



UNIVERSIDAD DE QUINTANA ROO

DIVISIÓN DE CIENCIAS POLÍTICAS Y HUMANIDADES

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The relationship between digital competence and oral communication in EFL students from the English Language Major at the University of Quintana Roo

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TESIS

Para obtener el grado de  
Licenciado en Lengua Inglesa

PRESENTA

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Chetumal Quintana Roo, México, junio de 2019



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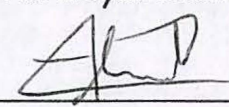
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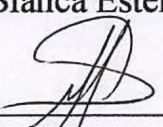
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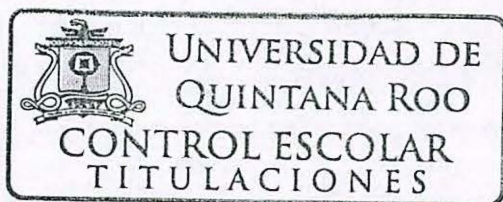
  
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## **ABSTRACT**

The general objective of this investigation is to identify if there is any relationship between digital competence and oral communication in EFL students from the University of Quintana Roo, campus Chetumal. Additionally, this research used a descriptive correlational design since it attempts to identify the relationship between students' digital competence and their oral communication.

Contrary to expectations, the research found only some statistically significant relationship between students' digital competence and their oral communication. Besides, the findings also revealed that the most developed digital competence by students are the ones related to communication and information management. It was also found, that full time students tend to be better at researching information in online database rather than those who work and study at the same time. However, students who have a job and study tend to be better at collaborative digital competence.

Finally, based on the results of the study, several recommendations have emerged. It is hoped that important actions and measures can be taken by academic authorities to gradually enhance and implement the use of digital competence as a way to improve English students' skills.

**Keywords:** oral communication, digital competence, English-major students, English final grades, English learning experience

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# CHAPTER 1. INTRODUCTION

## 1.1 Background

Information and communication technology (ICT) have played an important role in our life. Long time ago, communicating with people outside our location was a difficult process. Now, most of the people are connected through the Internet and students have access to more information and tools than ever before. Therefore, due to the rapid and drastic change of the Information and Communication Technology (ICT), the need for developing digital competence in this new century is highly important. The use and implementation of ICT tools have become important in our life, as in the case of the Internet. Undoubtedly, the Internet is one of the greatest tools we have today given the fact that it provides us a lot of benefits in terms of sharing, searching for information and communicating with others all around the world. Aside from that, there are also many tools available on the Internet that can be used for academic purposes, particularly in the area of developing English oral communication. It is essential to be familiar with the technology usage and, on top of that, make accurate use of them. The use of digital competence can have a great positive impact on our teaching and learning process. Speaking from personal experience, the digital competence has helped me enormously regarding the improvement of my oral communication. For that very reason, I came up with the idea of conducting the present study about the relationship of digital competence and students' oral communication.

Recently, many scholars have stated that digital competence is playing a vital role in this 21<sup>st</sup> century since we are in a digital area where everything has to do with technology. A primary concern about the digital competence is highlighted by the European Commission (2014) which stated that "ICT brought many changes and challenges in everyday life. Today, being able to fully and to actively participate in society requires the ability to use technologies: digital competence is now considered a *"life skill"* or a *"basic skill"* (p.5). Given this evidence, it can be seen that digital competence is an essential tool not only for teachers, but also for students, and citizens. Another important factor is, that digital competence has impacted heavily in the workplace since most of jobs currently require an understanding of technology, as it was also mentioned in the European Commission's report. It is evident that many people are struggling to get a job because of their lack of digital skills. Nowadays, the employment field is demanding employees to have accurate digital skills. That is why digital competence should be taught and developed since early age. Contrary to the view of the European Commission, Annaidou and Claro (2009) stated "that great



teachers using digital technology with certified computing skills will be the most powerful educators in the 21<sup>st</sup> century” (p. 8).

Generally speaking, the digital competence will always be essential for us both in the educational and employment field. To succeed in this new century, students need to have the accurate digital skills and teachers’ instructions must focus on the development of these skills.

## **1.2 Problem Statement**

In recent years, digital competence has become an increasingly concern and there has been an increasing interest in that matter. Nowadays, we can find studies around the world regarding digital competence, but the findings reveal that there is no progress yet on the developing of digital competence. Researchers have consistently shown that students lack digital competence. For example, Ferrari (2013) stated that digital competence is the eight-key competence for lifelong learning and is essential for participation in our increasingly digitalized society. However, international surveys and academic warn that many people lack digital capabilities as it is shown in a study conducted by Díaz, Rodriguez, Sánchez and Ramírez (2015). The findings of their study revealed that none of the digital competences were developed at an accurate level by the students from Colima, Sonora and Tabasco. Similarly, Guthu and Gravdal (2008) stated that many Norwegians are still at risk of being left behind or excluded from the digital society because of the lack of adequate skills, which are digital-learning strategies and didactic ICT competence.

In response to these problems, the present study proposes to investigate the relationship between digital competence and EFL students’ oral communication from the University of Quintana Roo. The data to be gathered in this study may provide students, teachers, and educational institutions with information related to the digital competence and its implication in EFL students’ oral communication. It is worth to mention that the aspects of the oral communication that are going to be covered in this study are spoken interaction and spoken production. For better understanding, the definitions of the digital competence and oral communication are presented in the conceptual framework from chapter 2.

### **1.3 Rationale**

This project aims to have a great academic influence on the English Language major of the University of Quintana Roo and professors who are willing to improve students' digital competence as a key element for the enhancement of their oral communication. Furthermore, the findings will show the implication of the digital competence in students' learning. It is very important to mention, that this investigation will have a lot of repercussions on the educational field, given the fact that very few studies related to the digital competence have been carried out in the Mexican context. Due to the lack of investigation related to this subject, the present study may encourage researchers to conduct researches about digital competence. Additionally, EFL students may benefit from this research since it will show them the digital skills that can be used to improve their oral communication.

### **1.4 Objective**

The general objective of this study is to determine if there is any relationship between digital competence and oral communication in EFL students from the English Language Major at the University of Quintana Roo.

### **1.5 Research Questions**

According to the purpose of this study the following research questions are formulated in order to find out the relationship between the digital competence and oral communication.

Research Questions:

1. Is there a relationship between students' digital competence and their EFL oral communication?
2. What are the least and the most developed digital competence related to oral communication reported by the English major students?
3. Is there any variation in terms of digital competence development among those students who are working and those who are not?
4. Is there any variation regarding the English final grades between those students who are working and those who are not?
5. Is there a relationship between students' digital competence and English learning experience?

## **1.6 Relevance of the study**

This research provides useful information about the digital competence as a key element in improving English students' skills. Moreover, the findings will be useful for teachers in the sense of content creation and materials design in order to integrate activities related to the speaking skill into the ELT program and continuing education courses. Additionally, this study pretends to raise awareness among decision makers involved in the curriculum design and lesson planning and teaching strategies on the improvement of the oral communication through the development of digital competence.

## **CHAPTER 2. LITERATURE REVIEW**

In this section, the definition of both concepts: digital competence and oral communication is given. The framework of each one of the primary subjects in this study, digital competence and oral communication, are subsequently presented in order to have a broader view of what this study entails. Finally, the findings of different types of research studies regarding digital competence and oral communication are presented.

### **2.1 Digital competence in the field of education**

#### ***2.1.1 Definition of digital competence***

To have a better understanding about the present study, it is necessary to define the term digital competence. This term has become a subject of study in several investigations with the purpose of improving its understanding. Digital competence has come to be used to refer to the skills related to the use of ICT. According to the European Parliament and the Council (2006), digital competence is defined as “the confident and critical use of Information Society Technology or (IST as its acronym in English) for work, leisure and communication. It is underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet” (p.9). As it can be seen, this definition provides an explanation about the essential knowledge and skills needed to be competent in this new era of technology. Nowadays, people are considered digitally competent if they have the ability to manage and validate information through different online resources, the ability to use ICT tools in an accurate way, and the ability to support the learning process by means of technology.

Similarly, Ferrari (2012) defined digital competence as “the set of knowledge, skills, attitudes (thus including abilities, strategies, values and awareness) that are required when using ICT and digital media to perform tasks; solve problems; communicate; manage information; collaborate; create and share content; and build knowledge effectively, autonomously, and critically” (p. 5). In other words, being digitally competent involves the ability to understand media, to search for information, and be critical about what is retrieved and to be able to communicate with others using an array of ICT tools and applications.

Digital competence has been also defined with certainty in a research study named “Curriculum for Wales- a curriculum for life” published by the Welsh Government in 2016. In this

study, digital competence refers to the set of skills, knowledge and attitudes that enable the confident and creative use of technology and systems. It is mentioned that digital competence focuses on developing digital skills, which can be applied to a wide range of subjects and scenarios that are transferable to the world of work. Due to the implication of the digital competence in this new century, the Welsh Government is developing a new curriculum in which the digital competence is going to be integrated with the purpose of helping learners thrive in an increasingly digital world.

Erstad, Kløvstad, Kristiansen, & Sjøby (2005) defined digital competence as “skills, knowledge, creativity and attitudes that everybody needs in order to use digital media for learning and functioning in the knowledge society” (p. 51).

Calvani, Fini & Ranieri (2010), provided the last definition of digital competence in this study. They defined digital competence as the capability to explore and face new technological situations in a flexible way, to analyze, select and critically evaluate data and information, to exploit technological potentials in order to present and solve problems and build shared and collaborative knowledge, while fostering awareness of one’s own personal responsibilities and the respect of reciprocal rights. These researchers stated that the provided definition emphasizes the co-existence of three dimensions and their integration.

1. Technological dimension: being able to explore and face problems and new technological contexts in a flexible way.
2. Cognitive dimension: being able to read, select, interpret and evaluate data and information taking into account their pertinence and reliability.
3. Ethical dimension: being able to interact with other individuals constructively and with a sense of responsibility towards oneself and towards others.

Broadly speaking, these definitions help the readers to have a better understanding of the digital competence, which is the primary subject of the present study. It is worth mentioning that digital competence should not be overlooked in any way since it has a positive impact in the field of education, employment and society. However, it can also be an issue of concern among teachers when it comes to promote digital competence in the classroom. There is insufficient information and evidence about the impact that digital competence may have in the field of EFL. That is why this study will make positive contributions for further investigations concerning the development

of digital competence. As an EFL student, I may hold the view that schools are the best place to start both teaching and promoting the development of digital competence. According to the UNESCO (2011), the use of new technologies in education implies new teacher roles, new pedagogies and new approaches. What is more, the successful integration of ICT into the classroom will depend on the ability of teachers to structure the learning environment in new ways to develop socially active classrooms, encouraging co-operative interactions, collaborative learning and group work. Teachers will, therefore, require a set of digital competencies to enhance the learning environment and to help the students become collaborative, problem-solving, and creative learners using ICT application.

In the same way, Gallardo (2012) states that the digital age highlights the need for a new definition of roles, especially for students and teachers. In recent years, students have changed radically- they are not the same people for whom the educational system was designed to teach- because of the rapid dissemination of digital technology. ICTs are encouraging students to have a different worldview, generating new skills and competences, and affecting the social and academic life.

A summary report about The Program for International Student Assessment (PISA), studies by the Organization for Economic Co-operation and Development (OECD) 2010, indicates the increasingly technology-rich world has profound implications for education, and ICT may provide significant educational benefits. First, ICT can provide tools for enriching the teaching and learning process by opening new opportunities. Secondly, education's role in preparing students for adult life means that it must provide students with the skills needed in a society in which ICT- related skills and competences are increasingly indispensable. The development of these competences is becoming an integral part of the goals of compulsory education. Finally, in a knowledge economy driven by ICT, people who do not master these competences may suffer from a digital divide, which can affect their capacity to fully participate in the economy and society.

### ***2.1.2 Digital competence frameworks***

The frameworks provided in this section are based on skills development and the ability to use specific set of ICT tools. Various studies have proposed different areas and description regarding the digital competence. For instance, the project of Common Digital Competence Framework for Teachers (2017, p. 13-14) indicated that digital competence has five areas. Each

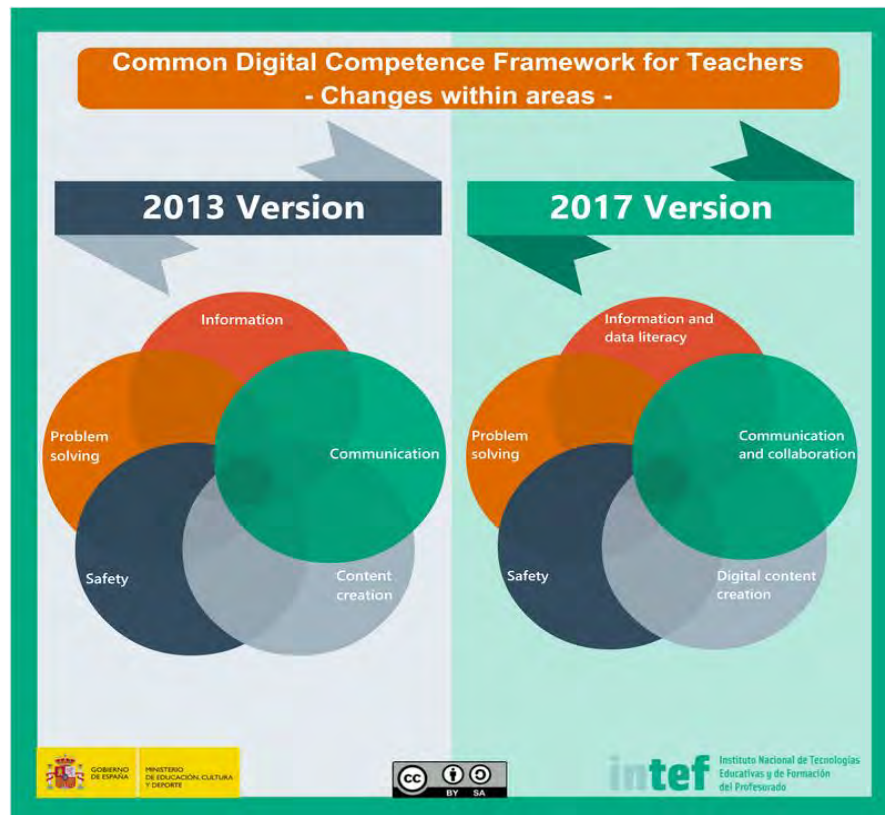
area gives a description of the knowledge, skills and attitudes related to the competence. This framework can be summarized as follows:

1. **Information and data literacy:** identify, locate, retrieve, store, organize and analyze digital information, evaluating its purpose and relevance.
2. **Communication and Collaboration:** Communicate in digital environments, share resources through online tools, connect and collaborate with others through digital tools, interact and participate in communities and networks; intercultural awareness.
3. **Digital Content Creation:** Create and edit new content (texts, images, videos...), integrate and re-elaborate previous knowledge and contents, perform artistic productions, multimedia contents and computer programming, know how to apply intellectual property rights and use licenses.
4. **Safety:** Personal protection, data protection, digital identity protection, use of security, safe and sustainable use.
5. **Problem solving:** Identify digital needs and resources, make decisions when choosing the appropriate digital tool according to the purpose or need, solve conceptual problems through digital media, solve technical problems, creative use of technology, upgrade own competence and of others.

This digital competence framework is well described and categorized, and most importantly, it can help the users to identify the areas that they still need to work on to become completely digitally competent. It should be pointed out that the identification and descriptors of these competences areas were made recently. The changes are shown in Figure 2.1.

Figure 2.1

Comparison of changes in the area of the Common Digital Competence Framework for Teachers (2017)



Source: Adapted from INTEF (2017, P. 36).

Figure 2.1 Shows the competence that teachers must have regarding digital skills but it is worth mentioning that this particular framework is not oriented to students. Nevertheless, the project “DigComp 2.0” conducted by Punie, Carretero and Van den Brande (2016), provides a similar digital competence framework that is more oriented to citizens. This framework has five dimensions, which are **information and data literacy, communication and collaboration, digital content creation, safety and problem solving**. Students can benefit from this framework since it highlights the skills that they need to acquire to survive in this new digital world.

Ferrari (2012, p. 4) developed a proposal for a common understanding of Digital Competence and its sub-competences that compose it. She argues that the need for digital competence covers much more than technical skills. Therefore, she proposed seven areas of digital competences. The list of digital competence areas is shown in Figure 2.1.



Figure 2.2

Ferrari (2012). Digital Competence in Practice; An analysis of Framework



Source: Adapted from an analysis of framework by Ferrari (2012).

Unlike the Common Digital Competence Framework for Teachers (2017), this framework provided by Ferrari was mainly oriented not only for teachers, but also for students. Ferrari suggested that these competence areas might differentiate among the users' levels. Teachers can allow learners to work at different levels for each competence area according to their needs.

In the same manner, Viñas (2013, p. 2) created a digital competence framework so that today's young people identify the competencies that are needed in this new era in which they can develop their skills and knowledge. According to the framework developed by Viñas, the skills and competences recommended nowadays are:

Figure 2.3

Digital competence framework



Source: Adapted from Viñas (2013, p.2).

1. **Know how to search, filter and synthesize** between the wealth of information existing.
2. **Extrapolate ideas** about what is known and what has been learned.
3. **Apply this knowledge** into new situations.
4. **Create new knowledge** and even developed skills to innovate.

In accordance with Viña's framework, these areas of digital competence play an important role within and outside the classroom. Anyone can have an active learning through the use of these competences. Information can be obtained not only from the teacher, but also from different resources available on the Internet. Today's students can build social environments in which they can work in a collaborative way sharing each other's experiences and gaining knowledge. However, most importantly, students can become autonomous given the fact that digital competence helps them to create and update their knowledge by means of ICT resources.

### ***2.1.3 Communication and collaboration as digital competence in education and ELT***

Among the frameworks of digital competence described above, the one that this study will focus on is the framework proposed by the Common Digital Competence Framework for Teachers (2017). The reason I chose this framework is because one of its competence highlighted in the framework called communication and collaboration is linked to oral communication. Yet, it is important to make it clear that between the five competences proposed in this framework, the study is only focused on the communication and collaboration competence. According to the Common Digital Competence Framework for Teachers (2017, p. 17) this competence provides six indicators but the suitable ones for the study are four. The following is a brief description of those indicators:

Figure 2.4

Description of communication and collaboration as a digital competence according to the Common Digital Competence Framework for Teachers (2017).



Source: Original

In this area of digital competence in communication and collaboration, it can be seen that it involves skills related to interaction, collaboration, sharing contents and engagement through the use of technology. However, it does not indicate whether or not English students can benefit in their oral communication by using this competence. That is why this study pretends to demonstrate and provide empirical evidence among the relationship between digital competence and English students' oral communication. Besides, to show students and teachers the importance of developing the digital competence, as a key element to enhance oral communication. The results may show teachers the importance of integrating and designing materials and activities related to the digital competence where students can improve their oral communication.

Having provided a broad overview of the digital competence about its definition and framework, now it is important to know what other researchers have found in their investigations in order to be aware of the implication of the digital competence.

### ***2.1.4 Previous studies about digital competence***

In this section, previous studies related to the digital competence in students are presented. Each of these studies provide essential information and findings from different authors about the digital competence. This section may help researchers to identify the gaps that need to be considered for future investigations.

Ávila (2017) carried out an investigation about Mobile Learning and Digital Competence in English Students. The main objective of the study was to determine if there is any possible relation between mobile phone applications in the English language learning and to identify the digital competence developed in the students. This project has a total of 111 participants enrolled in the English Language Center of the University of Quintana Roo. A quantitative descriptive correlational design was used in this study and the data was collected through a questionnaire with Likert Scale. The competences evaluated in this investigation were communication, information management, creating content, security, problem solving and collaborative work. The finding revealed that the applications that were used the most are online English dictionaries and Apps related to playing videos. Besides, it was detected that the digital competence most developed among the students was security and the least developed was communication. Not to mention that the higher the English level of the students, the closer and familiar they are with the use of technology. Taking into account the students' digital competence in this study, it can be seen that they have not developed the competence in Communication and this may be a problem if they want to improve their English-speaking skill.

Aguiar and Uc (2015) did a pre-experimental study titled "The effects of using ICT resources for developing digital competences in ESL elementary students". The primary aim of the study was to examine the effects of using ICT in children from an elementary school in order to develop their digital competence. The participants were 33 students who took a five-week treatment for developing digital competence. The instruments used in this study were a semi-structured questionnaire, a pre-test, a post-test and an interview. The results showed that having taken the treatment, the students improved their digital competence with the use of ICT while learning a second language. Besides, it was revealed that students were happy and interested in using the computers for their English class. At the same time, they had a positive attitude towards the use of ICT resources. This clearly shows that students are more likely to learn English while using

computers, ICT resources, Internet, online dictionaries and so on. However, if they do not have both the accurate digital competence and infrastructure, they may be at a disadvantage.

Likewise, Fuentes and Cortes (2017) investigated the digital competence developed by students of the major in English Language at the University of Quintana Roo, campus Chetumal. The investigation had a quantitative explorative descriptive design. The data was collected through a questionnaire with five different sections. The competences included in the questionnaire were information management, creating content, communication, and collaborative work. Results showed that undergraduate English students' most developed digital competence is communication and the least developed is creating content.

In the same way, Martínez, López, Ortega, and Rodríguez (2013) conducted an investigation about the impact of the digital competence on university students' academic development. The participants were 234 students enrolled in the Bachelor's degree in English language from the University of Veracruz. An online questionnaire was applied to the students in order to collect data. The findings in this research indicated that a large number of students surveyed have access to ICT technology such as mobile phones and Internet which help them to promote the development of their digital competence. Moreover, it was found that 87% of the students use social networks to communicate with others, which supports the learning of languages owing to the contact they have with national and international students.

Centeno and Cubo (2013) carried out a study to assess university students' digital competence and explore their attitudes towards ICT. A descriptive quantitative research design was used and administered a validated questionnaire to a sample of 101 e-learning and face-to-face Psychopedagogy students at the University of Extremadura, Spain. The results showed that students lacked adequate digital competence but had a positive attitude towards ICT. Additionally, a significant relationship between attitudes and ICT skills towards ICT of e-learning students were identified.

Casillas, Pinto, Cabezas (2014) worked in a research whose focus was to know the perception that the Primary Education students of the University of Salamanca have about their digital competence. The results obtained revealed, that the majority of the students reported to be familiar with the use of web 2.0, social networks and the use of web quest. However, they still lacked knowledge and skills related to the use of some important tools such as podcast and social bookmarking. Additionally, they showed to have a deep understanding in analyzing, organizing,

managing, and evaluating information on the Internet. But they were unaware of how to share information and create information online. It can be seen that the students from this investigation need to develop digital competence regarding content creation in order to be more proactive and not only retrieve information, but also create new information.

The recent study by Jimenés, Vico and Rebollo (2017), which focused on female university students' ICT learning strategies and their influence on digital competence, highlights that among the 368 Spanish university women surveyed, a high percentage of them (73.2%) reached a moderate level in their digital competence as a result of their autonomous learning strategies. The findings also showed that university students used a variety of strategies to learn about ICT, with strategies based on independent and collaborative learning. Finally, those women who used a wider variety of strategies to learn ICT attained more advanced digital skills.

Another important study related to digital competence was carried out by Tao and Chang (2017). The study applied a quantitative approach with cross-section design and the participants were 235 university students from the University of Beijing. In terms of digital competence, this study confirmed its hypothesis that university students' digital competence had a positive association with their digital informal learning (DIL), while students with higher level of digital competence tend to get more involved in their DIL. Additionally, significant gender differences between female and male students were found in certain aspects of digital competence.

Similar findings were also found in the study of Pérez, Castro and Fandos (2016), titled "Digital Skills in the Z Generation: Key Questions for a Curricular Introduction in Primary School". This quantitative study with a sample of 678 Primary School students, aimed to provide empirical evidence about the level of students' digital skills. The results showed that the acquisition of digital competence is not inherent to use but requires specific instruction. Otherwise, it can be a digital divide, not due to the frequency or access to connected devices but to lack of instructions on how to use them. It was also found that the absence of significant variance in the overall level of digital competence among Primary School students of different grades reflected, to some extent, that this level of digital competence was largely acquired by informal activities with ICTs in an informal context, rather than by developing competences in a school context. Principals, planning designers, and teachers need to pay important attention to the systematic development and enhancement of digital competence in the classroom in order to improve digital natives' skills, making them more competent and autonomous.

The definition of digital competence presented at the beginning of this section and its framework gives the reader a broader understanding about the present study. Moreover, researchers can find the effects and implication of digital competence in the findings of the studies already mentioned. Researchers can also identify the gaps for further investigation while reading the studies that have been conducted in different contexts.

## **2.2 Oral communication in ELT**

In this part of the study, some definitions of oral communication are also given. The framework of oral communication according to the Common European Framework of Reference for Languages (2002) and studies related to it are also presented in this section.

### ***2.2.1 Definition of oral communication***

Defining oral communication is a difficult task since it is such a complex and multidimensional language process. The most important aspect of oral communication is the fact that it is usually interactional, in other words it occurs between two or more individuals (Kuivamäki 2015). To communicate is to come to share something of ourselves. That is to say, it is a specific rational and emotional quality of a man that arises from the need to get in touch with others, when he exchanges ideas that acquire meaning according to common previous experiences (Fonseca, Correa, Pineda, & Lemus 2011). Communication plays an important role in the preparation of students to be not only lifelong learners, but also members of a larger community with voice and a sense of responsibility to others. Young people need to have the ability to communicate exchange, criticize, and present information and ideas, including the use of ICT applications to participate in and make positive contributions to the digital culture. Research in this field suggests that ICT applications strengthen and increase the possibilities of communication and reinforce the development of skills of coordination and collaboration between peers (Ananiadou & Claro 2009).

Oral communication as defined in the Essential Skills Reader's Guide (2015) refers to "the use of speech to give and exchange thoughts and information by workers in an occupational group". According to Krauss (2002) communication occurs when signals carry information-bearing messages between a source (or sender) and a destination (or receiver). He says that human communication is notable for its precision and flexibility. Loría (2011) mentioned that Communication between human beings is defined as a systematic process that allows the

interaction between two or more people through the same code. This process is characterized by interrelating, apart from the acting agents, a message, a channel, a referent, a situation; all located within the same context.

Nowadays, it is of vital importance to have a good oral communication because it helps us in terms of socializing with others, sharing information, asking questions, discussing doubts, and interpreting messages or ideas. EFL students may overcome fear and become more confident by putting into practice their abilities regarding the oral communication. In the following section, two tables are presented in order to give a better understanding about what knowledge and skills language learners may have according to their level of oral communication.

### ***2.2.2 Oral communication framework according to the Common European of References for Languages***

The Common European Framework of references for languages (2002) provides a common basis of the elaboration of languages syllabus, curriculum guidelines, examinations, and so on. It describes in a comprehensive way what language learners have to learn in order to use a language for communication and what knowledge and skills they have to develop so as, to be able to act effectively. It is important to make it clear that this framework has been used since 1971 and it has been integrated in hundreds of languages examinations, curriculum, syllabus and activities design. This framework makes a great contribution to the present study because it provides the descriptors of oral communication which is one of the primary focus of the study. Speaking is the section that this investigation is only focused on, but listening, reading, and writing skills can be also found in the framework. The following chart provides information regarding the different levels of oral communication provided by the Common European Framework of References for Languages (2002, p. 26) in order to make it easier to comprehend and identify the level of language among non-specialist users as well as teachers and curriculum planners (See Table 1).



**Table 2.1**

**Common Reference Levels according to the European Framework 2002.**

Proficient user	C2	<b>Can understand</b> with ease virtually everything heard or read. Can <b>summarize information</b> from different spoken and written sources, <b>reconstructing arguments and accounts</b> in a coherent representation. <b>Can express him/herself spontaneously</b> , very fluently and precisely, differentiating finer shades of meaning even in more complex situations.
	C1	<b>Can understand a wide range of demanding, longer texts</b> , and recognize implicit meaning. <b>Can express him/herself fluently and spontaneously</b> without much obvious searching for expressions. <b>Can use language flexibly and effectively for social</b> , academic and professional purposes. <b>Can produce clear, well-structured, detailed text on complex subjects</b> , showing controlled use of organizational patterns, connectors and cohesive devices.
Independent user	B2	<b>Can understand the main ideas of complex text</b> on both concrete and abstract topics, including technical discussions in his/her field of specialization. <b>Can interact with a degree of fluency</b> and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. <b>Can produce clear, detailed text on a wide range of subjects</b> and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.
	B1	<b>Can understand the main points of clear standard input on familiar matters</b> regularly encountered in work, school, leisure, etc. <b>Can deal with most situations</b> likely to arise whilst traveling in an area where the language is spoken. <b>Can produce simple connected text</b> on topics which are familiar or of personal interest. <b>Can describe experiences and vents, dreams, hopes and ambitions</b> and briefly give reasons and explanations for opinions and plans.
Basic user	A2	<b>Can understand sentences</b> and frequently used expressions related to the areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment). <b>Can communicate in simple and routine tasks</b> requiring a simple and direct exchange of information on familiar and routine matters. <b>Can describe in simple terms aspects of his/her background</b> , immediate environment and matters in areas of immediate need.
	A1	Can understand and <b>use familiar everyday expressions</b> and very basic phrases aimed at the satisfaction of needs of a concrete type. <b>Can introduce him/herself and others</b> and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has. <b>Can interact in a simple way</b> provided the other person talks slowly and clearly and ins prepared to help.

**Source: Original**

This overview can guide learners, teachers and other users within the educational system to identify the level of languages that they have developed in order to self-assess their level of proficiency. However, descriptors of oral communication in a detailed way are still not provided by the Common European Framework. According to the Common European Framework of References for Languages (2002, p. 26) oral communication or speaking skill has two different dimensions which are spoken interaction and spoken production. Language learners have to develop these dimensions to become competent in their speaking skill regardless of their level of language. The main categories of spoken interaction and spoken production are subsequently presented according to each of the 6 levels of language (See Table 2.2).

**Table 2.2**  
**Description of spoken interaction according to the Common Reference Levels according to the European Framework (2002, p. 26).**

<b>Speaking</b>		
<b>Spoken interaction</b>		
A1	A2	B1
<p>I can <b>interact in a simple way</b> provided to the other person is prepared to repeat or rephrase things at a slower rate of speech and help me formulate what I am trying to say. <b>I can ask and answer simple questions</b> in areas of immediate need or on very familiar topics.</p>	<p><b>I can communicate in simple and routine tasks</b> requiring a simple and direct exchange of information on familiar topics and activities. <b>I can handle very short social exchanges</b>, even though <b>I cannot usually understand enough to keep the conversation going myself.</b></p>	<p><b>I can deal with most situations</b> likely to arise whilst travelling in an area where the language is spoken. <b>I can enter unprepared into conversation on topics that are familiar of personal interest</b> or pertinent to everyday life (e.g. family, hobbies, work, travel and current events).</p>

B2	C1	C2
<p><b>I can interact with a degree of fluency</b> and spontaneity that makes regular interaction with native speakers quite possible. <b>I can take an active part in discussion in familiar contexts</b>, accounting for and sustaining my views.</p>	<p><b>I can express myself fluently and spontaneously</b> without much obvious searching for expressions. <b>I can use language flexibly and effectively for social and professional purposes.</b> I can <b>formulate ideas and opinions with precision</b> and relate my contribution skillfully to those other speakers.</p>	<p><b>I can take part effortlessly in any conversation or discussion</b> and have a good familiarity with idiomatic expressions and colloquialisms. <b>I can express myself fluently</b> and convey finer shades of meaning precisely. If I do have a problem I can backtrack and restructure around the difficulty so smoothly that other people are hardly aware of it.</p>

Source: Original

These are the skills that English learners need to develop in order to be completely competent in their oral communication. Table 1 can help them to identify their level of English and the skills that they have developed in the area of spoken interaction. It also shows them their strengths and weaknesses so that, they can take immediate action on the improvement of their spoken interaction. In the following table, the description of the second area of oral communication which is spoken production is presented (See Table 2.3).

Table 2.3

Description of spoken production according to the Common Reference Levels according to the European Framework (2002, p. 26).

Speaking		
Spoken production		
A1	A2	B1
<p><b>I can use simple phrases and sentences</b> to describe where I live and people I know.</p>	<p><b>I can use series of phrases and sentences</b> to describe in simple terms my family and other people, living conditions, my educational background and my present or most recent job.</p>	<p><b>I can connect phrases in simple way</b> in order to describe experiences and events, my dreams, hopes and ambitions. <b>I can briefly give reasons and explanations for opinions</b> and plans. <b>I can narrate a story or relate the plot of a book</b> or film and describe my reactions.</p>

B2	C1	C2
I can present clear, detailed descriptions on a wide range of subjects related to my field of interest. I can explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.	I can present clear, detailed descriptions of complex subjects integrating sub-themes, developing particular points and rounding off with an appropriate conclusion.	I can present a clear, smoothly flowing description or argument in a style appropriate to the context and with an effective logical structure which helps the recipient to notice and remember significant points.

Source: Original

It is very important to take this framework into consideration because it gives useful information and ideas to teachers, examiners, textbook writers, educational administrators, and so on, about how to improve EFL students' oral communication by designing and developing new activities related to the development of oral communication within and outside the classroom. In addition, they can be enormously benefited as well by using both digital competence and oral communication framework altogether for the improvement of EFL students' oral communication.

### ***2.2.3 Previous studies about oral communication in ELT***

Various researchers have been conducting investigations about oral communication in English students with the purpose of providing new evidence of how certain methods of teaching and ICT tools may help them to enhance their ability of speaking. The findings of these investigations give us different perspectives about teaching oral communication within the classroom that we can apply in order to make our classes better and effective.

The investigation carried out by Provenzano and Yue (2011), whose aim focused on the development and implementation of a communicative oral English Homework assignment at a Japanese University, indicated the majority of the 114 students surveyed perceived the task as being beneficial to their oral English ability. The English Homework assignment consisted in facilitating peer-to-peer free speaking practice, leading to increase fluency, motivation, and use of target communication strategies. Participants stated that even in cases where one partner had a higher proficiency level than another, they felt more comfortable speaking with a peer than with the

native-speaker teacher. In this activity the participants had to choose any topic of their interest and discuss it among their partners, sharing their ideas and opinions. Additionally, the instructors involved in this investigation have found positive motivational and fluency effects in their students through this assignment. It is worth mentioning that this way of using ICT tools to practice speaking skills may have also positive effects in many EFL contexts where opportunities for oral communication outside the classroom are limited.

Similarly, Castrillón (2010) did a study at the University “Universidad Tecnológica De Pereira, Colombia, about students’ perceptions regarding the development of their oral skills. The main objective of this investigation was to identify the attitudes and perceptions of the students about the oral communication inside the classroom. The data collected from the participant’s responses stated that the participants perceived they had a high ability to understand and to recognize vocabulary and ideas from others with little or no use of the mother tongue. The participants also reported that at the end of the course they make significant progress on their oral communication. In relation to the students’ feelings towards the use of English in the classroom, there was an important increase on their self-perception about the importance of using English and sharing opinions and ideas with others in order to improve their English oral fluency. Finally, this study also revealed that there was a considerable decrease in the use of L1 to translate sentences from Spanish to English.

The findings encountered in the investigation conducted by Sabry and Mahammad in 2016 also revealed that students can improve their oral English skill by taking Open Discussions Sessions. The objective of this study was to investigate the impact of using Open Discussions Sessions, as extracurricular speaking activities, on developing students’ oral communicative skills. Thirty-five students and seven English teachers participated in this investigation. Data were collected quantitatively and qualitatively by means of survey questionnaires, semi-structured interviews, and pre-post speaking test. The post-test speaking result revealed significant development in students’ speaking abilities due to the use of Open Discussion Sessions that provided a relaxed learning environment. The learning environment in this Open Discussion encouraged students’ participations, promoted self-confidence, prepared students for real-life communication and gave them opportunities to practice their speaking skill.

Stollhans (2015) worked in a project whose focus lied on an ongoing innovative activity designed to improve students’ oral skills by having them interacting with each other on Voxopop.

A total of 48 students from the University of Nottingham, in the UK, were asked to record an anecdote and listen to their peers' recordings and comment on them. A survey was applied to the students in order to collect information about their opinions about the project and their perception of its contribution to their language learning success. The majority of the students described Voxopop as a "fun tool" and 85% of them stated that they enjoyed using it. All of them also agreed that listening several times to their recordings made them aware of their own mistakes. Overall, this case study demonstrates how Voxopop, a voice-based e-learning tool, can have positive effects on students' oral skills in the target language given the fact that it is a platform where students can exchange ideas and engage into a deep discussion in a collaborative way. This platform also gives students the opportunity to reflect on their own output and find out about their strengths and weaknesses when producing the target language orally.

Bautista (2015) did a study whose objective was to find out the factors that motivate E.L. coefficient students' participation in speaking activities in ELT classrooms, emotional intelligence students to participate in oral activities in classes. The participants in this study were 20 students enrolled in the English Language Teaching Program from the University of Quintana Roo during the Spring 2013 period. They were asked to do ten personal narratives and write an entry of an emotion journal once a week. The results of this study are quite important and interesting. The study revealed that the factors affecting students' participation in speaking activities were goal oriented, corrective feedback, good classroom behavior, prejudices about classmates before participating in speaking activities, competence, knowledge is not mastered enough, code-switching, restricted opportunities to participate, negative self-talk before a test, fear of speaking in public, lack of classroom community. Besides, it was found that male students demonstrated being influenced by more factors than female participants when speaking English.

Another important study related to this subject was carried out by Somsai and Intaraprasert (2011) at the University of Technology Thailand. This study, which was exploratory in nature, primarily aimed at investigating how university students majoring in English for International Communication cope with their face-to-face oral communication problems. The participants were 48 students from three different campuses of the university. A semi-structured interview was used for data collection. Based on the results of the data analysis, 24 emergent strategies for coping with oral communication were identified and classified into two main categories: 1) strategies for conveying a message to the interlocutor and 2) strategies for understanding the message. The

researchers indicated that language learners can significantly improve their communicative competence by developing their ability to use communication strategies.

Laborda (2009) addressed a study in which the objective was to examine the use of WebQuest to develop oral competency in English as a foreign language at the Polytechnic University of Valencia at Gandía. Although the researcher believes that webquests should not be seen as the main teaching and learning tool in English for professional purposes, it is clear that they can be a very valuable tool for providing students with many interaction opportunities in realistic settings, thus making the learning meaningful. The approach presented in this study shows two types of benefits to students: the learner's professional competence in the use of both computers and Internet and the improvement of their language skills in aspects such as fluency and vocabulary.

Similarly, Yong, Bee and Mei (2012) conducted an investigation about speech disfluencies and mispronunciation in English oral communication among Malaysian undergraduates. Results show that the types of disfluency that occur are filled pauses, repetitions, substitutions, insertion, articulation errors, stuttering, and false starts. It was also noticed that in more serious cases two or three disfluencies can occur together, forming bi-disfluency or tri-disfluency respectively which further shows the degradation of the English oral proficiency of the undergraduates. These researchers state that the Critical Period Theory should be used as a cornerstone for parents to expose their children to other languages beside their first language when they are still young.

The research studies already presented about digital competence indicate that most of them have been carried out by using descriptive quantitative methodology. This means that there is still a lack of investigations oriented to the use of different research designs such as experimental, correlational and qualitative studies. Therefore, it can truly be said that the present study will contribute to the field of investigations and education. It is also important to mention that investigations about oral communication in EFL students, with different research designs such as qualitative case study, experimental quantitative design, and explorative design have been found. Therefore, this means that there are more studies with different designs conducted about oral communication than digital competence studies. However, the literature found indicates that there is still a lack of investigation about the variables of the present study which are digital competence and oral communication. Thus, there is a necessity to conduct this investigation given that it pretends to provide empirical evidence that will contribute the educational field.

## CHAPTER 3 METHOD

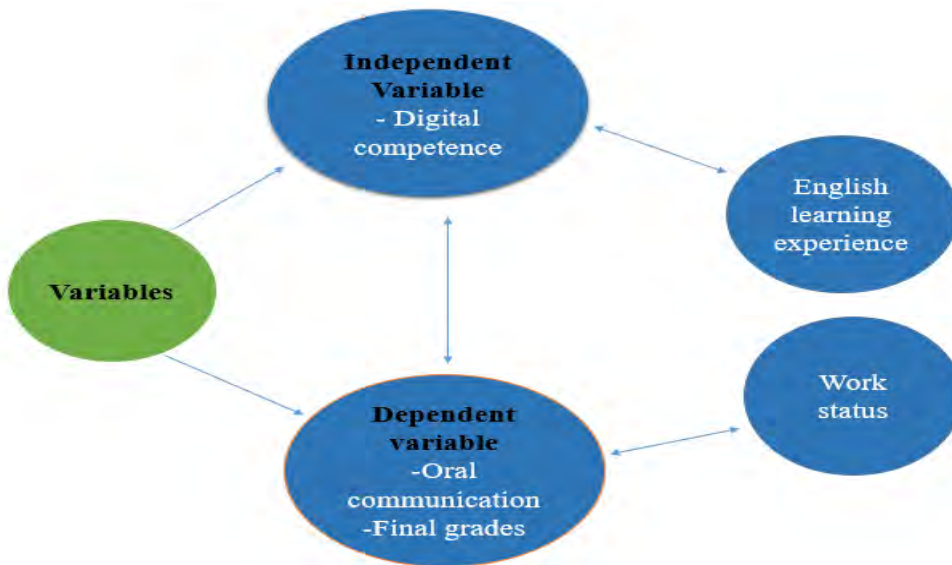
The following chapter describes the research design of the study and the main characteristics including the participants, instruments, procedure and data analysis. In addition, the definition of the research design of the study is provided, as well as, the independent and dependent variables.

### 3.1 Research design

This investigation is conducted under a descriptive correlational design since it attempts to identify the relationship between students' digital competence and their EFL oral communication. According to Ellis (2012) "a correlational study aims to investigate the relationship between two or more variables. In such studies, there is no treatment and no a prior division of the participants into groups. Instead, the researcher obtains numerical measures of the variables under study and then investigates statistically the extent to which these variables are related" (p. 37).

The study has four independent variables which are information management, creating content, communication and collaborative work and one dependent variable oral communication (see Figure 3.1).

Figure 3.1  
Variables of the study



Source: Original



### 3.2 Participants

The University of Quintana Roo has four campuses which are located in different cities in the state of Quintana Roo. According to the Department of monitoring and evaluation of the University of Quintana Roo (2017), the university has a population of 5,855 students distributed in different campuses. A total of 3,390 students belong to the academic campus in Chetumal: in Cozumel there are 696 students; the campus located in Playa del Carmen presents a number of 804 students and finally the new campus of the university which is Campus Cancun has a total of 523 students.

The participants that took part in the project were students enrolled in the in English Language Teaching Program from the University of Quintana Roo, Campus Chetumal. Table 3.1 shows the number of students that belong to Campus Chetumal.

**Table 3.1**  
**Number of students at the University of Quintana Roo, campus Chetumal, 2017**

Level and Educational Program	New students			Re-entry Students			Total		
	M	W	Sum	M	W	Sum	M	W	Sum
University of Quintana Roo Campus Chetumal	354	346	700	1,313	1,377	2,690	1,667	1,723	3,390
B. A in English Language	22	47	69	88	129	217	110	176	286

**Source: Department of Monitoring and Evaluation. Retrieved from:**

[http://sigc.uqroo.mx/07\\_informacion\\_indicadores/indicadores/2017/matricula/MNIR\\_CH\\_DCPH\\_2017\\_O\\_C.pdf](http://sigc.uqroo.mx/07_informacion_indicadores/indicadores/2017/matricula/MNIR_CH_DCPH_2017_O_C.pdf)

Table 3.1 shows that 3,390 students are currently studying at the University of Quintana Roo, campus Chetumal. It indicates that part of the 286 students enrolled in the English Language Program participated in the study.

### **3.3 Instruments and measures**

In this study, a semi-structured questionnaire was adapted from the instrument of a previous investigation named “Competencias digitales en el alumnado de la Universidad de Quintana Roo, estudio preliminar” conducted by Hernández, Fuentes, Marin, & Borges (2017). The questionnaire is divided into five sections. The first four sections regarding to digital competence: 1) Information management, 2) Creating Content, 3) Communication, and 4) Collaborative Work. The last section focuses on demographic data. This adapted questionnaire follows a Likert scale, where A represents the least developed ability and E the most developed.

Moreover, the final grades of each student’s speaking skill corresponding to the different English courses during the Spring from the in English Language Teaching Program were obtained with the purpose of collecting data about students’ oral communication. That is, measures of EFL oral communication consists of the speaking final grades obtained by students taking English in the undergraduate program in ELT.

### **3.4 Procedure**

First of all, the results of the questionnaires that were applied to the participants from the B.A. in English Language Teaching Program during the spring in 2017 were obtained with prior permission of the researcher that carried out the investigation. Based on these results, and taking into consideration the research questions, the researcher conducted the correlational study.

It is also important to mention, that permissions were requested in advance to the head of the Language and Education Department, as well as the permission of each professor in charge of the English language courses during this semester in order to have access to the final grades of students’ oral communication, which are part of the overall grade for the English course.

### **3.5 Data Analysis**

Descriptive and inferential statistics were used to answer the research questions of the study through the use of the IBM Social Package for the Social Sciences program version 22 software (SPSS). In addition, Pearson r correlation was used to answer research question one and five which showed the relationship between two numerical or continuous categorical variables. To put it in another way, the 44 items related to digital competence in the questionnaire are correlated with the final outcomes of each student’s speaking skill at the end of the semester and the four categories

of digital competence (information management, creating content, communication and collaborative work). For question number 2 descriptive statistic of Mean Frequency is used to select from the 44 items about digital competence the ones that correlate the most with students' oral communication. After that, the digital competences that have correlation with students' oral communication are organized in order of frequency according to the means from lowest to highest. Finally, multiple regression analysis was used to answer question 3 in order to determine the contribution of digital competences to students' oral communication; most importantly, multiple regression can hierarchically state such a contribution.

## CHAPTER 4 RESULTS AND DISCUSSION

In this chapter the results of the study are presented and discussed with reference to the objective of the study, which was to determine if there is any relationship between the digital competence and EFL students' oral communication. Also, the research questions presented in Chapter 1 will be answered based on the outcomes obtained. These questions will be answered in the same order as they are presented in Chapter 1.

### 4.1 The relationship between students' digital competence and their oral communication.

To answer this question, inferential statistics were used in order to determine if there is a relationship between students' digital competence and their EFL oral communication. Moreover, the data collected was analyzed with Pearson Correlation. The outcomes obtained are presented in Table 4.1, where Pearson Correlation represents the letter "r" in the third column. According to the analysis, it was found that not all students' digital competence has a positive relationship with their oral communication.

**Table 4.1**  
**Students' digital competence and their oral communication.**

Digital Competence	DC Category	r	Sig. (2 tailed)	N
42. To upload and share multimedia contents on the Net.	Collaborative work	-.266	p= .012	89
25. To participate in discussion forums online or blogs and wikis.	Communication	-.213	p= .045	89
37.To interact and contribute actively in different online forums.	Collaborative work	-.279	p= .008	89
41.To participate in virtual communities to share knowledge, contents and resources.	Collaborative work.	-.243	p= .022	89

Source: Original

Table 4.1 shows statistically how the digital competence are related with students' oral communication. The four items in Table 4.1 have the following correlation; Upload and share

multimedia contents on the Net ( $r = -.266$ ,  $p = .012$ ); Participate in discussion forums online or blogs and wikis ( $r = -.213$ ,  $p = .045$ ); Interact and contribute actively in different online forums ( $r = -.279$ ,  $p = .008$ ) and Participate in virtual communities to share knowledge, contents and resources ( $r = -.243$ ,  $p = .022$ ). The results would be consistent associated with several reasons. Based on this result, it might be seen that one of the causes of the results obtained, is that students are not using their digital competence to improve their oral communication. According to Altunar and Aguiar (2015), students at the University of Quintana Roo still lack knowledge about ICT resources. This may be due to the lack of training in the use of ICT resources. However, Stollhans (2015) made a positive argument in his investigation. He said that when students use ICT tools, they become aware of certain aspect of language (e.g. grammatical inaccuracies or pronunciation weaknesses). The higher point of his population indicated that the ICT tool used encourage them to reflect on various linguistic aspects (e.g. grammar, vocabulary, and pronunciation) within the context of oral target language use. This proves the usefulness and relation between both digital competence and students' oral communication.

From my experience as an English teacher, I have noticed that oral skills in the target language, in this case English, are highly important to students. Many students seek for opportunities to improve their oral performance in terms of pronunciation, fluency and accuracy, but they do not how to do it because of the lack of knowledge about digital competence. Therefore, knowing about digital competence may be the key to improve students' English skills, especially in oral communication. For that very reason, it is important to make not only students, but also teachers, aware of the implication and advantages of digital competence in our English learning process. As Fuentes and Cortes (2017) stated in their investigation, to communicate with others these days is essential and easier than ever due to the rapid change of technology. Students can better to perform team work through their most used messaging applications without having to meet face-to-face. In the same manner, Provenzano and Yue (2011) stated that in many EFL contexts, opportunities for oral communication outside the classroom are limited. Thus, the key to start associating students' digital competence and their oral communication would be in promoting and including contents in the classroom where students can use both variables of this study. This can be a gap for further investigation in order to see to what extent students are benefited when they use both skills.

## 4.2 The least and the most developed digital competence related to oral communication reported by the English major students.

This question is answered into three sections. In the first section 4.2.1, the ten most students' digital competences are presented; followed by section 4.2.2 with the ten least developed digital competences; finally, section 4.2.3 where results are analyzed in categories.

### 4.2.1 The ten most developed digital competences

According to the data obtained, students from the University of Quintana Roo have developed their digital competence skills. To analyze the results, descriptive statistics were used. Table 4.2 shows the top ten digital competences developed by the English major students from the UQROO. Besides, the results presented in this table indicate that students have a great deal of knowledge about the use of technology which is something important in this new century.

**Table 4.2**  
**The ten most developed digital competences**

Digital Competence	DC Category	N	Mean	Std. Deviation
31. To relate with others instant messaging (WhatsApp, Messenger, Telegram etc.)	Communication	93	3.849	.4878
27. To communicate with others by social networks (Facebook, Twitter, etc.)	Communication	93	3.753	.5645
1. To use different Web browsers (Explorer, Mozilla, Google, etc.)	Information Management	93	3.667	.5582
29.To use e-mail to communicate with classmates and teachers.	Communication	93	3.645	.6015
2.To use social bookmarks (tag and hashtags) to organize and share information.	Information Management	93	3.387	.8345
9.To find information on the Net in a proper way.	Information Management	93	3.247	.7171
34.To be able to communicate properly in online resources.	Communication	93	3.204	.8413
32.To express correctly to others with different digital tools (graphs, conceptual map, mental map, diagrams, etc.)	Communication	93	3.108	.8656
33.To control de information and data shared online with others.	Communication	93	3.011	.9148
30.To establish communication through video conferences.	Communication	93	2.925	1.0450

Source: Original

Table 4.2 shows that the ten most developed digital competences belong to two important sections; these sections are communication and information management. The digital competence that belongs to the section of communication are 31, 27, 28, 34, 32, 33, and 30. And the rest of the digital competence which are 1, 2, and 9 belongs to the section of information management. It is evident that the most developed digital competence category among the English major students from the UQROO is communication. The first digital competence of communication is number 31 and it is known as “Relating with others through instant messaging (WhatsApp, Messenger, Telegram etc.)” with a Mean of 3.84. The last digital competence developed among the top ten, which belongs to communication, is digital competence number 30 “Establish communication through video conferences” with a MF of 2.92. As it is mentioned above, the most developed digital competence section is communication. This result was very noticeable since most of the undergraduate students are connected on the Net nowadays. Moreover, many tools for communication purposes are being used by them such as different social networks.

According to Martínez, López, Ortega and Rodríguez (2013), 87% of the students in their investigation reported using social networks mainly to communicate with others, which supports learning of languages. This means that students tend to develop digital competence related to communication because they are familiarized with the ICT tools that they use to communicate with others. In contrast, Cabezas and Pinto (2014) showed a different outcome on their investigation. They said that the most developed digital competence is the one related to search information followed by information management.

In an investigation carried out by Avila (2017), the results were completely different since the most developed digital competence was the one related with security. What I can perceive between my results and her results is that the population that took part of her investigation were students enrolled in the Language Teaching Centre from the University of Quintana Roo, and the students are more aware of how to take care of their personal data. At the same time, the focus of their vocational education is completely different from students enrolled in the B.A. in English Language Teaching. Students from the B.A. English Language use tools related to digital competence as a way of learning and it must be said that the B.A. in English is oriented to the pedagogy. In contrast, students enrolled in the Language Teaching Centre use the digital competence as an instrument.

Now that we have seen the ten most developed digital competence, the following section shows the ten least developed digital competence in English students.

#### ***4.2.2 The ten least developed digital competence***

Table 4.3 shows the ten least developed digital competence reported by the undergraduate students from the University of Quintana Roo. Important attention should be paid on this part since students can be at disadvantage without having these digital competences. The mean of these competences is located in the fourth column of Table 4.3.

**Table 4.3 The ten least developed digital competence**

<b>Digital Competence</b>	<b>DC Category</b>	<b>N</b>	<b>MF</b>	<b>Std. Deviation</b>
43. To create collaborative communities or thematic social networks	Collaborative work	93	1.323	.6454
12. To design and manage online learning environments (PLE)	Creating content	93	1.527	.7161
18. To plan and follow collaborative projects through web 2.0	Creating content	93	1.538	.8151
13. To use educational software to create and promote multimedia knowledge	Creating content	93	1.591	.8627
4. To use and organize information in search managers (Diigo, Pocklet, etc.)	Information management	93	1.634	.7631
5. To search information in online database (Proquest, Emerald, etc.)	Information management	93	1.667	.8639
40. To plan and follow collaborative work and project through web 2.0 resources.	Collaborative work	93	1.677	.8491
11. To design and modify a wiki	Creating content	93	1.731	.8985
23. To distinguish among different authors royalties (copyright, creative commons, etc.)	Creating content	93	1.763	.8129
41. To participate in virtual communities to share knowledge, information, contents and resources.	Collaborative work	93	1.925	.8627

**Source: Original**



Table 4.3 shows the Mean Frequency obtained among 93 students from the UQROO. The mean frequency ranged from 1.32 to 1.92. In this part, the items belong to three different sections of the digital competence; collaborative work, creating content and information management. Within the ten least developed digital competence, items 12, 18, 13, 11 and 23 are from creating content. Only three least developed digital competence which are number 43, 40 and 41 were found in the collaborative work section. Finally, for information management, competence number 4 and 5 were identified as part of the least developed digital competence.

The least developed digital competence is number 41 “*Participate in virtual communities to share knowledge, information, contents and resources*” with a mean frequency of 1.92. This means that the 93 undergraduate students lack knowledge about collaborative work through the use of technology. Besides, students also showed a lack of understanding among competence number 12, 18, 13, 11, and 23. All of these compete are from creating content. They still need to know how to; design and manage personal learning environments (PLE), plan and follow collaborative projects through web 2.0, use educational software to create and promote multimedia knowledge, design and modify a wiki, and finally know how to distinguish among different authors royalties (copyright, creative commons, etc.). As I mentioned before, this lack of preparation can affect students’ learning process in the future since they need to know and to have the accurate skills to solve problems regarding these competences. This result agrees on what Avila (2017) found. She claimed that the least developed digital competence in her investigation was creating content. Similarly, in the investigation conducted by Centeno and Cubo (2013) the outcome shows that students have a lower result on digital competence skills related to creating content. It was found that students demonstrated poor knowledge regarding web publishers, database contents, and videoconferences. So, it can be seen that students have not learned or improved their skills related to creating content.

In general, English language students must be prepared not only in the area of communication as a digital competence but also in creating content, information management and collaborative work. They must know the importance of each of the competence because they are preparing themselves to become an English teacher and having this knowledge can help them throughout their careers.

### 4.2.3. *The most and the least developed digital competence in categories.*

To have a better understanding, the following table shows the outcomes of the most and least developed digital competence by categories. The most noticeable digital competence category developed is communication. After observing the mean frequency in each digital competence, the analysis already presented in the most and the least developed digital competence in Table 4.2 and 4.3 have the same results.

**Table 4.4**  
**Digital competence in categories**

<b>Digital Competence Categories</b>			
<b>Digital competence</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Communication	93	3.0753	.53667
Information management	93	2.5444	.52377
Creating Content	93	2.1713	.59250
Collaborative Work	92	2.0857	.69459

**Source: Original**

In general, the results presented were predictable since the population involved in this project were all from the Bachelor's in English Language that the University of Quintana Roo offers and within the program there are subjects related to educational technology. That is why, EFL students have a clear picture of what digital competence is. After knowing the results obtained through the SPSS software, it has to be stated that the most developed digital competence section is Communication with a mean frequency of (3.07), followed by Information Management (2.54) and the least digital competence category is Creating Content (2.17) followed by Collaborative Work (2.08).

It would be a great idea if students start developing their digital competence skills from an early age. Aguilar and Uc (2017) pointed out that primary school students show a good attitude towards English learning when they work on the use of digital competence. They mentioned that ICT resources gave students motivation and facilitated their learning. This rapid change of

technology demands a great deal of knowledge and understanding towards the use of ICT tools. That means that all students must develop their digital competences because the rich world of technology are requiring. These competences are necessary for different aspect or fields such as education, economic activity, and employment. It is very important to point out that digital competence skills can enrich the teaching and learning process by opening new opportunities in promoting the use of ICT tools. Students must prepare themselves with the skills needed in a society in which ICT competences are increasingly indispensable. According to the OECD (2010), the increasingly technology world is bound to have important implications for education. That is why many developing countries are investing on and including ICT into the classroom. It is said that the extensive ICT use is economically positive, mainly because it reinforces the acceleration of productivity gains. Besides, societies are evolving rapidly because of ICT, which have facilitated new forms of communication through social networks.

### 4.3 The variation in digital competence between those students who are working and those who are not.

From my personal experience as an English student, I realized that some classmates were more effective than others in terms of the use of technology in the classroom. This question gave me the idea to investigate the difference in digital competence between those students who work and those who do not. For the purpose of this question, statistical analysis through t-test was done to get the final results. To have a better understanding see Table 4.5.

**Table 4.5 The variation in digital competence between students who are working and those who are not.**

DC	Section	Presently working	N	MF	Std. Deviation	t-test results
5. To search information in online database (Proquest, EBSCO, Emerald, etc.)	Information Management	NO	78	1.744	.9036	t= 1.989
		YES	15	1.267	.4577	df= 91 p= .050
36. To participate in research groups of my major using online spaces.	Collaborative work	NO	77	2.039	.9657	t= -2.235
		YES	15	2.533	.7432	df= 24.241 p= .035

Source: Original

As can be observed in Table 4.5, two differences in digital competence were found between those students who work and those who do not work. The outcomes seem to be precise and it shows that the two digital competences are information management and collaborative work. It is evident that those students who work and study at the same time, tend to develop new skills because of the demand of their job. According to the results in digital competence number 5 ( $t= 1.989$ ,  $df= 91$ ,  $p=.050$ ) students who only study tend to be better at searching information in online database (such as Proquest, EBSCO, Emerald, etc.) rather than those who work. However, in digital competence number 36 ( $t= -2.235$ ,  $df= 24.241$ ,  $p=.035$ ) students who work or have worked demonstrate that they are better at participating in research groups of my major using online spaces. It seems that students who work have developed digital competence regarding collaborative work. This result is similar to what Fuentes and Cortes (2017) found. They said that Collaborative Work is the digital competence with more variations. According to the European Commission (2011), digital competence has become a major issue for employability because of the need for ICT professionals in all sectors and because ICT is now used in all types of tasks. Therefore, fulltime students should take training and develop digital skills that are needed in the field of employment.

To sum up, two main differences were found among students who work and those who do not work. Although this question gives logic information, it is true that most of the students who work and study at the same time are forced to develop new skills related to digital competence that are necessary for their jobs.

#### **4.3 The variation in English final grades between those students who are working and those who are not.**

Having observed the results of digital competence between those students who work and those who do not, it was also important to investigate if there is a difference in their English final grades. To obtain the results for this question, t- test was done. See Table 4.6 for a better understanding.

**Table 4.6**

**The variation in English final grades between those students who are working and those who are not**

<b>Item</b>	<b>Presently working</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>t-test results</b>
EFL Final grades	NO	76	8.4947	1.04357	t= 1.717 df= 14.222
	YES	13	7.7769	1.44404	p= .108

**Source: Original**

Table 4.6 shows the variation in English student final grades between those who work and those who do not work. The EFL final grades have a result of ( $t= 1.717$ ,  $df= 14.222$ ,  $p=.108$ ) in which students who only study tend to have a great performance in their final grades. The result was evident since full time English students are focused on their obligations at school compared with those who are working or have family obligations that outweigh their schedule at school. It is evident that full time students can get the chance to study and score a very good grade. However, part time students learn and earn side by side. This can be more fruitful because students are getting the experience on interacting outside the real world and learn about it. So, being a full and a part time English student can have different advantages with it comes to digital skills and English final grades. Additionally, Fuentes and Cortes (2018) indicated that there is a difference between students who work and the ones who do not.

What follows is a general overview of students' digital competence and their English learning experience. The focus of this part of the investigation will be on the relationship that students have between their digital competence and their English experience.

#### **4.4 The relationship between students' digital competence and their English learning experience.**

The following research question was answered through inferential statistics and data was analyzed with Pearson correlation to determine the relationship between students' digital competence and their English learning experience. The outcomes revealed that there is a great relation in 10 items of 44 of digital competence. See Table 4.7.

**Table 4.7****The relationship between students' digital competence and their English learning experience.**

Digital Competence	Category	r	Sig. (2 tailed)	N
5.To search information in online database.	Information Management	.274	p= .008	93
12. To design and manage online learning environment (PLE)	Creating content	.261	p= .012	93
17. To use of interactive graphics for presentation (prezi, Powtoon, etc.)	Creating content	.257	p= .013	93
18. To plan and follow collaborative project through web 2.o resources.	Creating content	.273	p= .008	93
19. To edit and share different contents on the Net	Creating content	.212	p= .041	93
20. To know to take online exams to evaluate my knowledge	Creating content	.260	p= .012	93
24. To create digital contents and multimedia in an accurate manner	Creating content	.214	p= .039	93
25. To participate in discussion forums or blog.	Communication	.474	p=.000	93
37. To interact and contribute actively in different online forums	Collaborative work	.244	p= .018	93
39. To work with others to design digital contents	Collaborative work	.310	p= .002	93

**Source: Original**

The results presented in Table 4.7 indicates that Creating Content has six items that correlate with students' digital competence and their English learning Experience. Then, it can be observed that Collaborative Work has a correlation in two items and Information management in one item, and finally one correlation was found in Communication. Based on the results, item number 18 from Creating Content showed the highest correlation within this group with  $r= .273$ . Next, item number 39 from Collaborative Work showed a correlation of  $r= .310$ . Then, item number 25 from Communication obtained a correlation of  $r=.474$ . Finally, item number 5 from Information Management the correlation found was  $r= .274$ .

To sum up, it can be said that the more students' English experience, the more developed their digital competence is. It is worth mentioning that ICT has become essential in everyday classroom, especially in teaching and learning English. Its use gives opportunities to teachers as well as students to increase the quality of their learning about the language. Therefore, students tend to develop their digital competence due to the need for improving their English learning. Combining ICT resources and English can be advantageous because students' attitudes about using them are positive (Aguiar & Uc, 2015, p. 78). Nowadays, students' knowledge about websites related to creating content, and collaborative work are more noticeable than ever before. According to Fuentes and Cortes (2017), the more years of study at the University of Quintana Roo, the more Collaborative Work digital competence is strengthened by students. Similarly, the finding showed that there is a significant relationship between students' digital competence and their English experience.

## **Chapter 5 Conclusions**

The following chapter has four sections. In the first section, the major findings obtained through the results of five research questions are presented. The second section describes the limitations emerged during the process of developing this investigation. Some teaching implications in which students and teachers can find useful information related to the subject of the investigation are in section 3. Finally, some recommendations are made for future researches in section 4.

### **5.1 Summary of main findings**

According to the results, it was found that not all students' digital competence has a positive relation with their oral communication. It seems that students do not use digital competence as a way to improve their oral communication. One factor of why digital competence is not being implemented by students in their oral communication may be lack of training or knowledge.

In addition, the findings also indicate that the most developed digital competence by students are the ones related to communication and information management. Communication digital competence obtained a mean frequency of (3.07), followed by Information Management with (2.54). The participants of the study showed that they can relate with others through instant messaging, communicate with others by social networks, use e-mail to communicate with classmates and teachers, and express themselves correctly to others with different tools. Regarding Information Management digital competence, they stated that they can find information on the Net in a proper way, use social bookmarks to organize information and use different Web browsers (Explorer, Mozilla, Google, etc.). This was a significant finding because students seem to be using ICT tools or applications to communicate with others and share information. Regardless of the results, it would be important to know what kind of information they share with others, whether or not the information has to do with their learning process. According to Martínez, López, Ortega and Rodríguez (2013), 87% of the students in their investigation indicated to use social networks mainly to communicate with others, which supports learning of languages. I strongly agree with this statement since students are most of the time connected on the Net looking for new opportunities to improve. However, the findings also reported that there is still a lack of students' knowledge about Creating Content and Collaborative Work. These two digital competences were the least most developed ones by students. It was found that Creating Content had a mean frequency of (2.17) followed by Collaborative Work with (2.08). Students demonstrated poor knowledge



about these competences which is something that can affect their learning. They said that they have little knowledge about designing and managing Personal learning environments (PLE), planning and following collaborative projects through web 2.0, using educational software to create and promote multimedia knowledge and participating in virtual communities to share knowledge, information and resources. Hence, important actions should be made regarding this. Many problems may emerge if students and decisions makers disregard the lack of knowledge and training related to Creating content and Collaborative work. A recent publication by the European Commission in 2016, said that there is a need for people who can assess needs or existing problems and come up with solution using digital tools and technologies. Besides, there is also a need for people who can use digital technologies to create new knowledge. It is not only about knowing what applications or web 2.0 resources are available on the Net, but it is also a matter of knowing how to build and create more contents that can help ICT users. According to Fuentes and Cortes (2017), students at the University of Quintana Roo, do not feel forced to create, design and innovate with the use of ICT during a vast part of their formation as future English teachers. In fact, students from the undergraduate program in English Language are not really emerged in contexts where they have to create and develop the Creating Content digital competence as they should. The lack of skills related to Creating Content and Collaborative Work may have repercussions on students' formation in the future.

Findings also revealed that full time students tend to be better at researching information in online database (such as Proquest, EBSCO, Emerald, etc.) which is item 5 ( $t= 1.989$ ,  $df= 91$ ,  $p=.050$ ) rather than those who work and study at the same time. However, in item number 36 which belongs to Collaborative Work digital competence ( $t= -2.235$ ,  $df= 24.241$ ,  $p= .035$ ) students who work or have worked demonstrate that they are better at participating in research groups using online spaces. The results were evident because both types of students develop different skills. On the one hand, students who work tend to develop skills related to Collaborative Work because of the demand of their work. It can be said that they are forced to improve and develop new skills. On the other hand, students who only study tend to show skills related to Information Management because they are always searching for information. Yet, full time students must develop skills related to Collaborative Work since those are highly important skills required in the workplace. They should bear in mind that they are preparing themselves to become English teachers, and there are skills that they must dominate and promote in their future classes. It was also found that full

time students tend to have a great performance in their final grades. As I said earlier, the results were evident since full time English students are focused on their obligations at school compared with those who are working or have family obligations that outweigh their schedule at school.

Finally, the outcomes demonstrated that there is a relationship in 10 items of 44 digital competences, between students' English experience and their digital competence. Item number 18 from Creating Content showed the highest correlation within this group with  $r = .273$ . Next, item number 39 from Collaborative Work showed a correlation of  $r = .310$ . Then, item number 25 from Communication obtained a correlation of  $r = .474$ . Finally, item number 5 from Information Management had a correlation of  $r = .274$ . Based on the result, it can be said that students' English experience go hand in hand with their digital competence. So, the more English experience, the more students developed digital competence. In addition, there is a great need in building new courses, workshops related to Digital Competence that can be offered to EFL students from the University of Quintana Roo.

## **5.2 Limitations of the study**

There are some limitations that need to be considered in this investigation. The research was limited in collecting information about students' final grades in their speaking exams. It took a while to get the information required to continue with the study. This can be due to the lack of time that teachers in charge of the different English courses were having, since they were in the last week of their courses.

Another limitation that is important to consider was the literature of the main subject which is digital competence. As far as it is concerned, it seems that there are only a few studies conducted about digital competence in EFL students. Nowadays, it is highly important to conduct investigations related to digital competence in the educational field because the technology is changing and updating and students must have the skills to use it. The results obtained through this investigation clearly show that only a few digital skills correlate with students' oral communication. It was expected to find a higher correlation between digital competence and students' oral communication but that did not happen.

### **5.3 Teaching implications of the study**

This study could be considered as part of empirical evidence related to EFL students' digital competence in the process of enhancing their oral communication. English teachers can find important information in this study. The results found in the least developed digital competence can be a clear picture of what decision makers, teachers and students need to do in order to improve students' digital competence in creating content. Professors can also use the findings to adapt and apply new teaching strategies in which digital competence are integrated inside the classroom.

This investigation can also present the importance of digital competence in this new century. Students can take advantage of the digital competence framework to examine through a diagnostic exam whether they need improvement or not. In addition, students may also find useful information about the aspects required in oral communication according to the Common European Framework. As a matter of fact, it is extremely important to make students aware of the significance of the Common European Framework. This framework shows students what they really need to do to improve their English skills. Most of the exams are based on this framework and students cannot be benefit if they disregard it. It is intended that academic authorities implement more workshops about digital competence, not only for students but also for English teachers.

### **5.4 Recommendation for further research**

Based on the major findings of this study, several recommendations for future research have emerged. First, researchers should concentrate on conducting quasi-experimental, experimental investigation, in order to identify whether or not digital competence has a great impact or relationship on students' English oral skill. Besides, the result of this study may motivate researchers to carry out studies related to this subject

Additionally, it is important to conduct research studies about digital competence and oral communication in other campuses of the University. The participants in this study were only from the Campus Chetumal. Therefore, a comparison can be made between digital competence and oral communication among students from both campuses. Researchers must take into consideration that students' oral communication needs to be standardized in order to collect more reliable data.

Likewise, it is suggested to approach more variables that can influence the relationship between digital competence and oral communication in EFL students, for instance age, place of origin, English level among others. It would be interesting to address other objects of study related

to the development of digital skills and oral communication, by investigating how digital competence is applied in the classroom.

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