

The Use of ICT in the Implementation of Autonomous Learning: Students' Perception

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Abstract: This qualitative study investigates how students use ICT to support their independent learning in English. The participants of this study were 5th-semester students who were taking the Cross-Cultural Understanding subject, totaling 117 students. The data were collected using a questionnaire via Google Form and distributed in the first week of the CCU lectures. This study has two main findings. The first finding concerns the applications used in implementing independent learning, categorized into five categories: chat and messages, social media, online games, learning apps, and others. The second finding focuses on the activities conducted by students in their independent learning. The questionnaire results identified twenty activities grouped into five categories: listening, writing, speaking, reading, and others. Furthermore, listening was the most frequently reported activity among students in independent learning.

Keywords: Autonomous Learning; ICT; Learning Apps; Learning Activity

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INTRODUCTION

The idea of this study started from teaching Cross-Cultural Understanding (CCU) subjects to higher education students in the 5th semester. The subject was Project-Based Learning (PBL), oriented as Contextual Teaching and Learning Process or CTL (Jones, Rasmussen, and Moffit, 1997 via Murniati, 2021). PBL focuses on how students can practice solving everyday problems or difficulties through a certain project using their background knowledge and creative capacity (Murniati, 2021; *Project-Based Learning: Teaching Guide | Center for Teaching & Learning*, n.d.).

The procedures of PBL for CCU were: (1) the students were given a project before the mid-term test, (2) the students were given time to do the project, and (3) the students submitted the project in the final test. The project was an individual assignment in which each student was asked to communicate and make intercultural friendships from around the world through an online platform, which was decided and chosen from the result of this study. Thus, the project is related to utilizing Information and Communication Technology (ICT).

ICT is “an interactive and collaborative” tool that helps students easily share their creation of text and activity and helps them learn the language (Dudney & Hockly, 2007 via Zakirova et al., 2020). ICT includes any communication device, encompassing radio, television, cell phones, computer and network hardware, satellite systems, and so on, as well as the various services and appliances with them, such as video conferencing and distance learning (Atmojo & Nugroho, 2020; Ghasemi & Hashemi, 2011; Lusiyani & Anindya, 2021). The limitation of the study is that it attempts to focus on observing the

digital apps used by the students alone. The digital apps in the result of this study were categorized into two groups based on their purposes: educational and non-educational apps.

This study was preliminary research, which meant it was conducted before the students were given a project for the CCU subject. The study aimed to reveal how students utilize ICT in the implementation of autonomous learning or independent learning. It focused on students' outlook on the activities and media used to learn English in autonomous learning.

The term autonomous has been introduced in the last three decades (Ariebowo, 2021; Hafid, 2020; Khotimah et al., 2019), but it has become more popular in the pandemic years. Autonomous learning allows students to control their learning condition, set their learning objectives for learning, and choose methods and techniques to learn independently (Atmojo & Nugroho, 2020). The term autonomous learning is often addressed as independent learning.

Thus, by conducting this study, it is hoped that the lecturer can choose the activities and media which is suitable to the learning background of the students for projects based on CCU subject because “the selection of media should be based on instructional methods, media attributes, and learning characteristics” (McLaughlin, Rogers, Sierra, & Fisk, 2007; Yang et al., 2014 in Amaka & Goeman, 2017) via (Lusiyani & Anindya, 2021). “The right and suitable online learning media and activities selected to drive the teaching-learning process to achieve learning objective” (Lusiyani & Anindya, 2021).

METHODS

The study aimed to gain a deep understanding of how students utilize

ICT to implement independent learning. It focused on students' outlook on activities and media used to learn English outside the classroom. This preliminary study was conducted in the first week of Cross-Cultural Understanding lecturing. The participants were 5th-semester students who were taking the Cross-Cultural Understanding subject.

A qualitative approach was applied in conducting the study. The data was collected using questioner via Google Forms. The Google Form was distributed in the first week of the CCU lecturing. One hundred seventeen students filled in the questionnaires. The questionnaire consisted of 20 open-ended questions to gain students' answers on the media utilized to learn English independently and questions with Linkert Scale to reveal the activities done by students to learn English outside the classroom.

RESULT AND DISCUSSION

The research questions addressed in this study were: how is the utilization of ICT in implementing independent learning conducted by university students? From that research question, two aspects become the focus of this study. It covers types of ICT and the activities the students do in implementing independent learning.

ICT is a broad subject, and concepts are evolving. It includes any communication device, encompassing radio, television, cell phones, computer and network hardware, satellite systems, and so on, as well as the various services and appliances with them, such as video conferencing and distance learning. As the term covers quite a broad definition, this study attempts to focus on observing the digital apps alone used by the students. The result of data analysis in this research groups the types of ICT involved in independent learning into two categories based on their purposes: educational and non-educational. Table 1 represents the study result regarding the

types of ICT students use during their independent learning activities.

Applications used during Independent Learning

TABLE 1. *ICT used by the students*

Category	Educational	Non-educational
Chat and Message	-	Talk life Discord OmeTv Telegram Slowly AntiLand Skype Ablo World Chat Line Kakao Talk Snapchat WhatsApp
Social Media	-	Facebook Twitter Instagram YouTube
Games		<ul style="list-style-type: none"> • PUBG Mobile • Nikki dress up • Black Dessert Mobile • Laplace M & Genshin Impact • Counter Strike Global Offensive • GTA5 online • CSGO
Learning Apps	Tandem Duolingo Live Lingua Hilokal Speaky HelloTalk	-
Others	Online dictionary	Email Google

Table 1 shows a total of thirty-eight applications were used by students during independent learning. The applications are then grouped into five categories: social media, chat and message, learning apps, games, and others. Furthermore, the results indicate that the utilization of non-educational digital applications outperforms the use of educational applications. It was found that twenty-four non-educational applications are listed on the table, while only seven are under the educational category. What is striking from this result is that non-educational applications are more dominant than educational applications. It brings up some assumptions regarding this situation. The first assumption is a lack of knowledge about educational applications that can support their learning activity. Thus, they use any applications that they often use daily to socialize and learn English simultaneously. Instagram could be one example, where they can chat with foreigners and learn to write texts in English. Another assumption is to take a positive view in which the students prefer to learn directly from the sources and apply what they learn in their daily activities. In other words, the dominant use of non-educational applications implies a good sign that students are highly motivated to practice English in real life.

The first category of digital applications was grouped as chat and messages. It refers to any program enabling users to communicate over long distances via text, audio, or video conferences (Lusiyani & Anindya, 2021). There are thirteen chat and message applications found in this research. The students mainly used these applications to exchange information in English with some foreigners. To complete this activity, the students must use their reading and writing skills to maintain the flow of conversation. Moreover, speaking

skills are potentially involved when they do a video call.

The same concept applies to chat and message applications to social media platforms. Chat and message applications refer to any application used for a real-time conversation and require both parties to be engaged simultaneously (Martin, 2023). On the other hand, social media is a platform that allows people to connect and share information, photos, and videos. It does not have to happen in real-time. Unlike chat and messaging, social media is not limited to one-to-one conversations and can be used to reach a wider audience (Martin, 2023).

Social media has become a popular tool for learning English. Numerous studies have been conducted to investigate the use of social media for learning English (Alberth et al., 2019; Lashari et al., 2023; Safitri et al., 2022). Some studies found that students use social media to improve their English skills, both receptive (listening and reading) and productive (writing and speaking) skills. Social media provides English content sources to practice English skills and enlarge vocabulary and pronunciation knowledge. It also allows students to create and share their own digital content, which is beneficial to practice productive skills.

This study found four social media platforms: Facebook, Twitter, Instagram, and YouTube. Furthermore, those four platforms provide slightly different content for English learners. Facebook and Twitter offer the same type of content, which is a variety of digital content, including photos, videos, articles, and news. Meanwhile, Instagram is a photo and video-sharing platform that allows users to share their photos and videos with their followers. Finally, YouTube is a video-sharing platform that allows users to upload, share, and view videos. A previous study conducted by Safitri et al. (2022) shows that among those four platforms, YouTube has become the most popular social media

platform used by students for learning English.

The next category is Video Games. Video games can be a fun and engaging way to learn English. They offer a variety of benefits, such as improving language skills, increasing vocabulary, and enhancing pronunciation (Perkasa et al., 2022). As shown in Table 1, it is known that there are seven online game applications used by students for independent learning, which are types of MOBA (Multiplayer Online Battle Arena). This type of game has the potential to interact with other players. In the context of independent learning, the students were partnered with some foreigners.

The following category is learning applications. It is also known as educational apps, software applications designed to help students learn and acquire new knowledge and skills (Sarker, 2021; Xu & Ouyang, 2022). They can be used on mobile devices, tablets, and computers and offer many features and functionalities to support learning (Xu & Ouyang, 2022). This study found six learning applications: Tandem, Duolingo, Live Lingua, Hilokal, Speaky, and HelloTalk. Generally, all those applications are language-learning apps not limited to English learning only.

Activities during Independent Learning

The second finding focuses on observing the types of activity the students do during independent learning. Table 2 represents the type of activities and the frequency of conducting the activities.

TABLE 2. *Activities are done during independent learning*

Skill	Activities	Frequency
Listening	Listening to songs	4.5
	Watching music video	4
	Watching movies/dramas with	4

Writing	Watching educational content	3.2
	Listening to News	2.9
	Listening to Podcast	2.9
	Watching sport show	2.5
	Having a chat with foreigners	3.8
	Finding some information with English keywords	3.2
	Giving comments on social media	3.1
	Writing content in English	2.6
	Writing email in English	1.8
	Speaking	Having a conversation with foreigners (non-native)
Having a conversation with native speakers		3
Using learning application to practice		2
Speaking		
Playing online game and having a conversation with other players in English		1.9
Reading	Reading some content (entertainment /educational) in English	3.7
	Reading comic/Webtoon	2.5
Others	Using Google to check grammar and vocabulary	3.8
	Using online dictionary	3.7

As shown in Table 2, there are twenty activities that the students did

during independent learning. The frequency was measured using a Likert scale of 1 to 5 with the following description:

Score	Description
1	Never
1.1 – 2.0	Seldom (once a week)
2.1 – 3.0	Sometimes (2-3 times a week)
3.1 – 4.00	Often (once a day)
4.1 – 5.00	Frequent (2-3 times a day)

Listening activities happened to be the most frequent activity done by the students. There are seven activities: listening to songs, watching music videos, watching dramas and movies, watching educational content, watching the news report, listening to a podcast, and watching a sports report. All the contents involved in those activities were performed in English. Surprisingly, the first three listening activities hold the highest frequency score among the activities, ranging from 4 to 4.5. In addition, listening to music or songs appears to be the most frequently done by the students.

Five writing activities are found in implementing independent learning. Concerning this skill activity, having a chat with foreigners via some networking media appears to be repeatedly done by the students. The second frequent writing activity was writing some keywords in English when searching for information on the internet. Meanwhile, the least frequently conducted writing activity was writing emails in English. This finding may correlate with the irrelevancy of email with the current trend in changing information, which is fast and real-time (Todoros, 2023). However, email is preferred for sharing information in a business setting (Radicati Group, 2021; Russell et al., 2023).

The next finding is related to speaking activities. Four activities were

grouped into this category, mainly dominated by conversation activity in English. Surprisingly, speaking has become the only activity that involves learning applications such as Tandem, Duo Lingo, Live Lingua, Hilokal, Speaky, and HelloTalk. However, some learning applications provide AI as partners in conversation.

Meanwhile, the last two findings are Reading and Others activity. Reading involves reading any content written in English for entertainment, including articles, comics, or Webtoon. Meanwhile, for other categories, students search for explanations about grammar and vocabulary on the internet.

CONCLUSION

This study aims to investigate how students use ICT to support their independent learning in English. According to this aim, this paper briefly presents the applications and activities involved in implementing independent learning. The previous section has discussed the main findings of this research. The first finding concerns the applications used in implementing independent learning. Furthermore, the applications were grouped into two big groups based on their purposes: educational and non-educational. Then, a more specific classification was made into five categories: chat and messages, social media, online games, learning apps, and others. In total, thirty-one applications were found listed. One of the more significant findings from this study is that the number of non-educational apps outperforms the educational ones.

The second findings focus on the activities conducted by students in their independent learning. The result of the questionnaire found twenty activities in total, which were grouped into five categories: listening, writing, speaking, reading, and others. Furthermore,

listening activity was the most frequent activity the students did in their independent learning. The findings reported here shed new light on students' interest in learning English while socializing.

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