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**Ecuadorian high school teachers' perceptions on ICT use in their EFL
classes**

TRABAJO DE TITULACIÓN

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Septiembre, 2018

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“Yo Galo Patricio Cueva Zhiñin, declaro ser el autor del presente trabajo de titulación Ecuadorian high school teachers’ perceptions on ICT use in their EFL clases, de la Titulación de Ciencias de la Educación mención Ingles, siendo la Mgtr. Cristina Kathalina Morocho Pintado la directora del presente trabajo; y eximo expresamente a la Universidad Técnica Particular de Loja y a sus representantes legales de posibles reclamos o acciones legales. Además certifico que las ideas, conceptos, procedimientos y resultados vertidos en el presente trabajo investigativo, son de mi exclusiva responsabilidad.

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Cueva Zhiñin Galo Patricio

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DEDICATION

This dissertation is dedicated to teachers who make a great effort to understand the pros and cons of technology in their classes.

Galo Patricio Cueva Zhiñin

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Galo Patricio Cueva Zhiñin

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ABSTRACT

The research is about finding and analyzing data about Ecuadorian high school teachers' perceptions on ICT use in their EFL classes. The investigation took place in three private and four public high schools in the provinces of Loja and Zamora Chinchipe.

Based on the results, the main barriers for not using ICTs are the teachers' perception that younger teachers are more skillful to use ICT than the older ones, teachers have not attended any ICT training course and teachers said that they have to be masters to understand how to use ICTs. On the other hand, EFL teachers think that ICTs are necessary tools in educational settings, teachers feel that they will be able to keep up with the advances happening in the ICT field, and teachers think that the challenge of learning about ICT use is exciting.

KEY WORDS: ICTs, technology, EFL, teachers, barriers, positive aspects,

RESUMEN

La investigación es sobre la búsqueda y el análisis de datos sobre las percepciones de los maestros de la secundaria del Ecuador, con respecto al uso de las TIC en sus clases de inglés como lengua extranjera. La investigación se llevó a cabo en tres colegios privados y cuatro colegios públicos en las provincias de Loja y Zamora Chinchipe.

Basado en los resultados, las principales barreras por las que los maestros no usan las TICs son la percepción de los maestros que los docentes más jóvenes son más hábiles para utilizar las TICs que los más antiguos, los maestros informaron que no han asistido a ningún curso de formación en TICs y por último, los maestros dijeron que sienten que tienen que ser un master para las TICs. Por otro lado, los profesores pensaron que las TICs son herramientas necesarias en la educación, sienten que van a ser capaces de seguir el ritmo de los avances que ocurren en el campo de las TIC, y piensan que el reto de aprender sobre el uso de las TIC es emocionante.

PALABRAS CLAVES: TIC, tecnología, EFL, maestros, barreras, aspectos positivos, aspectos negativos.

INTRODUCTION

This research is about the barriers and positive factors that influence Ecuadorian teachers' perception for adopting ICTs in high schools classes. It is important that teachers became aware of their strengths and weaknesses for taking the best decisions when implementing ICTs in the curriculum.

Therefore, considering the importance of ICTs in high schools, the current document looks forward to investigating Ecuadorian high school teachers' perceptions on ICT use in their EFL classes. Regarding the previous statements, the following questions are answered: Which aspects related to teachers' characteristics are considered by most of the EFL teachers as barriers to use ICT in their classroom? Which factor regarding to teachers' characteristics does influence the most on teachers to use ICT in their classroom? How is ICT use perceived by EFL teachers in relation to their gender?

The setting for backing this investigation was prepared with previous researches that make allusion to the theme previously mentioned. In this way, Solano, Cabrera, Ulehlova and Espinoza (2017) explore the use of educational technology for teaching English as a foreign language. They found that most students and teachers' do not use technology to approach a target language. Some of the issues are the lack of technological material, and the lack of teachers training. This study showed that teachers have lack of knowledge of technological tools, and teacher do not see the benefits of the contribution of technology in an EFL class.

Another investigation was carried out by León (2012) who researched the impact that ICTs have in teaching and learning process, the technological gadgets that teachers and students are using, and how technology innovates the different aspects of a school

environment. León concludes that teachers are becoming aware of the importance of ICTs in High schools; however, he also mentions that it requires leadership from the management and real initiative from the faculty in order to be successful in integrating ICTs in schools. Besides, he also notices that teachers do not integrated technological gadgets in schools because the time assigned per period class in schools is not enough. León concludes that introducing ICTs in schools is a long-term process and it required changes in a curriculum program, teaching styles, and professional networks.

Furthermore, Marín, Rivera and Celly (2014) addressed the digital and media competency that students and teachers possess. The first finding was that students and teachers have almost the same level of media competency. Also, he found that age plays a very important role in the development of new competencies in the digital era. For example, it was found that some students learned new tools by themselves that teachers do not recognize. Besides younger teachers get better results in applying ICTs than elder teachers. The study concludes by arguing that it is not enough to know technological tools, but these tools need to be incorporated efficiently in a pedagogical manner.

The current study looks forward to providing relevant information for EFL teachers, administrators and educational institutions in order to improve their current curriculums for teaching English in Ecuadorian high schools. Further, this study may provide fundamentals for future investigations related to this topic.

CHAPTER I.
LITERATURE REVIEW

Technology in the classrooms has become an important element in the teaching process and it is changing the education process in high schools. In this section, the ICT (Information and Communication Technology) use in EFL (English as a Foreign Language) teaching, teachers and ICT use, teacher's characteristics regarding ICT use, and Teachers' perceptions on ICT use in their EFL classes are described. In addition, some previous studies related to this investigation are included and contribute to the process for understanding ICT integration in EFL education.

The ICT use in EFL Teaching

Azmi (2017) referred to ICT as the set of electronics as videos, Internet, email, and the World Wide Web where learners and teachers can benefit from acquiring linguistic skills, to interact in other languages, and to get to know other cultures. Similarly, for teachers the use of ICTs represents the opportunity to be more creative in the classroom environment.

ICT devices have become a daily tool in EFL teaching. Moqbel, Nevo and Kock (2013) think that the computer is the most important ICT tool followed by multimedia and Internet for EFL teaching and learning. Golonka, Bowles, Frank, Richardson and Freynik (2014) classified information communication technological devices for EFL in classroom based on technologies, individual study tools, network-based social computing and mobile and portable devices. Meanwhile, Hsu (2013) identified CALL (Computer-assisted language learning) and MALL (Mobile-assisted language learning) for being the main aspects for teaching/learning EFL. However, Newhouse (2014) identified some hardware portable computer technologies as laptops, tablets, smartphones, wireless networking, voice/stylus input, and plug and play peripheral

devices are instruments to support learning in schools. He also tends to classify hardware by means of the user's needs in its size, capacity, connectivity, speed and cost.

Jayanthi and Kumar (2016) observed ICTs as having countless of benefits for EFL and mention computers, mobile phones, radio, television, videos, satellite broadcast, videoconferencing, and web seminars as tools for improving language skills.

Gu, Zhu and Guo (2013) found that the ICT most used for teachers in schools were Office programs such as Microsoft Office or PowerPoint. Besides, teachers responded that the most used media were videos, and for outside the class, the most used ICT, were social communication media.

Different studies have been made to identify the most used Web 2.0 technologies for EFL learning. For Hew and Cheung (2013), the most used ICTs in EFL teaching are Web 2.0 technologies like blogs, wikis, podcast, Twitter, and 3-D immersive virtual worlds, being Twitter the one that receives less attention. In contrast, Sun and Yang (2015) found that YouTube and Facebook were the most used platforms to learn a language which foster a collaborative and cooperative learning among the members aiming to learn a new language.

Thang, Lee, Murugaiah, Jaafar, Tan and Bukhari, (2016) found that the most used tools included mobile phones, laptops and camera phones; in contrast, the least used tools were handheld computers, games consoles and portable games consoles. However, his study also determined that students use technology for social interaction instead of using it for academic purposes. Nevertheless, students had a positive view towards adopting technology for teaching and learning English, but they rarely invest time or energy using technology in learning English.

Elttayef (2016) (2014) also considered social networking sites as a popular ICT for students, but he adds that virtual worlds and gaming environment are between the most popular ICT as well. The least popular tools were considered to be social bookmarking or tagging which are used for many classes; then no relationship exists between the most popular ICT used with the ICT used in classes except for Facebook. Facebook was found to be the most popular tool between students and teachers. Another social media taken underrated by participants was YouTube which was criticized for being pointless when teachers do not interact in the process or the social media abuse which is when teachers want to replace teaching with social media. Participants also categorized social media learning by informal, incidental and socialized learning.

For Razak, Saeed and Ahmad (2013) some advantages in enhancing the use of a Facebook groups for EFL writing purposes had an effective and positive effect on student's, which improved writing through communication in social interaction, sharing information and having a sense of belonging to the class. In addition, teachers preferred to use different social networking for enhancing students' speaking skills. Ahmed and Abouabdelkader (2016) found that some advantages in using Facebook and YouTube videos are that it reduces the time for students to become average in speaking and writing skills.

Another advantage that Azabdaftari and Mozaheb (2012) found that revising vocabulary in a mobile learning manner fosters the process of vocabulary learning in a EFL setting, besides of studying anytime-anywhere, receiving instant feedback, surfing the web when encountering problems, and increasing the interaction between learners are some of the advantages of using mobile-learning in EFL classes. Furthermore, Elttayef (2016) showed how touch screen media improved their EFL linguistic

competence with 8 weeks of practice which include grammar, phonology, morphology, syntax, and semantic aspects comparing with the group whom did not used a touch screen technology.

Accordin to Yunus, Nordin, Salehi, Sun and Embi (2013), the advantages in using ICTs sum up in driving on students' enthusiasm toward displaying their thoughts and reacting on their classmates' ideas, permitting compelling companion feedback, giving positive awareness inside the instructing and learning, inspiring learners to apply information in any substance to a written work undertaking, connecting with learners in various projects, expanding learner's engagement with the language, permitting the usage of new innovations to convey and team up in an instructive setting, giving a stage for a dynamic and significant learning to happen, creating autonomous work tendencies, enhancing students' vocabulary learning, permitting the learner coordinated effort, and projects publishing such as writing. However, they were worried that learners may not consider the work significance or that aptitudes created from looking over the PC screen could prompt to a quick but shallow, erroneous comprehension of the material.

For Traxler (2011), a disadvantage of using ICTs in schools are the disruptions that it causes when the devices are used inappropriately in the classroom. Aagaard (2015) realizes that during class time, students were found using mobile technologies not related to class content, to send or receive text messages, check emails, websites, and social media, or have their phones ringing or vibrating mode.

Pegrum, Oakley and Faulkner (2013) mentions that amount the advantages of handheld technologies are that students and teachers can look for the information that best suits their interest, produce and share instant information and reinforce elements of learning. They also noticed that using ICTs in the classrooms makes collaboration

inevitable. It also promotes important skills such as sharing and teamwork while interacting around in pairs and small groups. The authors also mentioned the easy access to communicate with parents, teachers, students and administrators. On the other hand, small screen size software and network issues were the biggest disadvantages for handheld ICTs use.

Greenhow (2011) said that social media tools allow students to interact and collaborate with each other and instructors can promote personal choice, customization and student familiarity on different subjects. In addition, Hoffman (2013) mentions that the advantages of social media tools are well suited for providing a learner-centered methodology and to support formal and informal learning. Similarly, the public and no-cost nature of these tools allows instructors to incorporate them in education without restraints.

Schimid (2008) found that IWB (interactive whiteboard) has benefits and challenges when teachers and students use it in EFL classes. The benefits are the effects on their attention, concentration and motivation levels, its role in assisting their understanding and remembering new lexical items, and its potential to appeal to various learning styles. Meanwhile, the author mentions challenges such as cognitive overload and lack of cognitive engagement with multimedia resources. For instance, Schmid believes that multimedia users in connection with IWB technology would lead to “overwhelming” or “spoonfeeding” to students.

Hsu (2015) found that videos are great resources for EFL learners. The author mentions that the advantage about videos is that they can be multisensory. Teachers and students can take advantage of videos which contain images, sounds, and captions which can help them to improve listening and reading skills. In addition, Godwin (2013)

mentions that the real beauty about videos in YouTube and language learning are the nonverbal communication, students creating and posting their own videos, language cultural interchanges, combine linguistic and cultural knowledge, supplementation of very nice illustrations, and the social interaction in the comment section. Similarly, Richards (2013) refers to video transcripts, view and reviewing portion of a video, playing a video as many times as needed, pausing a video when needed, exposure to personalize and meaningful input, easy accessibility, and collaborative as well as autonomous learning to be helpful assets in language learning.

Teachers and ICT use

Our society has been surrounded by Information and Communication Technologies reaching all aspects of human life including education. The rapid change, upgrading, and the appearance of new ICTs put education system under pressure to the constant progression of curriculums, class plans and laws in schools. Teachers, administrators, and ministers have fallen under a stressful situation due to the fact they have to be under constant adaptation of new roles and competences. For Hill (2014), the problem relies on the public discussion about education models regarding to technology have become a dichotomous argument of face-to-face vs. online models, falling in a false conception of choosing one or the other, ignoring the existing spectrum between traditional and online education. Meanwhile, Ali (2015) expresses the lack of infrastructure for ICTs is the problem for teachers to undertake their new roles and competencies by saying that “schools were found to be poor in terms of providing teachers with the necessary technological equipment for use in foreign language instruction” (p. 236). In addition, Cubukcuoglu (2013) argues that even when teachers

have a right infrastructure and a curriculum model to follow, the lack of training would set back teachers from achieving their goals.

Meanwhile, Patrick (2015) thinks that “it’s no longer viable to rely on one-size-fits-all curriculum or move students on in age-based cohorts regardless if they need more time or have the prerequisite skills for the next grade” (p. 5). For this reason, she encourages teachers to implement new competencies based in personalized learning which have ICTs as their best allies. For personalize learning, teachers main competencies rely on a respectful relationship with students around their own goals, up-to-date record that provides a deep understanding of each student strengths, needs, motivations, progress, and goals. Besides, in order to help each student equally, teachers may keep data on student’s skills, interest surveys, career and college exploration options, projected learning trajectories, and reflections to develop meta-cognition so students can understand themselves as learners.

After moving from traditional, teacher-centered, face-to-face curriculum, teachers can find new teaching models. Hsieh, Wu and Marek (2017) thinks that flipped model is a great way to start using ICTs where students take a course via video or any other media at home and take the homework to the class, and the new teacher’s roles are a monitor, a guide and an assistant. This is a great option when technology is not available in schools. Hung and Chou (2015) mentioned that students assume that the teacher’s roles in a blending model are those of an effective organizer who sets clear goals, objectives, syllabus, with firmly articulated expressions and make available all course material. Besides students are provided with a wide variety of technological tools and assistance to learning.

Teachers are not having enough training for incorporating ICT in the classroom. Aesaert, Van, Vanderlinde, Tondeur, and Devlieger (2015) thinks that teachers are not ready for the use of ICT in the classroom and fundamental adaptations have to be made. Teachers nor their pupils possess the skills for the right use of ICT, and initiatives have to be developed in order for teachers and students to develop the skills for using ICTs in the class. Clark, Aldon, Cusi, Goos and Haspekian (2014) think that teachers face resistance to incorporate in their classes a student-centered approach because it demanded more flexibility in the approach, and teachers tend to use a more structure and rigid class plan.

Martinez, McGrath, and Foster (2016) argues that teachers have to change their traditional conceptions and move their role to serve as networkers, to help students in their studies, to be able to get involved in students' problems, to become a coach, a counselor, a mentor who offers advice, encouragement, support and guidance. As networkers, teachers encourage students to connect with each other, with other teachers, with local professionals and sometimes even with national experts or anyone who can help students to clarify and understand specific knowledge. Teachers must have the ability to become flexible and be adaptable in a way than moving from one approach, strategy, technique to another it is not an issue. In addition, teachers have to become aware that student-centered education is the future of teaching. Martinez et al., also mentions that the introduction of technology will help teachers greatly to enhance self-learning, and teachers will move away from being the gatekeeper of knowledge to enforce students in their own education.

New methodologies claim that the teachers' intervention on students' learning has to be limited due to the fact that a good Internet connectivity would serve as a

communicative supplier to students. The argument that students can learn by themselves in a schools cloud or a self-organized learning environment method is proposed by Mitra (2015) who said that the new teachers' roles would be; to post interesting questions to students, to listen to students' answers, but the most important teachers' role would be to say to students "well done". Similarly, Hutton (2014) mentions that students have to be allowed to design, control and manage their own education.

Gofron (2014) explains that Internet is a more effective way to accumulate and transmit knowledge, besides it is more economical and more effective than schools and universities and that if teachers keep performing their traditional role of transmitting knowledge, "they will die of hunger". Students do not have to remember facts because they can find all sort of information in Internet and teachers need to guide students in the vast ocean of information teaching them to discriminated the worth and worthless data; however, teachers have to be limited to judge students conclusions and let students defend their reasoning for transmitting their values.

Furthermore, Bowen, Chingos, Lack and Nymgren (2014) sees future teachers as instructors working in an interactive learning online, creating hybrid courses in a machine guided instructor. On the other hand, the advantages in time consuming and money spending are very significant. The difference on time studying per week average about 25% less. If a student meets an on-site class for 3 hours per week, 1 hour per week would be enough in a hybrid-format instruction. The other advantage mentioned it is the saving which come by paying to teachers. The savings would range from 36 to 57 percent in a section model, and 19% in a lecture model. However, hybrid models have to get more sophisticated employing machine guided instruction, cognitive tutors, embedded feedback loops, and some forms of automated grading.

The pivot point for teacher's competencies and roles in the era of technology is becoming active-lifelong learners and being able to incorporate their knowledge in the classroom. For Amin (2016), the teacher keeping a digital command can increase their critical thinking, creativity and scientific persona who is able to transform students in life-long learners and innovators. He continues by saying that the teacher's role is to cover the learner with advance knowledge and skills. Besides, teacher's digital knowledge can help to prepare classes which are detailed on the academic aspect, brings personal and psychosocial support and serves as a guide, professional counselling, mentoring and academic service to students.

Bates (2016) thinks that there is a significant pressure for teachers to develop the kind of knowledge and skills that educators would need in a digital age as the ability to find, evaluate and appropriately apply knowledge; ICT knowledge and skills; communication skills, including the proper use of social media; independent and lifelong learning skills; intellectual skills like knowledge construction, reasoning, critical analysis, problem-solving and creativity; collaborative learning and teamwork; multi-tasking and flexibility. Dhaliwal (2015) expresses that teachers have to become active learners not only stay in the technological up-to-date advantages, but to become initiators of learning or improving specific skills and tools, so they can become role models for students and the community.

ICT tools change constantly and teachers have to make sure that they are constantly up to date with their knowledge in ICT. Leask and Pachler (2013) said "ICT tools should not be used for their own sake" (p. 50). ICT tools integration have to be based in enhancing the process of learning in a way that traditional tools do not. Besides ICT tools are changing constantly and it will not be worthy for teachers to spent too

much time in getting trained in a specific tool because sooner than later it would be outdated or changed in something totally new.

Gillespie (2014) remarks that it does not matter what ICT can do for teachers, but what teachers can do with ICTs. He manifests that teaching and learning must be a constant action in teachers since using ICT can bring benefits such as teaching with real life experiences; ICT can help teachers and learners to communicate regardless of location or time; ICT can help teachers to implement different styles of learning; and it can help teachers to fully engage students in the process of learning regardless of situation, disabilities or any other restriction. Teaching with ICT is a challenging situation, and sometimes it is difficult for teachers to achieve pedagogical and technical competencies.

Promoting ICT use in the classrooms has been difficult. Moving from a set of teaching traditions to a new way of teaching comprises breaking the comfort zone and getting into overwhelming information that is not completely comprehensive yet. Hoxha and Tafani (2016) mentions that focusing from teaching to learning, it is not easy and change do not happens in a moment. Besides, the change requires different ways of discerning classroom dynamics and teachers-students roles. Furthermore, planning should be taken in association with learners, mentors, lecturers and stakeholders.

On the other hand, the different actors in education blame the lack of ICT infrastructure as the main barrier for teachers to assume their new roles and competencies in an education where technology is becoming a main tool in the school's curriculums. Buabeng-Andoh (2012) mentioned that some of the barriers in order for teachers to become active users of ICT tools in education are the absence of ICT, ICT's are old or poorly maintained hardware, the lack of suitable software, limited access to

ICT, limited project-related experience and the lack of ICT mainstreaming into school's strategy. This argument can be backed by Shah and Empungan (2015) who refer to the inaccessibility or unavailability of Internet access as a real problem for teachers that want to start using ICT tools, but insufficient, outdated, or incompatible ICT software and hardware were problems to be faced by teachers as well.

Some teachers want to implement ICT's in a traditional set up model curriculum facing different kind of issues. Prasad, Lalitha and Srikar (2015) showed that the lack of fund, poor ICT integration, and poor Internet connectivity were critical barriers for adopting ICT in schools; however, some other teacher's characteristics as proficiency in computers, the experience on computers, the time spend on computers, and internet connection were factors that influence in the use of ICTs as well. In addition, Yunus, Nordin, Salehi, Sun and Embi (2013), indicates that the main barriers that teachers have to face are insufficient technical support, little access to Internet, and short class time.

Overcoming the problems that schools face with ICT in schools, teaching and learning EFL make a positive turn in school. Dogan and Akbarov (2016) found that half of teachers who own a portable device do not incorporated ICT in their classes and they think that "the two main obstacles to using mobile devices in teaching are lack of training and students' attitudes" (p. 15). In the contrary, "school administration and pedagogical justifications can be considered as two very small obstacles" (p. 15). At the same time, most teachers thought to have the responsibility for student's correct use of ICT in class.

On the other hand, gender in the educational stuff has been studied to see if there is any implication in the use of ICT and the classroom that depends upon the sex identification of teachers. Ekrem and Recep (2014) claims that males EFL teachers have

a higher technological knowledge than females EFL teachers, but females score higher than males in a pedagogical knowledge.

Beck, Czerniak and Lumpe (2000) found a significant relationship between teachers' gender and their constructivist beliefs in favor of female teachers. It is suggested that females may have a stronger sense of technological efficacy than males due to the fact that the teaching profession predominantly is a female profession.

On the other hand, King, Bond and Blandford (2002) think that the gap in computer literacy between male and female teachers is very small and varies very frequently from study to study. They argued that technology has become an important instrument in everyday teacher's life; therefore, emphasizing the differences in gender has no real meaning nor impact in the context of educational ICT use.

Teachers' Characteristics Regarding ICT Use

The use or neglect of ICT in the classrooms by teachers can be seen in a deeper level by checking more personal-internal aspects in teachers.

Teachers have to be prepared psychologically for using ICTs in their EFL classrooms. Depending on the manner of how teachers started looking on ICT, teachers can become extreme, moderated or zero resistant toward the use of ICT. For example, Kusano, Frederiksen, Jones, Kobayashi, and Mukoyama (2013) were able to identify that the teacher's attitudes to ICT depended on the availability of technology in classroom. If the teacher's classrooms were equipped with technology, teacher may end up using it in a greater degree.

Similarly, Kamilah and Anugerahwati (2017) were able to identify four psychological issues that teachers face such as: teacher's beliefs towards the use of ICT, lack of teachers' competence, lack of teacher's pedagogic competence, and cultural

dilemma regarding the shift of teacher's role in the class. Regarding teacher's beliefs toward the use of ICT, Kamilah et al. also mentioned that most teachers had a medium resistance of using ICT. The study concluded that from the extreme resistant point of view, teachers share the lack of ICT competence, unwillingness to learn and the unwillingness of using ICTs. On the other side, moderate resistant teachers were concerned that ICT misleads students, unsupportive schools facilities, lack of pedagogical knowledge related how to integrate ICT in class, and lack of ICT competence. Finally, the zero resistant teachers mentioned to have the support of school facilities, high interest and maximum use of ICT, and confidence in running ICT integrated to learning material.

Copriady (2014) showed that motivation is a significant variable in the process of teaching and learning, and governments and ministries must provide sufficient infrastructure, equipment, facilities, and training to keep up with teacher's good attitudes. Moreover, Prasad Lalitha and Srikar (2015) identified teacher's demoralization because of inadequate maintenance of software and hardware, power interruptions, lack of funding, lack of ICT integration, poor ICT infrastructure, low Internet connectivity, lack of teachers skills, lack of confidence, and low awareness of ICT benefits. Meanwhile, Vitanova, Atanasova, Iliev and Pachemska (2015) tried the different issues by saying that "motivational attitudes of teachers in general are positive and indicate a need for small improvement "(p. 1094).

The use of ICTs in school may cause anxiety on teachers and cause the neglecting of ICTs. Saxena (2014) identified that teachers do not want to use computers because they erroneously may damage or delete data; furthermore, the possible problems facing anxious teachers are palm sweating, heartbeat increase, restlessness,

and fear of an electric shock. Chen, Wu and Marek, (2012) thinks that some teachers created a computer phobia; in contrast, teachers who constantly use computer, male teachers and younger teachers, showed lower computer phobia. Ahmad, Kamba, and Usman (2014) agrees that technophobia has been a problem for teachers who have tried to postpone technology in their classes because they may not be able to understand or fix the technical problems. Mac Callum and Jeffrey (2014) believe that anxiety keep teachers from adopting technology. Additionally, Chiu and Churchill (2016) consider that mobile devices are easy to use and teachers keep a good attitude at it, but they are not able to reduce their anxiety after the use of the devices.

Many teachers get enclosed in the perception of digital natives and digital immigrants culture. In this way, teachers may alienate themselves as foreigner in ICTs, and they have a hard time overcoming the barrier for adopting technologies in the classroom. Harendita (2013) mentions that most teachers are at some extent, digital immigrants, and they face multiple challenges in order to couple with digital culture. Besides, teachers face pedagogical issues most of the time and the incoming of ICTs may be seeing as increasing the conflicts in the classroom. Furthermore, the presence of computers may demand a change from teacher-centered to student-centered approach, having teachers perceive the change from being the center of knowledge to co-constructors of knowledge. All this adjustments may be seen by teachers as complex and difficult.

The teachers' educational degree background was correlated with the use of ICT literacy. Samak and Tawfik (2017) confirm the positive attitudes that teachers developed towards ICTs when teachers obtain a higher education such as a Master degree. Supporting the idea of the correlation between ICT use in classrooms and higher

educational degree, Jamalvandi, Sadeghi and Soleimani (2017) found a significant inclination of using ICTs in EFL classes by educational credential increase. He said that “those with higher degrees are more willing to approach ICT in language teaching” (p. 209). In accordance, Dinh (2015) concluded that the teacher’s higher qualifications are advantageous in the use of ICTs in the EFL classes. However, Sadeghi, Rahmany and Doosti (2014) did not find a significant difference between teachers who hold a BA and a MA; on the contrary, between MA and PhD the difference in using ICT in the classrooms was substantial.

On the other hand, teachers lack of training, leads to teachers to take their own initiatives in implementing ICT in their professional live. Perrotta (2015) argues that technology in innovative projects are still based on personal initiatives and that “technology champions”, not necessarily ICT instructors, act as supporters for their peers in ICT related issues. Albion, Tondeur, Forkosh, and Peeraer (2015) state that teachers started creating communities in order to share new tools and methodologies, then creating islands of innovation which transforms education from inside.

Age is another characteristic that has to be taken into account in order for having a better understanding of the use of ICT in schools. In this regard, Fraillon, Ainley, Schulz, Friedman, and Gebhardt (2014) related teachers over 40 years of age as assuming more negatives attitudes towards the use of ICTs in the classrooms. Scherer and Siddiq (2015) confirms the negative attitude that older teachers have with ICTs, and add that older teachers perceive ICTs as being less useful, potential for problems, and obstacles for teaching in regards to the younger teachers. O'bannon and Thomas (2014) confirm that teachers over 50 years of age identify barriers as being more difficult than what younger teachers think about the same barriers.

Previous studies have been made in Ecuador in order to understand teachers technological capabilities, problems teachers have to face in order to use ICTs, and the teachers demographic regarding the use of ICTs in schools.

Solano et al. (2017) explored the use of educational technology for teaching English as a foreign language. They used 150 students and 15 teachers in a qualitative and a quantitative approach in order to explain teachers and students perception related to the use of technology in the schools of the south region of Ecuador. They found that most students and teachers do not use technology to approach a target language. Some of the issues are the lack of technological material, and the lack of teachers training. Most teachers mentioned that they use technology every two or three months. Only one-third of teachers mentioned to use technology once every week. The most use ICT was YouTube, followed by PowerPoint or Prezi presentations, while podcast or Padlet were the less popular. This study showed that teachers have lack of knowledge of technological tools, and teacher do not see the benefits of the contribution of technology in an EFL class.

León (2012) researched the impact that ICTs have in teaching and learning process, what technological gadgets are teachers and students using, and how technology innovates the different aspects of a school environment. The information was collected in a qualitative technique with interviews, class observations and document analysis in the towns of Huaquillas and Arenillas in the province of El Oro. This research indicates that teachers are aware of the benefits that technology could give to schools, and they are receptive to the change of integrating technology in the classrooms. However, they also mentioned that to be aware it is not enough; it requires leadership from the management and real initiative from the faculty. On the other hand,

many teachers accuse the period per hour class to be a problem for integrating activities based on technology in the classroom. Furthermore, integrating technology has to have a real sense of belonging and has to be assumed by a significant number of teachers; otherwise, the pedagogical practices would be insignificant and irrelevant. The author said that introducing ICTs in schools is a long-term process and changes in a curriculum program, changes in teaching styles, and being part of a professional networks are just few of the conditions that should happen in order to insert ICTs successfully in schools.

Guerrero and Galán (2016) use a stratified non-probability sampling technique with 420 teachers in public and private schools in the city of Loja. This study was aim to measure the competency in ICTs of elementary teachers. The study found that “teachers reach a high level in competences related to ICT management in basic assets, highlighting the use of Internet in teaching practice, especially for class preparation” (p, 61). The study also found that teachers younger than 30 years of age which graduated from a pedagogical institute are more receptive for applying technology in their classes than older teachers. Further, the research revealed that private schools incorporated ICTs in a much frequent manner than public schools. On the other hand, the educational degree did not hold any major implication in the use of ICT. However, teachers had negative scores when they were related to participation in teach communities, web 2.0 tools, ICT for school management, professional development, and ethical legal and social knowledge.

Marín et al. (2014) use a qualitative and quantitative methods with 1643 students and teachers from the southern part of Ecuador, specifically from Loja and Zamora. The study addressed the digital and media competency that students and teachers possess. The first finding was that students and teachers have almost the same level of media

competency. Also, he found that age plays a very important role in the development of new competencies in the digital era. For example, it was found that some students learned new tools by themselves that teachers do not recognize. Besides younger teachers get better results in applying ICTs than elder teachers. The study concludes by arguing that it is not enough to know technological tools, but these tools need to be incorporated efficiently in a pedagogical manner.

Gonzalez, Ochoa, Cabrera, Castillo and Quiñonez (2015) used a mixed methods of qualitative and quantitative in the cities of Zamora and Yanzatza. Ten English teachers and 365 students were the population for the study. This study tented to understand the current implementation of classroom and extracurricular activities, as well as the use of educational resources for teaching English language skills in public senior high schools. The study showed that most of the teachers keep a traditional curriculum implementation in high schools by using the EFL textbook and the CD that comes along with the book. In many classes, the CD was left out and speaking as well as listening skills were based entirely in the textbook. For practicing speaking skills, teachers keep the traditional class development of dialogues and repetition drills. For implementing the practice of listening skills, teachers reading passages in a slow pace is the suggested method in a traditional EFL class. However, teachers tried to implement ICTs in homework assignments. Between the most frequent teacher advices for practicing listening and speaking skills out of the class were watching videos, listening music with its lyrics, speaking with natives, watching news, and use karaoke and Skype. Meanwhile, translating the message into Spanish, using dictionaries, speaking slowly, converting the massages with gestures and repetition are the most common approaches in EFL classes. The problem can be seen as lack of infrastructure; however, a lack of

knowledge in using ICTs in EFL classes by teachers were detected as well. In the study, some schools count with English laboratories with different resources as: electronic dictionaries, websites, e-mail, chats, word processors, video-cameras, TV, radios, web-based ´projects, online self-test, and academic portfolios, but teachers did not take advantage of these resources for preparing classes to enhance listening and speaking skills.

Rivera, Zuluaga, Ramírez, Romero and Aguaded (2017) tried to measure through a qualitative analysis to a 654 teachers in the cities of Loja, Zamora and Medellin, the abilities, competencies and media literacy tools, as well as their weaknesses, and disabilities that teachers could have in their habits of media consumption. The study showed that teachers lack of basic knowledge about ICTs. The study identifies weaknesses which proof that teachers are not ready to incorporate ICTs in the class. Most of the teachers did not acknowledge basic language codes that help using ICTs. As for the basic tools, like being able to use the browser, teachers scored high; however, they did not use those tools for teaching. The regulation codes in Internet, like privacy regulations, were ignored by most of the teachers. Most teachers in the study mention to be inefficient when searching, organizing, contrasting, prioritizing, and synthesizing information that comes from Internet, besides teachers did not have the ability to select, revise, and self-evaluated their own media. Furthermore, teacher’s values get enclosed in an aspect where teachers rarely use their media to promote positive relationships, social transformations, or personal autonomy. Lastly, Rivera et al. mentioned that teachers are not interested or they do not recognize the aesthetics on the multiple media, especially films.

Salinas, Nussbaum, Herrera, Solarte and Aldunate (2016) used 332 teachers' surveys from Ecuador, Chile and Colombia to investigate different factors influencing the adoption of ICTs in classrooms, and the way culture interferes in the adoption of technology in their classrooms. The first aspect had to deal with the use of different tools to support teaching. Ecuadorian teachers score high in the use of different tools, but the contrary result was found when teachers have to transfer their ICTs knowledge to the curriculum. The second factor to be investigated was the perception that teachers have on ICTs and the acquaintance of student's knowledge. For most Ecuadorian teachers, the use of ICTs in the classroom, have a direct implication with students' knowledge development. In addition, the research found that no direct implication from administrator or ministry of education had implication in teachers implementing ICT tools in their curriculum. Teachers feel that acknowledgement from the administrator may encourage them to imply technological tools in a class; however, they are not waiting for the administrator to encourage or support them. Something similar occurred with the ministry of education. Teachers who feel less pressure in adopting technology score high in adopting technology, this may be due to the fact that teachers have the liberty to use their own methods, to be more intrinsic motivated and to have a higher degree of autonomy. Finally, the authors mentioned that culture, or to receive help from their peers, do not influence the way teachers use technological tools in their classes.

In conclusion, the knowledge that teachers have on ICTs is not been incorporated in the school education. According to the previous authors, teachers are having trouble transferring their technological knowledge into the schools class plans. Training programs should be offered to teachers in order to cope with the difficulties that teachers have in order to adapt their ICT knowledge into the curriculum.

CHAPTER II.

METHOD

Setting and Participants

The population for the investigation consisted of a sample of 20 EFL teacher (10 female and 10 male). 10 English teachers (5 female and 5 males) from public high schools were chosen from the Amazon Region of Zamora Chinchipe, particularly in the towns of Yantzaza, El Panguí, Los Encuentros and Guayzimi. New millennial high schools were a priority. This was due to the fact that these schools are equipped with an English lab. The other 10 teachers (5 female and 5 male) were from Private High schools from the city of Loja. For the interview, 6 teachers (3 female and 3 male) were chosen from the 20 teachers. Participants range between 28 and 55 years old.

Teacher's educational background varied from teacher to teacher. From the 20 teachers, 2 teachers had a high school diploma, 3 teachers had a master degree and 16 teachers graduated from a bachelor's degree program. Their experience teaching English as a second language range between 5 to 27 years, and their age was between 28 to 55 years.

Procedures

For approaching this research, it was necessary to collect information related to the theme from different studies. Scholars have inquire ICTs in education and put their several studies to help further investigations. Furthermore, books, scientific journals, and lectures have been the sources for obtaining the diversity of evidence to support the questions in this investigation. All these information was collected and described using the American Psychological Association style (APA).

The purpose of the literature review was to highlight certain points in order to answer some aspects related to ICT use in EFL teaching, emphasizing its definition, advantages and disadvantages. Moreover, the literature review focuses on the

competences, and roles of teachers using ICTs. In addition, teachers' demographics as their education, genre, and age were important aspects to look for in the literature review in order to have a better understanding of how EFL teachers related to ICTs.

Qualitative and quantitative method were used. A qualitative method allowed me to explore and deepen the relation of EFL teachers and ICT use. Meanwhile, the quantitative method helped to measure EFL teachers' perceptions in relation to ICTs. The combination of these methods helped me to deeper understand the different ideologies that teachers have about ICTs.

The instruments used in the investigation were a survey and an interview. A rating scale survey with 5 parameter (strongly agree, agree, disagree, strongly disagree and no answer) was applied to EFL teachers. The survey implied to rate 18 questions in Table 1, which tried to have a better understanding about the perceptions of barriers that teachers have for applying ICTs in schools. The second set of questions in the survey (17 questions), tried to identified the positive aspects that support teachers to embrace ICTs in English classes. Additionally, a set of 8 questions were use in an interview to figure the different points of views that affect the perception of teachers about ICTs.

Continuing with the process, the recollection of data was implemented. The first step was to look for institutions that offer in the curriculum the subject of English as a second language. Then, I had to identify 10 male teachers and 10 female teachers who had to work in public and private schools equally. After obtaining the corresponding permissions from each school, I started handling the surveys and setting time with teachers for the interview.

Once the process of gathering data finished, the answers of teachers' questionnaires were counted and processed using Microsoft Excel for organizing and

analyzing the data collected for Table 1 and Table 2. For Table 3 and Table 4 the surveys were reorganized into female and male arrangements, similar situation occurred with the interviews. Finally, all the information was tabulated in Microsoft Excel tables.

All the information gathered was an approach to answer the three questions that stated the aspects that teachers considered as barriers, the aspects that teachers considered the most for adopting ICTs, and how females and males perceive the use of ICTs. The literature review and the instruments used for the investigation helped to find practical responses to the stated questions.

CHAPTER III.
RESULTS AND DISCUSSION

Description, Analysis, and Interpretation of Results

Reporting the findings of the data analysis, this chapter starts addressing the results around each of the research questions. The analysis of each question is taken from the highest percentages as well as the lowest percentages in each parameter for every table. Then the results are compared with the personal interview to teachers. Finally, the results are founded by using the information in the literature review.

Which aspects related to teachers' characteristics are considered by most of the EFL teachers as barriers to use ICT in their classroom?

Table 1: Teachers' characteristics considered by EFL teachers as barriers to use ICT in their classroom

N	STATEMENT	STRON GL AGREE	AGRE E	DISAG RE	STRONGL Y DISAGR EE	NO ANSW ER
		%	%	%	%	%
1	I feel insecure about my ability to use ICT as a resource to teach.	0%	10%	60%	30%	0%
2	I do not think I would be able to learn how to use ICT in my classroom.	0%	10%	35%	55%	0%
3	I am afraid that if I begin to use ICT, I will become dependent upon them.	5%	15%	30%	45%	5%
4	I dislike working with machines that are smarter than I am	0%	0%	40%	60%	0%
5	I feel apprehensive about using ICT.	5%	15%	50%	20%	10%
6	I have difficulty in understanding the technical aspects of ICT.	0%	10%	55%	35%	0%
7	It scares me to think that I could cause the computer to destroy a large amount of data by hitting the wrong key.	5%	0%	50%	40%	5%
8	I hesitate to use ICT for fear of making mistakes that I cannot correct.	0%	20%	45%	25%	10%
9	You have to be master to understand how to use ICT	5%	25%	35%	35%	0%
10	I have avoided ICT use because they are unfamiliar.	0%	20%	35%	45%	0%
11	I have not attended any ICT training courses	0%	45%	25%	30%	0%
12	I have attended some ICT training courses; however, I prefer not to use ICT because they somewhat intimidate me.	5%	10%	40%	40%	5%
13	I am not interested in attending any ICT course	0%	10%	35%	55%	0%
14	I do not how to use any ICT resource	0%	0%	50%	50%	0%
15	I do not use any ICT resource in class because I think that ICT are not necessary to teach English	0%	0%	40%	55%	5%

16	I prefer not to use ICT because my teaching experience is the most crucial factor in teaching process.	0%	5%	55%	35%	5%
17	I think that age is factor that determine the ICT use in class	10%	15%	30%	45%	0%
18	In my opinion, younger teachers are more skillful to use ICT than the older ones.	20%	25%	35%	15%	5%

Author: Galo Cueva

Source: Ecuadorian high school EFL teachers

As far as the research questions with the highest percentages that falls under the stronger degree parameter are concerned, it has been detected that statements 7, 17, and 18 were point out as follows: *5% of teachers mentioned that It scares them to think that they could cause the computer to destroy a large amount of data by hitting the wrong key, 10% of teachers said that they think that age is factor that determine the ICT use in class, and 20% of teachers stated that younger teachers are more skillful to use ICT than the older ones.*

In the interview, all teachers mentioned that to damage an ICT or to delete data, is the least possible problem that can occur when using an ICT. Also, teachers contradicts the survey response in statement 10. Teachers said that using ICTs is fairly easy. Besides in case that they do not know how to use an ICT, they always have the option of looking for information in internet specially YouTube. For statement 18, 5 out of 6 teachers think that younger teachers are more capable of using ICTs, specially the new ones. They think this happens because they are considered a digital natives. Besides, they think that they have the advantage to get enough time to develop ICTs skills.

Saxena (2014) agrees with the fact in the survey that teachers don't want to use computers because they erroneously may damage or delete data. On the other hand, Mahdi and Al-Dera (2013) agrees with interviewers that age has nothing to do with the use of ICTs. Lastly, Guerrero and Galán (2016) confirmed teachers selected option 18

by saying that teachers younger than 30 years of age which graduated from a pedagogical institute are more receptive for applying technology in their classes than older teachers.

In regards with the highest values in the degree parameter in table 1, statements 9, 10 and 11 get a notorious acceptance by EFL teachers as follows: *25% of teachers said that they have to be master to understand how to use ICTs, 20 % of teachers held that they have avoided ICT use because they are unfamiliar, and 45% of teachers reported that they have not attended any ICT training course.*

In the interview, 2 out of 6 teachers described ICTs to be difficult to use, especially for the lack of information or misinformation that surrounds ICTs. The two teachers mentioned that they are not sure if they have to pay or not the equipment that gets damage while teaching was in process. Furthermore, all teachers said that at least once they have planned for using ICTs in the class, but then they have turn away for they are not so clear the web pages, the videos or information that they can use in classes. Then, all teachers mention that the previous facts may be due to that they have not attended an ICT training course that deals with this kind of information.

Ahmad et al. (2014) mentions that technophobia has been a problem for teachers who have tried to postpone technology in their classes because they may not be able to understand or fix technical problems.

Observing the highest values in the disagree parameter for table 1, I found that statements 1, 6, and 16 were chosen the most with the following values: *60% of teachers disagree to feel insecure about their ability to use ICT as a resource to teach, 55% of teachers also disagree in fact that they have difficulty in understanding the*

technical aspects of ICT, and 55% of teachers disagree in that they prefer not to use ICT because their teaching experience is the most crucial factor in teaching process.

In the interview, all six teachers feel confident in using ICTs. All of them have used internet as resource for planning their classes. Further, they compare the accessibility to information in their school years, and how Internet has changed the way information gets spread. Teachers are confident in solving small technical problems. But, they also mentioned that they would like to be more efficient with the technical structures. For example, one teacher said that he would like to feel more confident when resetting computers, smart phones and tablets. Another teacher think that he would like to start creating web pages or apps for his classes. Most teachers said that their experience may help to insert technology in their classes, however one teacher mentioned that a totally new method would be needed if technology becomes the information provider for students.

Gofron (2014) explains that Internet is a more effective way to accumulate and transmit knowledge and students do not have to remember facts because they can find all sort of information in Internet then teachers need to guide students in the vast ocean of information teaching students to discriminated the worth and worthless data.

On the other hand, the highest percentages in the strongly disagree parameter in table 1 are statements 4, 13, and 15. *60% of teachers strongly disagreed in that they dislike working with machines that are smarter than they are, 55% of teachers also strongly disagree in not been interested in attending any ICT course, and the 55% of teachers also mentioned to be strongly disagree in not using any ICT resource in class because they think that ICT are not necessary to teach English.*

In the interview, teacher's responses fit with the survey. Teachers do not think that machines can replace them in school activities, especially for the instant feedback teachers give to students. Further, teachers think that they are interested in taking ICT courses that could help them to introduce ICTs in their class. But the most important aspect was that teachers perceive that ICTs are very important instruments for school activities. One teacher said that technology started changing the way education has been presented, and new teaching methods that have ICTs as their main structure are evolving. Another teacher argued that ICTs facilitates a more personalize teaching for students.

Patrick and Sturgis (2015) encourage teachers to implement new competencies based in personalized learning which have ICT's as their best allies. Meaning that for personalize learning teachers' main competencies rely on a respectful relationship with students around their own goals, up-to-date record that provides a deep understanding of each student strengths, needs, motivations, progress, and goals. Meanwhile, Jeong (2016) mentions that a positive aspect for using ICTs was that students were able to get an instant feedback from other students and their instructors.

Lastly, in table 1 some teachers opted to chose the parameter no answer as their response. 10% of teacher choose statement 5, *I feel apprehensive about using ICT* as their response. This answer could predicted since most of the teachers asked for the definition for apprehensive. Some of the surveys were left to teacher for collecting them back later in the day. I think some of these teachers decided to choose the option no answer since they did not know the definition for apprehensive. The second statement that teachers decide to pick as no answer was statement 8, *I hesitate to use ICT for fear of making mistakes that I cannot correct*. Same as before, some teachers did not know

the meaning for hesitate. The best hypothesis I can make about this occurrence is that teachers found some unknown words in the statement, therefore, they decided not to give any answer.

Which factor regarding to teachers’ characteristics does influence the most on teachers to use ICT in their classroom?

Table 2. Teachers’ characteristics that influence the most on teachers to use ICT in their classroom

N	STATEMENT	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	NO ANSWER
		%	%	%	%	%
1	The challenge of learning about ICT use is exciting	30%	70%	0%	0%	0%
2	I am confident that I can learn technological skills.	40%	60%	0%	0%	0%
3	I feel motivated to use ICT in my class.	35%	65%	0%	0%	0%
4	Learning to use ICT is like learning any new skill – the more you practice, the better you become.	40%	55%	5%	0%	0%
5	I am sure that with time and practice I will be as comfortable working with ICT	50%	45%	5%	0%	0%
6	I feel that I will be able to keep up with the advances happening in the ICT field.	20%	75%	5%	0%	0%
7	If given the opportunity, I would like to learn about and use ICT.	50%	45%	5%	0%	0%
8	I think that ICT are necessary tools in educational settings	60%	40%	0%	0%	0%
9	I like to use ICT because they help me to innovate my teaching methodology.	55%	45%	0%	0%	0%
10	ICT help me to motivate my students to learn English.	55%	45%	0%	0%	0%
11	If I had any technical problem with ICT during my class, I would continue doing the planned activities	25%	55%	10%	10%	0%
12	When I have any technical problem with ICT, I do not feel frustrated.	30%	40%	30%	0%	0%
13	Age is not an obstacle to learn about and use ICT in my classes.	35%	45%	20%	0%	0%
14	I know a lot about ICT use because I have attended some ICT training courses	10%	45%	40%	0%	5%
15	I have learned to use ICT resources by myself	15%	65%	20%	0%	0%
16	I think ICT has a positive impact on teaching process	50%	50%	0%	0%	0%
17	ICT use has more advantages than disadvantages in EFL teaching.	35%	60%	0%	5%	0%

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Author: Galo Cueva

Source: Ecuadorian high school EFL teachers

In concern to table two, the research has found that the highest percentages in the stronger agree parameter are statements 8, 9, and 10 with the following ratios: *60% of EFL teachers think that ICTs are necessary tools in educational settings, 55% of educators like to use ICT because they help them to innovate their teaching methodology, and 55% of teachers think that ICTs help them to motivate their students to learn English.*

In the interview, all teachers mentioned that ICTs are very important tools in schools. Furthermore, they think that they help them to investigate about new activities to complement their class plans. Nevertheless, they think that ICTs in schools are used frequently to motivated students. A teacher mentions that students like to study surrounded by ICTs, and that teachers job is to make the environment more didactic.

Vitanova and Atanasova-Pachemska (2015) tried the different issues by saying that “Motivational attitudes of teachers in general are positive and indicate a need for small improvement for using ICTs”. Lao and Sim (2008) found that teachers broadly agree that using ICTs makes them more effective in their teaching, more organized in their work and better able to meet the varying needs of students. In general, teachers broadly agreed that with the use of Internet and technology, their lesson plans are richer. Hung & Chou (2015) mentioned that students assume that the teacher’s roles in a blending model are those of an effective organizer who sets clear goals, objectives, and syllabus, with firmly articulated expressions and make available all course material. Besides students are expected to have a wide variety of technological tools and assistance to students learning.

As for the highest values in the agree parameter in table 2, the highest percentages are for statements 1, 3 and 6 with the following results: *70% of teachers think that The challenge of learning about ICT use is exciting, 65% of teachers mentioned that they feel motivated to use ICT in their class, and 75% of teachers feel that they will be able to keep up with the advances happening in the ICT field.*

In the interview, teachers think that learning to use ICTs is thrilling. However, 2 teachers also said that they may ended up learning only the ones that they really need, since there are too many options nowadays from where to choose and learning all of them is a waste of time, like video games. On the other hand, 4 teachers mention that they are really motivated to incorporate ICTs in the class. One of them related ICTs as fun instruments to work with. Further, teachers mentioned that to keep up with the advances of technology is fairly easy in their personal life, and they perceive that the real challenge is not how to be up to date with technological advances, but to be able to incorporated into the school's curriculum since many issues have to be overcome. All teachers mentioned that the main issue is the equipment availability in schools.

Carver (2016) identified the lack of equipment in schools to be the more frequent barrier to incorporated ICTs in the curriculum while teacher's engagement in teaching with ICTs was considered the most positive aspect. Salinas, Nussbaum, Herrera, Solarte and Aldunate (2016) also said that Ecuadorian teachers score high in the use of different tools, but the contrary result was found when teachers have to transfer their ICTs knowledge to the curriculum. Mao (2014) identified some ICTs that teachers perceive to be positive in teaching, but participants categorize as pointless because teachers stop participating in the process and take for granted that ICTs would do the entire process for teaching.

How is ICT use perceived by EFL teachers in relation to their gender?

Table 3. Teachers' characteristics considered by EFL teachers as barriers to use ICT in their classroom

N°	STATEMENT	STRONGLY AGREE		AGREE		DISAGREE		STRONGLY DISAGREE		NO ANSWER	
		M	F	M	F	M	F	M	F	M	F
		%	%	%	%	%	%	%	%	%	%
1	I feel insecure about my ability to use ICT as a resource to teach.	0%	0%	20%	0%	50%	70%	30%	30%	0%	0%
2	I do not think I would be able to learn how to use ICT in my classroom.	0%	0%	20%	0%	30%	40%	50%	60%	0%	0%
3	I am afraid that if I begin to use ICT, I will become dependent upon them.	10%	0%	20%	10%	30%	30%	30%	60%	10%	0%
4	I dislike working with machines that are smarter than I am	0%	0%	0%	0%	40%	40%	60%	60%	0%	0%
5	I feel apprehensive about using ICT.	10%	0%	30%	0%	30%	70%	20%	20%	10%	10%
6	I have difficulty in understanding the technical aspects of ICT.	0%	0%	10%	10%	50%	60%	40%	30%	0%	0%
7	It scares me to think that I could cause the computer to destroy a large amount of data by hitting the wrong key.	10%	0%	0%	0%	30%	70%	50%	30%	10%	0%
8	I hesitate to use ICT for fear of making mistakes that I cannot correct.	0%	0%	30%	10%	30%	60%	30%	20%	10%	10%
9	You have to be master to understand how to use ICT	0%	10%	50%	0%	30%	40%	20%	50%	0%	0%
10	I have avoided ICT use because they are unfamiliar.	0%	0%	10%	30%	40%	30%	50%	40%	0%	0%
11	I have not attended any ICT training courses	0%	0%	50%	40%	20%	30%	30%	30%	0%	0%
12	I have attended some ICT training courses; however, I prefer not to use ICT because they somewhat intimidate to me.	10%	0%	10%	10%	40%	40%	30%	50%	10%	0%
13	I am not interested in attending any ICT course	0%	0%	10%	10%	20%	50%	70%	40%	0%	0%
14	I do not how to use any ICT resource	0%	0%	0%	0%	40%	50%	50%	50%	10%	0%
15	I do not use any ICT resource in class because I	0%	0%	0%	0%	30%	50%	60%	50%	10%	0%

	think that ICT are not necessary to teach English										
16	I prefer not to use ICT because my teaching experience is the most crucial factor in teaching process.	0%	0%	10%	0%	50%	60%	30%	40%	10%	0%
17	I think that age is factor that determine the ICT use in class	10%	10%	30%	0%	10%	50%	50%	40%	0%	0%
18	In my opinion, younger teachers are more skillful to use ICT than the older ones.	20%	20%	40%	10%	10%	60%	20%	10%	10%	0%

Author: Galo Cueva

Source: Ecuadorian high school EFL teachers

Table 4. Teachers' characteristics that influence the most on teachers to use ICT in their classroom

N°	STATEMENT	STRONGLY AGREE		AGREE		DISAGREE		STRONGLY DISAGREE		NO ANSWER	
		M	F	M	F	M	F	M	F	M	F
		%	%	%	%	%	%	%	%	%	%
1	The challenge of learning about ICT use is exciting	30%	30%	70%	70%	0%	0%	0%	0%	0%	0%
2	I am confident that I can learn technological skills.	50%	30%	50%	70%	0%	0%	0%	0%	0%	0%
3	I feel motivated to use ICT in my class.	40%	30%	60%	70%	0%	0%	0%	0%	0%	0%
4	Learning to use ICT is like learning any new skill – the more you practice, the better you become.	40%	40%	50%	60%	10%	0%	0%	0%	0%	0%
5	I am sure that with time and practice I will be as comfortable working with ICT	50%	50%	50%	40%	0%	10%	0%	0%	0%	0%
6	I feel that I will be able to keep up with the advances happening in the ICT field.	10%	30%	80%	70%	10%	0%	0%	0%	0%	0%
7	If given the opportunity, I would like to learn about and use ICT.	50%	40%	50%	50%	0%	10%	0%	0%	0%	0%
8	I think that ICT are necessary tools in educational settings.	60%	60%	40%	40%	0%	0%	0%	0%	0%	0%

9	I like to use ICT because they help me to innovate my teaching methodology.	50%	60%	50%	40%	0%	0%	0%	0%	0%	0%
10	ICT help me to motivate my students to learn English.	50%	60%	50%	40%	0%	0%	0%	0%	0%	0%
11	If I had any technical problem with ICT during my class, I would continue doing the planned activities.	20%	30%	60%	50%	10%	10%	10%	10%	0%	0%
12	When I have any technical problem with ICT, I do not feel frustrated.	30%	30%	50%	30%	20%	40%	0%	0%	0%	0%
13	Age is not an obstacle to learn about and use ICT in my classes.	30%	40%	50%	40%	20%	20%	0%	0%	0%	0%
14	I know a lot about ICT use because I have attended some ICT training courses	10%	10%	50%	40%	40%	40%	0%	0%	0%	10%
15	I have learned to use ICT resources by myself	10%	20%	50%	80%	40%	0%	0%	0%	0%	0%
16	I think ICT has a positive impact on teaching process	60%	40%	40%	60%	0%	0%	0%	0%	0%	0%
17	ICT use has more advantages than disadvantages in EFL teaching.	50%	20%	40%	80%	0%	0%	10%	0%	0%	0%

Author: Galo Cueva

Source: Ecuadorian high school EFL teachers

For table 3, the highest percentages in the strongly agree and agree parameters for females EFL teachers are statements 9, 17 and 18. For statements 18, younger teachers are more skillful to use ICT than older ones, 20% of female and male teachers strongly agree. However, in the same statement in the agree parameter, 40% of males and 10% of females seem to share the same opinion in the survey. According to the above percentages, male teachers have a higher tendency to think that younger teacher are more skillful than older ones.

However in statement 9, you have to be a master to understand how to use ICTs, 10% of female teachers strongly agree with this announcement with respect to 0% of male teachers. But in the agree parameter, male teachers get a much higher percentage than female teachers with a 40% in the same statement. This statements also reflects that male teachers have more inclination to perceive that in order to use ICTs, they have to be a master.

On the other side, 10% of male teachers and female teachers, strongly agree with statement 17. Further, in the same statement in the agree parameter 30% of males and no responses from females was detected. This fact makes male teachers more prone to think that age determines the use of ICT in class.

Furthermore in statement 11 in the agree parameter, 50% of male and 40% of females EFL teachers responded that they have not attended any ICT training courses. Then, males are less likely to receive training courses than females EFL teachers.

In the interview, most of the answers agree with the different questions with females and males teachers. For example, male teachers as female teachers agree in that most training programs lack of reliability, and that they look for information in Internet in case they need to incorporate ICTs in the class. Or that age is not a factor that determine if a teacher would use an ICT, but the lack of equipment or the infrastructure are the most decisive reason for using ICTs. Besides, 2 male teachers and 1 female teachers mentioned in the interview that they have not attended and ICT course, but the regular computer class in the university.

In the disagree parameters, the highest percentages for females EFL teachers belongs to statements 1, 5 and 16. For statement 1, I feel insecure about my ability to use ICT as a resource to teach, female teachers score 70% and male teachers 50%.

Analyzing the results, females' teachers are less insecure about using ICTs as a resource for teaching than male teachers.

Also, males as females score high in statement 16 with 60% of females and 50% of males disagreeing in, *I prefer not to use ICT because my teaching experience is the most crucial factor in the teaching process*. With these results females outtake males thinking that with teaching experience, ICTs are less needed.

Furthermore, in statement 4, 60% of females and males strongly disagree, and 40% of females and males disagree in that teachers dislike working with machines that are smarter than they are. It does not seem to be any difference in opinions between females and males in this statement.

In statement 15, *I do not use any ICT resource in class because I think that ICTs are not necessary to teach English*, 50% of females and 60% of males strongly agree with the statement. More male teachers than female ones think that ICTs are important to teach English.

In the interview, the 3 female and the 3 male teachers mentioned that ICTs are very important tools for teaching English. The most used tools were Power Point presentations, and YouTube videos. They also considered training courses are helpful for learning details, fixing technical issues, and to learning about regulation codes. Besides, they also said that they feel very confident and relaxed when using ICTs. In relations with the teaching experience, all 3 female teachers agree that teaching experience is more related with class management than with the use of ICTs. Meanwhile, 2 male teachers responded that teaching experience is very important, because it helps to control students' misbehavior in the computer lab. Furthermore, all 6 teachers were conscious about being up to date with technology, because it changes constantly.

In table 4, the results are more equally distributed for men and women than table 3. Opinions in the different statements match more frequently between males and females teachers.

Looking at the parameters strongly agree and agree, female's highest percentages belong to statement 1, 3, and 6. In statement 1, *the challenge of learning about ICT is exciting*, 70% of females and males teachers agree with this statement. No difference was found in their opinions. In statement 3, *I feel motivated to use ICT in my class*, 70% of females and 60% of males checked in the agree parameter. With a 10% of difference, females keep a good attitude towards using ICTs than males.

However in statement 6, *I feel that I will be able to keep up with the advance happening in the ICT field*, 70% of females and 80% of males agree with the statement. Males seem to be more positive than females in keeping track of new ICTs. On the other hand, in the strongly agree parameter in statement 8, 60% for females and males think that ICTs are necessary tools in an educational setting.

Further, with 60% for females and 50% for males in statements 9 and 10, teachers strongly agree that they like to use ICTs because they help them to innovate the teaching methodology and to motivate students to learn English. According to these responses, females are more likely to use ICTs to innovate teaching methodologies and to use ICTs to motivate students to learn English than their males' counterpart.

In disagree and strongly disagree parameters in table 4, females and males teachers share the same opinions. The highest percentages for females are statements 12, 13, and 14. In statement 13 and 14, 20% females and males disagree that age is not an obstacle to learn about and use ICT in their classes; and 40% of females and male teachers said they disagree to know a lot about ICT use because they have attended

some ICT training courses. In these statements, no difference was found between females' and males' opinions.

In statement 12, 40% of females and 20% of males mentioned that when they have a technical problem, they do not feel frustrated. It seems that females get frustrated more frequently than males with technical problems. However in statement 14, 40% of males disagree that they learned to use ICTs by themselves and none of the females teachers disagree with this statement. It seems that females are more prone to learn ICTs by themselves.

In the interview, all female teachers mentioned that they learned to use ICTs by themselves; however, male teachers mentioned that it is a combination of the social network they keep, and their education. On the other hand, 2 female teachers said that they get frustrated when a technical problem arises, mostly because time passes by and they have to accomplish a class plan. The other 4 teachers said that they always find a way out to technical problems, as it happens in case a computer shuts down, student moves to work with the another student. Besides, females and males mentioned that they think that females use more frequently the computer to plan a class than males. Females said that they always see males navigating on Internet but for different purposes rather than planning a class or creating an activity. Males also mentioned the fact that females are more creative using the computer for designing different kind of activities. Finally, all females and males said that learning about ICT is exiting. However they mostly use it for personal purposes than for curriculum purposes.

Dogan and Akbarov (2016) found that half of teacher who own a portable device do not incorporated ICT in their classes and they think that “the two main obstacles to using mobile devices in teaching are lack of training and students' attitudes” (p. 15);

clarifying that “school administration and pedagogical justifications can be considered as two very small obstacles” (p. 15), at the same time most teachers’ thought to have the responsibility for student’s correct use of ICT in class.

CONCLUSIONS

Based on the results of the survey and interviews to EFL teachers, answers can be addressed to the questions that were proposed in order to investigate different aspects related to EFL teachers and the use of ICTs in high schools.

It has been detected that the bigger barrier that was considered by EFL teachers for adopting ICTs in their classes was the lack of training. The survey reported that half of teachers have not attended any ICT training course. Besides in the interview, most teachers said that they have learned to use ICTs by themselves and most of the time they search on Internet for help to solve ICTs issues.

Also, many teachers perceive that age is a factor that determines the ICT use in class. Some EFL teachers considered that younger teachers are more skillful than older ones. In the interview, teachers considered younger teachers to be digital natives and for this reason older teachers think that younger teacher are better with ICTs.

On the other hand, the teachers' characteristic that influence the most for using ICTs is the perception that teachers have in order to keep up with the advances happening in the ICT field. Most teachers considered themselves to be quite competitive with ICTs in their personal life.

The other characteristic is that teachers think that ICTs are necessary tools in educational settings. They considered that ICTs have a positive impact on students and teachers, and for this, teachers should start using ICTs more frequently.

In relation to EFL teacher's gender, the bigger difference arises with males thinking that in order to use ICTs, they have to be a master. Females are quite more secure about their knowledge in ICTs.

Besides, males also got a bigger percentage in the perception that age is a factor that determines the use of ICTs. Females contradicted males by saying that age is not the biggest problem for using ICTs.

RECOMMENDATIONS

Government ministries, school administrators and any other institution that are involved in the development of the country education, should consider offering training to teachers. Not only in how to use ICTs, but the different methodologies that includes ICTs.

Regarding age as an issue for adopting ICTs, I will recommend that teachers should change their attitude, and keep up their passion for teaching regardless if they need to change their methodologies for new ones.

The fact that teachers score high in been competitive with the ICT knowledge is a great advantage, however, they have to learn how to transfer that knowledge into the curriculum for a better benefit.

Considering that teachers think that ICT tools are very important in educational settings, they need to take the next step that is to innovate themselves with new methodologies that include ICTs in the process.

For male teacher that think that they need to be a master for using ICTs, they need to change their attitude and start looking for information that helps them to overcome the different issues like females teachers do.

Lastly, the advice to male teachers who score higher than females in that age is a factor that determines the usage of ICTs, is to change their mind set and start taking advantage of their experience and from the all information on Internet to overcome the different issues that age can present.

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ANNEXES

**TEACHERS' CHARACTERISTICS CONSIDERED BY EFL TEACHERS AS
BARRIERS TO USE ICT IN THEIR CLASSROOM**

N	STATEMENT	STRON GL AGREE	AGRE E	DISAG RE	STRONGL Y DISAGR EE	NO ANSW ER
		%	%	%	%	%
1	I feel insecure about my ability to use ICT as a resource to teach.					
2	I do not think I would be able to learn how to use ICT in my classroom.					
3	I am afraid that if I begin to use ICT, I will become dependent upon them.					
4	I dislike working with machines that are smarter than I am					
5	I feel apprehensive about using ICT.					
6	I have difficulty in understanding the technical aspects of ICT.					
7	It scares me to think that I could cause the computer to destroy a large amount of data by hitting the wrong key.					
8	I hesitate to use ICT for fear of making mistakes that I cannot correct.					
9	You have to be master to understand how to use ICT					
10	I have avoided ICT use because they are unfamiliar.					
11	I have not attended any ICT training courses					
12	I have attended some ICT training courses; however, I prefer not to use ICT because they somewhat intimidate me.					
13	I am not interested in attending any ICT course					
14	I do not know how to use any ICT resource					
15	I do not use any ICT resource in class because I think that ICT are not necessary to teach English					
16	I prefer not to use ICT because my teaching experience is the most crucial factor in teaching process.					
17	I think that age is factor that determine the ICT use in class					
18	In my opinion, younger teachers are more skillful to use ICT than the older ones.					

**TEACHERS' CHARACTERISTICS THAT INFLUENCE THE MOST ON
TEACHERS TO USE ICT IN THEIR CLASSROOM**

N	STATEMENT	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	NO ANSWER
		%	%	%	%	%
1	The challenge of learning about ICT use is exciting					
2	I am confident that I can learn technological skills.					
3	I feel motivated to use ICT in my class.					
4	Learning to use ICT is like learning any new skill – the more you practice, the better you become.					
5	I am sure that with time and practice I will be as comfortable working with ICT					
6	I feel that I will be able to keep up with the advances happening in the ICT field.					
7	If given the opportunity, I would like to learn about and use ICT.					
8	I think that ICT are necessary tools in educational settings					
9	I like to use ICT because they help me to innovate my teaching methodology.					
10	ICT help me to motivate my students to learn English.					
11	If I had any technical problem with ICT during my class, I would continue doing the planned activities					
12	When I have any technical problem with ICT, I do not feel frustrated.					
13	Age is not an obstacle to learn about and use ICT in my classes.					
14	I know a lot about ICT use because I have attended some ICT training courses					
15	I have learned to use ICT resources by myself					
16	I think ICT has a positive impact on teaching process					
17	ICT use has more advantages than disadvantages in EFL teaching.					



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MODALIDAD ABIERTA Y A DISTANCIA
TITULACIÓN DE INGLÉS

TEACHERS' INTERVIEW

Gender: M () F ()

Years of EFL teaching experience: _____

1. Do you think the use of ICT is important to teach English?

YES () NO ()

Why?

2. Do you use ICT in your English classes?

YES () NO ()

Why?

3. If your answer was affirmative in the previous question, how do you feel (afraid, nervous, relaxed, confident, etc.) when you use ICT? Why?

4. Do you consider that factors such as psychological, personal, etc., which are related to your characteristics as a teacher, are barriers to use ICT in your classes? (If it is necessary, use some of the statements in the teachers' survey to explain these factors)

YES () NO ()

Why?

5. Do you consider that factors such as psychological, personal, etc., which are related to your characteristics as a teacher, have a positive influence on you to use ICT in your classes? (If it is necessary, use some of the statements in the teachers' survey to explain these factors)

YES () NO ()

Why?

6. Is there any advantage to use ICT in EFL teaching?

YES () NO ()

Why?

7. Is there any disadvantage to use ICT in EFL teaching?

YES () NO ()

Why?

8. According to your opinion, who uses more frequently ICT in EFL classes, male or female teachers?

Male () Female ()

Why?
