

**UNIVERSITY OF EL SALVADOR
SCHOOL OF ARTS AND SCIENCES
FOREIGN LANGUAGE DEPARTMENT**



MAJOR IN ENGLISH TEACHING, EMPHASIS IN TEACHING

**GRADUATION PROJECT TOPIC:
“DIAGNOSTIC STUDY ON TEACHER’S KNOWLEDGE OF EDUCATIONAL
TECHNOLOGY AT THE DEPARTMENT OF FOREIGN LANGUAGES OF THE
UNIVERSITY OF EL SALVADOR, YEAR 2015”**

**FINAL RESEARCH PROJECT BY STUDENTS
UNDERGRADUATED TO OBTAIN THE DEGREE OF BACHELOR IN ENGLISH,
EMPHASIS IN TEACHING**

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LIMITATIONS

During the development of the following research, there were some limitations attended as described below:

- The availability between the advisor and the students was limited because of additional academic activities the advisor is part of the Foreign Language Department.
- When distributing the instrument, the difficulty was to find every teacher available in their office because of the different schedules they handle.
- When collecting the instrument, the limitation was the time some teachers took to complete it. The maximum time they took was three weeks when the time provided was ten days only.
- The lack of experience on the usage of the software generated some confusions and delays when tabulating the data collected.

INDEX OF CONTENTS

INTRODUCTION	10
I. DESCRIPTION OF THE PROBLEM	13
I.I DELIMITATION OF THE RESEARCH TOPIC IN TERMS OF SCOPE, TIME AND PLACE.....	15
I.II JUSTIFICATION	16
I.III OBJECTIVES	18
I.IV RESEARCH TOPICS (QUESTIONS)	19
II. THEORETICAL FRAMEWORK	21
II.II.II Educational Technology beginnings.....	22
II.III Common theories associated with Educational Technology	25
II.III.I Instructional theory	25
II.III.II Learning Theory.....	25
II.IV Main areas involved in Educational Technology	25
II.IV.I Hardware	25
II.IV.II Software	26
II.IV.III Internet.....	26
II.V Internet as a tool in education.	26
II.VI Basic Educational Technology knowledge that Professors need to know.	27
II.VII. Benefits of Educational Technology in High education.....	29
II.VII Limitations on Educational Technology	31
III. TYPE OF STUDY	34
III.I RESEARCH DESIGN.....	35
III.IV DATA ANALYSIS	37
UNIVARIATE ANALYSIS OF THE RESULTS.....	39
IV. REPORTING FINDINGS.....	120
IV.I.....	120
What is the current level of teacher knowledge to use educational technology in the classroom?	120
IV.II.....	121
What is the current level of teacher knowledge to use educational technology outside the classroom?	121
IV.III Most Outstanding Findings.....	123
V. CONCLUSIONS AND RECOMMENDATIONS	126

V.I RECOMMENDATIONS	127
VI.I Recommendation for teachers:	127
V.I.II Recommendations for the Head of the Foreign Language Department in charge: ..	127
V.I.III Recommendations for future researchers:.....	128
REFERENCES	130

INTRODUCTION

This project titled: “Diagnostic study on teacher’s knowledge of educational technology at the department of foreign languages of the University of El Salvador, year 2015” aims to determine the level of educational technology knowledge professors from the Foreign Language Department of the University of El Salvador have in both contexts: inside and outside the classroom. It has been chosen because nowadays technology runs in the veins of society, in other words, the world is surrounded by technology; influencing in all life aspects, where its major influences are felt more at schools, colleges and universities. Manly Oak (2015). In response to this statement the creation of Modern Information and Communication Technologies (ICTs) and Modern Information and Communication Technologies (ICTs) are helping to the implementation of technology in all educational levels, including universities. ICTs have been shown to be a great support for both teachers and students. The focus of this technologies is to increase teacher’s productivity and prepare professionals to live and work in an information society, where ICTs play an important role because “The implementation of technology in education should be seen only as a support tool, does not have to replace the teacher, but aims to help the student to have more elements (visual and auditory) to enrich the teaching-learning process”.¹

The type of study used is: diagnostic; for which it is needed to design a specific test (questionnaire) to measure and establish the teachers’ knowledge on Educational Technology and gather the data from it in order to disclose findings to verify if teachers are implementing technology into the curricula or not.

The results of the investigation will demonstrate if the use of technology in curricula and professional activities either requires substantial investments of time, money, equipment or just personal commitment and courage to try new things considering the influence of beliefs in human beings.

¹ Zhao, Y., Pugh, K., Sheldon, S., & Byers, J. (in press). Conditions for Classroom Technology Innovations. Teachers College Record.

In addition, the compilation of data professors provide will improve the free expression to expose the gaps the Foreign Language Department might have to foster educational technology inside and outside the classroom that probably have never been shared before.

The project concludes with series of proposals addressed to both students and professors that will guarantee them enrichment and improvement on ICTs that as is was well mentioned by Woods (1999) have become a vital element in human beings.

CHAPTER I

I. DESCRIPTION OF THE PROBLEM

The starting point of this research is based on how the use of technology in education opens a new area of knowledge offering different tools that have the potential to change some of the existing educational methods (Angeli & Valanides, 2009). The problem in study has the potential to be overcome if attended with priority. To understand the problem from different perspectives it has been divided in three factors:

1. Population affected:

Knowing exactly the level of educational technology professors have it will be easier to detect what are the improvements that can be made, taking into account the population that is been affected. The Faculty of Sciences and Humanities have in total 8361 students² that belong to 30 different majors, this means that only the FLD have 2280 students divided in two majors demanding majors: Modern Languages (1150 students) and English Teaching (1130 students).

2. Historical background

Unfortunately, no research has been done on technology education in the Foreign Language Department. An investigation in the main library of the University of El Salvador was done in order to identify previous researches related to the topic but no recent or important data was collected. The main aspect related to technology advances in the FLD is the implementation of a laboratory language in 1994. This laboratory was a donation of the embassy of Japan designed to perform specific foreign languages practices (with emphasis in speaking and listening skills). The laboratory has suffered many changes regarding its usage because nowadays it is a computer center used not only for languages but also other careers from the Faculty of Sciences and Humanities.

3. Existing resources.

² Source: FACULTAD DE CIENCIAS Y HUMANIDADES "POBLACIÓN DE ESTUDIANTES PARA EL AÑO: 2012"
https://academica.ues.edu.sv/estadisticas/poblacion_estudiantil.php?npag=2&anio=2012&facultad=FACU-CCYHH

This research will also help professors to revise their technological performance inside and outside the classroom with the purpose of extending their existing knowledge making use of the resources the Foreign Language Department provides so far such as multimedia projectors, computers, jump drives, digital video cameras, speakers, unlimited access to internet and MOODLE Platforms and one laboratory. Unfortunately, this equipment is very limited and the little they have cannot be used for many teachers at a time, it has to be used one by one with a schedule provided by the department and sometimes they need to find equipment on their own or even, to buy it. Probably, having enough equipment for all teachers is something not taken into the Foreign Language Department's budget. As a result, there are not either opportunities to be trained constantly on equipment usage or in Information and Communication Technologies (ICT's). The creation of a diagnostic test will generate utility data that can be studied to increase quality education in the FLD. This will allow researchers to perform a varied test (67 items questionnaire) to identify how the factors mentioned before are taking part of the level of technology knowledge professors have inside and outside the classroom.

I.I DELIMITATION OF THE RESEARCH TOPIC IN TERMS OF SCOPE, TIME AND PLACE.

Geographic location

The investigation took place in the University of El Salvador (UES), main campus located in the Metropolitan area of the municipality of San Salvador because it is the only one university in El Salvador that belongs to the State. Currently, in 2014, the World Universities Ranking on the Web, ranks UES as the best university in the Republic of El Salvador, placing the Alma Mater in the 3453 position internationally³. This motivated researchers to study closer the need of detecting the professors technology knowledge level provided inside and outside the classroom.

Spatial location

The research was conducted in the Foreign Language Department (Modern Languages and English Teaching Majors) of the University of El Salvador located in Final 25 Avenida Norte, San Salvador.

Time Invested

The administration of the instrument (questionnaire) lasted three weeks starting in September 28th 2015 and finishing in October 16th 2015

Sample involved

The subjects that are taking into account are all the English teaching and Modern Languages teachers from the Foreign Language Department. The population in numbers is 38 teachers from 43 out of the total. Three professors are not full time scheduled and that was a limitation to reach them because of the availability, in addition the two remaining refused to complete the questionnaire due to lack of time and commitment.

³ Source: The World Universities Ranking on the Web is done by the Laboratory Cyber metrics Higher Council for Scientific Research (CSIC) of Spain .
https://www.ues.edu.sv/nuestra_universidad

I.II JUSTIFICATION

Today the need of realizing this study of determine the level of knowledge in professors of bilingual majors will allow to demonstrate if one of the most challenging factors for teachers in education around the world is to incorporate technology into their classrooms. Educators are looking for alternative ways of successfully teach the new generations for using these new technologies in their daily lives. This task, of course, requires teachers who have the knowledge and skills to integrate these technologies in their classes.

Justifying the investigation in its main aspects, there are three: The practical point of view, the methodological aspects and what the scope of the investigation is.

a) The practical point of view

It is related to the experience researchers had during their period as students ⁴ in which they took classes with a variety of teachers. The technology advances they saw was nothing else apart of the computer and projector, meanwhile the learning outside the classroom was very limited. The main reason is to investigate the aspects of educational technology teachers use inside and outside the classroom through the administration of a questionnaire to them.

b) Methodological aspects

“Many reports present strong assertions that technology can catalyze various other changes in the content, methods, and overall quality of the teaching and learning process”⁵. This study will generate motivation on professors to implement new methodologies such as glows, wikis, chat rooms, edu blogs, forums and social media in order to integrate this educational technology support tools to improve the learning process.

c) Scope of investigation

⁴ Related to the period of time researchers took classes at the Foreign Language Department of the University of El Salvador starting on January 2008 and finishing on December 2014.

⁵ "A Retrospective on Twenty Years of Education Technology Policy" Katie McMillan Culp, Margaret Honey, & Ellen Mandinach. October 2003, Page 5

The focus of measuring the level of educational technology knowledge teachers have at the Foreign Language Department during the second semester, academic year 2015 is to demonstrate the potential advances that can be made inside and outside classrooms integrating all types of technology into the classroom using appropriate resources as mentioned above that should encourage not only teachers but also the Head of the department⁶ to reinforce the techniques and methodology used in order to enhance the teaching and learning strategies.

⁶ The education system of The University of El Salvador has one Dean per faculty, followed by Heads of Department who are responsible to represent, coordinate and delegate tasks to teachers belonging to it.

I.III OBJECTIVES

I.III.I General Objective

To determine the level of knowledge on educational technology professors from the Foreign Language Department have.

I.III.II Specific objectives

1. To design a specific test to measure the teachers' knowledge on Educational Technology.
2. To gather information through a questionnaire administered to all professors from the Foreign Language Department about their knowledge on Educational Technology.
3. To disclose findings in order to suggest solutions.

I.IV RESEARCH TOPICS (QUESTIONS)

I.IV.I

What is the current level of educational technology knowledge professors from the Foreign Language Department have inside the classroom?

I.IV.II

What is the current level of educational technology knowledge professors from the Foreign Language Department have outside the classroom?

CHAPTER II

II. THEORETICAL FRAMEWORK

II.I Educational Technology as a concept.

Technology is in constant development and evolution depending on different needs people might have, for example in this study, the main focus will be: Education. *“Educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources”*⁷. It means, a concept that concerns a wide range of tools, such as media, machines (hardware), internet and networking in general, used to function as additional resources to reinforce the learning process, this is also based on some theoretical perspectives for their effective application including benefits and limitations that will be explained during this theoretical review.

II.II History about the evolution of Educational Technology

II.II.I Evolution of computers.

Computers were created to facilitate life, with the invention of computers; several things which were impossible or difficult to be performed for some reason they become possible and even easier. Since the invention of the computer a lot of information is processed in seconds and difficult tasks for humans are calculated easily in a short time.

The computer as we know it today, was brought to the world in the 19th century by an English mathematics professor: Charles Babbage. He designed the Analytical Engine (the basic framework of today’s computers). Generally speaking, computers can be classified into three generations and each persisted for a certain period of time, they gave either a new and improved computer or an improvement to the existing computer. For many years after 1960, when the third generation computers were created, desktops continued to be popular for personal and business uses.

Analog computing devices changed into digital information processors and from then on, there has been so many improvements, not only with its physical look but also,

⁷ Association for Educational Communications and Technology, the professional society for Educational Technology.

its functionalities. Due to the variety of tasks this equipment has improved, so far, it has been divided into four categories: communication which allows real time contact, education improving what and how nowadays people learn, utility facilities making simple tasks that time ago were difficult to achieve, facilities management; and health care which makes possible portable devices, access to medical information, and carry out a wide range of tasks.

II.II.II Educational Technology beginnings.

Education has experienced many changes as time passes, not only what has been taught and learned, but also the way professors teach (methodology); and consequently with the invention of technological devices, for example computers, CD's, smartphones, tablets, smart boards, etc; that have experienced a great development in classrooms. "Advances in technology have caused very important changes in many areas of social and individual life; technology has also influenced the way education at all levels was done. As an innovative tool, technology has played a central role in improving teaching and learning in light of educational reforms around the globe" (Kahveci, Sahin and Genc, 2011).

Educational technology started in 1923 when radios were introduced to classrooms; it included classroom instruction on radios and penmanship, later on 1930s the overhead projectors initially used for US military training purposes quickly entered to schools, as well as the first large scale usage, films and other mediated materials

A significant advance continued on 1939 where the first TV appeared in the classrooms of Los Angeles, U.S.A. Soon, on 1967 Texas Instruments® developed the handheld calculator, it was slow but it eliminated counting with fingers⁸.

Also the use of media for instructional purposes was established on the first decade of the 20th century with the creations of IBM first computer on 12th august 1984, and when The Apple Macintosh computer was developed⁹. In the 90's the CD-ROM disks became the storage tool, and CD-ROM disks also continued growing in popularity;

⁸ Cox, Clyde, "Computer Hardware Basics" (2010). Computer and Internetworking Technologies (CIT) Scholarship. Paper 2. Retrieved from: <http://dc.cod.edu/citpub/2>

⁹ Erik S. Klein (2014) "Vintage-Computer" Retrieved from: http://www.vintage-computer.com/ibm_pc.shtml

according to the National Center for Education Statistics (NCES), about 35% of American public schools had Internet access at that time, and faculties started to create instructional web pages.

Subsequently in 1999, smart boards were introduced in schools, for the new decade in the United States of America¹⁰ 80% of schools count with internet access, offering professional development training for teachers for integrating technology into classrooms. During 2002, 99% of schools had internet access, and in 2009 1 computer for every 5.3 students and also wireless devices for every 3.4 students.

Nowadays 80% of children under 5 use internet daily in the US¹¹ and 1.5 million of iPads are provided by schools, as 90% of students under the age of 18 have access to mobile technology.

Other important advances for educational technology, are the creation of Wikipedia, Twitter, Skype, Facebook, You Tube, Google Docs, etc; that allow virtual access to larger amount of information anywhere. Also distant education through online and online exams is getting popular and becomes the paradigm of the higher education. In addition, people can find virtually the answer to any question in seconds and can communicate this information in a variety of ways in real time.

Since the tools availability for learning have become more and more powerful and common, today, the idea that people can learn contents through hearing and image reception exists in many forms, learning and sharing information has amazing developments after started using computers in life. All this technology progress in the methods professors traditionally teach, enhance education both in approaches and skills in different subjects which means: diverse manners to different students.

II.II.III Internet as a tool in education.

The Internet in the 20th century has become not only the hugest information source in the world but also the fastest mean of communication. This tool can be used very

¹⁰ According to *Educational technology and mobile learning, a wonderful visual timeline of the history of classroom technology*, march 2014,

¹¹ According to *Educational technology and mobile learning, a wonderful visual timeline of the history of classroom technology*, march 2014,

effectively for education purposes compared to the traditional models of education. Research¹² shows that students learn by being actively engaged in relevant and authentic activities—and technology makes this increasingly possible. Learners are also becoming more adept at using social networks such as YouTube and Facebook to text message; post videos, blogs, and images; and collaborate and socialize regardless of time or place. Furthermore, students are using software applications to either create or interact with content. More and more, classrooms are becoming “open” through voice, video, and text-based collaboration, and teachers now have a wide range of multimodal resources at their disposal to enhance teaching.

Students at schools, universities or colleges can enhance their knowledge using the educational literature, encyclopedia, references, dictionaries, databases, which are freely accessed; they can also participate in distance educational courses, and collaborate in projects with students from other schools, universities, countries; and also discuss different educational topics others professor or students in different countries. Years ago it was impossible, but thanks to internet distance education is a reality, giving the opportunity of learning and self-education; it also allows break down the obstacles for education.

The opportunities that Internet offers in the sphere of education are really unique. Definitely internet is interactive, and supports virtual cooperation, offering the possibility of sharing data through boundaries, which allows the enhancement and enrichment on education systems.

Learning and sharing information has amazing developments after we started using computers in our life. Needless to say we can see every educational institution has interaction of student with computer.

¹² “*Education and the Internet of Everything, How Ubiquitous Connectedness Can Help Transform Pedagogy*”; Cisco Consulting Services and Cisco EMEAR Education Team October, 2013;

II.III Common theories associated with Educational Technology

II.III.I Instructional theory

It is necessary to study the two major theories that Educational Technology follows in order to understand better what this marvelous invention offers. First, the instructional theory it is based on the practice of utilization, design, management, evaluation, and development of processes and resources. This theory specifically handles the systems utilized in human learning. Besides that, it is not limited to computers, smartphones, iPad, blogs or internet applications, what really opens the need to have one second theory: Learning Theory.

II.III.II Learning Theory

Learning Theory is a concept based on Skinner's principles that holds on how the information is processed and recollected during the human learning. This contains all the cognitive, emotional, and space or environmental factors, this factors influence in how understanding changes constantly and skills and knowledge are recalled. The predominant figure American psychologist Skinner said that behavior is behavior, and all behavior follows the same laws or principles. He makes no distinction between verbal behavior and motor behavior. We learn to talk and communicate the same way we learn motor behavior like how to walk. There is nothing special about our verbal behavior. It's just another form of behavior.

II.IV Main areas involved in Educational Technology

II.IV.I Hardware

According to Merriam Webster dictionary hardware is defined as: equipment used for a particular purpose; *especially*: computer equipment. It also means:

- Military equipment
- The physical components (as electronic and electrical devices) of a vehicle (as a spacecraft) or an apparatus (as a computer)

Educational hardware involves any technology used in teaching and instruction at any level of study. Examples include touch panels, document cameras, SMART Boards, DVD players, microphones, projectors, jump drivers and audio equipment.

II.IV.II Software

The Merriam Webster dictionary defines Software as: the programs that run on a computer and perform certain functions, word-processing software, antivirus software, something used or associated with and usually contrasted with hardware: as the entire set of programs, procedures, and related documentation associated with a system and especially a computer system; specifically: computer programs or materials for use with audiovisual equipment.

In educational technology, software means educational programs as synonyms to designate generically computer programs created specifically to be used as a teaching tool that is designed to facilitate the teaching and learning process.

II.IV.III Internet

The Cambridge Dictionary give internet the meaning as the large system of connected computers around the world that allows people to share information and communicate with each other. Meanwhile in education as P. Merrill with co-authors notes (Merrill et al, 1996), A. Barron and G. Orwig (Barron & Orwig, 1995) and others, the Internet is a large source of reference materials and data required for all types of educational activities. In studying/learning directly, in management of educational systems and in scientific and methodical work.

II.V Internet as a tool in education.

The Internet started to be used in people's daily life since the 20th century, and it has become not only the hugest information resource in the world, also the fastest mean of communication.

People from different countries have got an opportunity to communicate with each other in quite a short time, they can send and receive data at the same time. In comparison with the mail and airmail, e-mail gets over distance and time, frontiers of the states with a quick speed.

Internet has lately become a widely used tool. Definitely this tool can be used very effectively for education purposes compared to the traditional models of education

which have their limitations as well. It is interactive, and supports virtual and team cooperation, also the last but not least internet offers the possibility of sharing data.

Those who study at schools, universities or colleges can enhance their knowledge using the educational literature, encyclopedia, references, dictionaries, databases, which are freely accessed, participating in distance educational courses, in collaborative projects with students from other schools, universities, countries, discussing different problems with them. So, the opportunities that Internet offers in the sphere of education, are really unique.

Considering this elements the topic in question is What Technologies Should Teachers Know? Is this basic knowledge enough to be considered in classrooms?

II.VI Basic Educational Technology knowledge that Professors need to know.

Technology is a very broad term that can be interpreted as students improvement, teacher's productivity, and prepare our children to live and work in an information society. (Yong Zhao, 2003). It can mean that any application, any technological device used in teaching is very important to raise this culture that is growing daily. Even when technology is interpreted as only mechanical objects, the range of objects is almost unlimited: from simple things such as the overhead projector and pencil to complex systems such as the computer and Internet. Even when we narrowly define technology as computers, the list of things teachers need know is still not easy to create, they need more than that, they need preparation and constant training on it.

Technology competency has been increasingly viewed as a necessary element of a teacher's professional qualifications. Based on information from The CEO Forum on Education and Technology, 1999; National Council for Accreditation of Teacher Education, 1997; U.S. Congress Office of Technology Assessment, 1995. For teacher educators is necessary to prepare technologically competent teachers, and for all teachers to develop their own technology proficiency, a good understanding of what teachers need to know about technology.

Teachers' knowledge about technology is situated in the context where technology is used. The knowledge is not only about what technology can do but also, what technology can do for them. In a review of literature on teacher learning, Borko and Putnam (1996) explain that the usefulness of a technology lies only in its uses. Thus teachers' technology knowledge consists of three elements:

- 1- Knowledge of problems that can be solved by technology.
- 2- Knowledge of a technology that can solve their problems.
- 3- Knowledge of how technology can solve their problems.

Teachers who are enough equipped with this knowledge should be able to decide when to use technology and when not to. They should also be able to select technologies appropriate for the current problems. Borko and Putnam (1996) also discussed "three domains of knowledge that are particularly relevant to teacher's instructional practices:

- 1- General pedagogical knowledge and beliefs.
- 2- Subject matter knowledge and beliefs.
- 3- Pedagogical content knowledge and beliefs.

The two most relevant domains where technology can be applied are general pedagogical knowledge and pedagogical content knowledge. The domain of general pedagogical knowledge and beliefs, according to the authors it encompasses a teacher's knowledge and beliefs about teaching, learning, and learners that transcend particular subject matter domains. It includes knowledge of various strategies and arrangements for effective classroom management, instructional strategies

This articulation of teacher knowledge and beliefs suggests a number of directions for identifying what technologies teachers need to know, project management tools for developing and managing class projects. There is technology for instruction: presentation tools to provide multi-media information and simulations, communication tools for students to collaborate on projects, and information accessing technologies for student research. Also, there is technology for teachers

to know more about their students: simulation technologies to identify students' misconceptions and technologies for communicating with students virtually. There are specific technologies for different subject matters. For example, computer simulations for teaching abstract scientific concepts, writing tools for literacy, and speech technologies for foreign languages. This information of teacher knowledge and beliefs suggests a number of directions for identifying what technologies teachers need to know.

In summary, instead of treating technology knowledge as a separate entity of teacher knowledge, it is clear that technology becomes an element of instructional strategies and classroom management strategies. Knowledge of teaching, learning, and content includes knowledge of technology

II.VII. Benefits of Educational Technology in High education.

Nowadays, especially for college education, technology usage is an important part of the learning process, the number and quality of teachers, teaching practice and teacher education are facing serious systemic challenges across the world. ICT in education, (UNESCO 2015), mainly when referring to the use of computers and Internet. G. Marchionini (1988) notes that "Internet systems allow the storage of volumes of information of various types" Most of researchers, agree that they are not distributed subject-area-specific data and knowledge bases, but complex virtual libraries, which can become the most valuable source of information on the Internet. Virtual libraries particularly, become the source of information, which is most often addressed by students.

Technology usage is particularly important in STEM fields. STEM (Science, Technology, Engineering, and Mathematics). There are many benefits of using technology in the classroom, especially as students become increasingly digitally literate and educators need to ensure that students are prepared to meet the demands of the 21st century. Based on these demands, the most common benefits can be classified coming up next:

1. Access to information.

One more achievement of global network technologies in the considered field is the decrease in the cost of information delivery to users¹³. In the past it was more difficult to have access to information in comparison with today's life style when students can get to know new information without going out of the classroom, house or libraries, where Students spent writing reports, project or academic papers. Today information is easily accessed thanks to the internet. Meanwhile, online courses are accessible to the students who are unable to attend traditional educational buildings because of health or other complications. It is a convenient way to study.

2. Anytime and anywhere learning.

Nowadays traditional lessons have been supplemented by virtual ones. Online classes include transferring files, chat rooms and even board of progress to follow the students' success. One benefit of using technology in education is that students can maintain a flexible schedule that is convenient for them. It helps to combine distance education and work. With development of such inventions like the internet, the popularity with educational technology is growing every day.

3. Technology makes education enjoyable.

The involving technology in the educational process makes education more enjoyable both for the instructors and the learners. Including the use of technology in classrooms allows students to enjoy the process when the instructor uses white board or touch screens in order to make classes more interactive and interesting.

4. Faculty members.

Thanks to the technology professors have more than one way to assess student's progress. Moreover audio-visual presentation, wide-screen televisions, projectors can be used for improving the delivery of instruction to actually improve learning and increasing the comprehension level among the students. According to the U.S.

¹³ "Internet in education", UNESCO Institute for Information Technology IN Education, Moscow 2003, page 19

Congress, Office of Technology Assessment (1995), the lack of teacher training is one of the greatest barriers to integrating technology into a school's curriculum.

“Teachers must have substantial time if they are going to acquire it and, in then, transfer to the classroom the knowledge and skills necessary to effectively and completely infuse technology into their curricular areas” (Boe, 1989; Hawkins & MacMillan, 1993; Kinnaman, 1990). However, Harvey and Purnell (1995) suggest there is overwhelming feeling that schools have yet to create the kind of training and practice time teachers need in order to learn how to effectively integrate technology into the curriculum since technology changes every day.

II.VII Limitations on Educational Technology

Educational Technology has wonderful things to offer nowadays as mentioned above however, it also affects human learning in classroom education. Students now rely and depend on computers and smartphones to complete educational tasks, they prefer to type some words in a search engine and they get thousand articles of information to present their assignments. There are many limitations that researchers have detected since technology was introduced in the 1900s.

According to Vota (2009), “Since technology itself requires proper motivation for its benefits to accrue, any school that cannot direct student motivation capably will fail to do so with technology, as well (or worse, allow technology to distract students)”. What clearly defines that students need more attention directly from humans, human beings need support and motivation directly from the experience talking and for some authors, and this cannot be possible with technology itself only if the instructor is correctly trained.

What if the instructor is well trained but the students work on their own? Student's individualism is one limitation that occurs in classrooms because of being highly technological (Waschull, 1997). According to the Merriam-Webster dictionary, in simple words individualism is an individual peculiarity: idiosyncrasy. If learning occurs, there are changes, and this changes can be seen in attitude, thinking, beliefs or behaviors (Waschull, 1997). Students feel more comfortable when working with computers and smartphones on their own at home rather than studying in a library

with a group of people and that is why this is one of the most salient limitation Educational Technological involves.

Klaus (2010) states that technical troubles is often consume most of valuable teaching time. What happen when a student or a teacher is giving a PowerPoint presentation and the equipment starts to fail? If the student or teacher is not familiar, they will definitely need to contact a technician, an expert, or someone in the classroom that knows how to fix the technical issue. This delays and distract the learning process on students that the teacher has planned to cover. Besides that, this also would cause the class to be ineffective in a classroom where time is limited, especially in universities that the teaching time is very limited. Will this be worthy? How do we know if Educational Technology is effective?

Feuerstein (1980) asserts that a highly stimulating learning experience is not sufficient to guarantee that the person actually learns from it. Particular learning skills are also required (Howe, 1987). No matter is a school or university is highly equipped or trained, according to the authors, there is something else in depth. For example, if a person has very high learning skills, he would learn more accurate and faster than one without, even if the technological resources is poor and ineffective.

Expenses need to be taken into account when a school or university decides to be updated with technological equipment because once technology is purchased, the maintenance is crucial, and one important point to be considered is that the value of the equipment decrease significantly because of technology constantly renewing.

Finally is important to have clear that technology in education is just a new strategy in classroom management. Instructors do not need to be fully technological or having previous studies regarding technological devices and internet, is just a manner of being constantly updated and being autodidactic when there are not enough resources provided.

CHAPTER

III

III. TYPE OF STUDY

The type of study being developed in this research is the exploratory one. This will be utilized with the goal of examining a specific topic that has been noticed in the Foreign Language Department of the University of El Salvador. Exploratory studies have several important roles in educational research since they often represent the first scientific "toe in the water" ¹⁴ in new areas of inquiry. The consideration of getting a great quantity of data has been the step forward to use this study. As it is known, a fundamental element of the exploratory reporting is a clear, specific, and measurable definition of the problem in question.

The results will be analyzed and the findings will reveal if the faculty members of the Foreign Language Department are prepared to use technology inside and outside the classroom and also, the availability of technology they have in the Department.

In addition, this method is considered the essence of more rigorous studies in the education field and it is often reported. This is the reason why it has been considered doing an exploratory report and also, to foster the interest in creating new researches regarding the level of technology knowledge on teachers. This will increase the Foreign Language Department to have more competitive teachers and students.

¹⁴ Hulley SB, Cummings SR, Browner WS, Grady D, Hearst N, Newman RB, eds. Designing clinical research: an epidemiologic approach, 2nd edn. Baltimore: Lippincott Williams and Wilkins, 2001.

III.I RESEARCH DESIGN

This study is non-experimental, experimental research can provide strong evidence¹⁵. It means that with non-experimental research the phenomena is observed and analyzed as they occur in its natural context. The independent variables occur and cannot be manipulated. This non-experimental research is also classified as a cross-sectional study because the data will be gathered in a specific period of time which will be in semester II, 2015. A diagnostic approach will be used to create the instrument used is a questionnaire that will be divided in three sections¹⁶ a questionnaire containing 67 questions specially selected to identify specific information about the knowledge that teachers of the Foreign Language Department have about Educational Technology. The test will be divided into three areas:

1. Hardware,
2. Software
3. Internet usage.

¹⁵ "Non-experimental Research", chapter 7 from the book Psychology Research Methods: Core Skills and Concepts (v. 1.0)

¹⁶ Based on Main areas involved in Educational Technology highlighted in the theoretical framework section. Pages 13-14.

III.II DATA GATHERING

The data source that was used for this investigation was a questionnaire with 67 statements related to Educational Technology. The questionnaire was divided in 4 areas: General information about Educational Technology, Software, Hardware and Internet Usage. This instrument was completed by all the 43 professor from the Foreign Language Department, including both English Teaching and Modern Languages Majors. This information was collected during a 3 weeks period, starting on October 12th 2015 and finishing on October 30th 2015.

Researchers provided every single professor a questionnaire to complete it in the period of time mentioned above in order to give teachers enough time to return it.

III.IV DATA ANALYSIS

Once the data gathering process is already done, the data analysis will be built. In order to do so, a Data Base Program called IBM SPSS Statistics will be used to develop and present all the data gathered from the instrument. The Data Base Program will help to create charts and graphics in order to present the findings. Using the data base, will be easier to tabulate all the numbers the instrument will collect. Furthermore, the statistical procedure will consist on presenting the findings in charts and graphs. Also, it will present the mode since it is important to see what the most recurrent value is. These two elements will help also, to build the conclusions and recommendations.

The data analysis process was divided in two parts; the first part is the univariate analysis that evaluates the results of each question separately and the analysis of the research questions.is presented though findings in details.

CHAPTER

IV

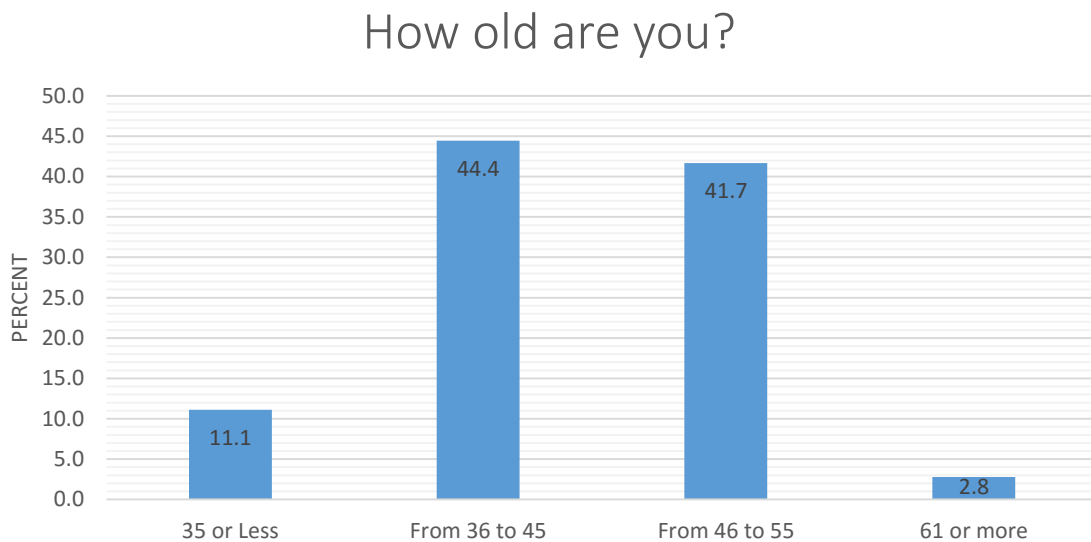
UNIVARIATE ANALYSIS OF THE RESULTS

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 1

How old are you?	
	%
35 or Less	11.1
From 36 to 45	44.4
From 46 to 55	41.7
61 or more	2.8

Chart 1



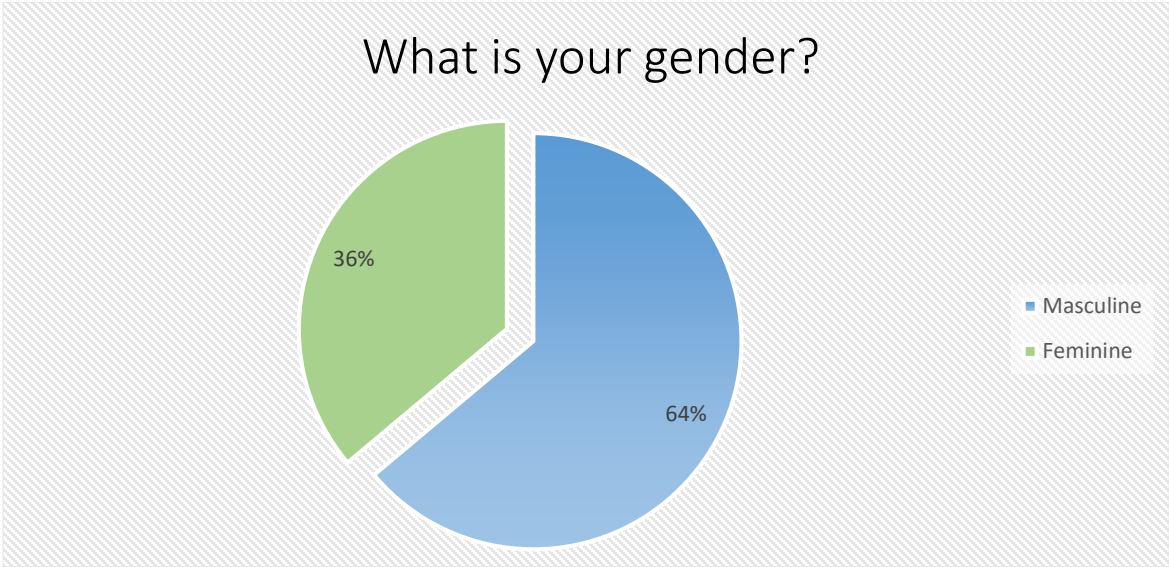
It indicates that almost the 45% of the participants is from 36 to 45 years old, followed by a 41.7% of professors between the ages from 46 to 55 years old. It is notable that only the 11% of the participants is in the ages of 35 or less. The graph indicates that most of the people involved in the study are older than 36 years, and it can be expected they have more experience as teachers and they can implement all the resources including the technological ones when teaching.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 2

What is your gender?	
	%
Masculine	63.9
Feminine	36.1

Chart 2



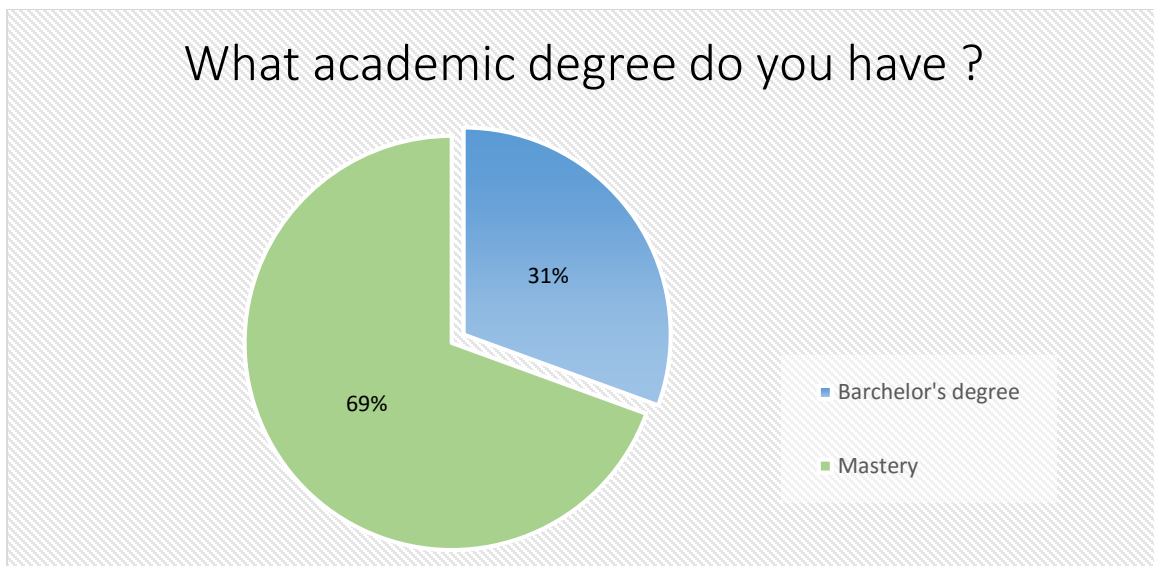
In this graph is observed that the number of masculine participants is higher than the feminine ones. The masculine gender is represented by the 64%, while the feminine professors form only the 36% of the population in this study.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 3

What academic degree do you have?	
	%
Bachelor's degree	30.6
Mastery	69.4

Chart 3



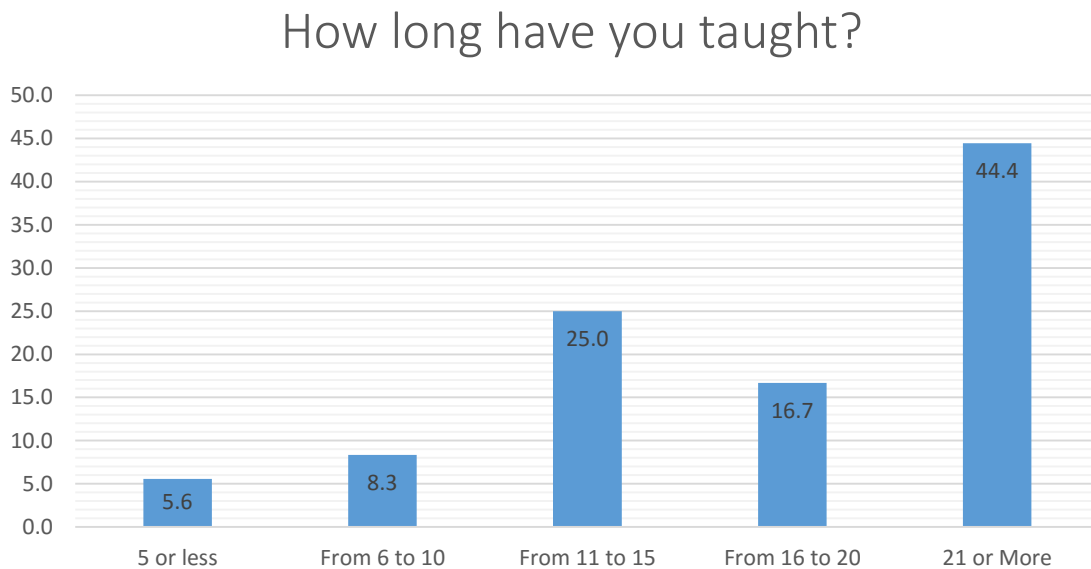
It is noticeable that the 69% of the professors from The Foreign Language Department has a Master's degree, which means that they have an adequate level of knowledge to teach in a good and satisfactory way and they can include all the techniques and methods learned and these should allow them to perform quality classes.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 4

How long have you taught?	
	%
5 or less	5.6
From 6 to 10	8.3
From 11 to 15	25.0
From 16 to 20	16.7
21 or More	44.4

Chart 4



The result of this statement indicates that almost the 45% of professors from The Foreign Language Department has thought for 21 years or more, which shows that they have many years of experience in the teaching area. Also, it is noticeable that only the 5.6% of the participants have less experience because they have been teaching for 5 years or less.

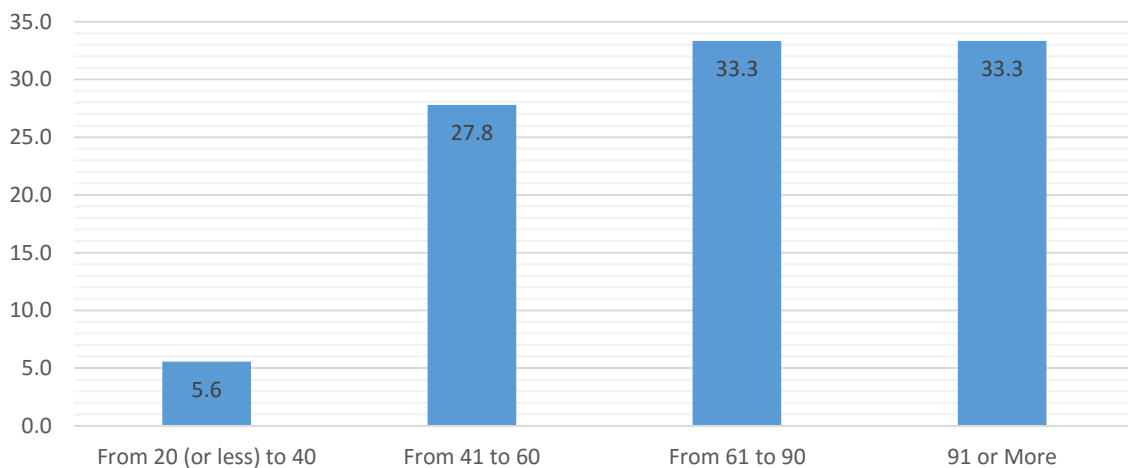
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 5

How many students did you teach last semester?	
	%
From 20 (or less) to 40	5.6
From 41 to 60	27.8
From 61 to 90	33.3
91 or More	33.3

Chart 5

How many students did you teach last semester?



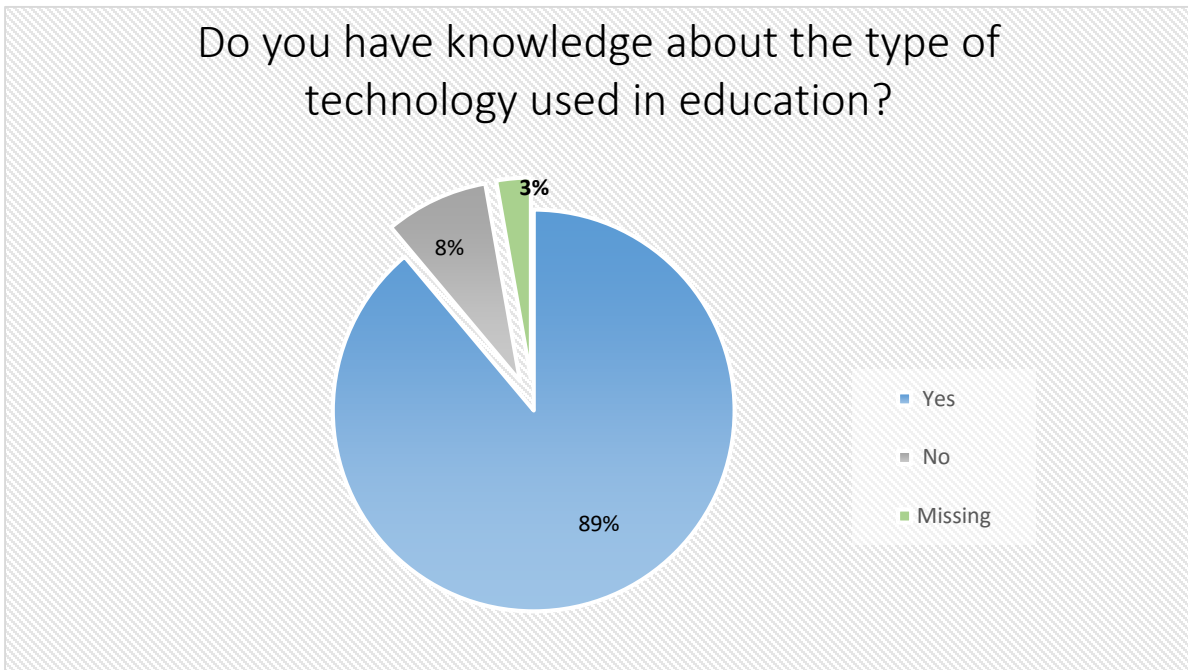
According to the graph, it indicates that the professors from The Foreign Language Department have to deal with different amount of students per groups; it is visible that from 4 categories, three of them have a balance because there is not a notable difference between them; they have a percentage from 27% to 33.3%.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 6

Do you have knowledge about the type of technology used in education?		
Valid		%
	Yes	88.9
	No	8.3
Total	97.2	
Missing		2.8

Chart 6



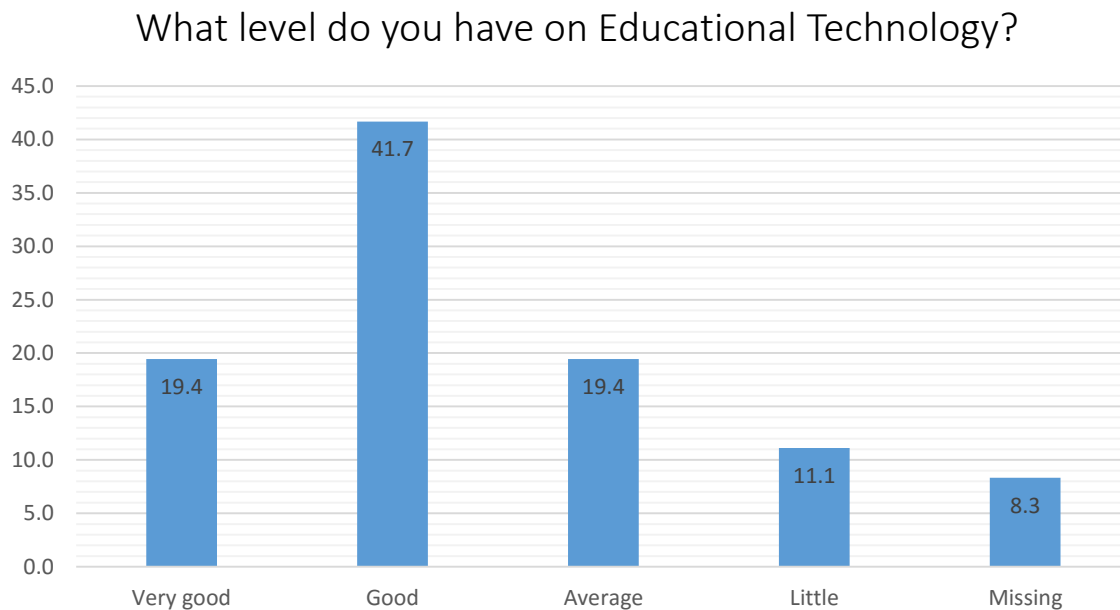
It is evident that the majority of professors from the Foreign Language Department have knowledge about how to use technology in education, while only the 9% of participants said they do not have this knowledge.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 7

What level do you have on Educational Technology?	
	%
Very good	19.4
Good	41.7
Average	19.4
Little	11.1
Total	91.7
Missing	8.3
Total	100.0

Chart 7



The result obtained in this statement shows that an important 41.7% of the population indicated that they have a good level of Educational Technology knowledge. Also, the 19.4% said they have a very good knowledge on this topic. And only the 11.1% expressed they have little knowledge on Educational Technology.

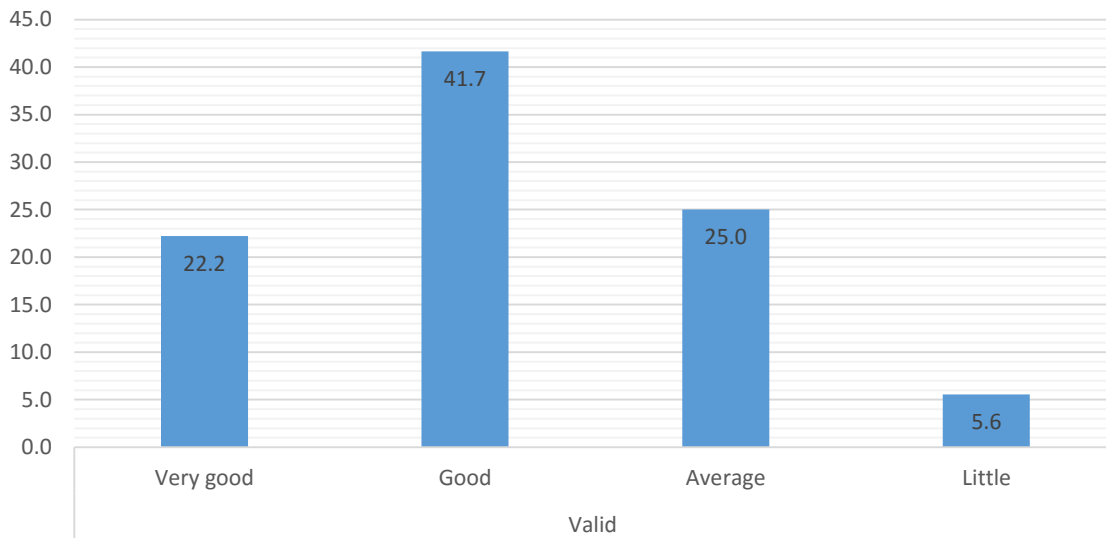
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 8

What level do you have on skills and management of Educational Technology in academic activities?		
		%
Valid	Very good	22.2
	Good	41.7
	Average	25.0
	Little	5.6
	Total	94.4
Missing	System	5.6

Chart 8

What level do you have on skills and management of Educational Technology in academic activities?



It indicates that an important 41.7% of the population expresses that they have a good level “on skills and management of Educational Technology in academic activities”. Also, it is visible that only the 22.2% of the professors from the FLD consider they have a very good level in this area. And the 5.6% admitted to have little level on skills and management of this type of technology.

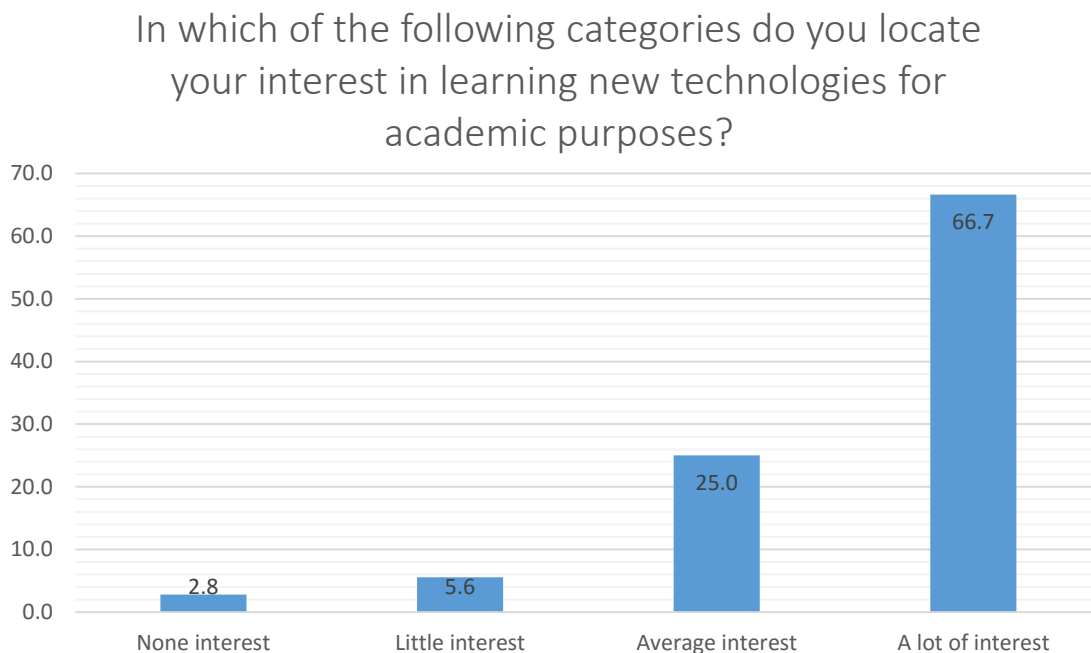
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 9

In which of the following categories do you locate your interest in learning new technologies for academic purposes?	
	%
None interest	2.8
Little interest	5.6
Average interest	25.0
A lot of interest	66.7

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Chart 9



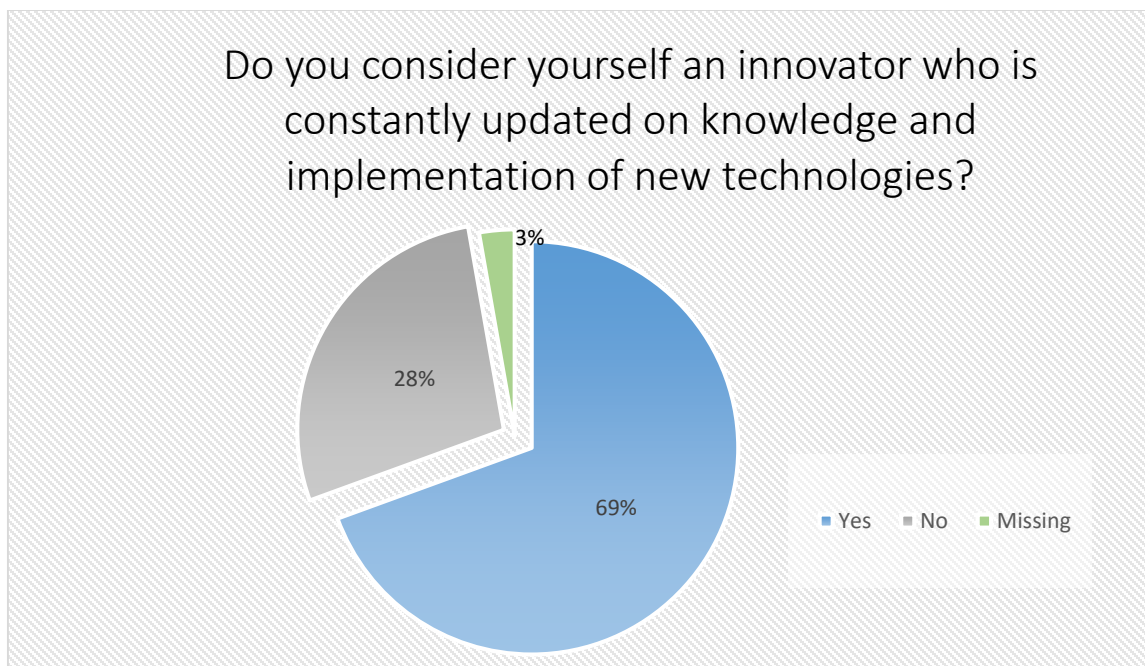
It is noticeable that a significant 66.7% of the participants have a lot of interest in learning new technologies for academic purposes, while only the 2.8% indicated that they have no interest in learning about this topic.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 10

Do you consider yourself an innovator who is constantly updated on knowledge and implementation of new technologies?	
	%
Yes	69.4
No	27.8
Total	97.2
Missing	2.8

Chart 10



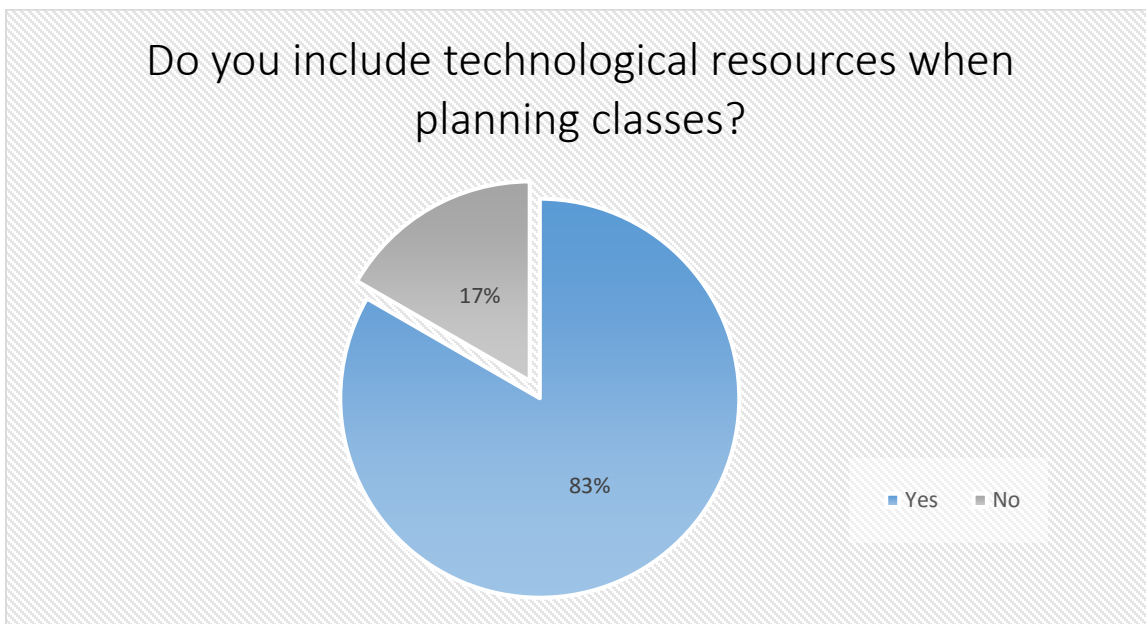
Participants with the 71% answered they consider themselves as innovators teachers, the 29% admitted they do not meanwhile, a 3% did not answer the question.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 11

Do you include technological resources when planning classes?	
	%
Yes	83.3
No	16.7
Total	100.0

Chart 11



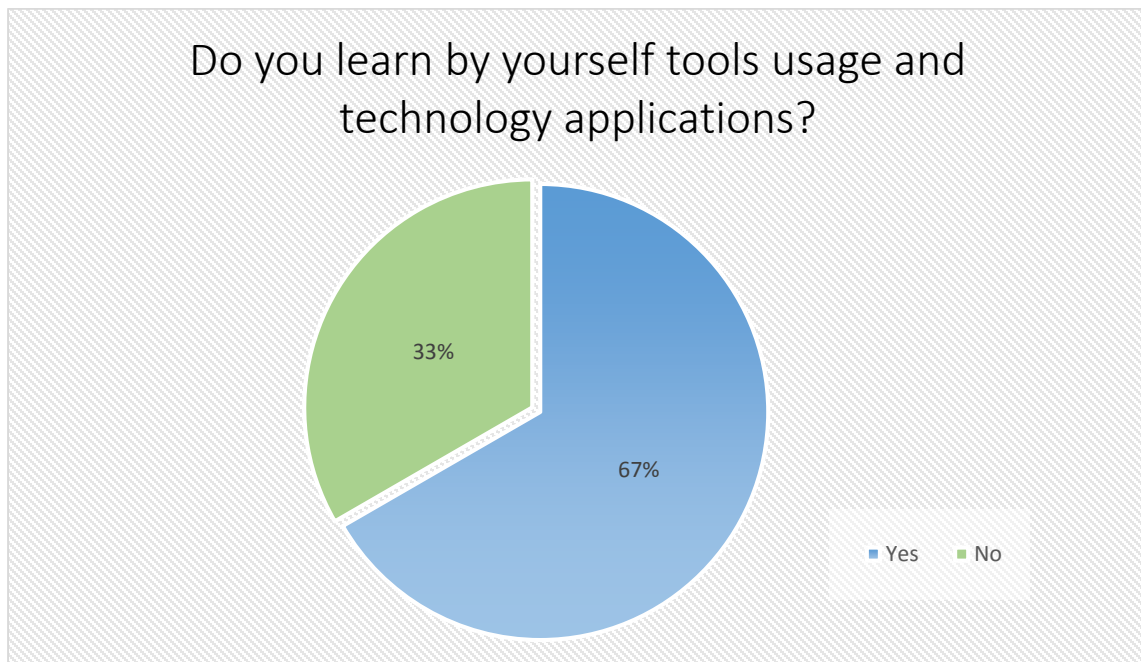
These results are about if professors learn by themselves the tools and technology applications usage, and the majority of them answered they do, while only the 17% expressed they do not learn about these topics by themselves.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 12

Do you learn by yourself tools usage and technology applications?	
	%
Yes	66.7
No	33.3
Total	100.0

Chart 12



The results shows in the graph that the 83% of the professors from the FLD include technological resources when planning classes, while only the 17% of the participants expressed that they do not include it.

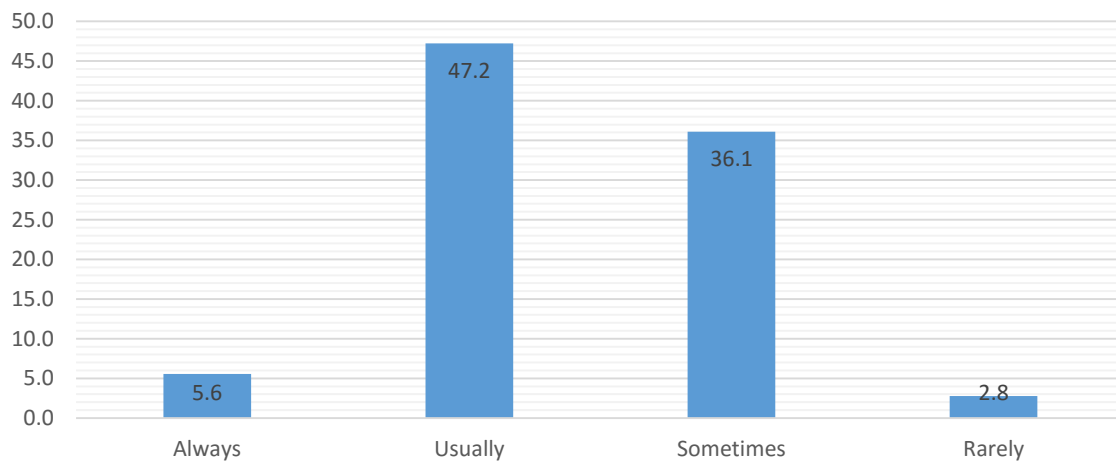
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 13

How often do you use technological resources in your classes?		
		%
Valid	Always	5.6
	Usually	47.2
	Sometimes	36.1
	Rarely	2.8
	Total	91.7
Missing		8.3

Chart 13

How often do you use technological resources in your classes?



The results show that the 47.2% of professors from the FLD usually use technological resources in their classes. Also, the 36.1% of them sometimes use these resources. And, the 5.6% always use it.

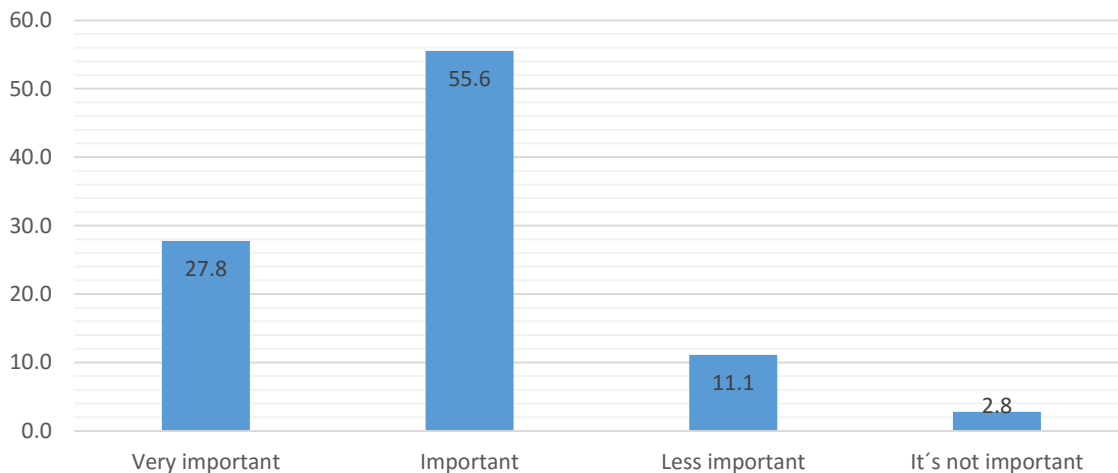
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 14

In which level do the technological resources that the FLD offers help you to improve the development of your classes?		
		%
Valid	Very important	27.8
	Important	55.6
	Less important	11.1
	It's not important	2.8
	Total	97.2
Missing		2.8

Chart 14

In which level do the technological resources that the FLD offers help you to improve the development of your classes?



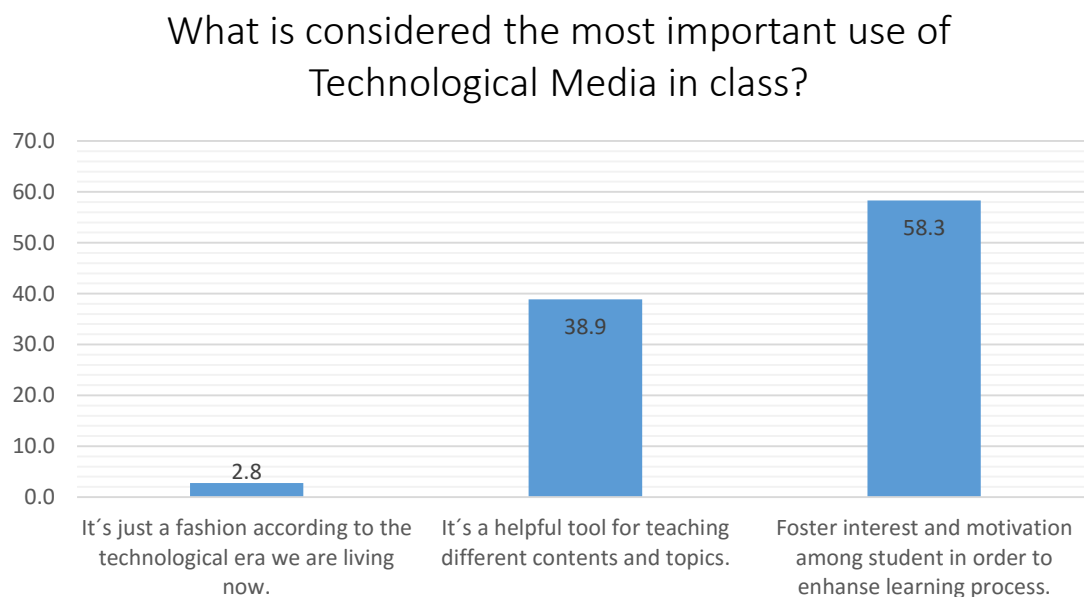
More than the half of professors from the FLD represented by the 55.6% considers IMPORTANT the technological resources that the FLD offers help them to improve the development of their classes. Also, it is visible that the 27.8% of the participants consider these resources as VERY IMPORTANT. And only the 2.8% expressed that these resources are NOT IMPORTANT for them.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 15

What is considered the most important use of Technological Media in class?	
	%
It's just a fashion according to the technological era we are living now.	2.8
It's a helpful tool for teaching different contents and topics.	38.9
Foster interest and motivation among student in order to enhance learning process.	58.3

Chart 15



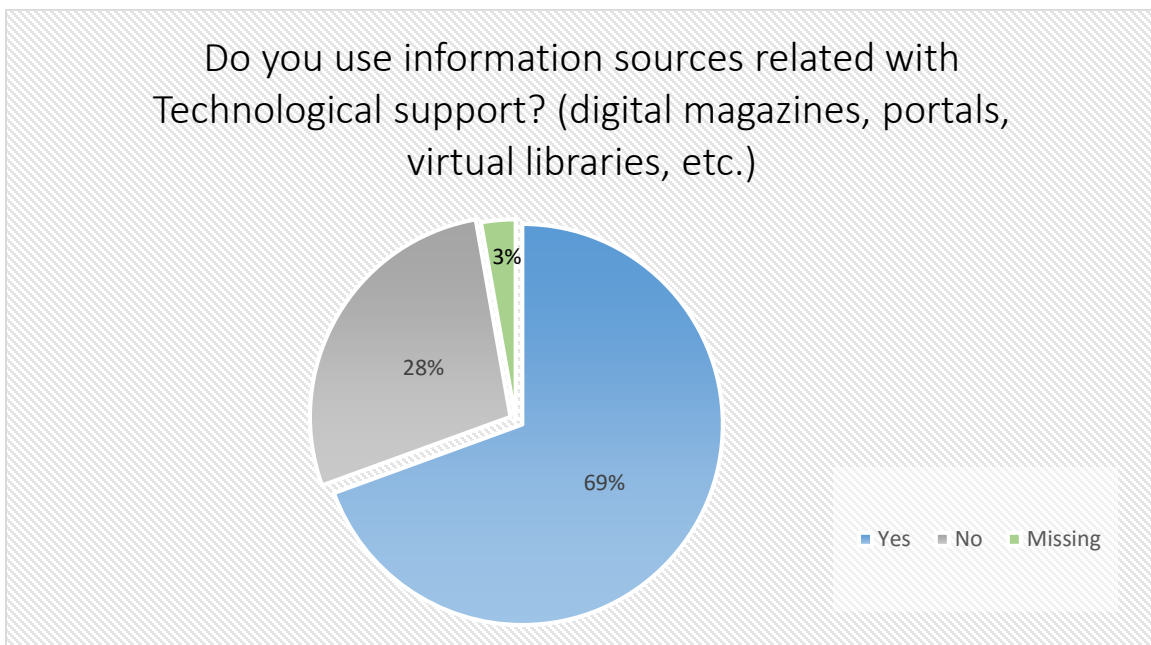
In this statement it is noticeable that an important amount of professors from the FLD consider that the most important use of Technological Media in class is to foster interest and motivation among students in order to enhance learning process. And the 2.8% consider that it is just a fashion according to the technological era we are living now.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 16

Do you use information sources related with Technological support? (Digital magazines, portals, virtual libraries, etc.)	
	%
Yes	69.4
No	27.8
Total	97.2
Missing	2.8

Chart 16



A significant number of professors from the FLD represented by the 71% use information sources related with Technological support (Digital magazines, portals, virtual libraries, etc.) to improve their classes, while only the 29% expressed that they do not use this kind of sources.

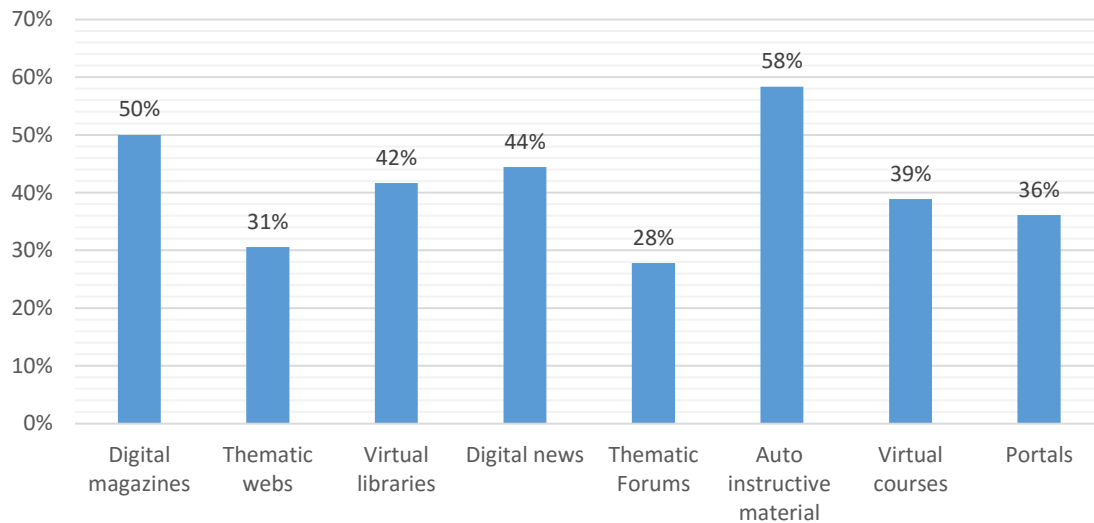
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 17

From the list, what are the support and information sources that you use frequently?			
	Valid	Missing	Total
Digital magazines	50%	50%	100%
Thematic webs	31%	69%	100%
Virtual libraries	42%	58%	100%
Digital news	44%	56%	100%
Thematic Forums	28%	72%	100%
Auto instructive material	58%	42%	100%
Virtual courses	39%	61%	100%
Portals	36%	64%	100%

Chart 17

From the list, what are the support and information sources that you use frequently?



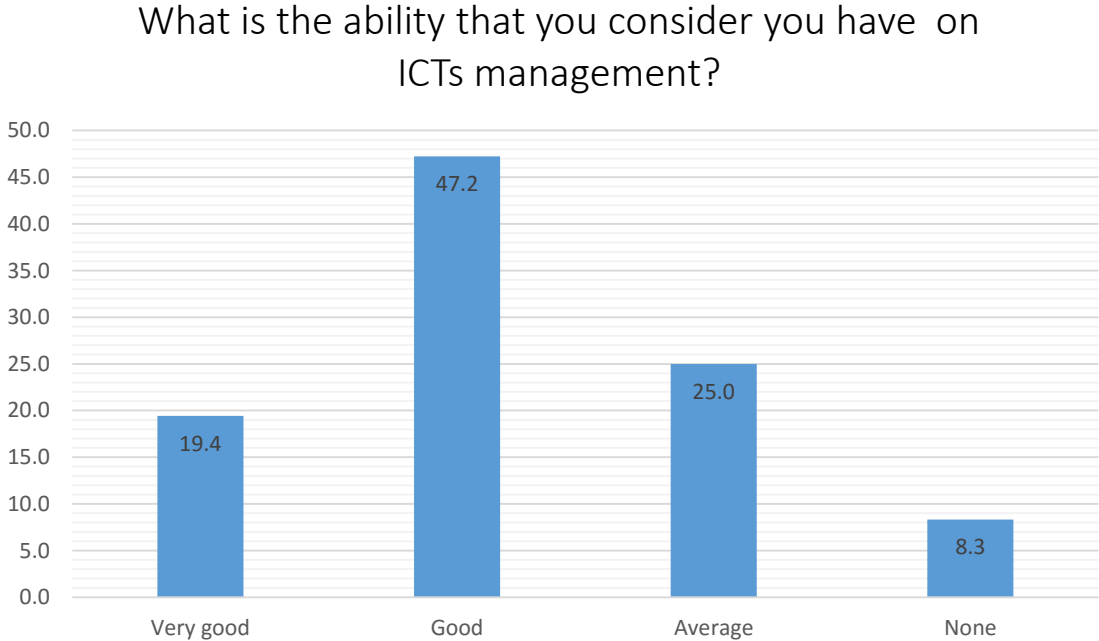
The information sources that professors from the FLD use more frequently is the audio instructive material with 58%, followed by digital magazines represented by the 50%, Also an information resource that they use frequently is Digital news that is used by the 44% of the participants. Other source used is thematic forums, but this is used only by the 28% of professors.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 18

What is the ability that you consider you have on ICTs management?	
	%
Very good	19.4
Good	47.2
Average	25.0
None	8.3
Total	100.0

Chart 18



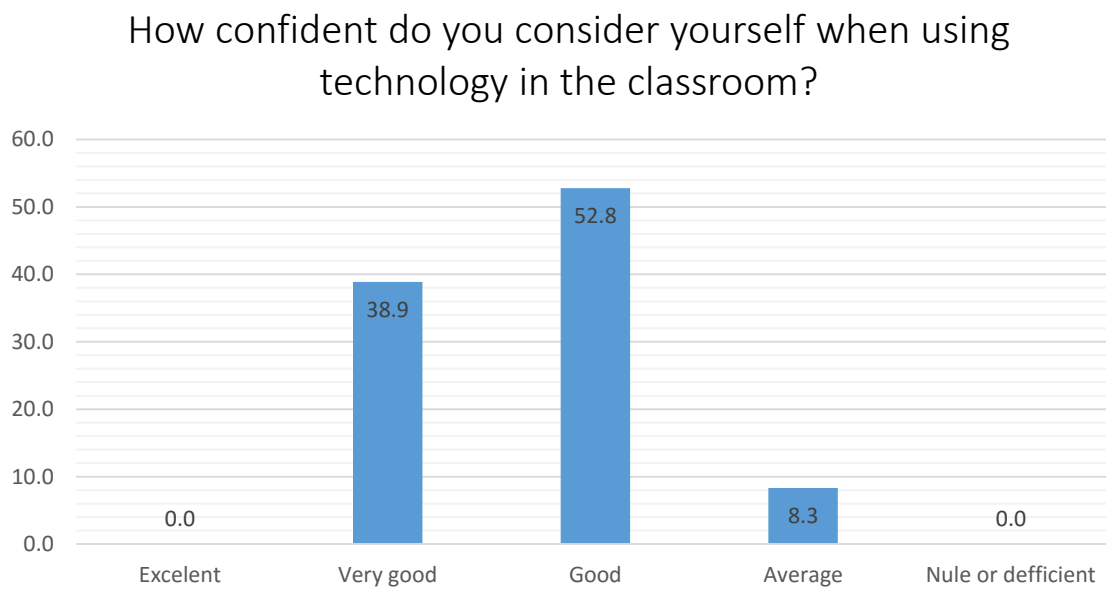
In this graph it is evident that the majority of professors consider themselves with a GOOD level regarding to ICTs management. Also, the 19.4% of the participants consider they have a VERY GOOD level. But, the 8.3% admitted that they do not have any ability on ICTs management.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 19

How confident do you consider yourself when using technology in the classroom?	
	%
Excelent	0.0
Very good	38.9
Good	52.8
Average	8.3
Nule or defficient	0.0
Total	100.0

Chart 19



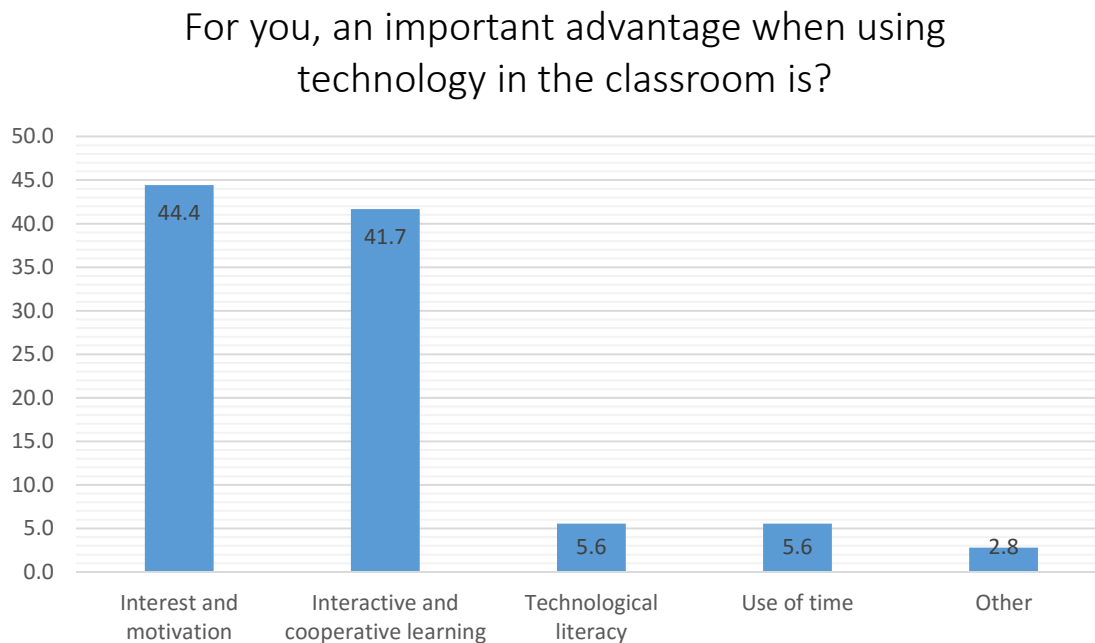
According to this statement, an important number of professors from the FLD consider themselves to have a GOOD level of confidence when using technology in the classroom. Also, the 38.9% expressed they have a VERY GOOD level of confidence when using this kind of resources.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 20

For you, an important advantage when using technology in the classroom is?	
	%
Interest and motivation	44.4
Interactive and cooperative learning	41.7
Technological literacy	5.6
Use of time	5.6
Other	2.8

Chart 20



This shows that the 44.4% of the professors from the FLD think that an important advantage when using technology is INTEREST AND MOTIVATION, also, the 41.7% of the participants consider that INTERACTIVE AND COOPERATIVE LEARNING is another important advantage when professors use educational technology.

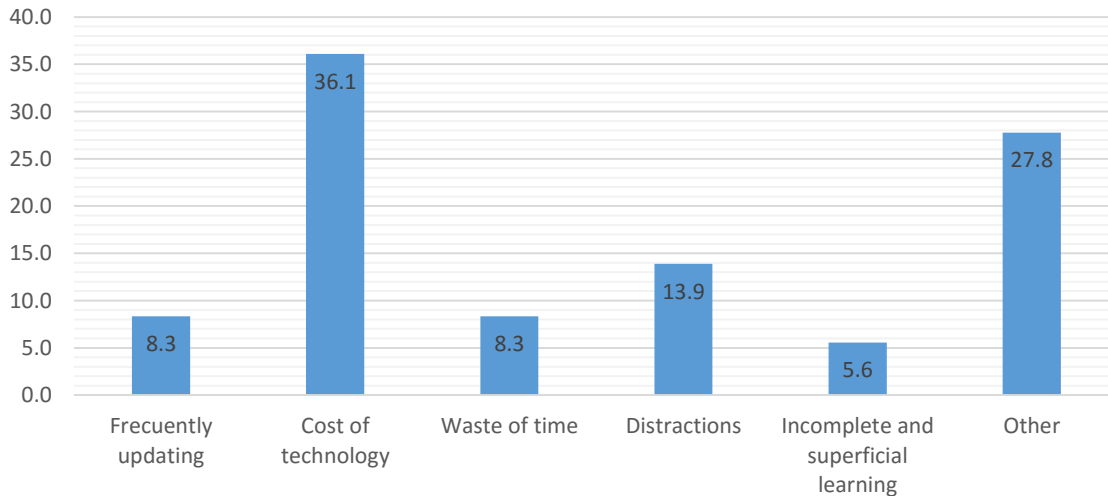
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 21

For you, an important disadvantage when using technology in the classroom is?	
	%
Frecuently updating	8.3
Cost of technology	36.1
Waste of time	8.3
Distractions	13.9
Incomplete and superficial learning	5.6
Other	27.8
Total	100.0

Chart 21

An important disadvantage when using technology in the classroom is?



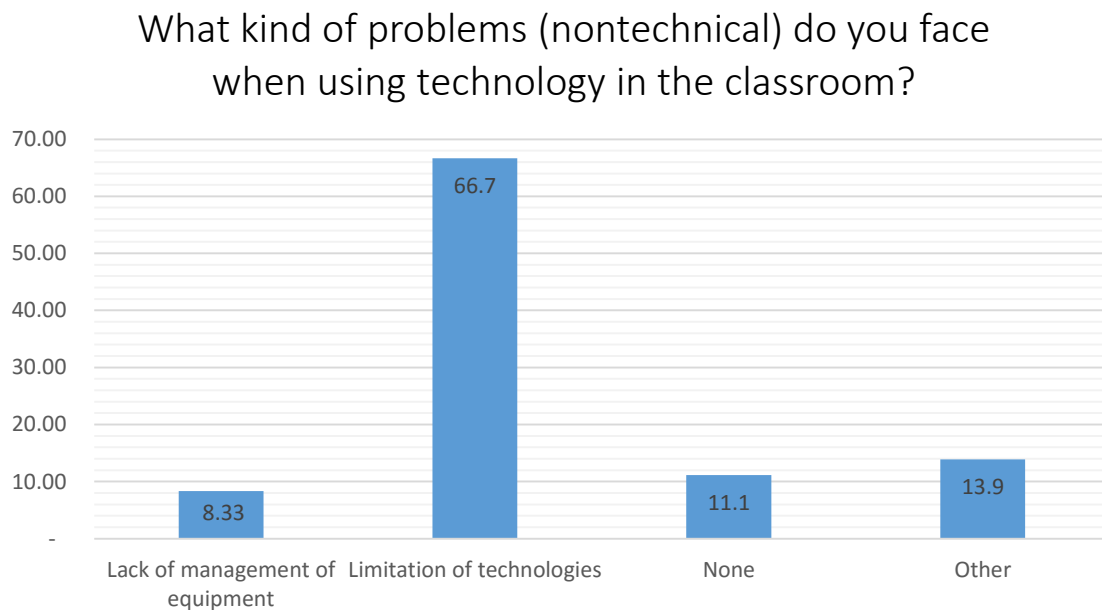
According to this graph, the 36.1% of the professors from the FLD consider that an important disadvantage when using technology is THE COST of this. While the 5.6% think that an important disadvantage is INCOMPLETE AND SUPERFICIAL LEARNING.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 22

What kind of problems (nontechnical) do you face when using technology in the classroom?	
	%
Lack of management of equipment	8.33
Limitation of technologies	66.7
None	11.1
Other	13.9
Total	100.0

Chart 22



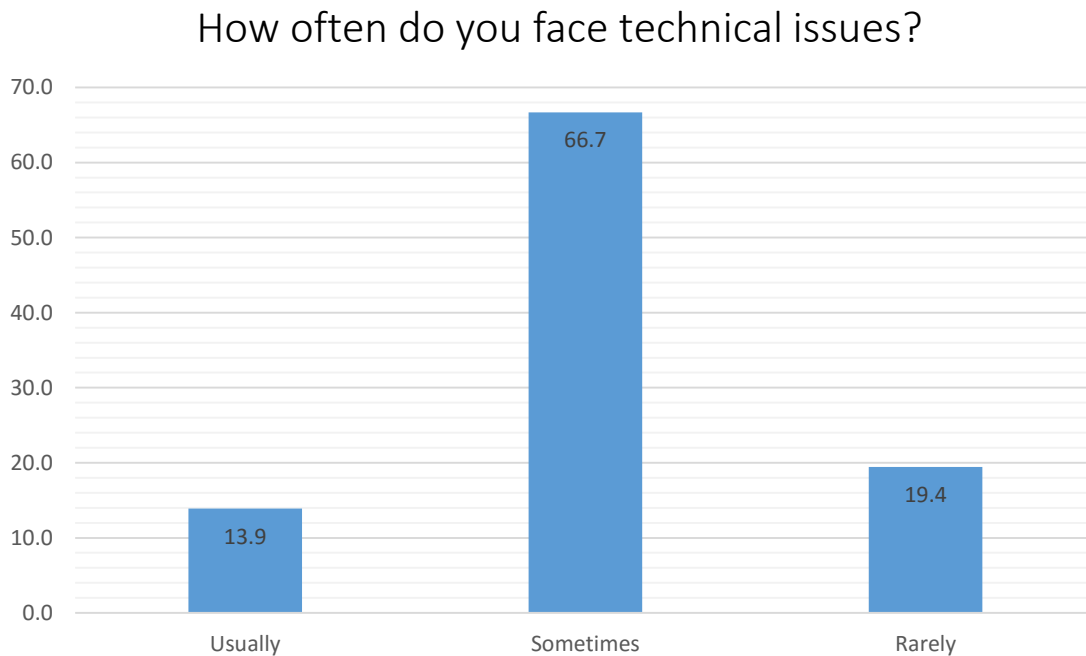
The result obtained in this statement shows that the majority of professors from the FLD expresses that the most common problem they face when teaching is the limitation of technological equipment. While the 8.33% consider that a problem they face is the LACK of management of equipment.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 23

How often do you face technical issues?	
	%
Usually	13.9
Sometimes	66.7
Rarely	19.4
Total	100.0

Chart 23



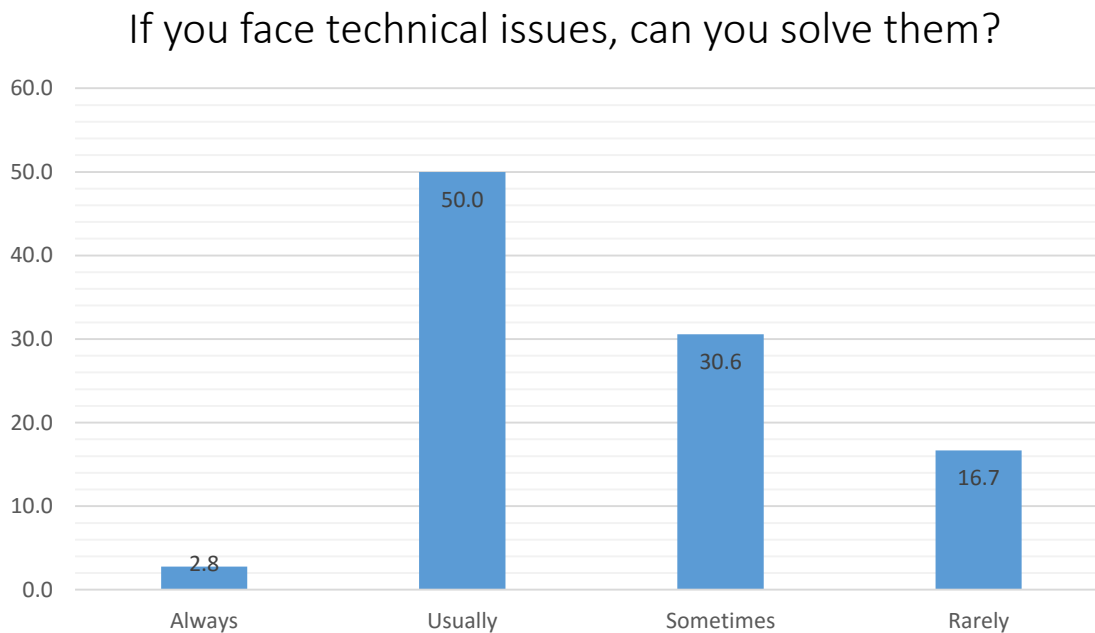
It is noticeable that an important 66.7% of the professors from the FLD expressed that they **SOMETIMES** have faced technical issues when using educational technology. While almost the 20% of the participants indicated that they **RARELY** have faced this kind of problems.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 24

If you face technical issues, can you solve them?	
	%
Always	2.8
Usually	50.0
Sometimes	30.6
Rarely	16.7
Total	100.0

Chart 24



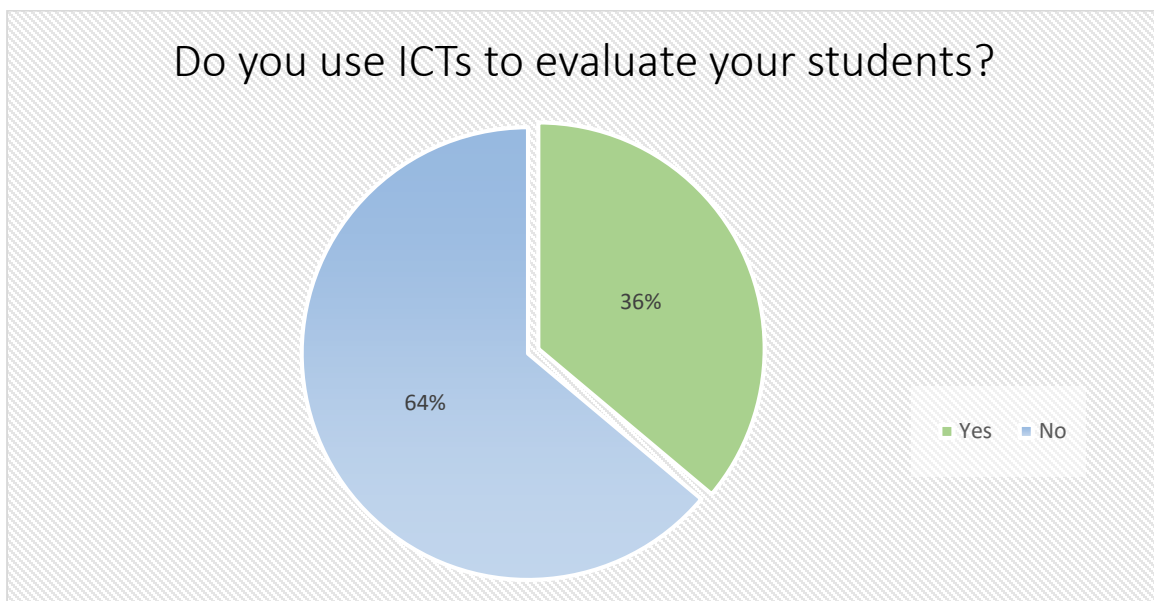
According to the results obtained from the professors when they were asked about the statement “If you face technical issues (when using educational technology), can you solve them?” The 50% of the professors indicated that they usually can solve them. Also, the 30.6% of the participants expressed that they sometimes can solve this problems. And, the 16.7% of the professors said that they rarely can solve technical issues when using technological equipment.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 25

Do you use ICTs to evaluate your students?	
	%
Yes	36.1
No	63.9
Total	100.0

Chart 25



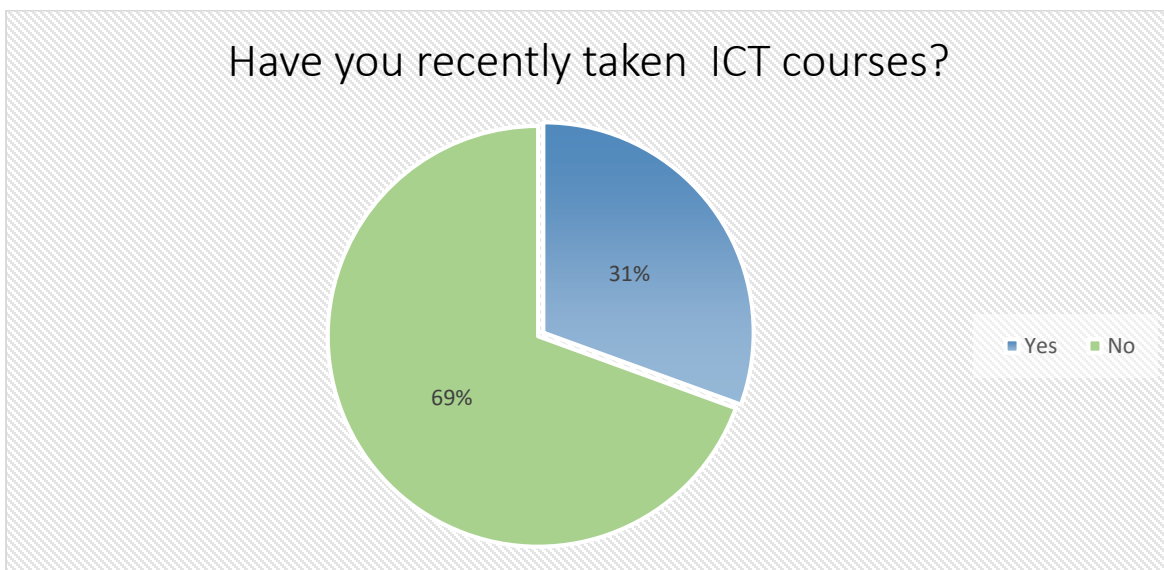
This graph represents the question “Do you use ICTs to evaluate your students?” It has two choices, the first one is “yes” and the second one is “no”. So, the first one got the most of the percentage with 64%, that means that the majority of the professors from the FLD use ICTs to evaluate their students.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 26

Have you recently taken ICT courses?	
	%
Yes	30.6
No	69.4
Total	100.0

Chart 26



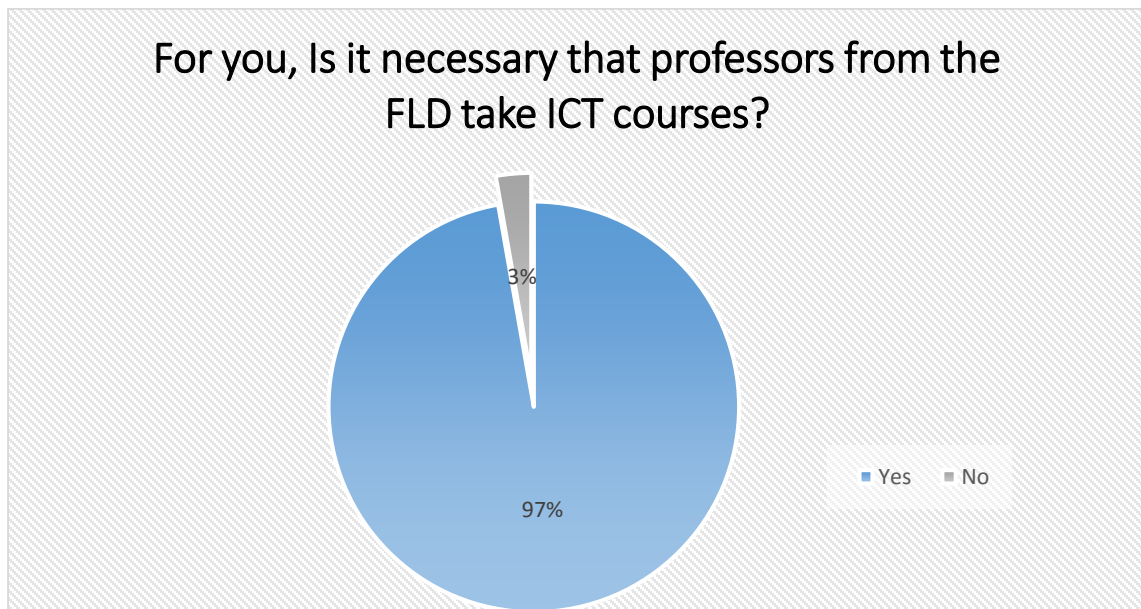
When the participants were asked if they have taken recently any ICTs courses, most of them answered they have not taken recently any courses related to educational technology. While only the 31% expressed that they recently have taken courses regarding to ICTs.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 27

For you, Is it necessary that professors from the FLD take ICT courses?	
	%
Yes	97.2
No	2.8
Total	100.0

Chart 27



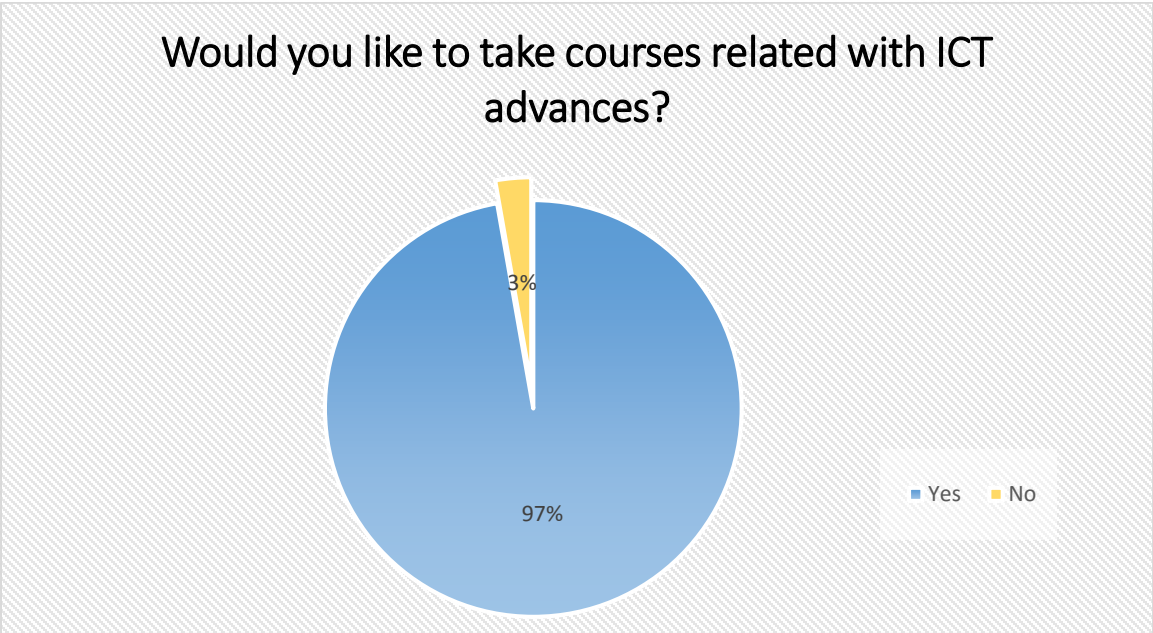
It is noticeable that almost all the professors from the FLD think that it is necessary to take ICT courses that can help them to improve their classes and at the same time it can help them to get more knowledge about the development of educational technology.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 28

Would you like to take courses related with ICT advances?	
	%
Yes	97.2
No	2.8
Total	100.0

Chart 28



It is noticeable that almost all the professors from the FLD would like to take courses related with ICT advances. While only the 3% of the participants is not interested in taking this kind of courses.

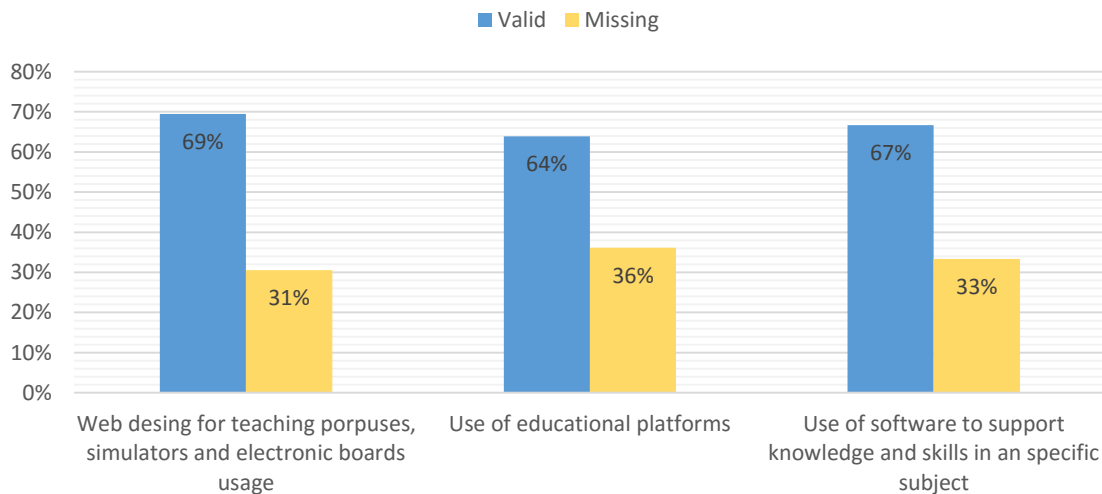
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 29

In which of the following ICT areas would you like to be trained?			
	Web design for teaching purposes, simulators and electronic boards usage	Use of educational platforms	Use of software to support knowledge and skills in a specific subject
Valid	69%	64%	67%
Missing	31%	36%	33%
Total	100%	100%	100%

Chart 29

In which of the following ICT areas would you like to be trained?



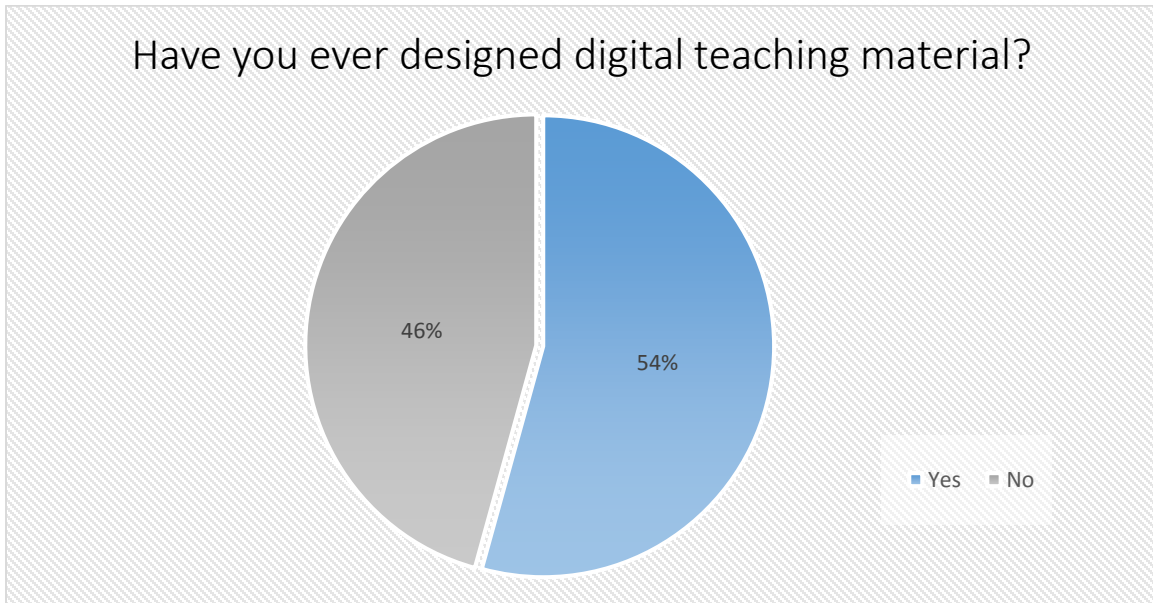
According to this graph, from the whole population 25% of professors stated they would like to be trained in the area of “Web design for teaching purposes, simulators and electronic boards usage”, while 24% of the participants expressed that they would like to be trained in “use of software to support knowledge and skills in a specific subject”.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 30

Have you ever designed digital teaching material?	
	%
Yes	52.8
No	44.4
Total	97.2
Missing	2.8
Total	100.0

Chart 30



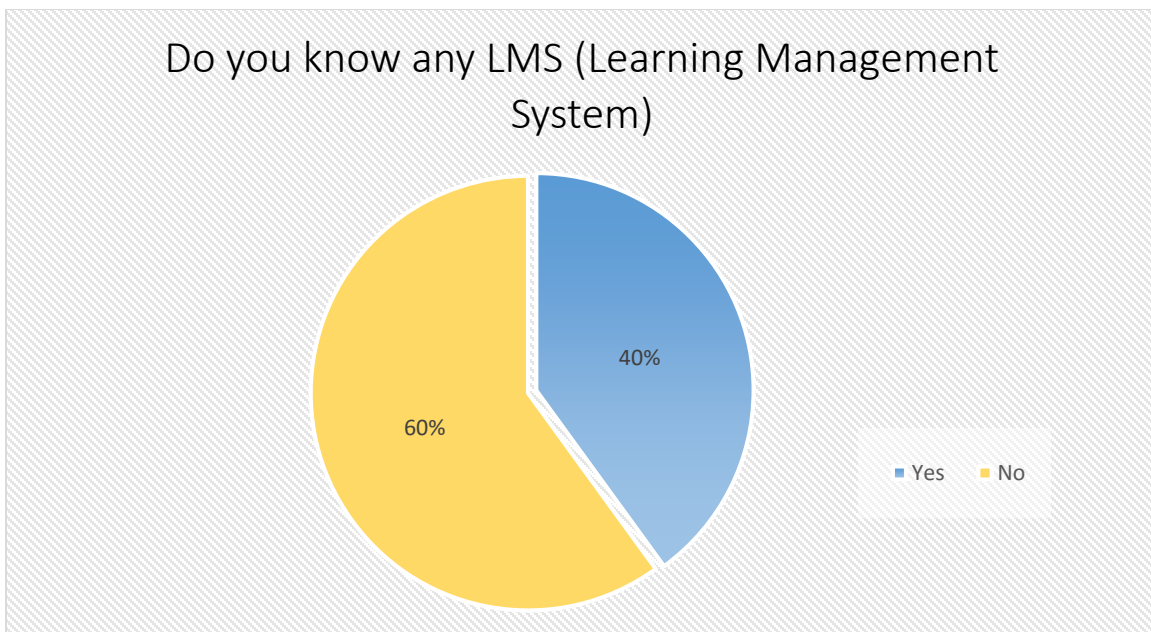
In this graph, it is observed that the 54% of professors from the FLD have designed digital teaching material. But, on the other hand, making a kind of balance, the 46% of professors admitted that they never have designed digital teaching material.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 31

Do you know any LMS (Learning Management System)	
	%
Yes	38.9
No	58.3
Total	97.2
Missing	2.8
Total	100.0

Chart 31



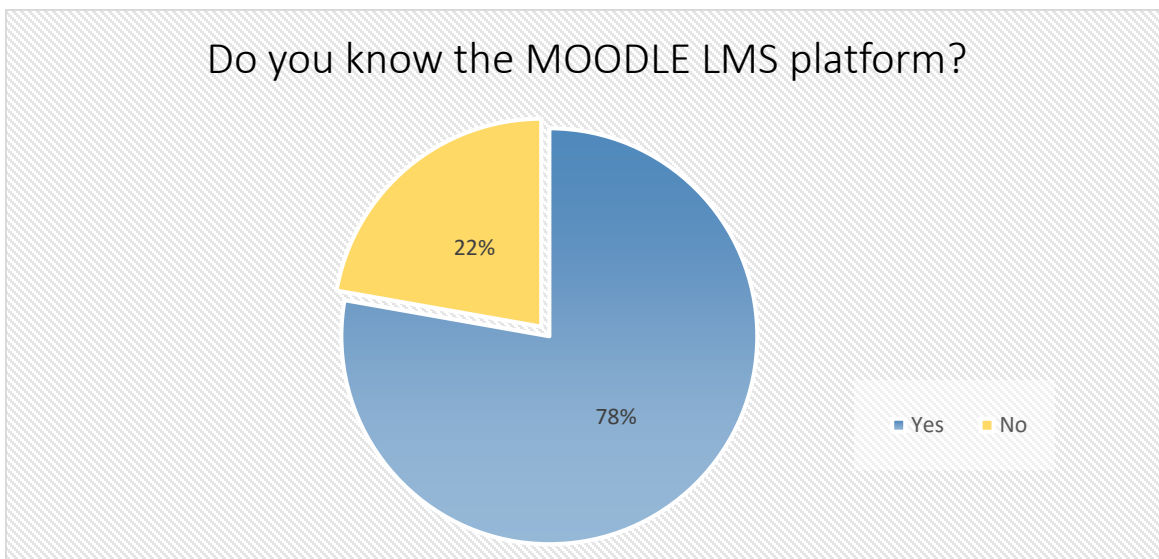
This graph shows that an important 60% of the professors from the FLD answered that they do not know about LMS (Learning Management System). But, the 40% of the participants expressed that they do.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 32

Do you know the MOODLE LMS platform?	
	%
Yes	58.3
No	16.7
Total	75.0
Missing	25.0
Total	100.0

Chart 32



It is noticeable that a significant 78% of the participants know the MOODLE LMS, according to the graph. Meanwhile, the 22% answered that they do not know about this platform.

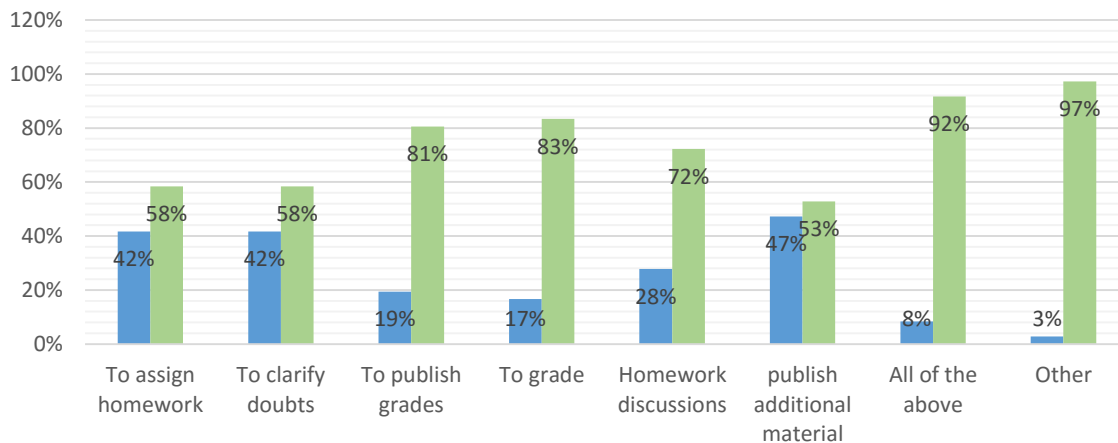
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 33

From the following list indicate how you use the resource: LMS MOODLE Platform			
	Valid	Missing	Total
To assign homework	42%	58%	100%
To clarify doubts	42%	58%	100%
To publish grades	19%	81%	100%
To grade	17%	83%	100%
Homework discussions	28%	72%	100%
publish additional material	47%	53%	100%
All of the above	8%	92%	100%
Other	3%	97%	100%

Chart 33

From the following list indicate how you use the resource: LMS MOODLE Platform



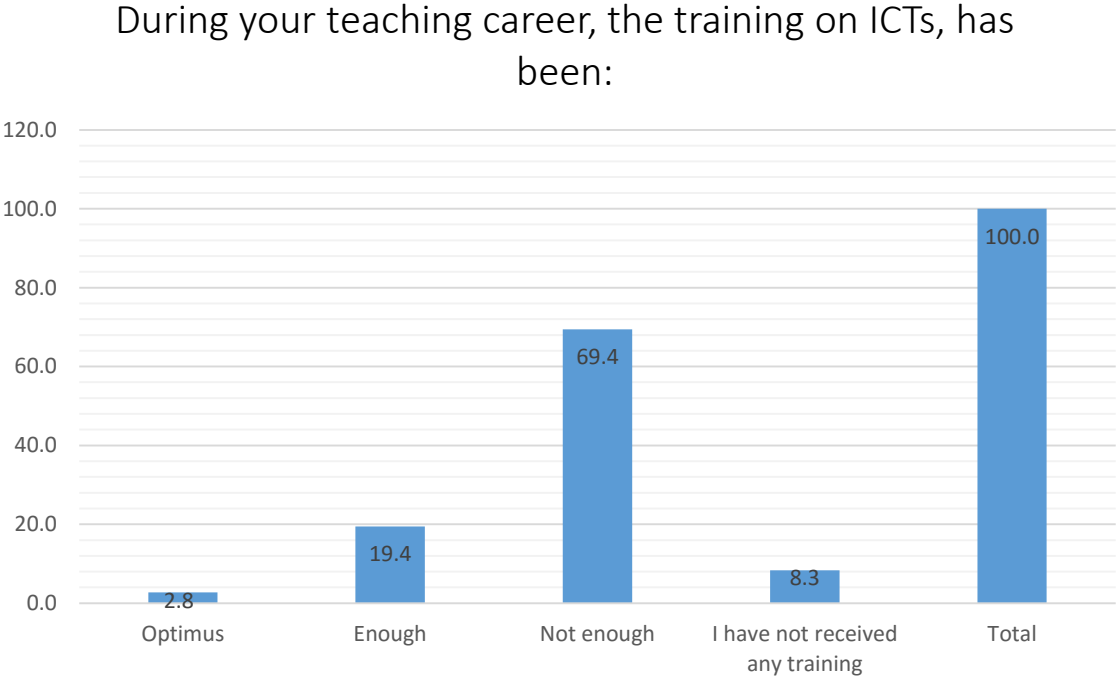
Publishing additional material, according to the graph, represents the 17% out of the total of participants is the main use they give to the resource MOODLE LMS. Followed by assigning homework and clarifying doubts with the 15% each. And, grading is the use that the professors from the FLD use the less with the 6% shown on the graph.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 34

During your teaching career, the training on ICTs, has been:	
	%
Optimus	2.8
Enough	19.4
Not enough	69.4
I have not received any training	8.3
Total	100.0

Chart 34



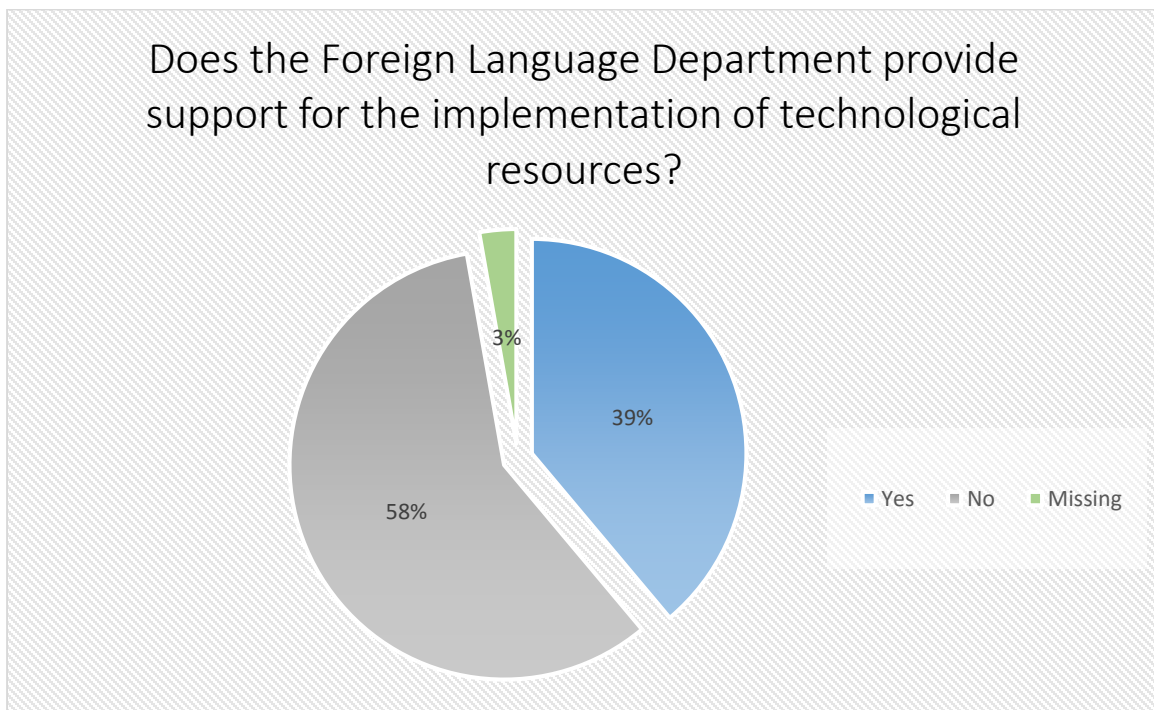
The result obtained in this statement shows that an important 69.4% of the participants expressed that the training on ICTs has been not enough. While, the 19% of the professors answered that the training in this area has been enough. But, the 8.3% have not received any training on ICTs.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 35

Does the Foreign Language Department provide support for the implementation of technological resources?	
	%
Yes	38.9
No	58.3
Total	97.2
Missing	2.8
Total	100.0

Chart 35



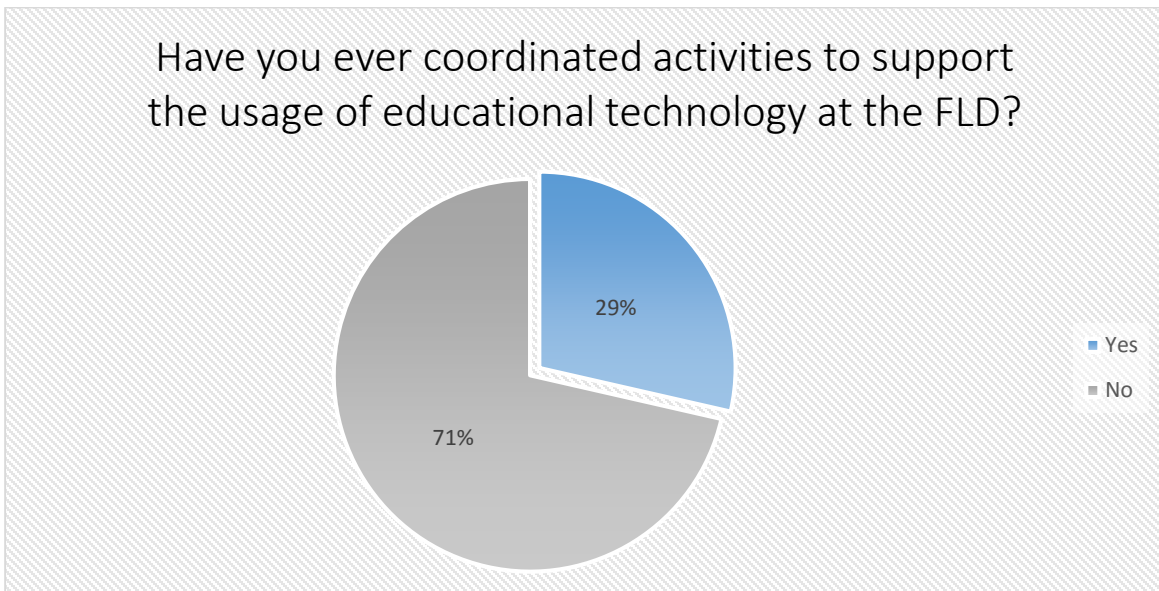
To the statement: "Does the Foreign Language Department provide support for the implementation of technological resources?" a significant 58% of the professors from the FLD answered that the FLD does not provide any support for the implementation of technological resources. Meanwhile, only the 39% of the participants consider that the FLD does it.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 36

Have you ever coordinated activities to support the usage of educational technology at the FLD?	
	%
Yes	27.8
No	69.4
Total	97.2
Missing	2.8
Total	100.0

Chart 36



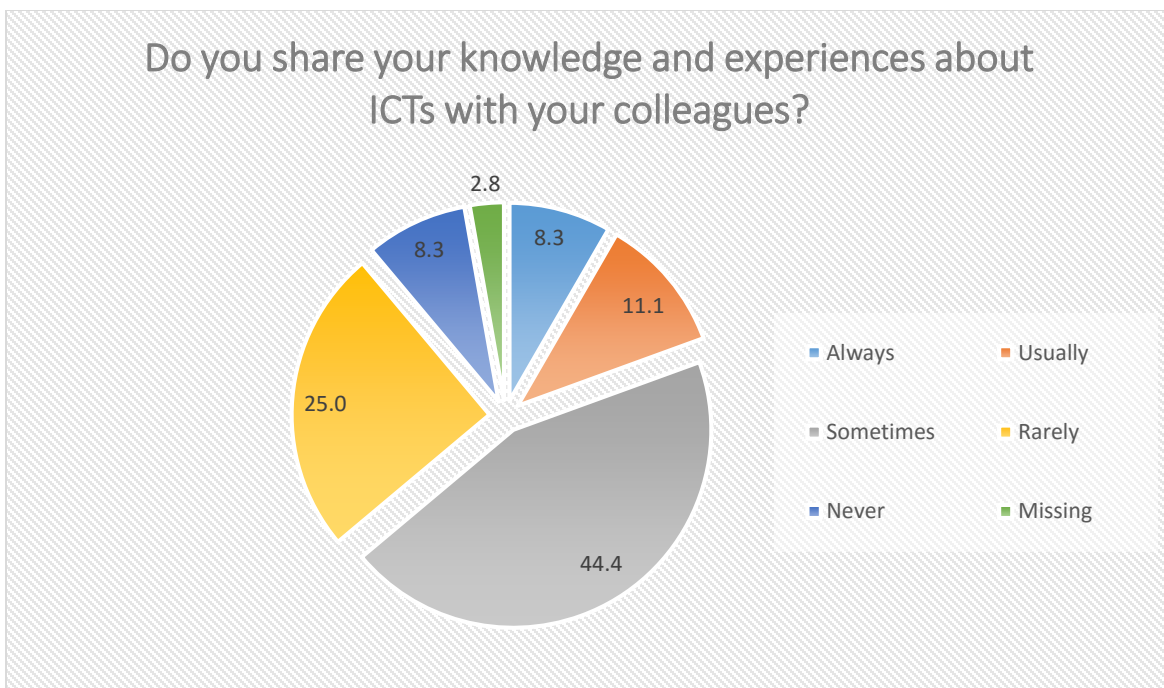
71% of the professors from the FLD responded that they have never coordinated activities to support the usage of educational technology at the FLD. But, the 29% expressed that they have coordinated this kind of activities.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 37

Do you share your knowledge and experiences about ICTs with your colleagues?		
		%
Valid	Always	8.3
	Usually	11.1
	Sometimes	44.4
	Rarely	25.0
	Never	8.3
	Total	97.2
	Missing	2.8
	Total	100.0

Chart 37



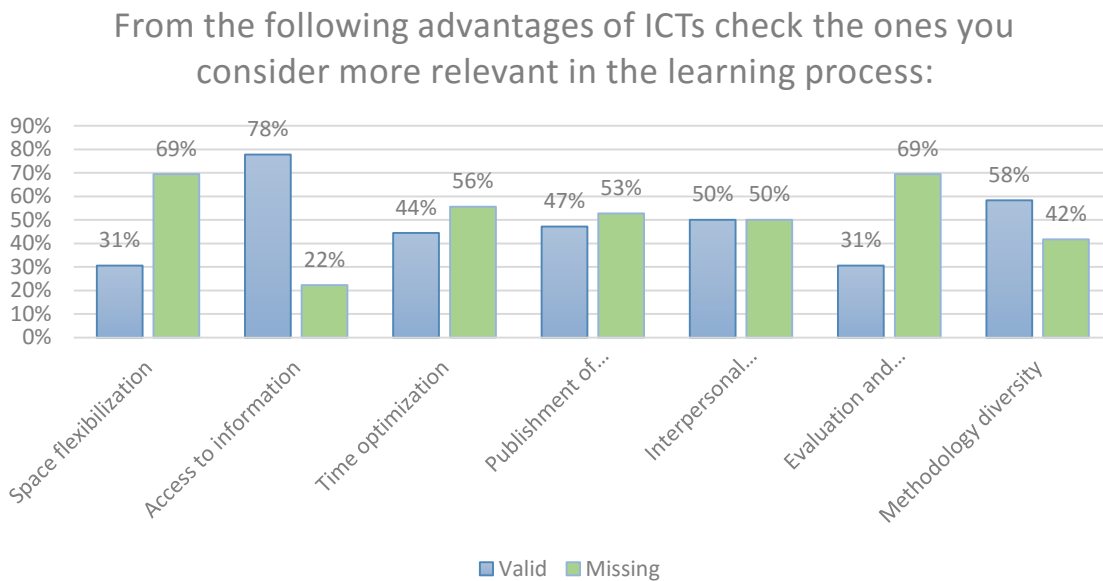
It is evident that the majority of professors from the FLD, with the 44%, share their knowledge about ICTs sometimes, followed by 25% who share this knowledge rarely with their colleagues. And, the 11.1% of the participants admitted that they never do it.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 38

From the following advantages of ICTs check the ones you consider more relevant in the learning process:			
	Valid	Missing	Total
Space flexibilization	31%	69%	100%
Access to information	78%	22%	100%
Time optimization	44%	56%	100%
Publishment of information	47%	53%	100%
Interpersonal communication	50%	50%	100%
Evaluation and self-evaluation	31%	69%	100%
Methodology diversity	58%	42%	100%

Chart 38



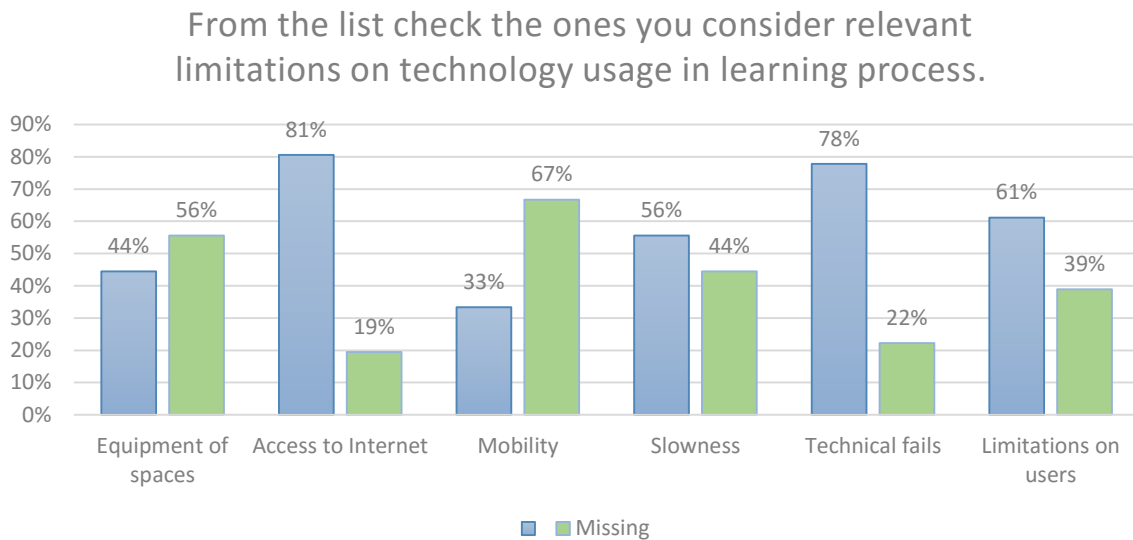
The results obtained show that an important 78% of professors from the FLD consider that “Access to information” is a relevant advantage when using ICTs. Also, the 58% consider “Methodology diversity” as an important advantage. And, the 50% of the participants consider that “Interpersonal communication” is a relevant one. Followed by the 44% who considers “Time optimization” as other significant advantage.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 39

From the list check the ones you consider relevant limitations on technology usage in learning process.						
Valid	Equipment of spaces	Access to Internet	Mobility	Slowness	Technical fails	Limitations on users
	44%	81%	33%	56%	78%	61%
Missing	56%	19%	67%	44%	22%	39%
Total	100%	100%	100%	100%	100%	100%

Chart 39



According to the graph, a significant 81% of the professors from the FLD consider “ACCESS TO INTERNET” as the most relevant LIMITATION when using technology in the learning process. Also, the 78% of the participants think that “technical fails” is other important limitation. Followed by the 61% who considers that “Limitation on users” is a relevant limitation.

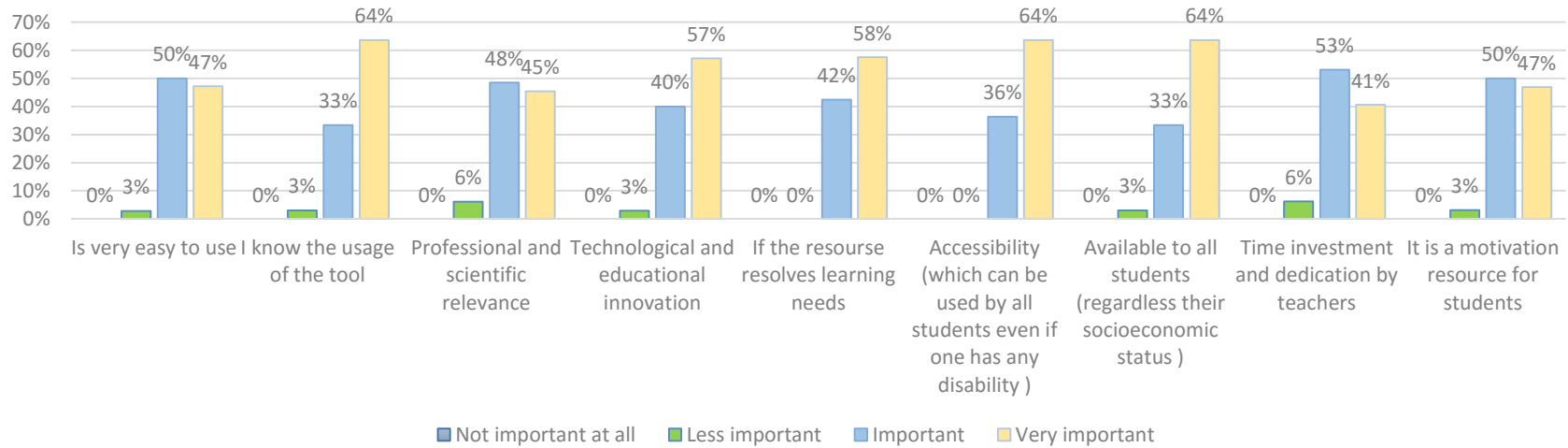
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015.

Table 40

Select the level of importance given to the following factors when choosing a technological resource for teaching:					
	Not important at all	Less important	Important	Very important	Total
Is very easy to use	0%	3%	50%	47%	100%
I know the usage of the tool	0%	3%	33%	64%	100%
Professional and scientific relevance	0%	6%	48%	45%	100%
Technological and educational innovation	0%	3%	40%	57%	100%
If the resource resolves learning needs	0%	0%	42%	58%	100%
Accessibility (which can be used by all students even if one has any disability)	0%	0%	36%	64%	100%
Available to all students (regardless their socioeconomic status)	0%	3%	33%	64%	100%
Time investment and dedication by teachers	0%	6%	53%	41%	100%
It is a motivation resource for students	0%	3%	50%	47%	100%

Chart 40

Select the level of importance given to the following factors when choosing a technological resource for teaching:



Source: Table 40

To the statement “Select the level of importance given to the following factors when choosing a technological resource for teaching” The factors that professors consider as VERY IMPORTANT are: “I know the usage of the tool” with the 64%, then “Accessibility (can be used by all students even if one has some disability)” represented by the 64%, Also, “Available to all students (regardless their socioeconomic status)” was checked by the 64% of the participants. The factors considered as IMPORTANT are: “Time investment and dedication by teachers” with the 53%, Also “It is a motivation resource for students” and “It is very easy to use” both with 50% of consideration. But, a factor considered as LESS IMPORTANT is “Professional and scientific relevance” which was checked by the 6% of the professors from the FLD.

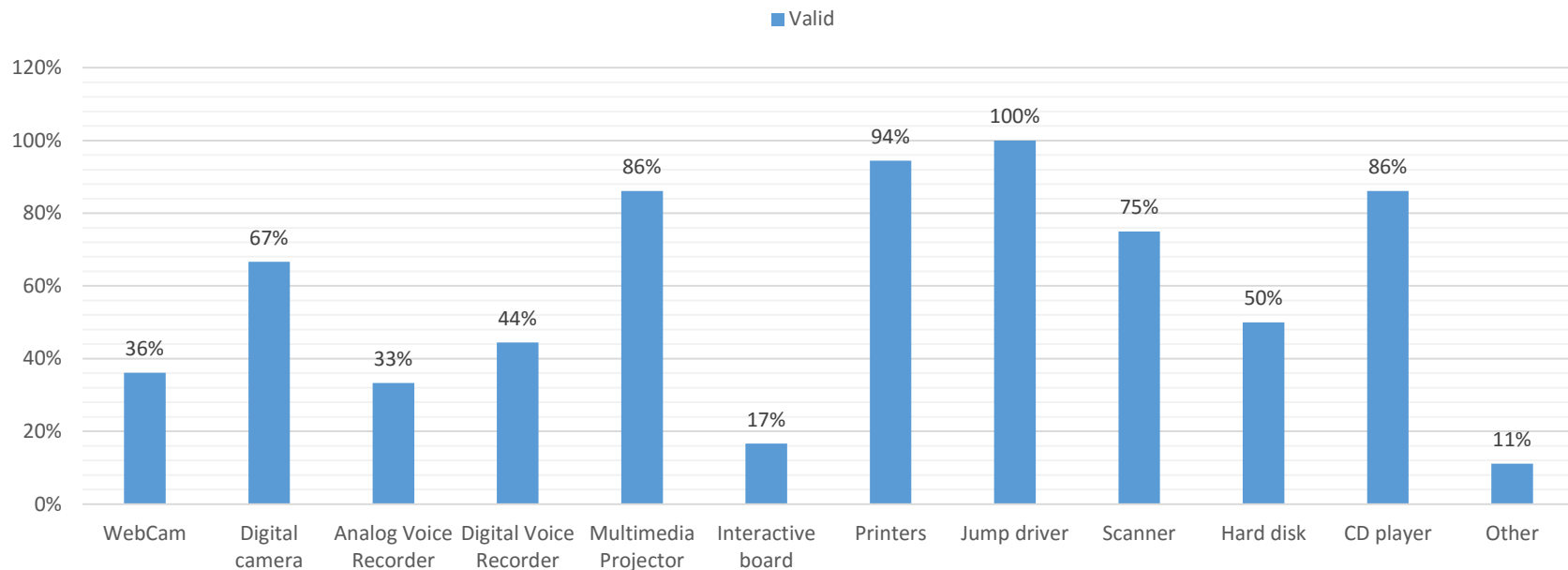
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 41

From the list check the computer equipment you use:			
	Valid	Missing	Total
Webcam	36%	64%	100%
Digital camera	67%	33%	100%
Analog Voice Recorder	33%	67%	100%
Digital Voice Recorder	44%	56%	100%
Multimedia Projector	86%	14%	100%
Interactive board	17%	83%	100%
Printers	94%	6%	100%
Jump driver	100%	0%	100%
Scanner	75%	25%	100%
Hard disk	50%	50%	100%
CD player	86%	14%	100%
Other	11%	89%	100%

Chart 41

From the list check the computer equipment you use:



Source: Table 41

In the graph it is noticeable that “THE JUMP DRIVER” as a part of computer equipment, is used by the 100% of the professors of the FLD. “printers” got the 94% of checks. Also, the 86% of the participants answered that they use “CD player”; the same percentage is for “multimedia projector”. Meanwhile, only the 17% expressed that they have had the opportunity to use an “Interactive board”.

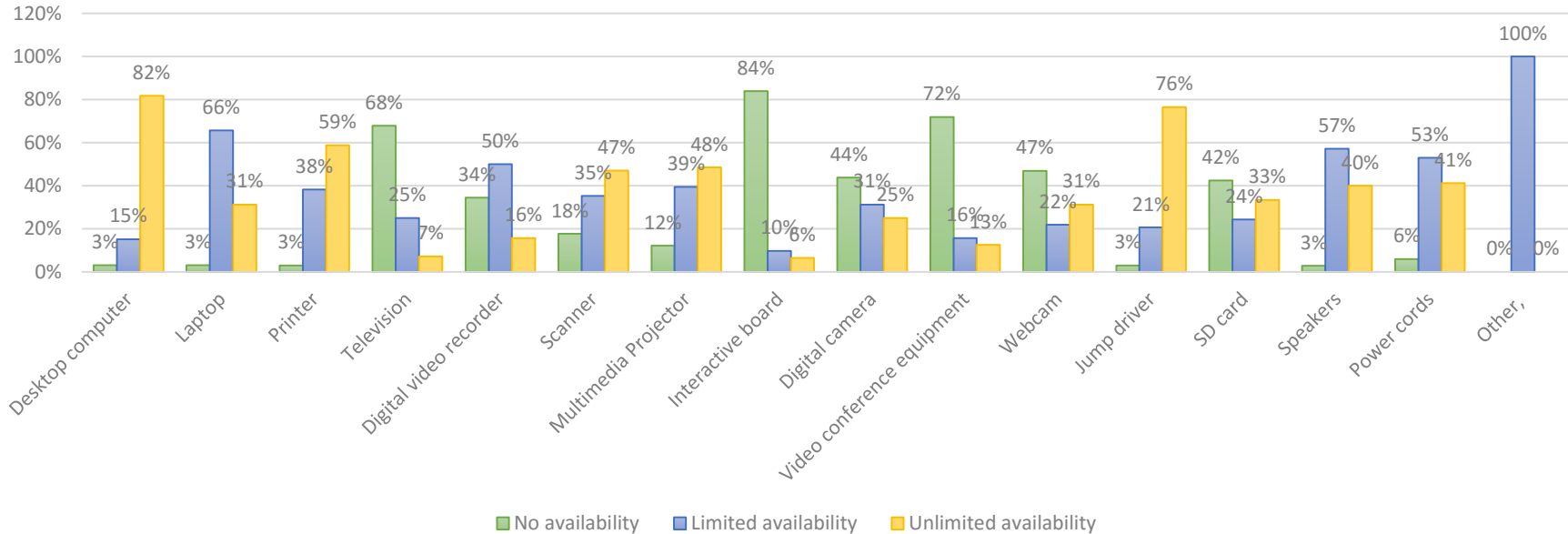
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 42

Indicate the equipment you use for teaching your classes and the current availability to use it:				
	No availability	Limited availability	Unlimited availability	Total
Desktop computer	3%	15%	82%	100%
Laptop	3%	66%	31%	100%
Printer	3%	38%	59%	100%
Television	68%	25%	7%	100%
Digital video recorder	34%	50%	16%	100%
Scanner	18%	35%	47%	100%
Multimedia Projector	12%	39%	48%	100%
Interactive board	84%	10%	6%	100%
Digital camera	44%	31%	25%	100%
Video conference equipment	72%	16%	13%	100%
Webcam	47%	22%	31%	100%
Jump driver	3%	21%	76%	100%
SD card	42%	24%	33%	100%
Speakers	3%	57%	40%	100%
Power cords	6%	53%	41%	100%
Other,	0%	100%	0%	100%

Chart 42

Indicate the equipment you use for teaching your classes and the current availability to use it:



Source: Table 42

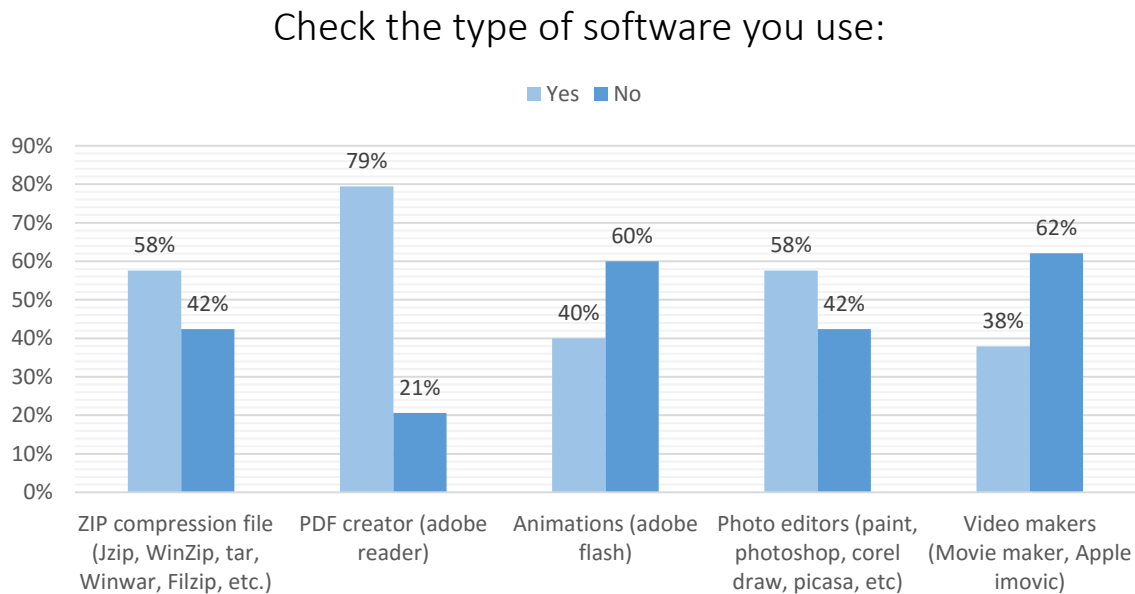
The availability of teachers have for teaching in the department, according to the data collected, is very balanced. There is unlimited availability for desktop computers (82%) Jump drivers (76%) and printers (59%). Teachers answered that there is limited availability when trying to use laptops (66%), speakers (57%) and power cords (53%). According to the chart, there is not availability for interactive boards (84%), video conference equipment (72%) and television (68%).

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 43

Check the type of software you use:					
	ZIP compression file (Zip, WinZip, tar, Winwar, Filzip, etc.)	PDF creator (adobe reader)	Animations (adobe flash)	Photo editors (paint, Photoshop, Corel draw, Picasa, etc)	Video makers (Movie maker, Apple imovic)
Yes	58%	79%	40%	58%	38%
No	42%	21%	60%	42%	62%
Total	100%	100%	100%	100%	100%

Chart 43



The type of software that is used the most by the professors from the FLD is “PDF creator (adobe reader) represented by the 79%. Followed by “Zip compression file (WinZip, Winrar, etc)” and “Photo editors (paint, Photoshop, Picasa, etc)” both checked by the 58% of participants.

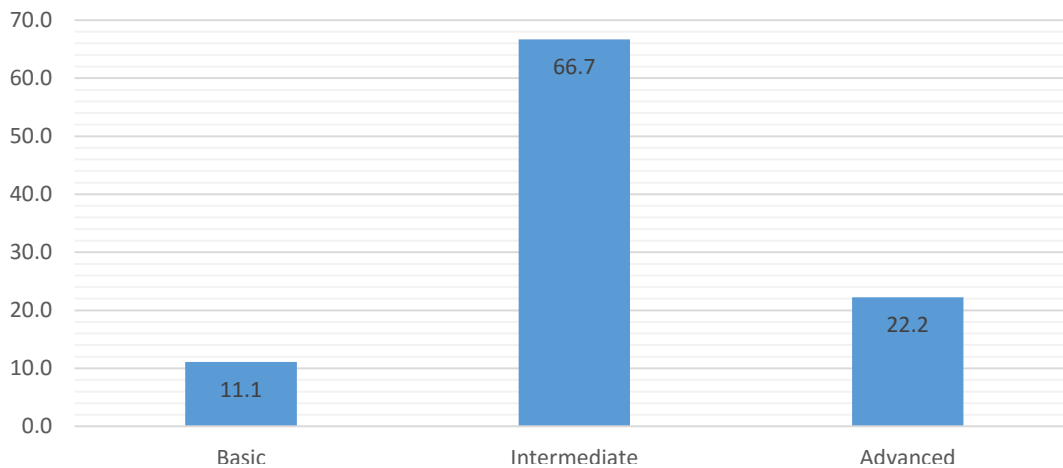
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 44

In general, what level do you consider you have in the usage of Microsoft Office (Word, Excel and Power Point)?	
	%
Basic	11.1
Intermediate	66.7
Advanced	22.2
Total	100.0

Chart 44

In general, what level do you consider you have in the usage of Microsoft Office (Word, Excel and Power Point)?



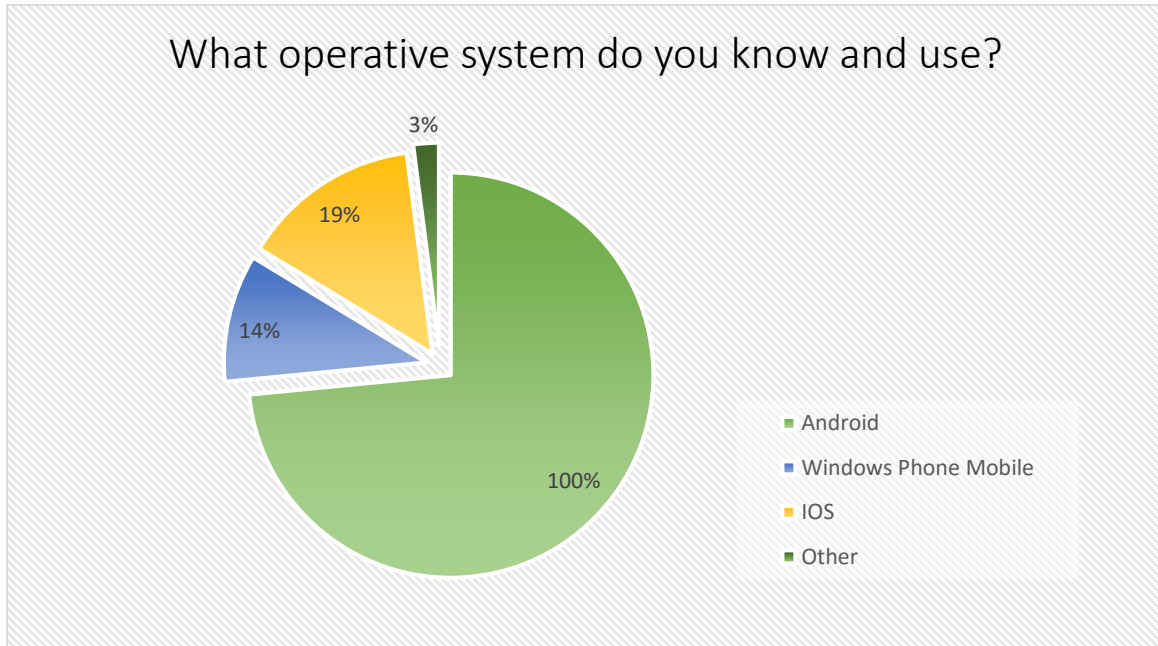
Based on this graph, it can be said that the 66.7% of the participants have an intermediate level of knowledge in the usage of Microsoft Office (Word, Excel and Power Point), meanwhile the 22.2% out of the total answered that their level of knowledge is advanced. The minority percentage is represented by the 11.1% that consider their knowledge is just basic.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 45

What operative system do you know and use?				
	Android	Windows Phone Mobile	IOS	Other
Valid	100%	14%	19%	3%
Missing	0%	86%	81%	97%
Total	100%	100%	100%	100%

Chart 45



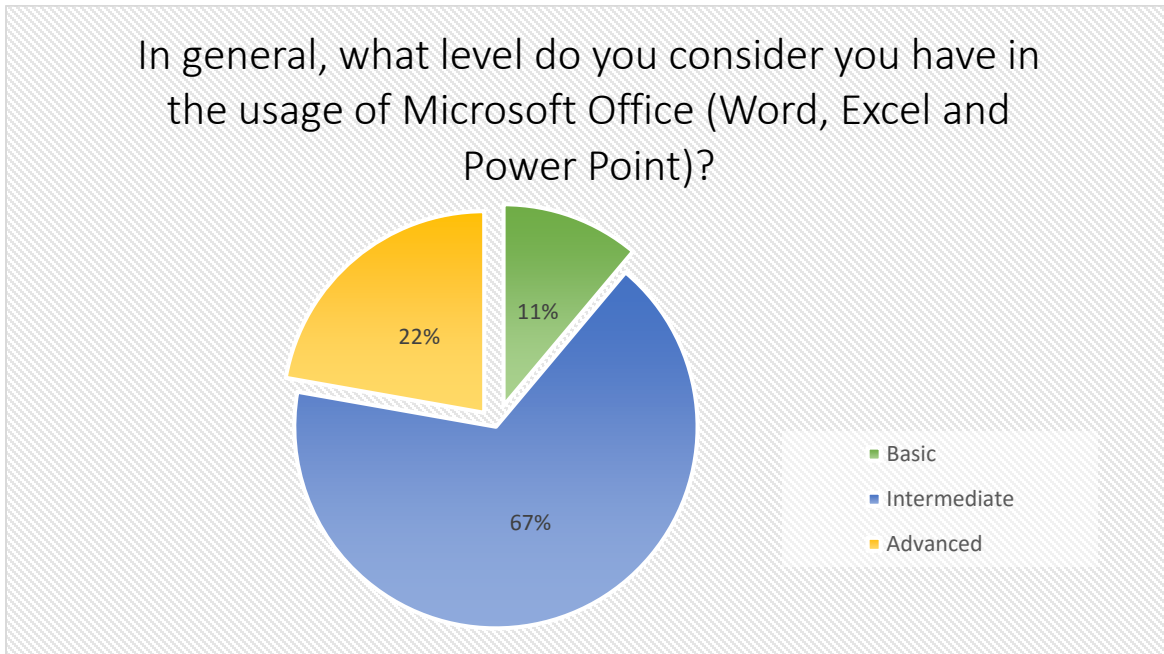
It is evident that all the participants (100%) answered that an operative system that they know and use is “Android”, followed by “IOS” with the 19%. And, other operative system known and used by the professors from the FLD is “Windows Phone Mobile” represented by the 14%.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 46

In general, what level do you consider you have in the usage of Microsoft Office (Word, Excel and Power Point)?	
	%
Basic	11.1
Intermediate	66.7
Advanced	22.2
Total	100.0

Chart 46



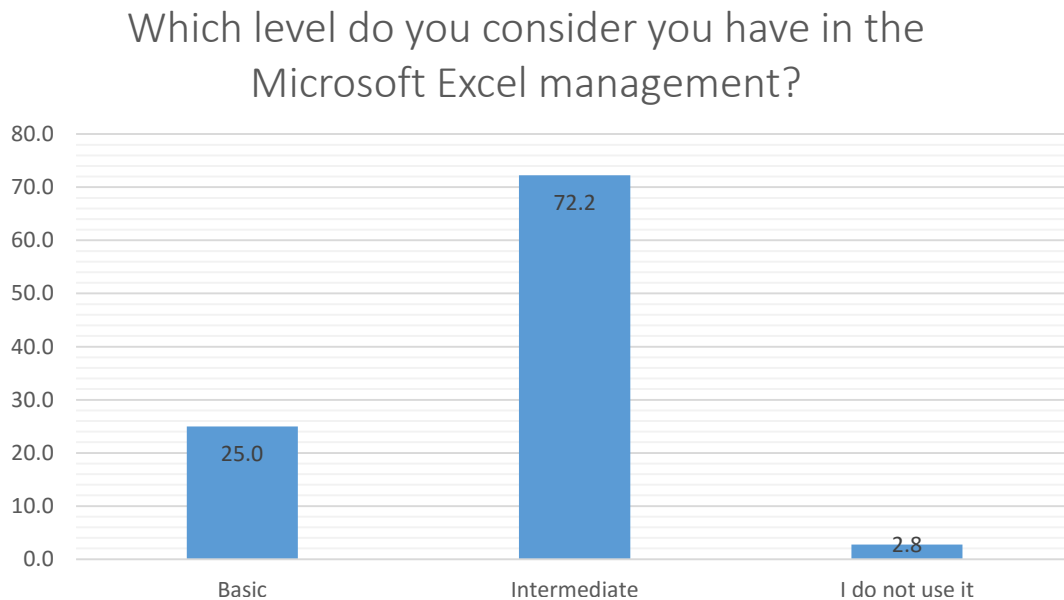
The 67% of professors have intermediate in the usage of Microsoft office (Word, Excel, and Power Point) meanwhile, the 22% answered they have an advanced level. The rest 11% selected they have a basic level in the usage of this software.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 47

Which level do you consider you have in the Microsoft Excel management?	
	%
Basic	25.0
Intermediate	72.2
I do not use it	2.8
Total	100.0

Chart 47



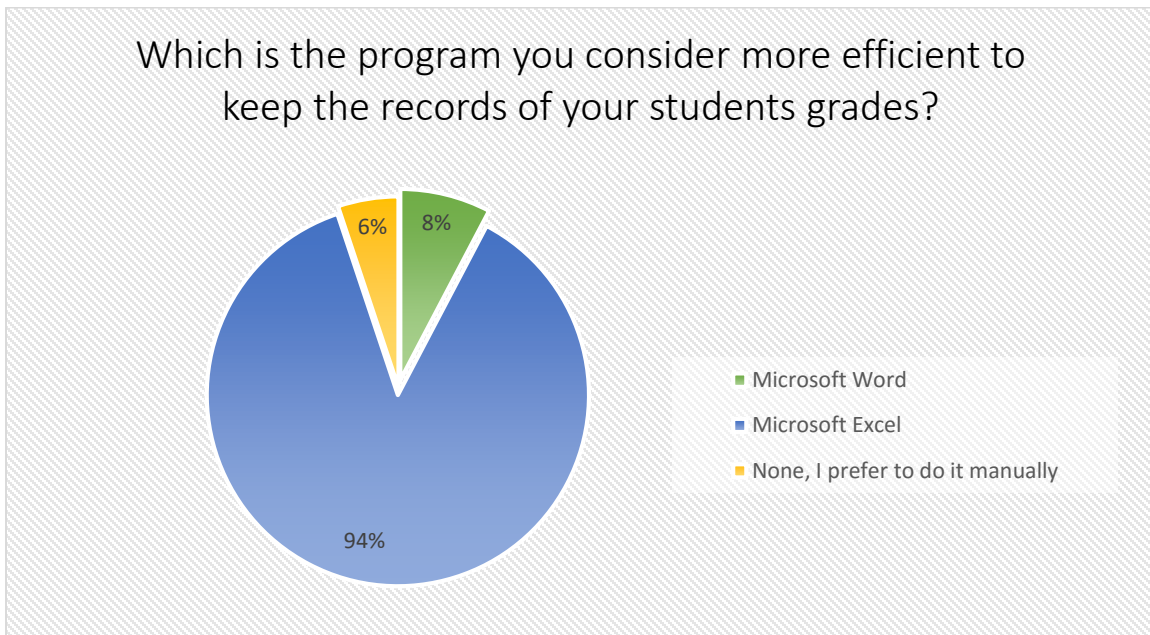
Based on this graph, it can be said that the 72.2% of the participants have an intermediate level of knowledge in the usage of Microsoft Excel. Meanwhile the 25% out of the total answered that their level of knowledge is basic. The minority percentage is represented by the 2.8% that do not use this type of software.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 48

Which is the program you consider more efficient to keep the records of your students grades?			
	Microsoft Word	Microsoft Excel	None, I prefer to do it manually
Valid	8%	94%	6%
Missing	92%	6%	94%
Total	100%	100%	100%

Chart 48



According to the results obtained, this graph shows the program that participant consider more efficient to keep the records of their students grades is Excel with a 94% out of the total. However there are still a 6% of participants that preferred to do it manually.

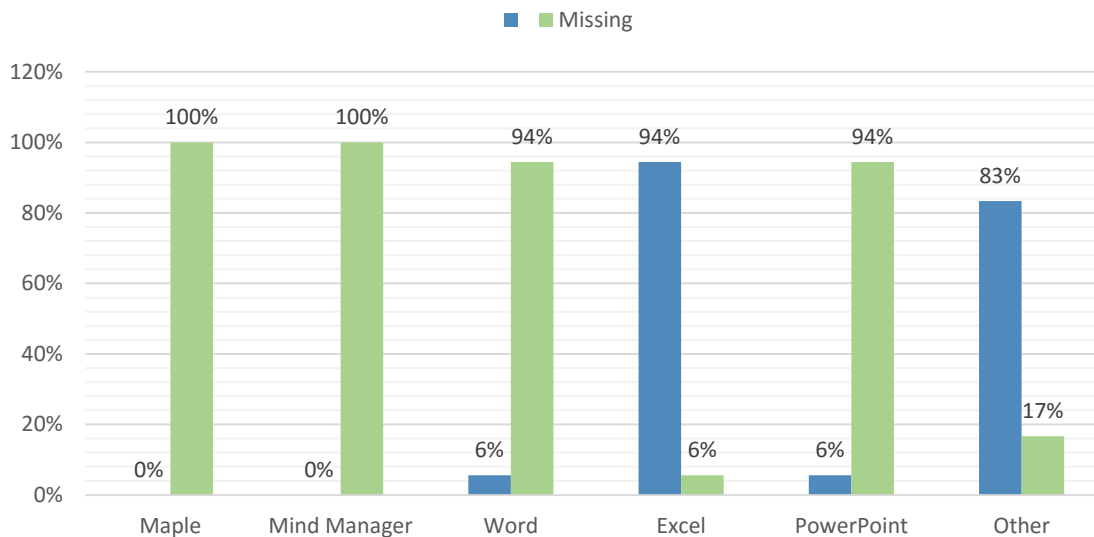
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 49

Indicate the type of software that supports you when planning classes						
Valid	Maple	Mind Manager	Word	Excel	PowerPoint	Other
	0%	0%	6%	94%	6%	83%
Missing	100%	100%	94%	6%	94%	17%
Total	100%	100%	100%	100%	100%	100%

Chart 49

Indicate the type of software that supports you when planning classes



It is noticeable that the type of software that supports professors from the FLD when planning classes is Excel with a 94% out of the total, sharing almost the same percentage with the 83% that responded "other".

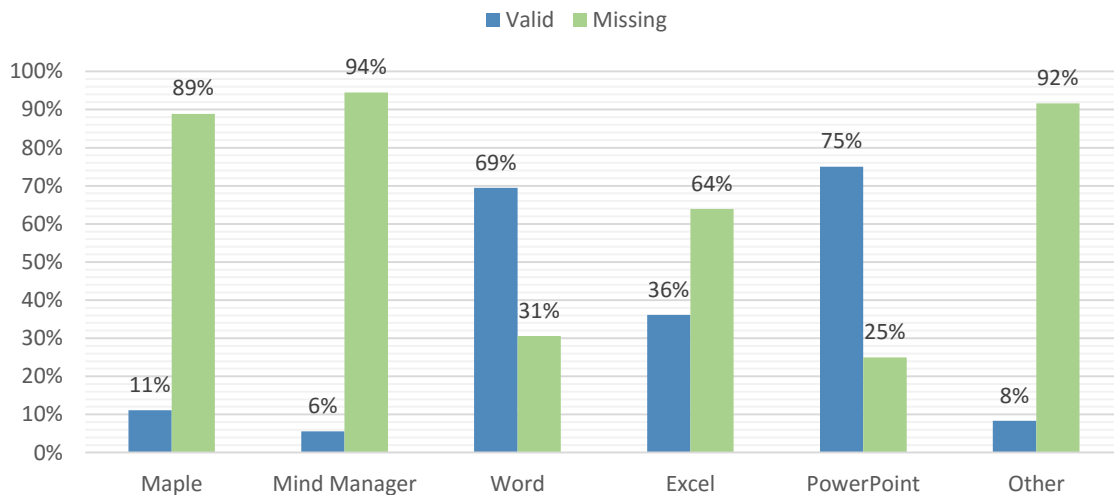
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 50

Indicate the type of software that supports you when developing classes						
	Maple	Mind Manager	Word	Excel	PowerPoint	Other
Valid	11%	6%	69%	36%	75%	8%
Missing	89%	94%	31%	64%	25%	92%
Total	100%	100%	100%	100%	100%	100%

Chart 50

Indicate the type of software that supports you when developing classes



It is evident that the type of software that supports professors from the FLD when developing classes is power point with a 75%. Another preferred type of software is Word with a 69%.

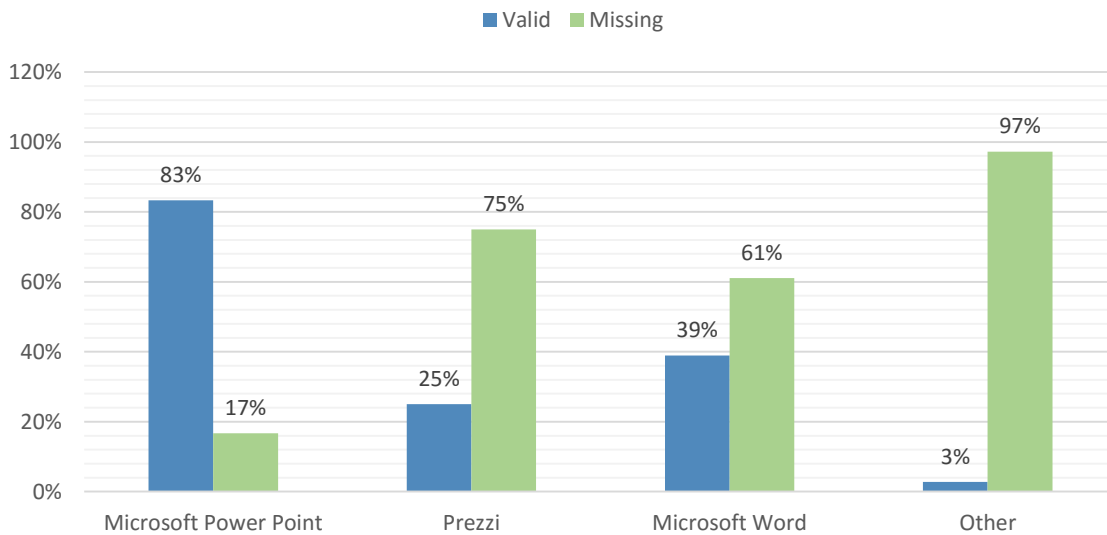
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 51

From the list check the programs you use to design digital presentations in your classes				
	Microsoft Power Point	Prezi	Microsoft Word	Other
Valid	83%	25%	39%	3%
Missing	17%	75%	61%	97%
Total	100%	100%	100%	100%

Chart 51

From the list check the programs you use to design digital presentations in your classes



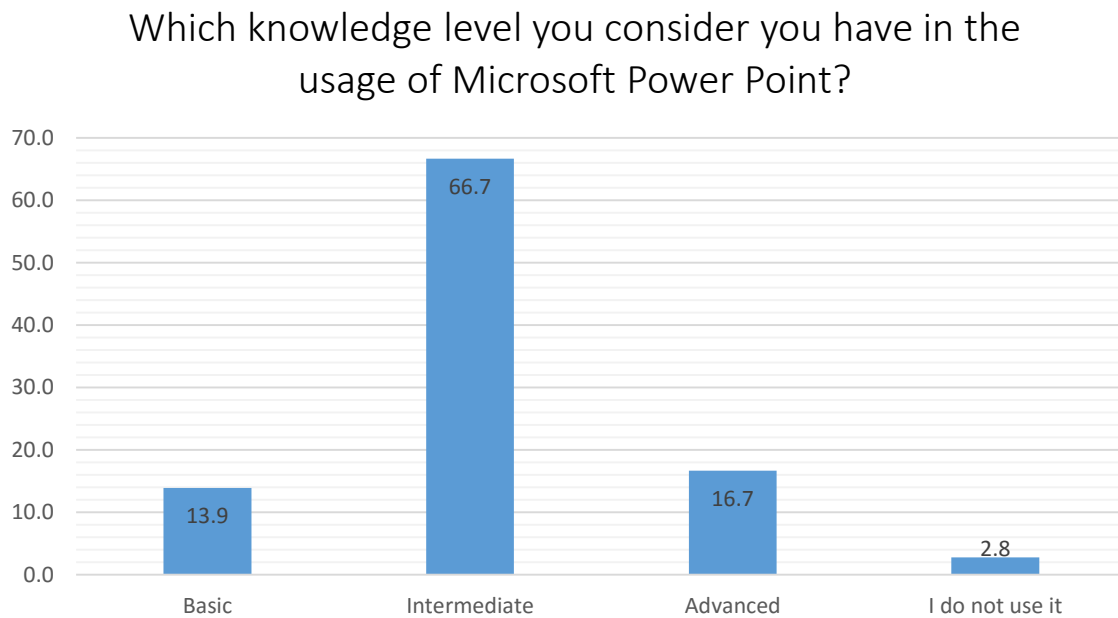
The main program used by teachers to design digital material is Microsoft Power Point with the 83% out of the total. Microsoft Word is represented by the 39% of the population and finally the last percentage shows Prezi® is used only by the 25% of teachers.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 52

Which knowledge level you consider you have in the usage of Microsoft Power Point?	
	%
Basic	13.9
Intermediate	66.7
Advanced	16.7
I do not use it	2.8
Total	100.0

Chart 52



The level of knowledge teachers have on Microsoft Power Point according to the data gathered, the majority with a 66.7% is intermediate, followed by the ones that have advanced level with a 16.7% and finally the ones that have basic level representing the 13.9%.

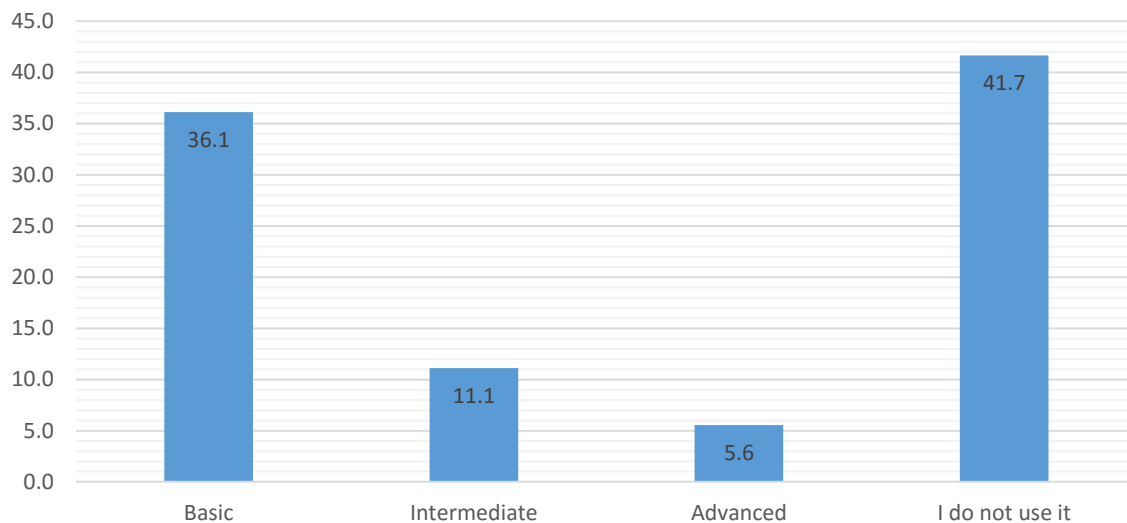
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 53

Which knowledge level you consider you have in the usage of Prezi®?	
	%
Basic	36.1
Intermediate	11.1
Advanced	5.6
I do not use it	41.7
Total	94.4
Missing	5.6
Total	100.0

Chart 53

Which knowledge level you consider you have in the usage of Prezi?



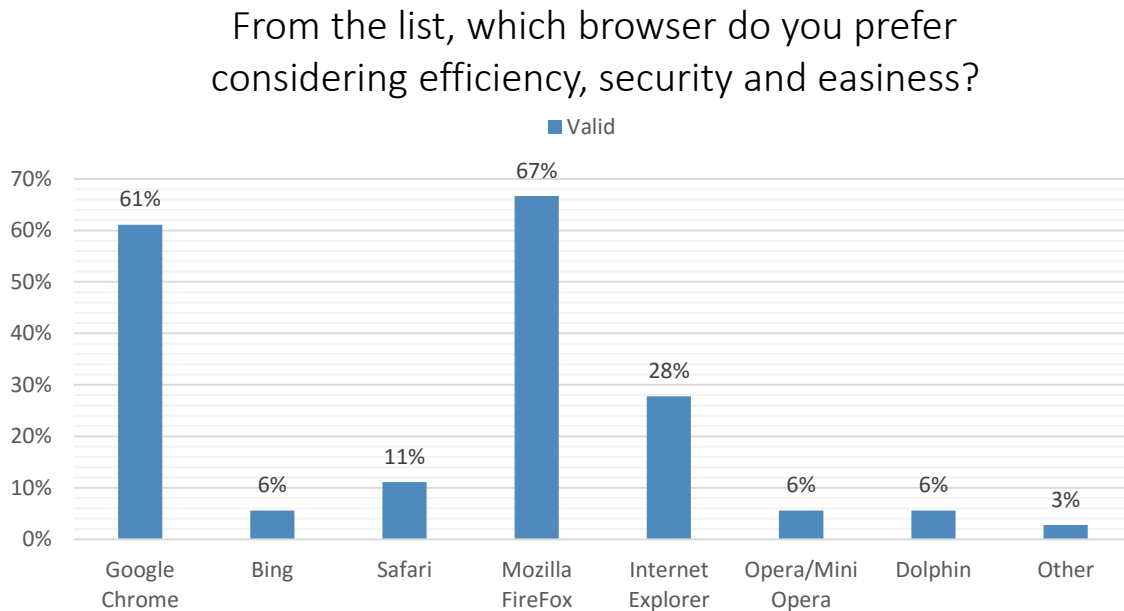
Prezi® is a tool that helps to design presentations online, for teachers of the FLD, is not the best, as the graph shows; the 41.7% do not use it at all. The level of knowledge on those who use Prezi® is basic, represented by the 36.1% and the ones that have intermediate level are shown with the 11.1%.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 54

From the list, which browsers do you prefer considering efficiency, security and easiness?								
	Google Chrome	Bing	Safari	Mozilla Firefox	Internet Explorer	Opera/Mini Opera	Dolphin	Other
Valid	61%	6%	11%	67%	28%	6%	6%	3%
Missing	39%	94%	89%	33%	72%	94%	94%	97%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Chart 54



This graphic shows the preferences teachers have on browsers in terms of efficiency, security and easiness. Mozilla Firefox is the most used among teachers, represented by the 67%. Google Chrome represents the second place with the 61%. Finally, Internet Explorer that is used by the 28% of teachers.

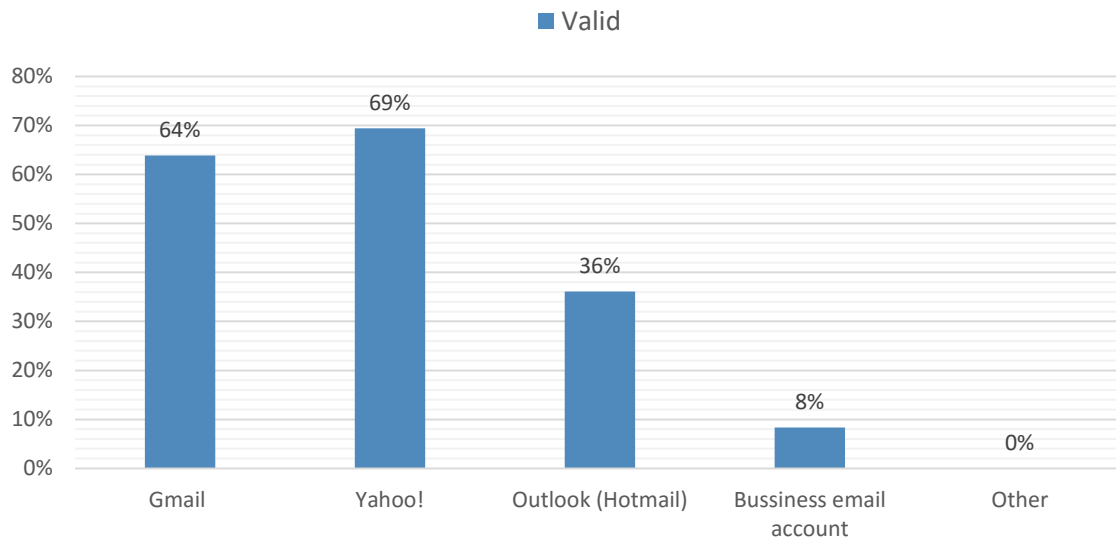
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 55

From the list, which of the following e-mail providers do you use					
	Gmail	Yahoo!	Outlook (Hotmail)	Business email account	Other
Valid	64%	69%	36%	8%	0%
Missing	36%	31%	75%	92%	100%
Total	100%	100%	100%	100%	100%

Chart 55

From the list, which of the following e-mail providers do you use



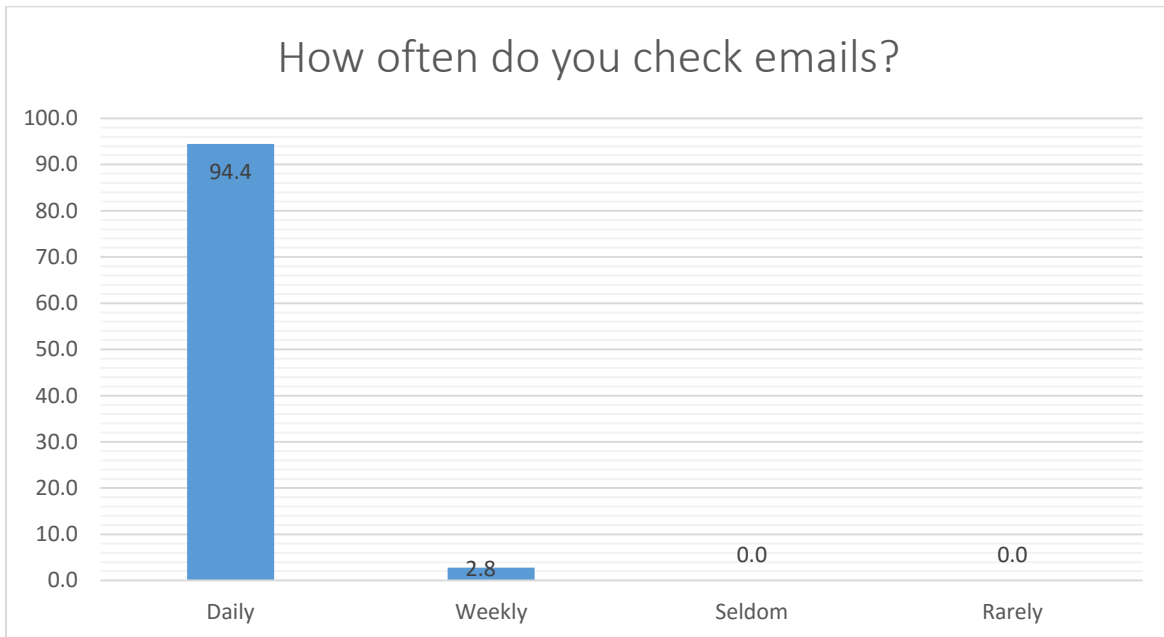
Regarding email providers preferences, teachers responded that Yahoo! is the one they prefer the most with a 69%. Gmail represents the second place with a 64% and Outlook (Hotmail) with 36% shows the third email provider preferred by professors.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 56

How often do you check emails?	
	%
Daily	94.4
Weekly	2.8
Seldom	0.0
Rarely	0.0
Total	97.2
Missing	2.8
Total	100.0

Chart 56



It is clearly defined on the column chart that the majority of teachers representing the 94.4% out of the total, check their emails daily. Meanwhile the 2.8% answered they check it weekly and as shown any teacher checks it seldom or rarely.

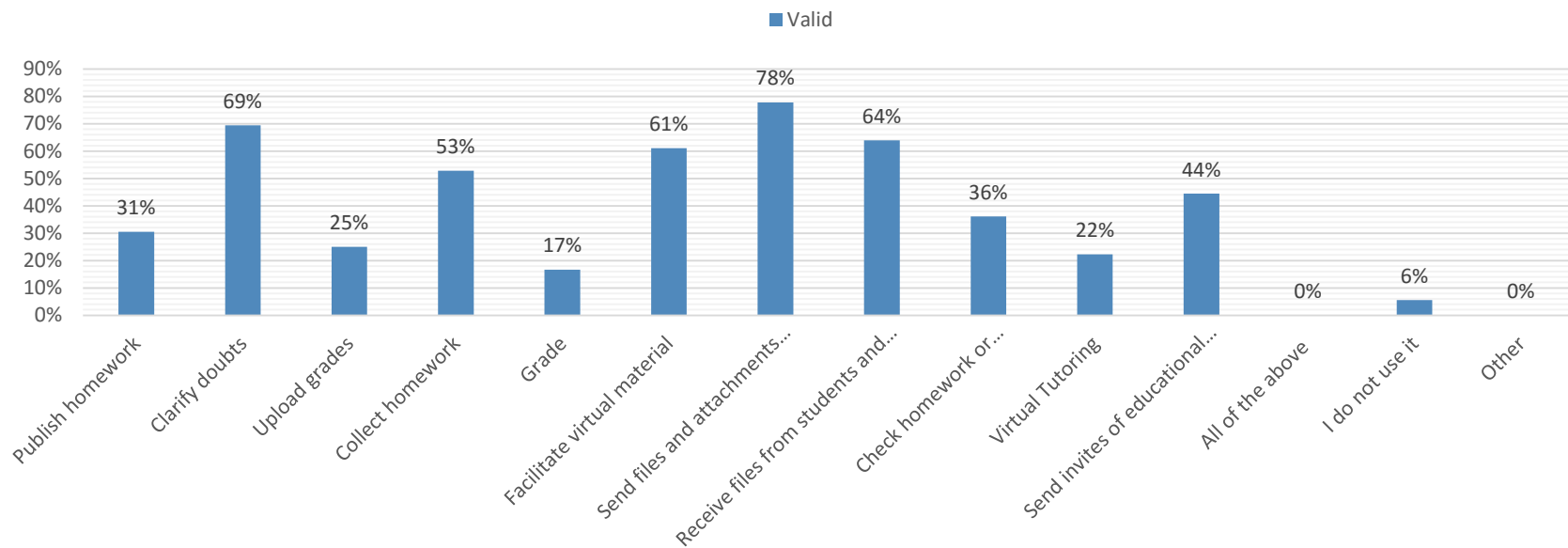
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 57

From the following, indicate the academic advantage you take from emails?			
	Valid	Missing	Total
Publish homework	31%	69%	100%
Clarify doubts	69%	31%	100%
Upload grades	25%	75%	100%
Collect homework	53%	47%	100%
Grade	17%	83%	100%
Facilitate virtual material	61%	39%	100%
Send files and attachments (articles, homework, searcher, etc) simultaneously to different people	78%	22%	100%
Receive files from students and provide individual feedback	64%	36%	100%
Check homework or investigations	36%	64%	100%
Virtual Tutoring	22%	78%	100%
Send invites of educational activities	44%	56%	100%
All of the above	0%	100%	100%
I do not use it	6%	94%	100%
Other	0%	100%	0%

Chart 57

From the following, indicate the academic advantage you take from emails?



Source: Table 57

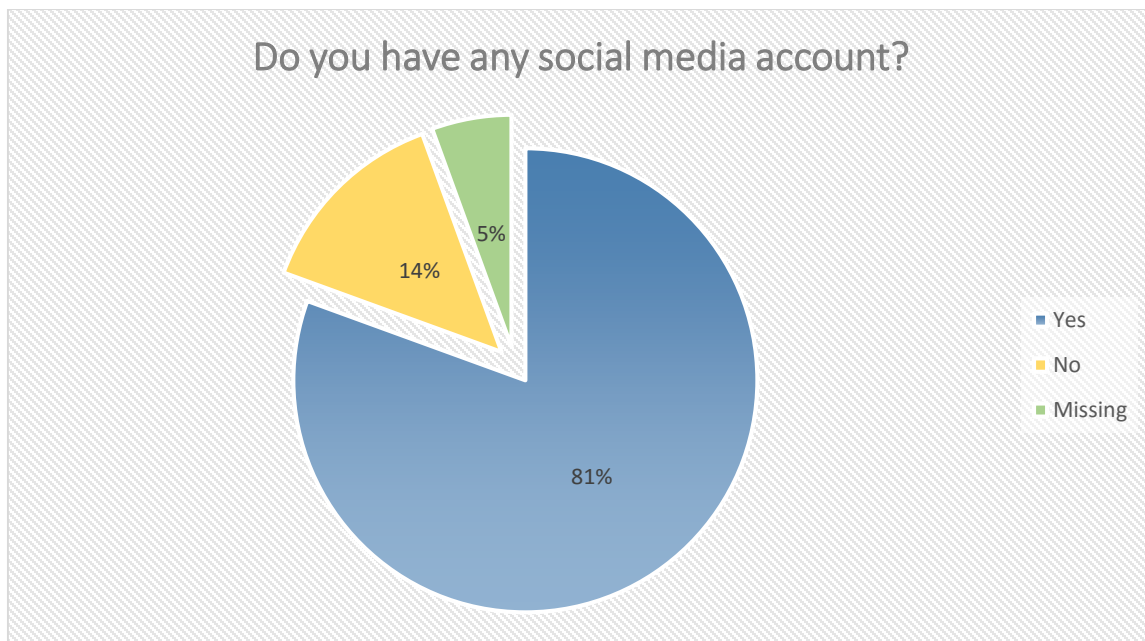
According to the data gathered represented on this graph, sending files and attachments (articles, homework, searcher, etc) simultaneously to different people represents the 78% the main advantage teachers of the FLD take from emails. The minimal 6% is represented by those teachers that responded they do not use emails at all.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 58

Do you have any social media account?	
	%
Yes	80.6
No	13.9
Total	94.4
Missing	5.6
Total	100.0

Chart 58



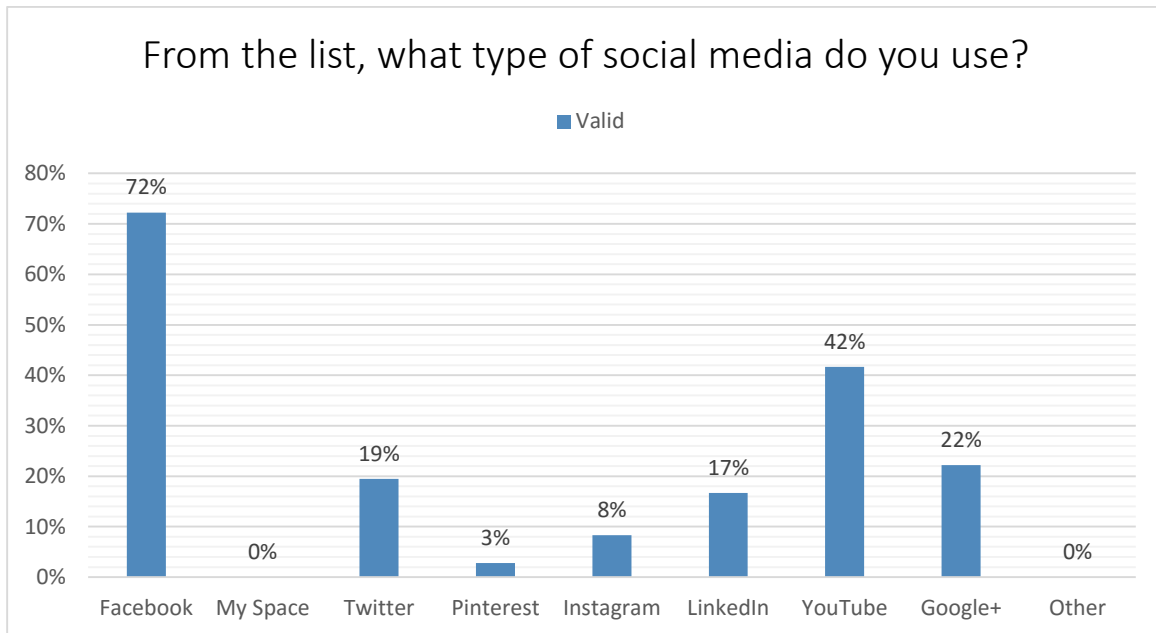
Definitely the majority of professors do have social media accounts; the graph shows an 80.6% with affirmative answers. A negative 13.9% demonstrate the quantity of teachers that do not have social media accounts.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 59

From the list, what type of social media do you use?			
	Valid	Missing	Total
Facebook	72%	28%	100%
My Space	0%	100%	100%
Twitter	19%	81%	100%
Pinterest	3%	97%	100%
Instagram	8%	92%	100%
LinkedIn	17%	83%	100%
YouTube	42%	58%	100%
Google+	22%	78%	100%
Other	0%	100%	100%

Chart 59



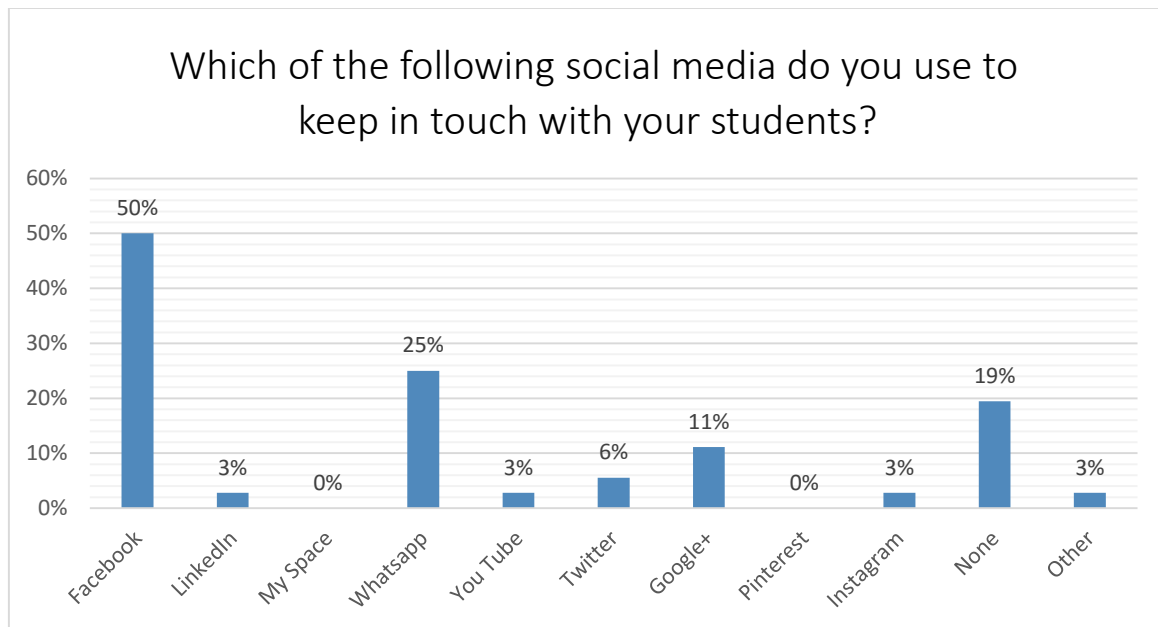
Regarding social media preferences among the FLD professors, the graphic shows Facebook is used the most by a 72% out of the total population. YouTube is the second one that is used the most with a 42%. Google+ represents the third place with a 22% of preference.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 60

Which of the following social media do you use to keep in touch with your students?			
	Valid	Missing	Total
Facebook	50%	50%	100%
LinkedIn	3%	97%	100%
My Space	0%	100%	100%
Whatsapp	25%	75%	100%
You Tube	3%	97%	100%
Twitter	6%	94%	100%
Google+	11%	89%	100%
Pinterest	0%	100%	100%
Instagram	3%	97%	100%
None	19%	81%	100%
Other	3%	97%	100%

Chart 60



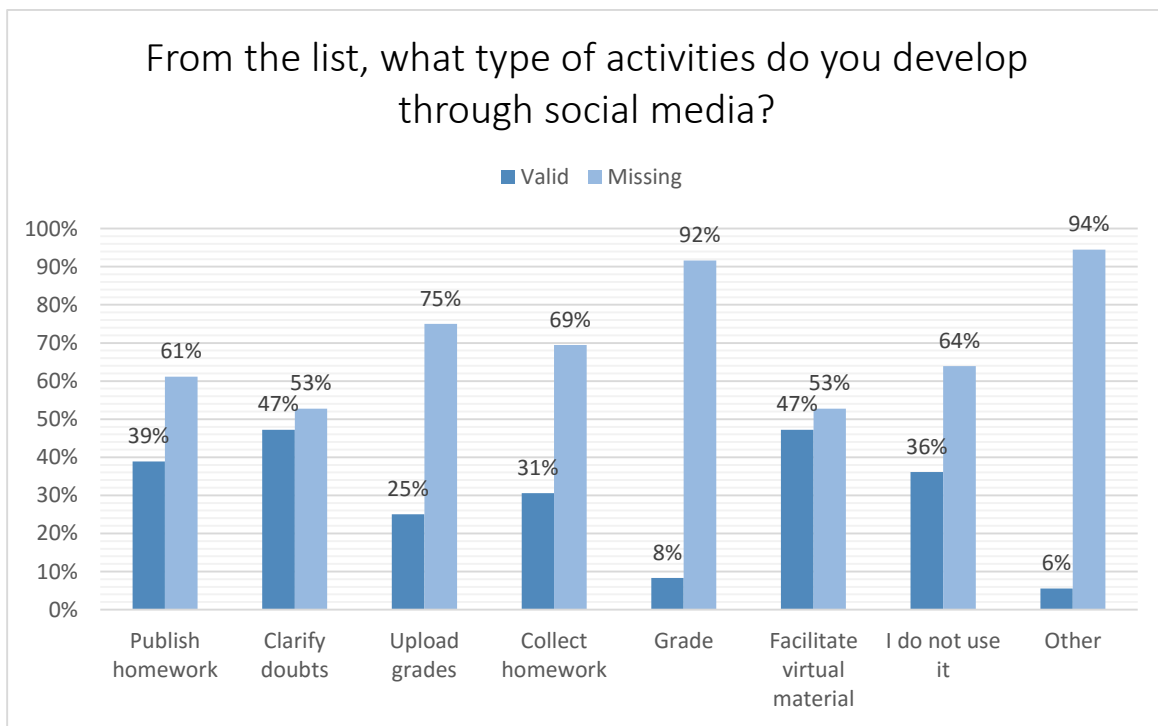
The 50% of teachers that use social media prefer Facebook to keep in touch with their students. Whatsapp is an app used by the 25% of the respondents. On the contrary, a significant 19% of professors think they do not need any social media to stay communicated with students.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 61

From the list, what type of activities do you develop through social media?			
	Valid	Missing	Total
Publish homework	39%	61%	100%
Clarify doubts	47%	53%	100%
Upload grades	25%	75%	100%
Collect homework	31%	69%	100%
Grade	8%	92%	100%
Facilitate virtual material	47%	53%	100%
I do not use it	36%	64%	100%
Other	6%	94%	100%

Chart 61



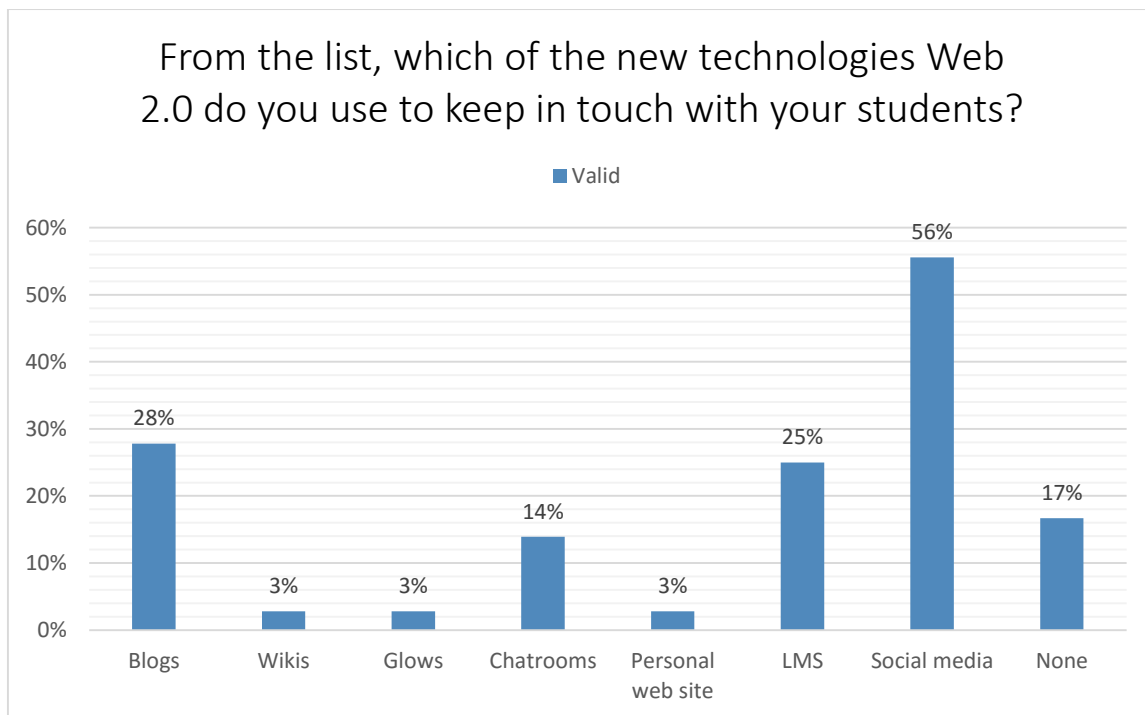
According to the respondents, the 47% use social media to clarify doubts and facilitate virtual material with the same percentage of 47%. Social media is helpful for publishing homework that covers the 39% of professors, while the 36% of teachers said that they do not use any type of social media.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 62

From the list, which of the new technologies Web 2.0 do you use to keep in touch with your students?			
	Valid	Missing	Total
Blogs	28%	72%	100%
Wikis	3%	97%	100%
Glows	3%	97%	100%
Chat rooms	14%	86%	100%
Personal web site	3%	97%	100%
LMS	25%	75%	100%
Social media	56%	44%	100%
None	17%	83%	100%
Other	6%	94%	100%

Chart 62



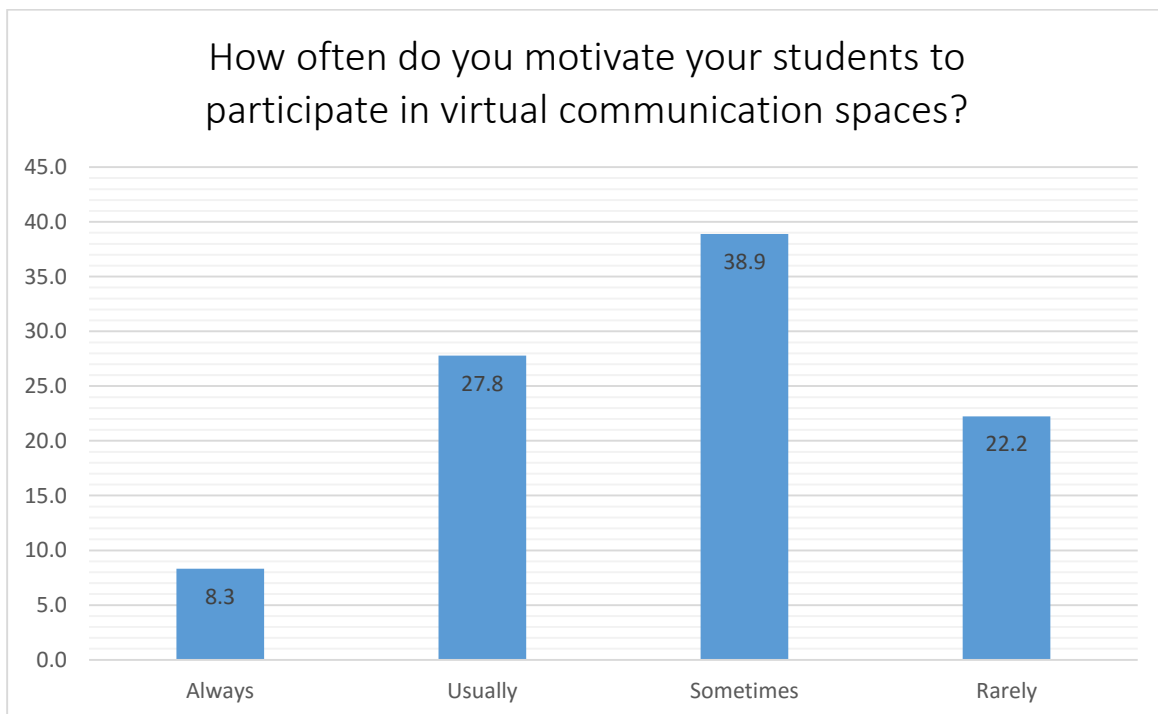
According to the 56% of teachers from the FLD social media is better to get in touch with students. Blogs is used for the 28% of teachers of the FLD and the third usage performed through Web 2.0 that is the Learning Management System provided by the Department.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 63

How often do you motivate your students to participate in virtual communication spaces?	
	%
Always	8.3
Usually	27.8
Sometimes	38.9
Rarely	22.2
Total	97.2
Missing	2.8
Total	100.0

Chart 63



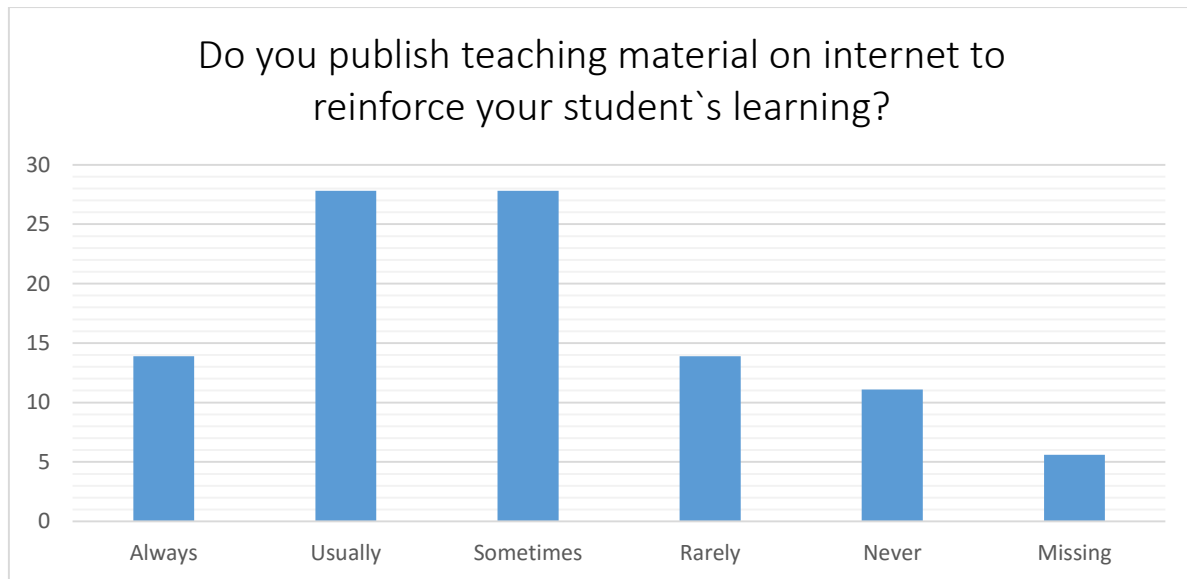
According to the data gathered, the frequency that teachers from the FLD motivate students to participate in virtual communication spaces is sometimes, represented by the 38% out of the total. The 27% said they usually get the time to motivate students to get involved in virtual communication and the minority 8.3% always motivates students to do it.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 64

Do you publish teaching material on internet to reinforce your student`s learning?	
	%
Always	13.9
Usually	27.8
Sometimes	27.8
Rarely	13.9
Never	11.1
Total	94.4
Missing	5.6
Total	100.0

Chart 64



The column bar shows how often teachers publish virtual material in the web in order to reinforce student`s learning. Usually and sometimes are the variables that equally resulted with the 27.8%. Rarely and always represent the 13.9% each and finally the 11.1% of the population answered they never publish virtual material.

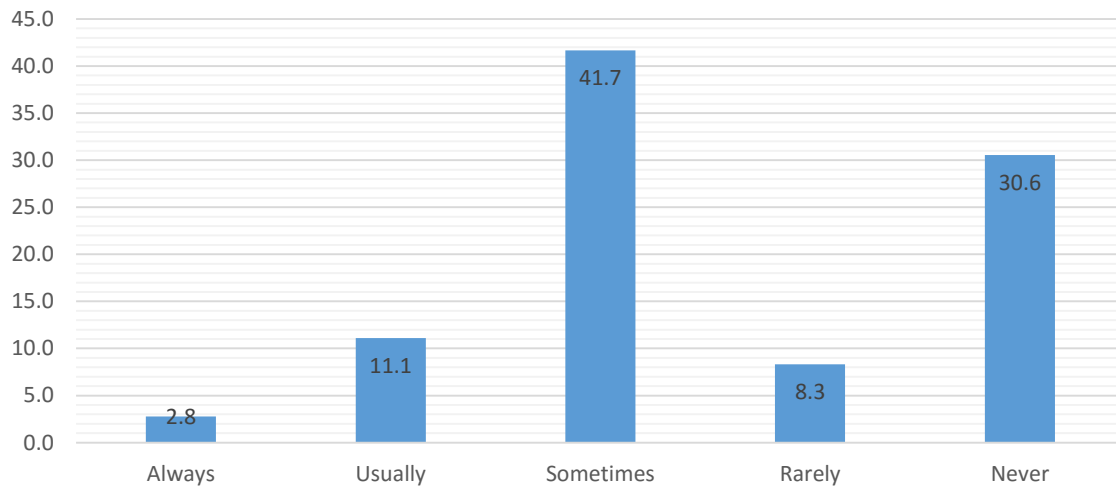
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 65

How often do you provide virtual tutoring to students?	
	%
Always	2.8
Usually	11.1
Sometimes	41.7
Rarely	8.3
Never	30.6
Total	94.4
Missing	5.6

Chart 65

How often do you provide virtual tutoring to students?



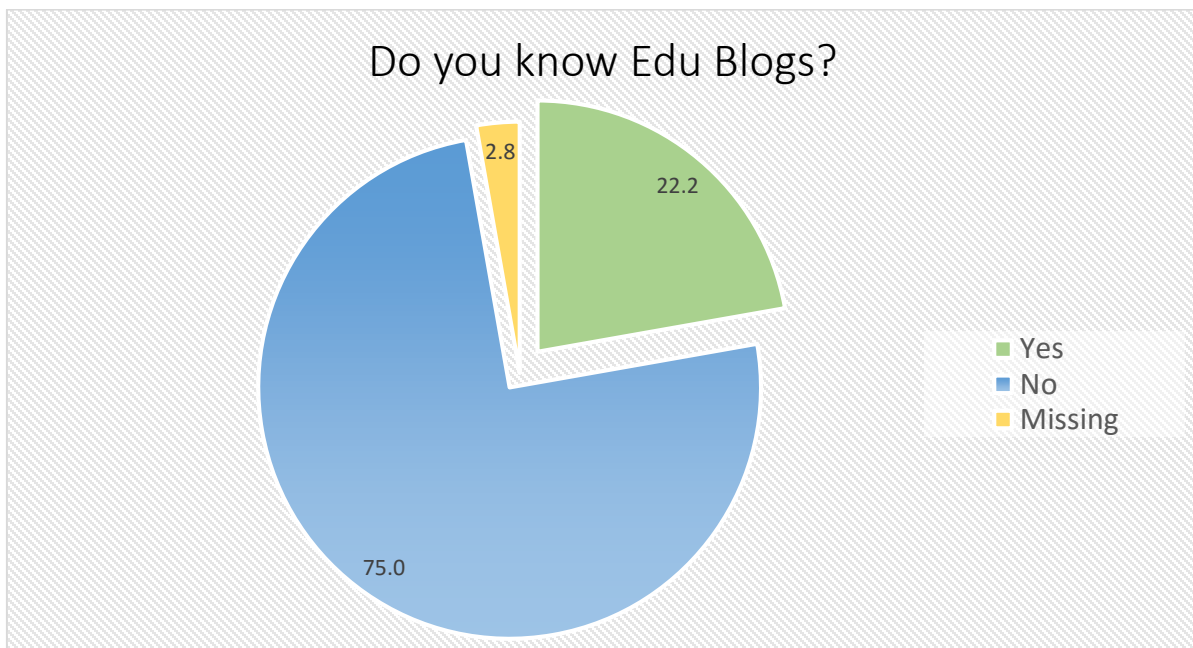
The 41.7% of the teachers responded that sometimes provide virtual tutoring to students. On the contrast, the 30.6% out of the total said that never give virtual tutoring. The 2.8% belongs to the teachers that responded that always give virtual tutoring.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 66

Do you know Edu Blogs?	
	%
Yes	22.2
No	75.0
Total	97.2
Missing	2.8
Total	100.0

Chart 66



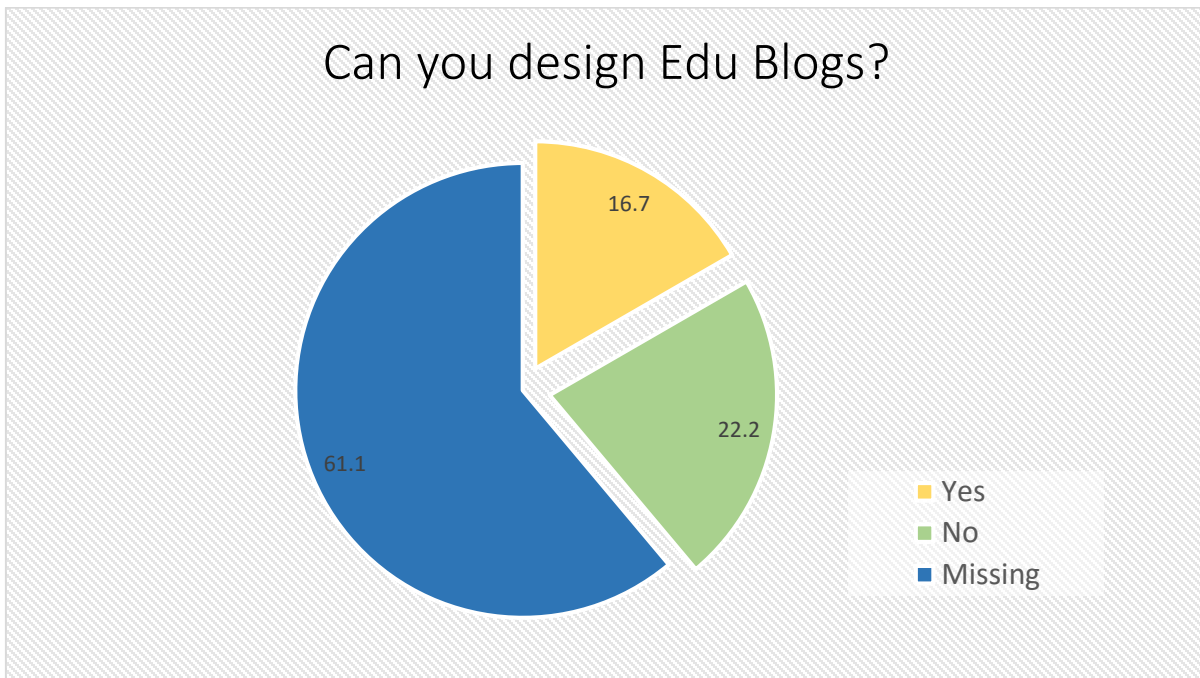
75% out of the total answered that do not know Edu blogs, meanwhile the 22.2% responded they know Edu blogs.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 67

Can you design Edu Blogs?	
	%
Yes	16.7
No	22.2
Total	38.9
Missing	61.1
Total	100.0

Chart 67



According to the pie chart, the 16.7% out of the total population of 38.9% that answered this question, can design Edu blogs, on the contrary, the 22.2% do not know how to design Edu blogs. The remaining 61.1% did not give answer to the question.

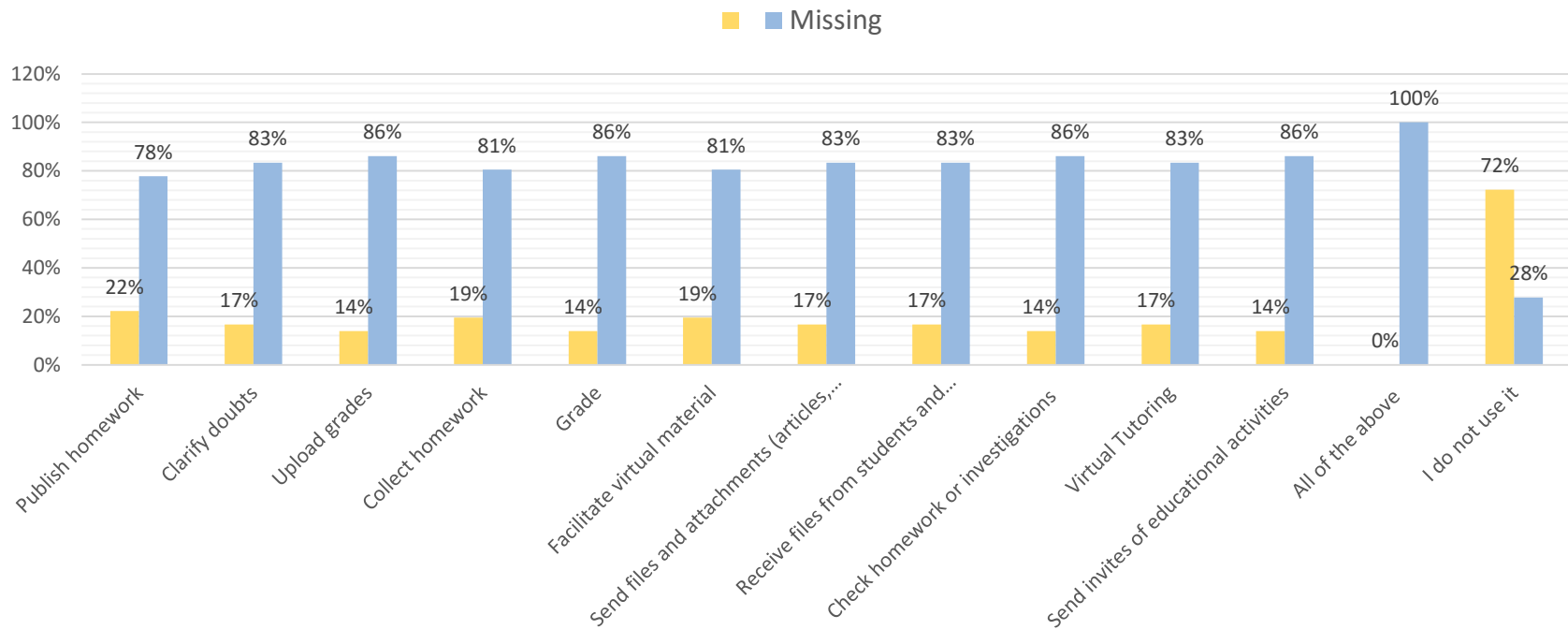
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 68

From the list, how do you use Edu Blogs or blogs?			
	Valid	Missing	Total
Publish homework	22%	78%	100%
Clarify doubts	17%	83%	100%
Upload grades	14%	86%	100%
Collect homework	19%	81%	100%
Grade	14%	86%	100%
Facilitate virtual material	19%	81%	100%
Send files and attachments (articles, homework, searcher, etc) simultaneously to different people	17%	83%	100%
Receive files from students and provide individual feedback	17%	83%	100%
Check homework or investigations	14%	86%	100%
Virtual Tutoring	17%	83%	100%
Send invites of educational activities	14%	86%	100%
All of the above	0%	100%	100%
I do not use it	72%	28%	100%
Other	0%	100%	100%

Chart 68

From the list, how do you use Edu Blogs or blogs?



Source: Table 68

The column bar shows that the majority represented by the 72% out of the total, do not make use of Edu Blogs or Blogs, publishing homework is the usage represented by the 22% of teachers that use Edu Blogs or Blogs. Collect homework and facilitate virtual material show the same 19%

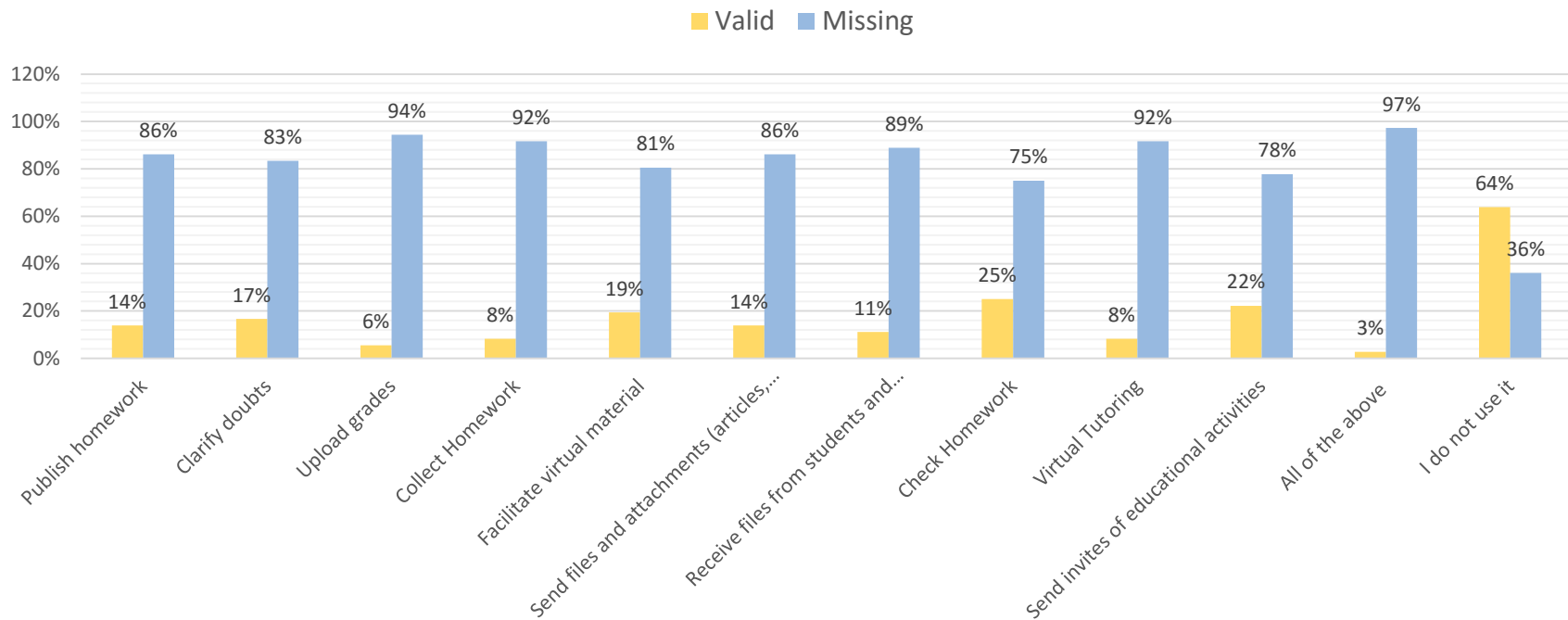
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 69

From the list, how do you use Forums?			
	Valid	Missing	Total
Publish homework	14%	86%	100%
Clarify doubts	17%	83%	100%
Upload grades	6%	94%	100%
Collect Homework	8%	92%	100%
Facilitate virtual material	19%	81%	100%
Send files and attachments (articles, homework, searcher, etc) simultaneously to different people	14%	86%	100%
Receive files from students and provide individual feedback	11%	89%	100%
Check Homework	25%	75%	100%
Virtual Tutoring	8%	92%	100%
Send invites of educational activities	22%	78%	100%
All of the above	3%	97%	100%
I do not use it	64%	36%	100%
Other	0%	100%	100%

Chart 69

From the list, how do you use Forums?



Source: Table 69

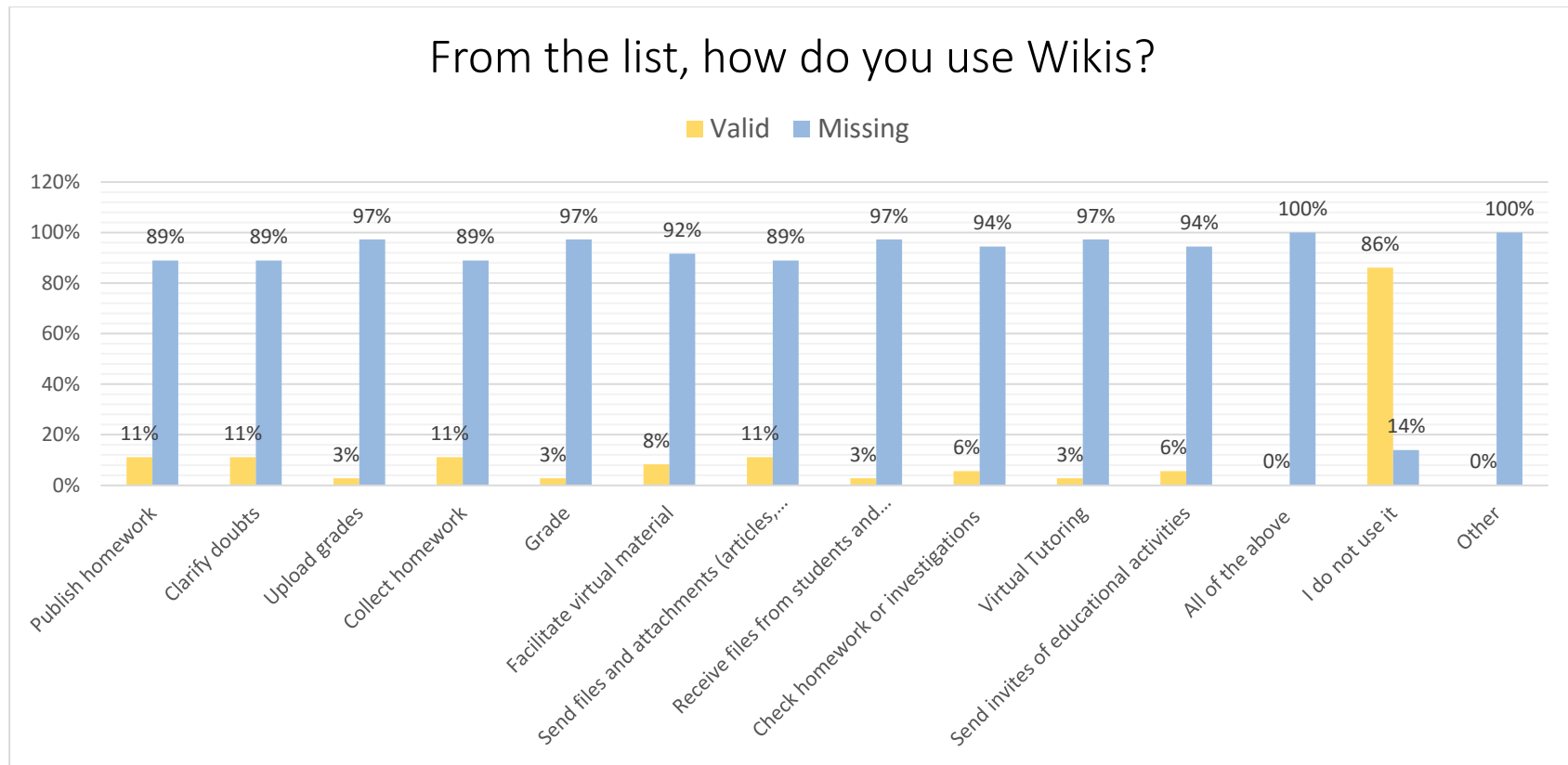
Based on the findings, Forums is a resource the 25% of teachers said find useful for checking homework. Send invites of educational activities also is a very important use forums provide to teachers with a 22% shown on the column chart. Meanwhile, an important 64% of the population answered they do not use forums.

Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 70

From the list, how do you use Wikis?			
	Valid	Missing	Total
Publish homework	11%	89%	100%
Clarify doubts	11%	89%	100%
Upload grades	3%	97%	100%
Collect homework	11%	89%	100%
Grade	3%	97%	100%
Facilitate virtual material	8%	92%	100%
Send files and attachments (articles, homework, searcher, etc) simultaneously to different people	11%	89%	100%
Receive files from students and provide individual feedback	3%	97%	100%
Check homework or investigations	6%	94%	100%
Virtual Tutoring	3%	97%	100%
Send invites of educational activities	6%	94%	100%
All of the above	0%	100%	100%
I do not use it	86%	14%	100%
Other	0%	100%	100%

Chart 70



Source: Table 70

Wikis is a resource that helps teachers to share and edit information online with students. According to the data gathered, the 11% of the teachers answered that Wikis for them are useful for publishing homework, clarify doubts, collect homework, and send files or attachments to colleagues or students. The 86% out of the total of teachers said they do not use it.

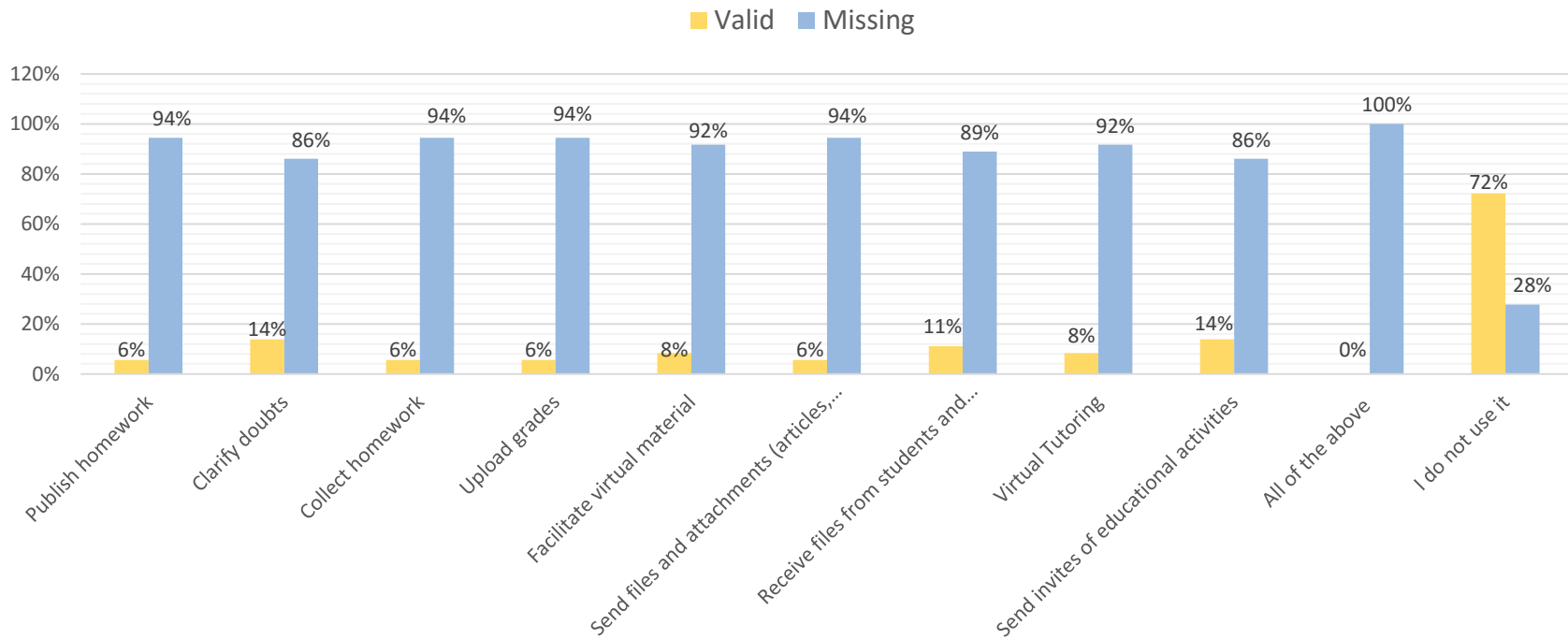
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 71

From the list, how do you use chat rooms?			
	Valid	Missing	Total
Publish homework	6%	94%	100%
Clarify doubts	14%	86%	100%
Collect homework	6%	94%	100%
Upload grades	6%	94%	100%
Facilitate virtual material	8%	92%	100%
Send files and attachments (articles, homework, searcher, etc) simultaneously to different people	6%	94%	100%
Receive files from students and provide individual feedback	11%	89%	100%
Virtual Tutoring	8%	92%	100%
Send invites of educational activities	14%	86%	100%
All of the above	0%	100%	100%
I do not use it	72%	28%	100%
Other	0%	100%	100%

Chart 71

How do you use chat rooms?



Source: Table 71

Based on the results from the data gathering, chat room is a resource that is used for 10 of 36 teachers of the department. The 72% of teachers answered that do not use the resource chat rooms. Clarify doubts with the 14% and send invites of educational activities with the 11% are the uses that teachers take advantage from chat rooms the most.

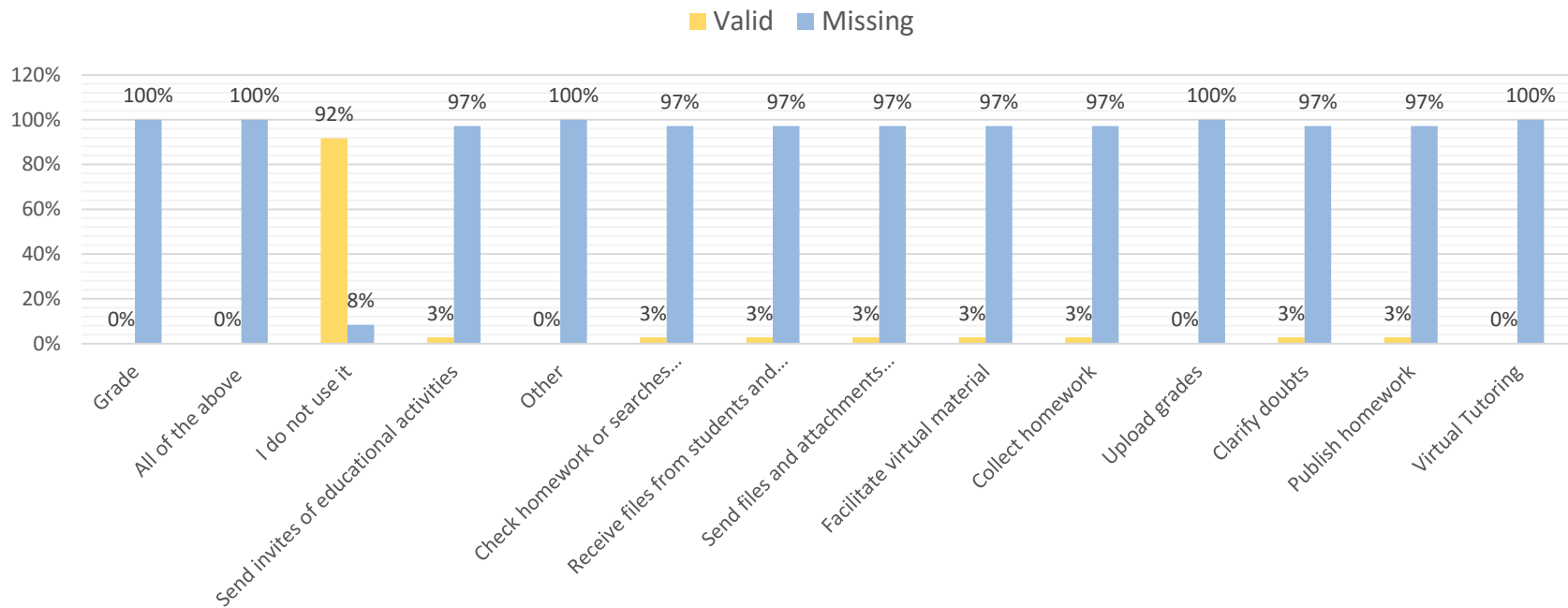
Source: Questionnaire administered to professors from the Foreign Language Department at the University of El Salvador, 2015

Table 72

From the list, how do you use glogs?			
	Valid	Missing	Total
Grade	0%	100%	100%
Send invites of educational activities	3%	97%	100%
Check homework or searches according to schedule availability	3%	97%	100%
Receive files from students and provide individual feedback	3%	97%	100%
Send files and attachments (articles, homework, searcher, etc) simultaneously to different people	3%	97%	100%
Facilitate virtual material	3%	97%	100%
Collect homework	3%	97%	100%
Upload grades	0%	100%	100%
Clarify doubts	3%	97%	100%
Publish homework	3%	97%	100%
Virtual Tutoring	0%	100%	100%
All of the above	0%	100%	100%
I do not use it	92%	8%	100%
Other	0%	100%	100%

Chart 72

From the list, how do you use glogs?



Source: Table 72

This chart shows that glogs is not a useful resource among teachers from the Foreign Language Department of the University of El Salvador. The 92% of teachers said they do not use it at all, meanwhile only one minimal percentage of 3% that represents one teacher uses glogs as a valuable resource for sending files, publishing homework, clarifying doubts, send invites and collecting homework.

IV. REPORTING FINDINGS

Based on the data obtained during the questionnaire administered to professors from the Foreign Language Department; the answers to the research questions are the following:

IV.I

What is the current level of teacher knowledge to use educational technology in the classroom?

The level of technology knowledge that professors from the Foreign Language Department present is “good”¹⁷ represented by a 41.7% against a minimum part of 11.1% that expressed they know little about technology. One advantage of using technology in the classroom for professors is that it increases the interest and motivation on students, meanwhile the disadvantage they see is the cost of technology. As it was discussed in the theoretical section, one limitation educational technology has is the cost; expenses need to be taken into account as primary aspect when a school or university decides to implement updated technological equipment because it requires maintenance that is crucial for proper operation; that is the limitation teachers are suffering at the FLD so far.

Regarding the resources availability in the Foreign Language Department, professors make use of them inside the classroom, at least the ones they have available such as multimedia projectors, computers, jump drivers, digital video cameras, speakers, unlimited access to internet, MOODLE Platforms and the computer center. However, these resources are used “usually”¹⁸ and not always as it should be. Professors are aware of the importance on bringing technology resources to the classrooms as frequent as they can using jump drivers, desktop computer, multimedia projector, printers and speakers¹⁹ but they consider there are still more resources that could improve the learning process as interactive boards, video conference equipment and technological devices (tablets and smartphones).

¹⁷ Source: Questionnaire administered to professors from the Foreign Language Department. Table 7

¹⁸ Source: Questionnaire administered to professors from the Foreign Language Department. Table 13

¹⁹ Source: Questionnaire administered to professors from the Foreign Language Department. Table 42

IV.II

What is the current level of teacher knowledge to use educational technology outside the classroom?

On the contrary, the level of technological knowledge professors from the Foreign Language Department have outside the classrooms is very limited. Even though they have technology knowledge in social media, programs and internet they do not make use of smartphones, video conferences, forums, wikis, glogs, and even social media²⁰ when trying to enrich the learning process, this means, they have not been considering these resources in their daily agenda when not teaching inside the classroom so far. For example, interviews, research papers, conversations and evaluations can be developed and suitable for every student depending on the subject they are teaching.

The main limitation that professors might have so far is that the 58% of professors answered that there is not²¹ support from the administration in charge of the Foreign Language Department for implementation of technological resources, this is in terms of resources that are not updated and in terms of training. In terms of training, Do professors from the FLD receive any educational technology training? According to Angeli & Valanides, (2009) Professors need to have better understanding on how to use technology to facilitate learning. This might be one strong reason because professors consider it is important to highlight the need of having constant training in the FLD in order to provide a better teaching-learning performance. Moreover, here is where the theory suggested by the U.S. Congress, Office of Technology Assessment (1995) “The lack of teacher training is one of the greatest barriers to integrating technology into a school’s curriculum” takes place. If the constant training is not available in the FLD it might be a barrier that is affecting students and teachers on their teaching- learning process. Professors want to be trained specifically in web design for teaching purposes, simulators and electronic boards usage, use of educational platforms and usage of software to support knowledge and skills in an specific subject. They consider (97% out of the total)²² it is absolutely necessary to

²⁰ Source: Questionnaire administered to professors from the Foreign Language Department. Table 66-72

²¹ Source: Questionnaire administered to professors from the Foreign Language Department. Table 35

²² Source: Questionnaire administered to professors from the Foreign Language Department. Table 27

take ICT courses, but unfortunately they have not taken any training on ICTs recently and also during their passing through the FLD the training on ICTs has not been enough²³.

However, according to the results, professors use internet to provide additional material to students, something that is very important because students have the availability of this material wherever they be and it can be relevant to highlight also that the 27% of professors usually publish teaching material on internet to reinforce student's learning, the negative aspect relies on the percentage that is very low.

²³ Source: Questionnaire administered to professors from the Foreign Language Department. Table 34

IV.III Most Outstanding Findings

The population of 38 professors that responded the questionnaire provided many important aspects that explain when they use technological resources and when they do not. Detailed next, a list of outstanding findings are briefly explained in order to show important data that is necessary to be highlighted.

- Even though educators have teaching experience, the results showed that they are not enough interested in using ICT's to evaluate their students. The evaluation is always completed with traditional methods²⁴ (manual tests, interviews and paper projects).
- The data showed that the majority of teachers of the Foreign Language Department, do not coordinate activities to support the usage of educational technology, they either provide support to implement activities among colleagues.
- Social media is highly impacting professors and students' interaction, according to the data gathered the 80% of the total sample do have²⁵ social media accounts such as Facebook® and Whatsapp®, the advantages they take from them are only for specific communication purposes: Clarify doubts and Facilitate virtual material²⁶.
- Professors agreed in a 66.7% that they sometimes²⁷ try to use technological equipment because of the technical issues that sometimes cannot solve. As consequence, they waste time.
- Professors, learn by themselves technological tools and applications. They answered that the support and information sources they use frequently are: Digital magazines, thematic webs, virtual libraries, digital news, thematic

²⁴ Source: Questionnaire administered to professors from the Foreign Language Department. Table 48

²⁵ Source: Source: Questionnaire administered to professors from the Foreign Language Department. Table 58

²⁶ Source: Source: Questionnaire administered to professors from the Foreign Language Department. Table 61

²⁷ Source: Source: Questionnaire administered to professors from the Foreign Language Department. Table 24

forums, auto instructive material, virtual courses and educational portals. In other words, they find their own ways to learn new things to implement inside/outside the classroom technology and ICT's since they do not receive constant training.

- The most significant limitations professors find when using educational technology in the teaching-learning process are: access to internet, technical fails and limitations on users.

CHAPTER V

V. CONCLUSIONS AND RECOMMENDATIONS

Based on the interpretation and analysis of the results obtained during the research, the following conclusions and recommendations have been taken.

- The most used technological resources by professors are jump drivers, multimedia projectors and cd players with an unlimited access to internet and desktop computers inside the Foreign Language Department.
- The Microsoft Office® level of knowledge is intermediate among professors and they prefer to use standard software (Microsoft Office®) rather than Maple® or Mind Manager® to design digital presentations, to grade and create additional material for classes.
- Professors use the resource: email frequently, specifically, daily. The advantages or uses they take from their email accounts are sending files and attachments (articles, homework and searches) simultaneously to different people (colleagues and students that request any academic task) and clarify doubts to colleagues or students may have.
- Assigning homework and provide virtual tutoring is something limited for students to be performed outside the classroom because virtual communication is done sometimes²⁸. Based on professor's thoughts, this is because of the cost of technology, they need to have the adequate equipment to develop properly the tasks. In second place they mentioned the time, due to the quantity of time teachers should spend trying to get communicated with students that in real life is very limited.
- Interest and motivation is the most important advantage teachers from the Foreign Language Department take from the use of technology inside the

²⁸ Source: Source: Questionnaire administered to professors from the Foreign Language Department. See Table 65 Page 99

classroom, where they see an interaction and cooperative learning between teachers and students.

V.I RECOMMENDATIONS

VI.I Recommendation for teachers:

- Since computers and internet access improve the quality of education, it should be well integrated into the classrooms.
- Using technology knowledge during classes is not an easy activity; professors from English Teaching and Modern Languages majors, at the Foreign Language Department should get involved in the implementation of the technological resources they have so far inside the classroom.
- Professors from English Teaching and Modern Languages majors, at the FLD should get involved in the implementation of the technological resources outside the classrooms, making use of internet they could improve students learning and also develop technological skills that may be helpful in their personal curriculums.
- Teachers should be encouraged to use computers at home to learn at their own pace, pursue their own interests, and gain an understanding of the range of technology applications that can be used in the classroom.

V.I.II Recommendations for the Head of the Foreign Language Department in charge:

- The lack of trainings on ICT's and technology education to teachers of the Foreign Language Department is an aspect that at the beginning of the research was not directly taken into account but, since the data gathered provided the results, it definitely pointed out the warning directed to the Head of the Department to include them in professors' responsibilities or agenda.

The completion of training and courses on ICT's to all educators that take part of the FLD should be mandatory and also constant supervision should be necessary to make sure the delivery is enough to raise competent professors among the rest of Salvadorean universities.

- Courses in teaching methods regarding to Educational technology can be incorporated in the curricula in order to promote competent alternatives among the rest of Salvadorean universities.
- Teachers should be encouraged to use computers at home to learn at their own pace, pursue their own interests, and gain an understanding of the range of technology applications that can be used in the classroom.

V.I.III Recommendations for future researchers:

- To be aware of the importance of the technological recourses as efficient tools in the learning process and continue improving the historical background on educational technology, technology that nowadays no one can be left behind.

CHAPTER VI

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APPENDICES