustainability. Specifically, such concepts include an emphasis on learning rather than

teaching, the use of appropriate technology and assessment approaches and utilize ICT as a learning tool. Sustainable learning aims to equip learners so learning processes are capable of being activated whenever students are needed. The focus of sustainable learning is on the capabilities of individual learners as they engage and interact within their social world (Graham, et. al., 2106, p. 11).

1.7.2.2.2 Personalized Learning

Personalized learning is one of the terms that need to be applied in learning that is integrated with technology or ICT. This includes the selection of media, articles, applications, and so on for learning that suits the needs, interests, and abilities of learners, alone learning that using the e-learning system requires the right profile of learners (Hsieh, et al., 2012, p. 273). It has been promoted as the main goal of reform efforts throughout the contemporary education system. According to Basham et. al. (2017) contemporary understanding of personalized learning arises from integrated advances across educational research, learning science, data and computer science, and technological innovation (as cited in Zhang, et. al., 2019, p. 5).

1.7.2.2.3 Accessible Learning

English learning certainly requires design, methods and media that are easily accessible to teachers and students. One of the accessible learning designs is the blended learning design. It integrates various teaching modes, tools, and resources through ICT, has witnessed growing momentum in the context of EFL. In addition, blended learning model designs should also use synchronous-asynchronous online learning attributes and offline face-to-face language learning. This can increase

students' input and output opportunities and enhance their experience in using the target language. Therefore, the importance of creating an environment and learning conditions including the selection of methods, media, and design that is easy for teachers and students to use and access (Wang, et. al., 2019, p. 4)

1.7.2.2.4 Collaborative Learning

Collaboration was another term of design feature that facilitated learning. In the integration with ICT, collaborative learning also needed because perhaps it can appear solving of problem by collaborate with other students when individually meet difficulties. Some learners declared that if they worked personally, they would not have completed the activity or tasks because there were many different aspects of the task to complete and they appreciated the chance for joint problem solving (Ozverir, et. al., 2016, p. 487)

1.7.2.2.5 Engaging Learning

The active participants of students in class are considered as the essential and important component in the learning. It is related to the students' engagement which incriminates the students' interest, positive attitude and enjoyment towards learning (Rahayu, 2018, p. 16). The students' engagement is increasingly valued as the indicator of successful teaching and learning activities since the engaged students will participate actively and interested in the materials given.

Furthermore, the students' engagement can be defined as the student's psychological investment and efforts in the learning process to understand and master the materials, skills and instructions given. The engagement represents the students' psychological and cognitive efforts in accomplishing

the tasks, not only the amount of energy they need to complete the tasks assigned. The students are cognitively and intentionally involved in any learning activities. In addition, it is defined as student participation in effective learning practices. This involves students' willingness, desire, need, and compulsion to participate in the teaching and learning process. This involvement relates to the attitudes and interests of students, the approval of the deadlines of assignments and so on. This involvement also requires sense making and feeling as well as activity (Rahayu, 2018, p.18).

Meanwhile, overall purpose of the course is to support English language learning and digital literacy (including ICT literacy) through meaningful use as a skill that supports student participation in every English teaching and learning process containing 4 language skills, namely speaking, writing, listening, and reading and convincing them of their role and social responsibility. The overall goals and objectives of the course can be summarized as follows (Bickel, et. al., 2013, p. 443):

- a. Improving English skills through exposure and practice in reading, writing, speaking, listening, vocabulary, and translating activities
- b. Improving digital literacy in line with TEFL technology standards through participation in an online course environment with a variety of communication tools and platforms
- c. Fostering self-awareness and self-communication through activities to build personal reflection skills and moral imagination
- d. Fostering community understanding and develop awareness of one's own assets, needs, and community stories

- e. Integrating conceptual learning of personal and social reflection into practical community project proposals
- f. Building an online community of peers through collaborative learning, personal sharing and idea discussion

1.7.2.2.6 Authenticity in Learning

For many educators and academics, placing learners in real-world circumstances where they may learn and practice in a meaningful way has become a top priority. Based on Aliou & Delialioglu (2017) stated that for learning to be meaningful and effective it should take place in authentic contexts (real-life situation). The rationale for this is because realistic settings (authentic context) represent how knowledge and skill will be applied in the real life (Shadiev, et. al., 2018, p. 217). It can be found outside of school, e.g., convenience stores or cafeterias in the local community.

Herrington and Herrington (2008) listed several critical characteristics of authentic environments (as cited in Shadiev, et. al., 2018, p. 218), as follow:

- a. Authentic environments provide situation that represent how knowledge and skill will be applied in real life. That is, learning should take place in a physical environment with a vast number of resources that preserves the complexity of a real-world context and reflects how information will ultimately be applied.
- b. Authentic environments give authentic activities. Such activities reflect the various activities carried out in the real world; they are meaningful and relevant to students and present complex tasks to

complete over an ongoing period of time, rather than a shorter set of disconnected examples.

- c. In authentic situation, learners can share their learning experiences and practice with other learners of varied levels of skill in authentic situations. Students, in other words, share their experiences and have access to the experiences of learners of varying levels of skill. As a result, students gain a variety of insights on the issues from multiple views and get a chance to practice their talents.
- d. Authentic environments promote reflection and provide authentic learning assessments inside assignments. The assessment is linked with the learning activities, peer evaluation is promoted, and learners are evaluated based on their results. Learners can compare themselves to other students at various levels of achievement in order to enhance their performance and skills.

1.7.2.2.7 Meaningful and Valuable Learning

Meaningful learning should create useful and usable learning. It is about content should be original and fulfill a need as well as the hardware and software should be easy to use. Meanwhile, valuable learning refers to the value of learner experiences both positive and negative quality which renders the classroom change, such as classroom equipment. Educational technology is not only an easy-to-use product, such as hardware and software, but also a service that adds a lot of value to students' learning (Huang, et. al., 2019, p. 99).

1.8 Previous Studies

From the mention of clusters in the previous paragraph, it can certainly be explained in detail some of the research that is most in line with

this research. The research will then be discussed in more detail how the previous research discussed ICT/ ICT literacy/ technology integration and it is expected that there are gaps to discuss and research on this topic. Previous studies help the researcher to find gaps in the research and to enrich the theories.

The previous closest research was on integrating technology and curriculum at universities in China. Meanwhile, research conducted on English language teaching at universities across China based on college English teaching is too time consuming and inefficient. Then, the issue discussed in the research is the excellence of integrated fashion technology and English curriculum in universities (Guo, Z., & Xu, L., 2016). Judging from the subject of his research, this examination does not make vocational schools more specific to pharmaceutical expertise as a place to collect data through the college level. Then, computer networking technology that becomes one of the variables that are integrated in English teaching is not ICT literacy owned by teachers and students. Thus, it can be found as a gap for current studies.

The closest previous research came from Indonesia. This research focuses on finding out how the perception of English teachers who teach from elementary school to high school level in integrating ICT in ELT. Meanwhile, these findings reveal the perception obtained is positive but the benefits of integration are still more focused on the technical level, not the communicative and functional ones in the student learning process. Then, another thing that was successfully obtained is that the allocation of time and technical problems becomes the main obstacles to realize the integration (Lubis, A., H., 2018). Thus, from the objectives and results presented, the researchers consider that there are still gaps to examine how the perception seen by teachers and students in specific schools, namely pharmaceutical vocational high schools will integrate ICT literacy and how to set up teaching and learning English in there.

Then, another nearby study was about analyzing students' skills in information literacy, media literacy, and ICT literacy. Meanwhile, the

research does not focus on ICT literacy so that makes it have a lot of focus on each literacy. Meanwhile, this study uses junior high school students as a data source located in Bangkok, Thailand. This study considers the extent of literacy already owned by junior high school students in Thailand with the scope of digital literacy which is described as elements of digital literacy such as information literacy, media literacy, and ICT literacy (Moto, Ratanaolarn, Tuntiwongwanich, & Pimdee, 2018, p. 87). Thus, this research can be a supporting theory for the research to be conducted now because the correlation of the capabilities analyzed is the same. So, researchers found a gap in this study that the perception of teachers and the process of teaching and learning English with the integration of important ICT literacy have not been studied.

Another research that is closest to the topic of this research is research that comes from China. This study is about exploring the effects of ICT moderation on the relationship between students' socioeconomic status and their reading achievements. This study did not address the calm needs of students but rather sought a link between the socioeconomic status of students, the use of ICT and reading achievement. While the findings of this study allow providing insight into future studies in the promotion of educational equality, infrastructure construction and improved pedagogy in reading education (Xiao & Hu, 2019, p. 107).

Then, another nearby study was about the need for student assessment of ICT. Meanwhile, the research was conducted in the secondary education service area in Bangkok, Thailand with grades 7, 8, 9. That means the study was not done at the senior/vocational high school. This study analyzed studying the authentic situation of ICT literacy of students in the secondary education service area, comparing the ICT literacy situation of students in the secondary education service area and divided into each level, examining the need for assessment of students' ICT literacy in the secondary education service area, as well as prioritizing the assessment of students' ICT literacy needs in the secondary education service area. This study did not focus on

learners' needs and in the EFL aspect. Thus, it can be found as a gap for current study (Thammasang, Pupat, & Petchaboon, 2016, p. 9).

Then, the other closest study is from Malaysia. This research focuses on investigating the challenges faced by teachers on ICT tools and how school leaders and school stakeholders are addressing these challenges. These findings reveal three issues for existing challenges and three improvements and actions to address the challenges. The three problems are inadequate school ICT tools, failure to commit to school regulations, and failure to comply with school regulations. His three improvements and actions are to help with performance, idea sharing, and distributed leadership styles (Razak, Jalil, & Ismail, 2019, p.184). This research can be an example for other schools in developing ICT integration strategies for teachers in teaching.

The last closest study was about improving ICT at the student level at university in Sri Lanka. This paper presents the current status of ICT competencies at Sri Lankan Universities in connection with the knowledge and skills requirements of knowledge workers in the job market. This study proposes a new framework for improving ICT Competency among a large number of scholars in the University system. This framework consists of two main components namely Infrastructure Development and Virtual Learning Environment (Hewagamage & Hewagamage, 2015, p. 45).

Therefore, the level of education that is widely studied for the topic of ICT literacy is even narrower on its integration is the level of elementary school, junior high school, high school to college. Meanwhile, for vocational level with more specific in pharmaceutical vocational, no one has researched which of course English is one that must be mastered by (prospective) personal who will work in the world of health. Therefore, this research topic is considered appropriate because it discusses the teaching and learning needed by EFL students' in this century and strives to create successful learning.

1.9 Frame of Thought

The researcher illustrates the framework of thinking in this research by presenting Figure 1.2

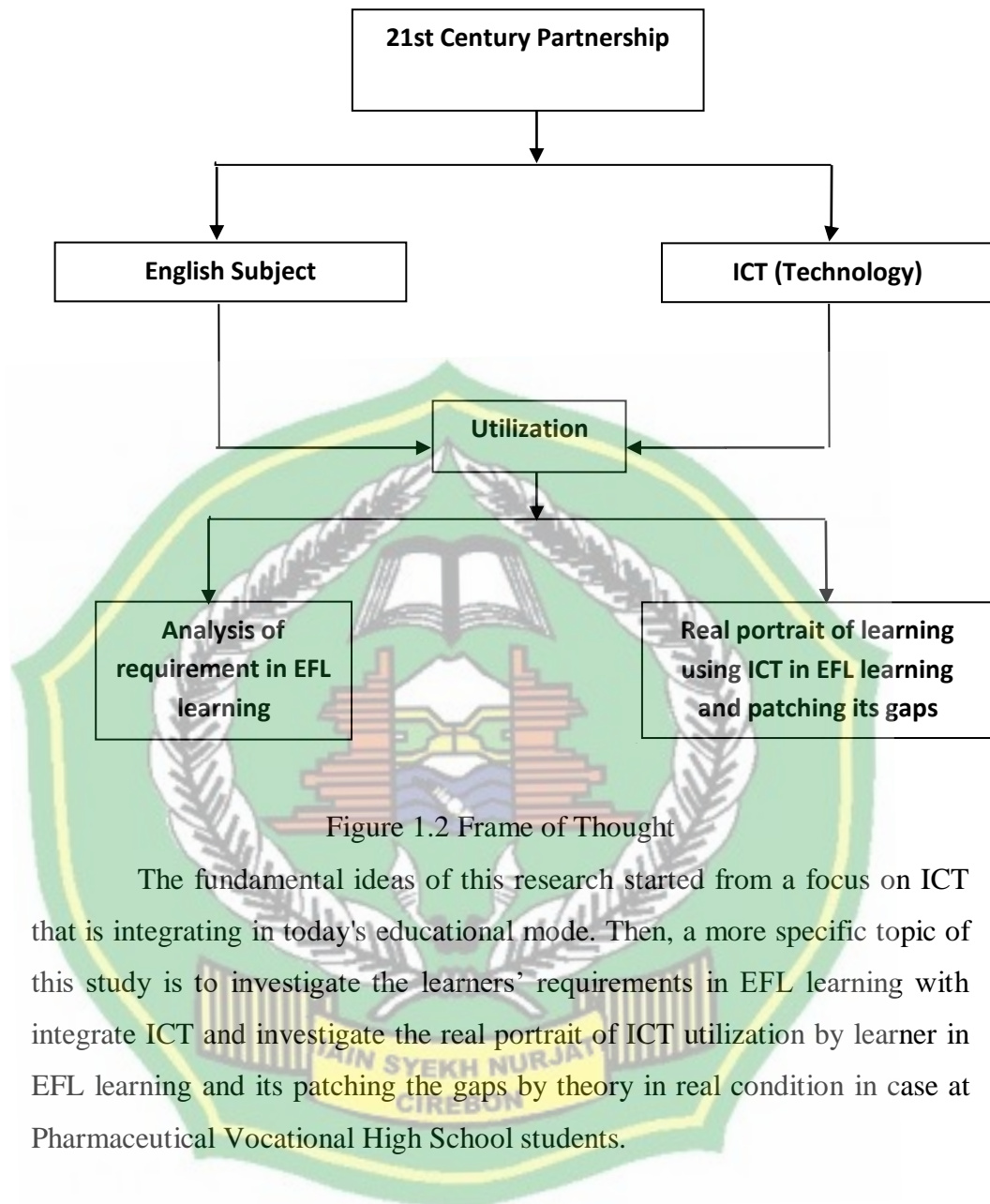


Figure 1.2 Frame of Thought

The fundamental ideas of this research started from a focus on ICT that is integrating in today's educational mode. Then, a more specific topic of this study is to investigate the learners' requirements in EFL learning with integrate ICT and investigate the real portrait of ICT utilization by learner in EFL learning and its patching the gaps by theory in real condition in case at Pharmaceutical Vocational High School students.

1.10 Research Method

This research employed qualitative research as approach of this research. This is because this research is found in the condition of natural objects and not as an experiment (Sugiyono, 2017, p. 15) as well as the data is not in the form of numbers when in the form of descriptions (Creswell, 2014). Besides, the aim of descriptive research is for describing the phenomenon and its characteristics. Moreover, this research used critical literature review and survey as method. Based on Jesson & Lacey (2006),

critical literature reviews require current opinions and perspectives in the key authors' subject area, provide a current conceptual understanding, calculate the strengths and weaknesses of previous work or research, and allow others to follow up on the cited work, and make use of correct and detailed references (as cited in Mustaqimah, 2020, p. 27).

1.10.1 Research design and steps of the research

The design and steps of current research are adapted from Kumar (2011), Creswell (2014), & Nashruddin & Mustaqimah (2020). The steps performed are in the following order:

a. Stage 1

1. Identification of a research topic or focus

At the beginning of this step, researcher tries to determine the research topic or focus by observing the current phenomenon in order to determine the appropriate requirement of EFL learning in this century.

2. Conducting critical literature review

Because the current research is descriptive qualitative research, therefore, an in-depth and critical literature review is required. This contributed greatly to the success of this current study. Critical literature review is as a collection of the theories that emphasizes the author's current opinions on the topic area of his research, having an up-to-date understanding, evaluating any deficiencies and involvements from previous studies, as well as the proper and correct use of references.

b. Stage 2

1. Selecting participants

The selection of participants from the study is determined based on the suitability of the topics taken with the conditions of the participants. In this study, the participants were English learners at pharmaceutical vocational school level.

2. Writing foreshadowed questions

The next step is to write down an overview of the questions that will be presented to the participants. This is done in order to get the questions that are really appropriate that will later be used as data for this research.

3. Collecting the data

The data collection is carried out using interview and survey techniques.

4. This step deals with to obtaining the data. There are some techniques to collect the data such as observation, questionnaires, and interviews.

5. Analyzing the data

In qualitative research, data are analyzed through reading and review of data (survey notes and interview transcripts).

6. Interpreting the data

The data will be analyzed through gathering and arranging data, validating data, as well as synthesizing and interpreting data from the data that have been obtained.

1.10.2 Sources and types of data

Generally, form of data is divided into two kinds: words and numbers. Meanwhile, this research is qualitative research so the data are shown in word form. The data sources for the first stage of this qualitative research is obtained from library surveying and field surveying (if necessary). The data is based on the author's understanding and perspectives. The data was obtained in an in-depth investigation and review of this topic (Fraenkel, Wallen, & Hyun, 2012, p. 428). Furthermore, for the second stages, the data sources are the result of questionnaire activities that are submitted to participants. The data in this stage are detailed, thick description, and inquiry in-depth as well as direct quotes that capture the personal viewpoints and experiences (Fraenkel, Wallen, & Hyun, 2012, p. 428).

1.10.3 Data collection techniques and instruments

In the stage one, the data collection technique is observing (Merriam, 2009). Observing means look deeply like looking for something that needed (Fraenkel, Wallen, & Hyun, 2012, p. 445). This technique is carried out by looking for information that is many and in-depth related to the topic. Moreover, in the stage two, for data collection technique is using survey. Then, the instrument of the research is questionnaires. Moreover, the questionnaires form is open ended questionnaires (Tracy, 2013, p. 130). The reason for using those is to obtain data in the form of clear descriptions. The questionnaires can be seen in Appendix 1.

1.10.4 Data analysis techniques

Qualitative research data processing is comparing and contrasting method involving the reduction and retrieval of large quantities of written content (Fraenkel, Wallen, & Hyun, 2012, p. 437). The technique of data analysis is using coding. Qualitative codes are in descriptive and interpretive form. It is about comparing and contrasting with the literature review. Furthermore, analysis processing, namely: read many times the data obtained while reducing information overlap or repeatedly, finding the significance or importance of the data obtained, classifying or coding data that has its own resemblance or other matches, looking for patterns or themes that bind one's mind to another, constructing the framework to get the of what the data is going to convey (Raco & Semiawan, 2010).

1.10.5 Research timeline

This is a timeline predicated by researcher as a reminder of discipline in conducting this research:

Activity	March	April				May			Agustus		September	
	4	1	2	3	4	1	2	3	1	2	2	3
Writing research proposal and consultation												

