Trabajo de Fin de Máster en Tecnologías de la Información y la Comunicación en la Enseñanza y Tratamiento de Lenguas.

ANALYSIS AND EVALUATION OF ICT TOOLS TO IMPLEMENT ONLINE ASSESSMENT IN THE EOIS OF GALICIA.

ANÁLISE Y EVALUACIÓN DE HERRAMIENTAS TIC PARA IMPLEMENTAR EVALUACIÓN EN LINEA EN LAS ESCUELAS OFICIALES DE IDIOMAS DE GALICIA

**Alumna: Deirdre Barry Murphy** 

Tutora: Dra. Doña Beatriz María Rodríguez López

Facultad de Filología

**UNED** 

Convocatoria Septiembre 2022



#### **ACKNOWLEDGEMENTS**

This dissertation would not have been possible without the collaboration of many people from the Escola Oficial de Idiomas de A Coruña, both students and staff members, and especially the board of management led by Susana Aldao and her trusted colleague and vice principal Nuria Calvo, plus the school secretary, Pilar Veiga, who made innumerable records available to me. Also Dr Modesto Corderi Novoa for his help and encouragement in seeking innovation in the EOI classroom, and Marita Cerviño for her assistance in matters relating to ICT and information on resources in the EOIs.

In many ways the students of semi-distance learning can be seen as the past, present and future of this school, staying late to answer questions, agreeing to be studied and recorded, and always open to any effort towards improving the teaching and learning experience.

Without the help of my tutor Dra. Beatriz Rodríguez López this dissertation would not have gone beyond the second chapter. She has been there from the start, always encouraging, helpful and patient, going way beyond the call of duty to help me with this TFM.

I would also like to thank Juan Lago Leis from the Galician Department of Education for his willingness to participate in this study, and Dr. Juan Brenlla from the University of A Coruña for explaining his various points of view in a didactic and interesting way.

To Erin and Kira- thanks for being good (most of the time) while I wrote this dissertation.

# **ABSTRACT**

This dissertation tries to explore the ways in which online assessment tools can enhance the assessment processes in EOIs of Galicia, by allowing for the implementation of online assessment as an alternative to obligatory in-situ pen and paper exams. This is especially borne from the recent emergence of semi-distance learning in these schools which is transforming their way of teaching and assessing. To this end a quasi-experiment takes place in which qualitative and quantitative data are collected by statistical analysis, interviews, questionnaires and content analysis. Following the analysis and triangulation of data, this paper concludes that online assessment should be implemented for semi-distance students in the EOIs as it impacts positively on the overall student assessment experience. It can also be used as a springboard for more formative, student centered assessment.

**Key words**: Online Assessment, assessment processes, formative assessment, semi-distance learning.

#### **RESUMEN**

Este trabajo fin de masters (TFM) intenta explorar las formas en las que las herramientas de evaluación pueden mejorar los procesos de evaluación en las Escuelas Oficiales de Idiomas de Galicia, permitiendo la implementación de evaluación en línea como alternativa a la obligatoriedad de exámenes presenciales de bolígrafo y papel. Esta investigación emerge debido a la reciente implementación de aprendizaje semi-presencial en estas escuelas, la cuál está a transformar su manera de enseñar y evaluar. Para ello, se lleva a cabo un cuasi experimento en el cual se recogen los datos cualitativos y cuantitativos a través de la analítica de estadísticas, entrevistas, cuestionarios y análisis de contenidos. Tras el análisis y la triangulación de datos, este trabajo fin de masters concluye que la evaluación en línea debe ser implementada para todos los alumnos de cursos semi-presenciales en las EEOOII ya que impacta positivamente en la experiencia del proceso de evaluación del alumno. También se puede usar para implementar más evaluación formativa enfocada hacia el alumnado.

**Palabras clave:** Evaluación en línea, procesos de evaluación, evaluación formativa, enseñanza semi-presencial.

TABL	LE OF CONTENTS	
1. INT	RODUCTION	6
2. THI	EORETICAL FRAMEWORK	10
2.1	Adult Education	
	The Learning World of Adults	
2.1.2	The Adult Learner of Languages	
	Information and Communication Technology	
2.2.1	ICT in Education	
	ICT in Adult Education	
	The Adult Blended Learner	
	Assessment	
	Assessment in the Learning Process	
	Assessing Adult Learners	
	ICT to Assess Online	
	Advantages and Disadvantages of Online Assessment	
	SEARCH DESIGN	42
3.1	Analysis of the Educational Context under Study	
3.2	Research Approach and Methodology	
	Research Approach	
	Research Methodology	
3.3	Research Problem	
3.4	Objectives and Hypothesis of the Study	
3.5	Methods and Techniques of Data Collection and Analysis	
	Fieldwork Design	
	Processes and Phases of the Research	
3.5.3	Instruments to Obtain Data	
	3.5.3.1 Statistical Analysis of Exam Results	
	3.5.3.2 Verified Questionnaire	
	3.5.3.3 Semi-structured Interviews	
4 DEC	3.5.3.4 Content Analysis	65
	SULTS	65
4.1	Exam Results Tabulation	
	Questionnaire Results	
4.3	Structured Recorded Interviews Results	
4.4	Content Analysis Results	02
	NCLUSIONS	92
6. REFERENCES		109
	egislation	
➤ Bibliography  Websamphy		
> Webography		102
		123
Annex II: Survey of Online Assessment Experience		
Annex II: Expert Semi-structured Interviews  Annex III: Pubries for the Correction of Writing and Speaking Exams		
Annex III: Rubrics for the Correction of Writing and Speaking Exams Annex IV: Decree on Curricula in Galicia		
Aimex	TV. Decree on Currenta in Gancia	

#### 1. INTRODUCTION

This research forms part of the Master's in Information and Communication Technologies (ICT) in the Language Classroom, undertaken at the National Open University of Spain (UNED). At the same time, it is hoped that some of its findings will be applicable in reallife language classroom settings, specifically in the Escuelas Oficiales de Idiomas (henceforth EOIs) of Galicia. In this way the current author wishes to express in writing, and to consolidate for the future, some specific ideas for innovation in terms of learning and assessments in the EOIs, especially with regard to the use of ICT. In doing so we follow Couros (2019) when he observed that technology will never replace great teachers but that technology, in the hands of great teachers, can indeed be transformational, and that technology involving assessment is thus a fundamental pillar of such a conviction. The emergence of a new modality of learning in the EOIs, that of semi-distance courses, means we now have students who are used to working with ICT tools to carry out their language learning and formative testing online. As Salmon (2021) argues, the speed and nature of change currently effecting further education is unprecedented, thanks to the integration of new technologies. In response to this we need the best of human teaching and technology to be fused together to help every learner to achieve their objectives.

The main concern of this research is online assessment in adult language education. The EOIs in Spain teach foreign languages to adults in the public education sector. Spain is one of the few European countries with a regulated public system of language learning and teaching for adults. This network of public language schools is responsible not only for the teaching of mostly foreign languages to adults, but also for the official certification of achievement in these languages. EOIs are integrated into the Spanish educational system as specialized education in the same group as the teaching of dance, sports and art. That is, they are considered to be part of the voluntary public education sector. Adults come to these schools to learn languages on a voluntary basis, and for a great variety of reasons. There are over 300 of these public language centers across the Spanish state, teaching 23 languages to over 300,000 students annually. Most of this teaching is through weekly attendance of a year-long, 120-hour course of classes, these usually twice a week, but other courses are also

offered such as teacher training, conversation classes, language administration, and specific courses for professional sectors.

The raison d'être of these schools is to promote multilingual skills among the adult population in one or various foreign languages for both general and specific means, as well as to provide certification of this knowledge for those who require it. Thus, the EOIs promote the aim of the European Council and the European Parliament through its Plan for Lifelong Learning (PAP), which seeks to establish language learning among adults as a means of promoting tolerance and multiculturalism. To aid this, in 2001 that Council published the Common European Framework of Reference for Languages (CEFL), which aimed to organize the learning and certification of languages into levels of competences based on a "can do" mechanism that gradually increases in terms of language competence. The CEFL has served as a key influence on the decrees which the Spanish state and the autonomous regional government of the Xunta of Galicia have established for language learning, especially in the EOIs. All language education in these institutions is graded according to the levels set out in the CEFL, from A1 (absolute beginner) to C2 (proficient user). Adults have long been involved in lifelong learning, especially as related to language learning, and this for a huge variety of reasons and with differing learning styles. Equally important to the question of how and why adults learn is the ability to determine whether they have indeed gained the knowledge that they initially set out to achieve when they signed up for a course, this through assessment as a means of confirming attainment; a key factor in this process of checking progress and achievement is the integrated use of ICT.

The integrated use of ICT has to power to transform assessment, but why is this transformation even necessary? Because if we take Sanmartí, considered one of the leading experts in assessment not just in Spain but worldwide, then we have a possible valid reasoning. According to Sanmartí (2022) evaluation is the motor of learning as from this depends what and how we teach as much as what how we learn. This is in constant evolution as if we do not evolve our assessment methods then we are not keeping up with the changes in society. One of the keys of the constant changes in society is technology and more specifically information and communication technology, and the field of education is no

different. Following Trujillo (2022) ICT when correctly integrated in the teaching learning process will move beyond the walls of the EOI classroom to develop learning in the outside surroundings of the EOI and the personal space of each individual learner. Yet this must be done in a meaningful way. Many adult learners according to Salmon (2013) are surprised by the rather slow pace of this digitalization and are eager to see a more integrated use of ICT in learning. To this end, this dissertation has been inspired by this philosophy of the advancement of ICT in the teaching learning process, especially with regard to assessment and the specific context of the EOI.

The organization of this dissertation is as follows. First, the present Introduction explains the motivations for selecting this topic and the reasons justifying its study. Chapter Two then deals with the theoretical framework, offering first a general outline of the topic as related to the context in which the study is framed, before moving on to more specific questions of assessment, adult learners, and the use of ICT to assess adult learners. In Chapter Three we describe the methodology to be followed in carrying out the research. This is a fundamental aspect in terms of the organization and rigor of the study, in that it establishes a step-by-step order that we will follow, thus guaranteeing a solid practical basis for the investigation. The type of research, the population sample selected, the hypothesis established, as well as the instruments and data collection tools, will all be described and discussed in this chapter. Following this, Chapter Four will present and discuss the results of the research undertaken, which in turn will lead us to the conclusions in Chapter Five. Finally, the Bibliography and various Annexes will be provided.

Before we explore the themes of this research in detail, it is essential to explain the background of the researcher engaged in this investigation. The researcher is a teacher of English at the EOI of A Coruña, and for the past two years has also been the head of studies at that institution. A Coruña is a city with a population of almost a quarter of a million, located in the northwest of the autonomous region of Galicia. In this EOI and other in Galicia, student numbers are falling, and the dropout rate is high. The reasons for this are many and complex, but people working within the EOIs are looking for ways to reverse this trend. One of the main fields of interest and training is the use of ICT in the classroom, while others in

EOIs are looking at innovation in terms of assessment. The current study seeks to bring these two fields together, and in doing so to contribute to ideas and plans that will lead to a reversal in the decline of student numbers by innovating in the language classroom through the use of available ICT tools for online assessment.

The initial impulse for this research arose from a need that the author, fellow teachers, and many students experience every June. In internal satisfaction surveys, students frequently state that they find the exams long, arduous and exhausting. They consider this to be one of the central drawbacks of studying at the EOI. Any potential solution here is difficult, but there is a possible remedy available, one which at least tries to improve the situation. ICT tools on the Moodle platform would allow students to do these exams online from the comfort of their own home, or at least at a screen, contexts which studies have suggest lead to students feeling more relaxed and at ease. This in turn would lead to them being able to perform to the fullest extent of their abilities in the exam and thus to maintain their marks, as well as creating an all-round improvement in the student exam experience. It would provide benefits not only to students themselves but also to teachers and to the school, as the experience itself would not be so stressful. The introduction of semi-distance learning is a step in this direction, in that we finally have students who use online methodology for their learning and formative assessment. To this end, the present research aims to analyze and evaluate the use of ICT tools in the implementation of online assessment in the EOIs of Galicia.

# 2. THEORETICAL FRAMEWORK

Here we will present the theoretical framework which serves the main body of the study: the use of available ICT tools for online assessment in the world of the adult language learner. The aim is to follow a clear, cohesive and progressive order, always moving from the general to the more specific as we review the relevant literature. There are three main areas in this theoretical framework, and within each of these we can distinguish subareas, which we will briefly outline as following:

- The adult language learner: this is the area which covers in the most general terms the theme of this study. This is the subject and the context with which we are working and sets the scene for where we conduct this study. Special attention will be paid here to how the adult learns a foreign language, how they process and relay the information involved, especially in view of the CEFL and its relevance in this context, since it grounds the teaching and learning of languages in the EOIs.
- ICT: looking at the use of ICT in the educational sphere and how it features in the education of adults in the language classroom. Studies in this area that have explored the advantages and disadvantages of online learning assessment will be examined, as well as the available tools which are specifically related to the teaching of adults and adult language learner. The ability of ICT to change the world of the learner through transforming the classroom will also be outlined, as well as its manifestation in adult voluntary education in the EOIs in terms of the particular characteristics of the blended learner.
- Assessment of the adult language learner: here we will begin to approach the core theme of this research by looking in depth at the issues of assessment in general and then more specifically at the differences here in terms of the adult learner. This is something that we need to fully grasp before moving onto the crux of the matter, which is the use of ICT to assess the adult language learner, especially in the online mode, the advantages and disadvantages of which have been explored in an extensive literature, which will be reviewed here.

There is one core chapter of this research project, with three subject areas that focus on the issues of adult education, ICT, and assessment. These constitute a coherent progression in the discussion, so that subsequent information always embraces and develops the previously discussed area. Firstly, we will examine the existing literature on the education of adults and will follow this by a discussion of the use of ICT in general, then more specifically with adults. Finally, we will move into the world of assessment in general, its role in education, especially that of the adult learner, and finally its use and evolution with ICT.

# 2.1 Adult Education

First of all, in order to undertake this study, it is necessary to have a clear understanding of who we are teaching and what exactly we are doing with them in the language classroom. For this we will now address some of the most fundamental and influential theories related to issue of the learner, studies which explore their make-up as learners, and more specifically how they learn languages, and also the issue of learners' competence in languages. Hence, our discussion will always move from the general to the specific, with a clear, cohesion theoretical relationship in place as we move through this complex and fascinating world of adult learners who seek to achieve competence in languages, bearing in mind that this study focusses on adult students of English as a second language in a public education school in the city of A Coruña.

# 2.1.1 The Learning World of Adults

A foreign language is one which is not spoken by the learner since birth or in a bilingual setting in their daily life or context. According to Moeller and Catalano (2015) a language is considered foreign if it is learned largely in the classroom and is not spoken in the social context in which its teaching occurs. The study of such a language allows the learner to communicate effectively and creatively and to participate in real-life situations through the language of the authentic culture itself, and not necessarily in the country of the target language or with real native speakers of that language, but very often as a mediation language (Gilmore, 2007). The present study, then, involves these learners, defined on a large scale. What can we say specially about such learners? Who exactly is the adult learner, that is, the

learner from the group we will be working with in this study? If we apply the criteria proposed by Komorowska (2003) in her division of learners into age groups, namely the ability to read and write unobtrusively, the capacity to engage in abstract thought, intellectual maturity and social maturity, then adults can be regarded as individuals who are 19 years of age or above. There may be the odd exception in the EOI class, but this generally holds true.

With Komorowska, Krajka (2020) claims that teaching to this group has many advantages, since these learners, unlike children, are not forced to go to class but rather sign up on a voluntary basis. They begin studying with a self-generated impetus, one of voluntarism and enthusiasm. Furthermore, education does not exist in a vacuum, but is part of a wider social fabric of values, families, work and civic life. That is, it occurs in a social context, and if adults who form part of this fabric do not perceive this link then they are far more likely to give up their studies (Dawn et al., 2000). Many adult learners are motivated to return to learning through extrinsic motives, but others do so for intrinsic motives, and the teacher as educator has a duty to balance and give equal weight to these two broad types of motivation since each one is as equally deserving as the other (Spalding, 2019). It is up to the teacher of the adult learner to try to balance this difference in the very homogenous nature of the learning environment. The diversity of adult education in terms of its activities, aims and participants has been seen as both a strength and a weakness of this sector, in that diversity often results in fragmentation and a lack of a common identity that is more evident than at other levels and stages of the educational cycle (Merriam & Brockett, 2007).

Adult learners are very different from other learners in some ways and teachers must be aware of this. Chao (2009) notes that adult learners are influenced by their previous experiences of learning and sometimes there are blocks and barriers which need to be broken down to allow for new learning, that is to break the link with a negative or difficult previous learning experience. The teacher as coach has a fundamental here. Brockett (2015) argues that adult education requires a mix of formal and informal classes, as well as different training contexts, and that teachers of such students require a very strong and solid foundation of pedagogical knowledge in order to educate adult learners successfully; in fact, he argues that effective teaching will have a direct bearing the success of adult learning. This

is true in all aspects of adult education, and none more so than that of teaching adults a foreign language. Motivation is a crucial factor when dealing with the adult learner and needs to be worked on from the very first day of class. It is of no use to tell students the week before an exam that they will pass the exam if they have already lost their motivation.

Past experience can be both a negative and a positive influence on an adult learner's current learning, and the role of the teacher as motivator is key to determining how to work with this baggage. Dornyei and Kubanyiova (2014) observe that adult learners need to envisage their success and imagine themselves using the language in real-life situations outside the classroom and that this should also be the case when doing an exam, taking it as just another step on the road to their motivation for learning a second language, since the adult learner also thrives on variety, and variations in differing forms of instruction helps to develop a wide range of learning skills. For this reason, it is said that these adult learners have some quite specific and rather complicated characteristics that must be borne in mind when teaching, when learning, and when assessing such skills. This has been explored widely in numerous research papers, many of which have directly informed the present study. Arthur and Beaton (2000), for example, argue that although legislative change has occurred, and with it many changes in language learning, the number of adults interested in learning or perfecting a language has not declined over time, but rather has increased, albeit it with different tools and methodologies.

Adult learners benefit from being able to relate material and tasks to prior and current experience, but also from being able to take advantage of opportunities for new, lived experiences, through which they can reflect and act on the implications for them as individuals (Tennant & Pogson, 1995). This should not be seen as a decontextualized issue, but rather as central to new learning. Previous learning experiences should be taken into account, thus allowing for comparisons with new ones. Adults are generally assumed to goal-orientated in their language learning, which might be the case because they have a genuine desire to improve their foreign language as an end in itself, or, in other cases, because they are focused on the short-term goal of obtaining an exam certificate. However, as Merriam (2002) points out, it is an error to think that all adult learners come with a deep motivation

to learn. The fact that they enroll in voluntary education does not mean that we can take their motivation as a given. Other intrinsic and extrinsic motives may be involved, impacting on what happens in the language classroom, and indeed on how autonomous an adult learner is prepared to be. There is an inherent desire to learn in many adults, and often this does not diminish over time. Adult learners may have developed very strong perceptions of what works for them, and how they want to learn.

According to Smith (2009) these adult learners are goal orientated and direct their leaning to fulfill specific needs, objectives or demands related to their adult lives. They demand more immediate value and relevance from their studies than child or teenaged learners. If they feel they are not getting this then there is a far greater likelihood that they will drop out of the learning process. Malamed (2021) also raises concerns about this, noting that these adult learners are also focused on results and have specific expectations as to what they want to get out of their learning experience, and that if these expectations are not met then they will often simply abandon the learning process. One of the reasons for the high dropout rate of adults in foreign language learning relates to outside commitments. Many learners find it difficult to combine their other commitments with the learning of a foreign language. For this reason, Parrish (2019) claims that the adult learning class needs instruction that is highly customized, accessible, and, most importantly, learner centered to allow them to bring this knowledge into their own lives and communities. The adult learner is just as likely as the child learner to be distracted in their learning process, both inside and outside the classroom, albeit for very different reasons. López González (2019) explains a series of exercises both in class and online for the teacher as a coach to help the student to maximize their attention.

One vital aspect of adult learners that cannot be ignored is disparity. There is a huge heterogeneity in adult student cohorts, including age, their occupation, and right through to their cultural background. The adult learner is also much more constrained by time than the child learner, with a greater number of outside commitments, and this can in fact lead to them being more inhibited (Kaufmann, 2022). All of these different aspects combine in the classroom and the teacher must use a range of strategies to teach all students, with all their different needs and learning styles. According to López Pastor (2009) this is where

assessment and feedback plays a vital role in monitoring the teaching-learning process to ensure that this disparity is being checked. Age is often evoked as an influencing factor when teaching adults, especially languages, and many adults frequently claim, "I'm just too old for this". However, in reality, age-related effects are likely to be outweighed by a host of other variables. These have been identified by Pawlak (2016), and include issues such as intensity of exposure, opportunities for language use, affective factors (e.g., motivation), and language aptitude (Birdsong, 2014). In a comprehensive and detailed study of learning in adulthood, Merriam and Baumgartner (2019) found that this cannot be separated from the social context in which such learning takes place, where changing demographics, the global economy and ICT all shape the learning of the adult. These three factors, then, influence how and what the adult learner learns and must be borne in mind in all adult learning, and especially in the case of language learning.

# 2.1.2 The Adult Learner of Languages

The adult learners of languages are in some ways like any other learners, irrespective of age: they want or need to learn a language that is not their mother tongue, for whatever the reason, and they look for outside help to allow them to do so (Pringganti, 2013). Foreign language study is in reality forms part of a very basic liberal education: educating learners leads them out of narrowness by opening a new door to culture in another language (Latimer, 2022). As Swan (1996) suggests in what he terms an unoriginal view, is that language learning involves a knowledge base and the skill of performing operations on this knowledge base, and that the required knowledge base for effective language use is vast and takes considerable time and work to assimilate, irrespective of whether the learner is a child, teenager or adult. The common characteristics of the language learner, which Brown (2007) divides into four affective principals, are: language ego, self-confidence, risk taking and the language-culture connection. Brown argues that as all human beings learn to employ their second language, they also develop a new way of acting, thinking, and feeling. The language learner, as we have seen, is in many ways quite similar to others, irrespective of age, but this is not always the case, and for this reason it is important to bear in mind the differing traits of the adult language learner.

Learning a new language may not always be easy for adults, but there is research that suggests that doing so is not only beneficial for our mental health but also our brain health, and that it can constitute a significant step on the road to lifelong learning (Costandi, 2014). Furthermore, there are other advantages to teaching this specific age group. Lightbown and Spada (2013) address some general but very important traits of the adult language learner: the amount of time they can dedicate is usually limited, thus they have less time to be exposed to the target language, they have more out of class commitments and are more susceptible to modified language use. All of these factors must be borne in mind when trying to teach the adult learner a second language in the classroom. There are other areas of language learning where it can be argued that adults are at an advantage over younger learners. Hull (2019) updates Brown's (2007) influential work, claiming that adults are better able to deal with the abstractness of rules and some language-related concepts, their longer attention spans allow them to deal with even quite complicated activities, their need for multi-sensory input especially when doing activities is remarkably reduced, they are much less vulnerable to emotional pressures, and they are prepared to focus on isolated, delicate linguistic features.

So, being an adult learning a language is not necessarily a disadvantage, just as being a child leaner is not an automatic advantage. Indeed, such a notion is often identified in studies as being exaggerated or over-simplified. Cohen and Waite (2017), for example, argue that the advantage of early age exposure to the language is overrated, in that this early exposure is only really valid in constant exposure to L2 settings like a bilingual classroom. As they go on to discuss, the younger-is-better principle is only valid in environments where there is a constant and natural exposure to the L2. In reality, in typical classroom environments where the amount of exposure is relatively small, older learners in fact seem to have the advantage over their younger peers; that is, older can be claimed to be better here. According to Chacon (2018) studies have demonstrated that adults of any age group can reach a level of proficiency nearly as quickly as younger learners, albeit with a different emphasis on what they produce: the young learner is less constrained by what they perceive to be correct whereas the older learner tends to aim for a greater mastery of correctness. This is a major difference between younger and older learners and must be borne in mind when teaching this age group.

Learning languages in adult education centers brings about huge benefits for learners and, as Pawlak (2016) notes, it cannot be assumed that such gains will automatically accumulate, since much depends on the reasons for enrolment, the opportunities for target language use, and the nature of this use. Nor should the chief aim of the classroom in the non-native setting be to replicate language experiences of the target country. This is not a real nor feasible objective. Second language acquisition, whether it is instructed or not, depends on a wide array of variables, ranging from individual learner characteristics and experiences, through the specific make-up of the instructional setting and the nature of instruction, to the involvement of the teacher (Lightbown & Spada, 2013). For this reason, classes need to be tailored as much as possible to the various needs and learning styles of the adult language learners. Motivation is another crucial factor when dealing with the adult learner and needs to be worked on from the very first day in class. Adult learners need to envisage their success and imagine themselves using the language in real-life situations outside the classroom, and this is also the case when taking an exam, which should be seen as another step on the road to their motivation for learning a second language (Dornyei & Kubanyiova, 2014). Only in this way will the adult learner reach their goal of learner competence.

One cannot talk about being a foreign language user or instructor without reference to the Common European Framework of Reference (CEFR) for Language, since most major learning programs, methodological approaches, and assessment frameworks have emerged from this document. Adult learner competence in languages cannot be detached from their learning or from the assessment of this learning. The declared purpose of the CEFR is to provide a common basis for the development of language syllabuses, curriculum guidelines, examinations and textbooks throughout Europe (Council of Europe, 2001), and has led to many exams, from Cambridge to EOI through to UNED, now make reference to its thresholds for teaching and assessing users. Central to its descriptive system are its levels and scales, which describe what the user is able to do with the target language, and the descriptors of each skill are indeed written in a can-do format. The skills are centered around the main communicative activities of language use: listening, reading, speaking production and interaction, written interaction and mediation.

According to Leis and Rodriguez (2020) it is the teachers of the EOIs who must be in fully aware of this structure as a means of preparing their students properly in the target language.

This has become the central pilar of the EOI teaching-learning process, with the Decree 81/2018 in Galicia stating that it is influenced by these can-do descriptors and that certificated exam of each level should reflect the CEFR's framework. According to Read (2019) this is the case not only in EOIs but also in many other language centers, where the influence of the framework has been equally pervasive. The CEFR's action-oriented approach is based on the principle that in performing communicative acts we use strategies to determine how to make a more appropriate and effective use of our linguistic resources, and in some cases the construction of checklists is itself an act of curriculum development, and consequently of assessment (Little, 2006). The levels and scales describe learning outcomes, and follow a progression from the most basic level, A1, to the most advanced, C2, which can take many years to achieve. The document in itself served as the basis for developing new L2 curricula in many countries, especially Spain (Anderson, 2008), but also impacts on the whole assessment process and the evaluation models used in public language exams. As far as the foreign language learner is concerned. the checklists quickly become the curriculum. expressed communicative/behavioral terms. This is very much the case with the exams we will be working with in the current study.

Perhaps it could be argued that there is no real difference with regard to age groups when dealing with the aims of teaching a foreign language. No matter what the age, the aim is to reach a certain degree of mastery that allows the user to communicate in the foreign language (Moeller & Catalano, 2015). This aim of producing communicative competence was first discussed in the 1960s but it was not until the 1990s that it came to the fore in language learning and teaching, especially with the publication of the CEFL. Canle and Swan's model, first presented in 1980 but subsequently modified, still captures much in terms of what issues and areas are involved in communicative competence: grammatical, as related to the subsystems of the L2 (grammar, lexis, pronunciation and spelling);

discourse, related to pragmatic aspects of constructing text with coherence and cohesion; sociolinguistic competence, which subsumes pragmatic considerations as well as strategic competence, examining a user's ability to make communication more effective. According to Pawlak (2016) an important distinction must also be made between explicit knowledge (that which the user understands and is able to explain) and implicit knowledge (knowing how to handle situations).

The key to communicative competence is to achieve it across five skills (reading, writing, listening, speaking and mediation). The ability to do this is no mean feat and shows that becoming adept and fluent can take many years of practice and learning. According to Audenaert (2019) many learners abandon their studies before attaining the goal of fluency, as shown in the dropout rates in adult education in general, which in the case of the EOI of A Coruña reaches 30%. The original aim of the learner when signing up for classes can help to explain this, in that they need to see that they are indeed achieving and learning the language. An essential aspect when teaching the adult learner is to empower them both inside and outside the classroom so that they feel secure and competent enough to take control of their own language learning, both within the formal classroom setting and beyond (Brookfield, 2013). According to Gende (2022) one of the key tools to develop such student empowerment further is the integrated use of ICT tools within and outside the confines of the classroom and a teacher who knows how to do this is key.

# 2.2 Information and Communication Technology (ICT)

We will now move on to the second area of this theoretical framework by looking at the role of ICT when dealing with adult education in general, the role of ICT in the language classroom, and how it has evolved and manifested itself into blended learning, with special emphasis on the adult blended learner. In the current century, and in all spheres of life (work, sport, entertainment, social relationships), ICT is giving the world new ways of accessing and processing knowledge and information. Education is also being transformed by ICT essentially because it provides learners with new ways to engage, participate and inform themselves. Acaso (2021) describes this as a rEDUvolution, in recognition of the fact that the educational sector cannot merely stand by without reacting to the digitalization of our

society as a whole; rather, to avoid losing its place in this digitalized world, a series of microevolutions is required. ICT has truly transformed our society into a digital one. Depending on the sector of society in question, this influence comes in a variety of different shapes and forms. In broad terms, ICT involves any technological communication device that is used to transmit information, and within the classroom it involves any technological usage that brings about an improvement in the quality of education (APPF, 2021).

# 2.2.1 ICT in Education

There is no area of life that has not been impacted by changes in technology, and the education field is no exception. According to Marquès Graells (2004) the main functions of ICT in education are:

- As a medium of multimedia creation and expression: we can use ICT to create, recreate and edit educational resources for activities in the language classroom
- As a channel of communication: we can use ICT to communicate and interact with others,
   both inside and outside the classroom
- As a source of information and resources
- As a medium of assessment, an institutional channel through which it is possible to assess and evaluate in the language classroom.

The presence and use of ICT and the web 2.0 (or what some now call 3.0) has become an undeniable presence in our society as a whole, and education is no different here. We need only consider statements on the topic by institutions like the UNESCO (2016), in which they state that ICT can contribute to universal open access to education, equality in teaching, and the exercising of quality teaching-learning methodologies, leading to teachers becoming better professionals and the educational system more efficient and applicable. Although computers came to form a part of our daily lives back in the 2000s, education was amongst the slowest to integrate them into its methodology, and when this did happen technology was often used merely as a prop. To give just one example from a published work: instead of reading from the book we read from the book on a screen (Cleveland-Innes & Wilton, 2018). Conversely, this has sometimes given way to a confused idea of the "anytime, anywhere"

philosophy where educators think we can simply drop ICT into the classroom without any planning or thought. The reality is that the issue is not so straightforward, as many educators know, and it does not have to be one extreme or the other, this due to the fact that digital competence is not universal, especially in adult learners. This is why the teacher still has a key role to play when employing new pedagogies, and also requires some intermediate ICT knowledge to fuse any new approach effectively in the classroom.

It has been claimed by some leading experts that we have gone beyond Web 2.0 and are now moving into Web 3.0, which is already a reality that is transforming our society, and that education cannot afford to be left behind (Blasco, 2022). This is one of the reasons why the use of the internet and technological apparatus in our classrooms is ever more frequent. Some argue that it is much easier for children to integrate these devices into their learning as they are born into the technological age in which they seem to have been gifted with an innate digital ability. However, other experts, such as Lluna and Pedreira (2017), deny that such digital natives even exist, notwithstanding that they are often seen as more proficient in the field than adults. Either way, the reality is that mobiles, tablets and computers are, for children and adults alike, a daily tool in our society as a whole, and education is no different. However, we can also argue that even when students and teachers are highly competent in the use of ICT for activities related to entertainment and gaming, they are not necessarily as proficient in the appropriate use of ICT for learning (Reig, 2016). No matter what the age of learners, they need to know what to do with these devices to use them effectively.

According to Nieto and Vergara (2021), it has also been argued by experts in the field that we need to evolve from the world of ICT to what is termed LKT (technology for learning and knowledge) where we use this technology to learn and to share knowledge, and this as a step to towards the final goal of EPT (technologies for empowerment and participation), where the learner uses these technologies to lead the learning process and collaborate in their own learning and that of others. In this way we are constantly evolving towards the integrated use of ICT in the classroom, with the student at the center; despite the varied terminology here, for the purposes of the present study we will continue to use ICT, in that it is the most common umbrella term. The evolution from ICT to LKT to EPT implies a dual change on

the part of teachers and students: both a modification of attitudinal factors, and work to bring about improvement in autonomous learning and efficiency to favor the active use of EPT in learning. It can be argued that all three of the above terms can co-exist and will depend on what we are using our ICT for in the classroom, and in light of this, agencies like APPF (2021) have introduced the combined term TRIC (technologies of relations, information and communication).

Whatever the acronym employed, they can all be treated as different branches of the same tree, with the fundamental importance of promoting their integrated use in the school setting. Expert teachers are now considered those who can bring three strands of their pedagogy together: profound knowledge of their own subject, deep understanding of how to teach it, and now technology (Mishra & Koehler, 2006). This tripart system is referred to as TPACK (technological, pedagogical content knowledge). It means more than just putting a smart board into the classroom and projecting a digital book onto it. Rather, a TPACK teacher is not at the mercy of constant changes in ICT, which might mean an app, webpage or tool becoming redundant from one year to another. Hence, TPACK places value on using technology as a component rather than an add-on component in teaching. The lead promoter of TPACK, Mishra (2021), states that a teacher must first know what they are going to teach, have a clear vision of how they are going to teach it, and then, when this is clear, think about the available tools to do so. Pascuas et al. (2020) have noted that ICT offers important opportunities for society, with its immediacy, universality and the reduction in the need of transfer being the most significant facets of these tools for making the teaching-learning process more democratic, in that they help students to search for their own information both inside and outside the classroom.

#### 2.2.2 ICT in Adult Education

The need for strong quality assurance processes reflects the continuous perception that online learning of languages is somehow ineffective or just not as effective as classroom learning of languages, and contrasts with what Conrad and Openo (2018) note to be the continuous increase in online learning, which is becoming recognized as a crucial 21st-century tool, not

just a mode of delivery. Online learning, according to Latchem (2014), ceases to be simple delivery of digital learning products for the students' consumption and becomes a platform in which knowledge and learning are created by students themselves through interaction, collaboration and inquiry. This is especially true in the adult classroom. For this reason, the role of the teacher is still fundamental in helping with the preparation of the learner and in increasing their degree of autonomy; indeed, the role of the teacher is ranked highest in terms of diagnosing difficulties, allocating time, establishing the purpose of an activity and addressing learners' perceptions and how an activity should be performed (Cotterall, 1995).

Teachers often mention in surveys and studies that they feel they don't have the digital competence to use ICT in the classroom and even less so to assess students. According to Singh (2019) less than half of teachers feel they have sufficient digital competence in ICT to take full advantage of the potential of these technologies. It is clear that to fully embrace ICT in the classroom, teacher needs to feel supported and have programs operating to assist them. The Xunta De Galicia has a four-year plan "Plan Dixital de Centro" to offer support and practice to teachers who wish to increase their use of ICT in the classroom and in the whole teaching-learning process. Once this is achieved then the teacher will be able to support the student more. According to Nageswaran (2019) the learner will also need to feel supported as they go about learning how to be assessed online and feel that the presence of the teacher exists even when carrying out work and progress tests online, such as a teacher being available in the chat or on Webex in case of technical difficulties.

One of the reasons for the high dropout rate of adults in foreign language learning is outside commitments. Many learners find it difficult to combine their other activities with that of learning a foreign language. As Salmon (2013) points out, many learners are surprised at the limitations of what is on offer, especially in relation to the digitalization of their learning and assessment. Sangrá (2020) argues that the excuse of a digital gap is often given as reason not to expand digital learning, yet whereas that obviously exists it is not a valid reason for not implementing online learning but rather reinforces the need to bridge the digital gap to allow all students to participate in this e-learning movement; moreover, Sangrá argues that gaps also exist in in-situ learning, and the principles behind it have never been abandoned for this

reason. E-learning can help us to bridge these social gaps as long as each member of the educational community know what they are doing and how to get there.

Area and Adell (2009) define e-learning as a modality of teaching-learning which involves the design, putting into practice, and subsequent evaluation of a course at least partly online using a virtual learning environment where some of the activities, explanations or interaction take place. It responds to a general demand from students to allow these "anywhere, anytime" ICT tools to make their learning more flexible. From this necessity the desire to transform the learning classroom through the use of available ICT tools and methodologies was born. Innovation is currently taking place in the world of adult learning, and as Trujillo (2017) notes adult education is often at the fore of innovation here through the implementation of project-based learning, peer assessment, or blended learning. This is often done in the shadow of innovation in compulsory education due to adult education's lack of public visibility but in no way does this mean that adult lifelong learning is turning its back on this new reality. E-learning as a general term is spreading through the world of adult education as adults need and demand more flexibility to allow them to use available ICT tools to learn at their own pace and rhythm.

The flipped classroom is an off-shoot of e-learning that responds to this need and demand in both compulsory and non-compulsory education while always working within the constraints of the corresponding legal framework (Raposo-Rivas & Cebrián de la Serna, 2020). Supporters of this inversion of the classroom, such as Alonso and Prieto (2017), argue that it yields better prepared students, more available class time, and more specific attention to students within the class, with the teacher working on the sidelines to guide the student, who is at the center of the teaching-learning process as they work with their colleagues to reach the class goals. Radojewski (2020) goes even further, claiming that the flipped classroom is a method in which the use of technology serves to transform classrooms into engaging spaces to learn with the help of technology as well as teaching apps and preestablished standards. Learning and teaching occur both inside and outside the classroom. The student has an active role while the teacher guides and curates. Within the realm of the flipped classroom there are many sub-models: traditional courses, virtual courses, hybrid

courses, and the blended model, in which students spend half their time in the classroom synchronically and half the time outside of the classroom asynchronically (Adams & Gingras, 2017). One example of this is blended learning, which is increasing in use and popularity within the EOIs.

#### 2.2.3 The Adult Blended Learner

Blended learning, in its form as an off shoot of semi-distance learning, was first introduced into the EOIs of Galicia in 2020, enjoying a huge uptake by students. This modality is clearly modeled on the flipped classroom, in that students do half of their learning outside the classroom and the other half inside. Tucker (2018) offers coaching tips, rubrics and even lesson plans to allow educators to orientate themselves and prepare for this new mode of teaching with specific resources. Salmon (2021) states that the road to blended learning must be progressive and for this reason proposes a model of 5 steps to allow the user to advance, introducing formative assessment at each step of the way. Tuomi (2020) argues that it is essential that the adult blended learner also has face-to-face sessions as a complement to the online sessions to avoid them feeling lost or alone, and it is also of fundamental importance to remember that one size does not fit all when trying to adapt the adult to the blended classroom. Rosen and Stewart (2015) discuss research which supports the idea that blended learning for adult learners of languages could result in a more productive experience that either wholly in situ or wholly online learning, with data suggesting that these students are statistically more likely to successfully finish a course and to attain the objectives that were set out at the start.

Tucker et al. (2016) observe that blended learning has the potential to truly reinvent education and learning, but only with educators who are armed with the tools to help learners on their way and to accompany them at every turn so that they become blended autonomous learners. The roles of both teacher and student changes in this method of learning, and Santiago and Bergmann (2018) underline the fact that the teacher becomes something akin to a successful coach on the sidelines, with the student being the active player in their own language learning as they work both autonomously and cooperatively to reach the goals set

out by the coach. This is not a static process, but rather is in constant evolution, drawing from continued research, innovation in the classroom, and advances in technology. The introduction of blended learning in the EOI can be seen in this way as responding to an idea on innovation proposed by Santiago et al. (2018), in which innovation needs to be truly innovative in resolving a problem, be realistic by being integrated in the curriculum, and be sustainable by being reachable. In this way the flipped classroom of the EOI in terms of blended learning can be said to be a road towards innovation. Sharma and Barrett (2018) state that a fundamental decision is whether or not the course instructors develop their own material on their own platform or use an imported one, since familiarity with the platform will help students not only to learn but to be successfully assessed; indeed, familiarity is a key factor in success, and this has been seen to be the case of EOI semi-distance courses.

The Decree 81/2018 and Internal Organization of the EOI (ROC, 2012) both express the need and the possibility to offer students semi-distance classes. The Decree explains that this means students attend class once a week rather than twice. Following González (2021), semi-distance learning is a program of formal education in which students learn:

- Partly online, with a degree of control over the time, place, roadmap and rhythm.
- Partly in a physical place with guidance outside of their home.
- In a combined process to allow for integrated learning.

The Semi student should have a certain degree of autonomy and self-sufficiency, but they can be guided along the process by the teacher (Cots, 2021). They work with virtual learning platforms every week, not just to do homework, but also as part of their classwork outside the four walls of the school. Their familiarity with these platforms is essential, especially in the first few weeks of their course, and thus these students are the ideal candidate for working with online exams, in that one of the keys to the success of online exams is a preestablished familiarity with the platform and types of tests used. The different tools employed in the two main modes of blended learning are of fundamental importance: the tools that are available for both synchronous and asynchronous learning. Aldao and Calvo (2021) observe that the selection of these depends on the teacher, who must remember at all times the particular

students they are dealing with and adapt the choice to these students from the outset of the process, even when creating new course content.

The e-learning process brings about many changes in the whole teaching-learning process, as can be seen by the advent of blending learning in the EOI classroom. It changes teaching, learning and collaboration, and another fundamental pillar of the teaching-learning process is the role that online assessment has both in formative and summative terms (Barbosa & García, 2005). The Bring Your Own Device (BOYD) approach is also appropriate here, since we are working with adults who possess a high degree of maturity and respect for authority and thus can usefully take advantage of their own devices for pedagogical purposes in a classroom environment, using them for reference, records, and even to do tests. Indeed, Sharma and Barrett (2018) extoll the virtues of BOYD and encourage its use within the adult language classroom; it is a tool that proves to be fundamental within the blended classroom and perhaps even for assessment in the future. Assessment procedures for semi students are the same as for fully in situ students and are set out clearly in the course syllabus (EOI Santiago, 2022).

#### 2.3 Assessment

This final section of this theoretical framework looks at assessment and what it means in the overall teaching-learning process, before moving on to look at the issues surrounding the assessment of adult learners, especially through the use of ICT tools. The specific case of assessment in the EOI will then be discussed and following this a review of the literature on the advantages and disadvantages of online assessments. The concept of assessment in its broadest sense has been subject to numerous, shifting definitions over the course of time, but it was often the case that learning was reduced to being a kind of preparation for being assessed through an exam. Assessment has even been said to be the single biggest influence on how students approach their learning. It is a process that is emotional, stressful, and very often filled with anxiety. As Conrad and Openo (2018) suggest, assessment in technologically mediated contexts adds a further level of complexity to an already emotionally charged topic. By turn, Monereo (2014) points out that assessment covers an

ample spectrum of objectives, from accreditation of knowledge, competences to capabilities, and it tells us so much about the teaching-learning process of both the teacher and the student that he goes so far as to claim *tell me how you assess, and I will be able to tell how you teach.* 

# 2.3.1 Assessment in the Learning Process

The core idea presented in Santos Guerra (2003) is that in schools a paradoxical phenomenon occurs: they are where assessments take place most frequency and also where change tends to occur the slowest. According to García Aretio (2021) assessment of learning can then be understood as the act of obtaining information about the student and the nature and quality of their learning, since this is integrated into the learning process in a formative, systematic and continuous way, allowing the teacher to orientate learning and offer alternatives depending on what they detect in that assessment. Sanmartí (2020) argues that the fundamental function of assessment is to regulate the entire teaching-learning process, in which constant positive feedback is of fundamental importance as it allows students to make their own decisions and lets them identity what they are doing well and hence overcome any obstacles or deficits. For this reason, it is argued that it is time to change the concept of the error as a mistake, and to see it rather as an opportunity to learn though the learning process before finally attaining the expected level of proficiency at the end of the process. In this sense, Fletcher Wood (2018) states that we need to move towards responsive teaching which uses assessments for formative purposes to identify what students have learned during the process, avoiding the distraction and distortion that the notion of assessment only for summative purposes can create.

Whether we are assessing adults, teenagers or children, and be it in compulsory or optional education, assessment must take place. Assessment constitutes the mechanism that confirms that the teaching-learning process is working. Firstly, we must differentiate between assessment and evaluation, as these two terms are very often confused by educators. Moran (2001) describes how evaluation involves using measurements to reach judgments regarding how well a person or group has achieved learning aims, whereas assessment refers to using

measurements to describe a learner's achievement and to make subsequent suggestions or changes for additional learning activities. However, for Reeves (2008) both terms involving testing not of the student but rather of the teaching-learning process itself, hence it judges how a teaching program is doing in terms of its worth and effectiveness in reaching its initial goals. It measures both a student's learning as well as other human characteristics such as their feelings and wellbeing, and is essential when judging a teaching program's worth and effectiveness. According to William (2018) if we want to assess learning, then three clear factors need to be established necessary: the starting point of students, what they have to do to get to the end point, and how that journey might best be made.

Assessment is part of the teaching-learning process, and regardless of the who we are teaching we always need to remember what, how and when to assess, since these are the pillars of the assessment process (López Pastor, 2009). Some teachers in the EOI see it as a paradox to offer formative, continuous assessment when our exam is ultimately a summative one, but as González Motos (2018) argues we can use formative assessment even when planning for an end-of-term summative exam because the two terms are not mutually exclusive. Formative assessment through constant practice and interventions in the form of feedback will allow students to prepare for that final summative assessment even in a certificate exam like those of the EOI, where the final exam counts for 100% of the course mark. Summative assessment involves the evaluation of participants and summarizes their progress at a specific time within a course or program though feedback and a grade (McCarthy, 2015) It is considered as assessment of learning rather than an assessment for learning. Many educators now see the need to evolve beyond this assessment of learning towards using assessment for learning, for all members of the educational community.

A broader term currently in use, then, is assessment for learning, and this involves and incorporates as much formative as summative assessment, fusing these so that in some instances they are indistinguishable; the founding belief here is that all assessment should contribute towards helping students along their road to learn and to succeed (Sambell et al., 2012). For this reason, the present study proposes that we take for our sample a survey of February exams, since these serve only as an orientation tool for both teachers and students.

In this way we are following what Jones (2018) argues is the process of extracting information from students' heads rather than cramming that information into their heads, and testing can help in this process if done in an appropriate way, because testing does not have to be detrimental to the learning process (see also Huang et al., 2006). Taking the case of February exams is a useful approach here because they cover all three forms of assessment: they are formative, in that they provide information on how the teaching-learning process is going; they are summative, since they provide students with a grade, and hence students can see whether they would pass the final exam in June exam in the same circumstances; finally, they are diagnostic, because they can identify major problems in the teaching-learning process and these can then be corrected before more learning ensues. Furthermore, the rich world of ICT tools offers huge flexibility in terms of questions and styles of assessment (Sharples et al., 2005) but some of this cannot be taken advantage of in this style of regulated assessment.

# 2.3.2 Assessing Adult Learners

As previously mentioned, adults engage in learning languages for a variety of reasons. However, in the same way that adult learners have certain learning differences, then these must also be considered when assessing such learners. Isaac (2011) argues that learning assessments can be a useful tool to help learners determine gaps in their knowledge and to help instructors determine whether they need to make changes to their teaching strategies, and for this reason a number of approaches are taken in assessing adult learning. Benson (2003) also notes that it is essential that the process is seen to be fair and valid for adults, who are very likely to have more doubts about of these kinds of processes than schoolchildren, especially if they have had previous negative experiences. This is of fundamental importance when dealing with adults who, due to their age profile, do better in assessments when these are conducted through known means. They may also be more skeptical or defensive when receiving constructive criticism. Adults frequently mention that they want tests to be as objective as possible, with validity and reliability (Moran, 2001). This will be made even easier when assessing online.

Pappas (2013) argues that to understand the adult learner and how to assess them we must return to 1973 and Knowles' seminal work on the adult learner, in which he coined the term andragogy, which he defined as the art and science of helping adults to learn and assess. He also pointed out that with regard to assessment adults want to be challenged in terms of their intellectual ability, and crucial to this is what they see as balanced assessment procedures. He revisited the term in 2013 when he explored the peculiarities of the adult learner, especially when assessing this learner group. The key factor, which goes back as far as John Dewey, is that the adult learner has "baggage", in the positive sense of the word: they bring to their learning experiences from all previous contexts of life, learning and environments. This baggage will also impact on their assessment, as some will be focused on passing the exam whereas others will truly want to learn and be perhaps more open to trying new assessment procedures. Learning to pass an exam may result in much less self-direction than in the case of an adult who wants to be able to study in an English-speaking country or to attend English-speaking conferences (Smith, 2009). This means that such learners need what Vaello Orts (2009) calls calculated implication: the teacher must commit to the aims of students, preparing them for the learning and assessment ahead but being realistic and trying to reduce suspected anticipations of anxiety.

When talking about the assessment of adults we need to move into the specific context of assessing language skills in EOI exams, since this is the realm of adult education we are addressing here. In these EOI exams, we need to develop certain skills in learners, and these skills will help to make our learners better communicators and real 'users' of the language. It is therefore these skills that we need to focus on in assessments (López Pastor, 2009). Some of these skills are global and associated with general performance when using and working with the language, whereas others are quite specific. According to Stannard and Basiel (2013), all these skills need to be assessed if we are to effectively evaluate a student's overall language ability, given that the main purpose of language testing is to provide opportunities for learning, both for the students who are being tested, and for the professionals who are administering the tests. Assessment has changed, not just due to the advantages offered by technology, but also, according to Bahrani (2011), by moving towards a communicative approach in language learning. This dual approach in itself has brought to

the fore other elements which also play a role in assessing language skills in the adult classroom (cf. Stoynoff, 2012) such as the importance of autonomous learning, learning based around task completion in real-life situations, the role of self-reflection and peer reflection, and the issue of motivation, among many others.

The emergence of these above factors means that a reassessment of who, when and where we assess needs to be raised even within the constraints of regulated education like that of the EOIs. Until the 1970s, the general approach to language teaching was based on learning lists of vocabulary, grammatical usage, reading comprehension, and writing short essays (Stannard & Basiel, 2013). According to Sanmartí (2007) the principal aim of assessment should be the regulation of teaching and learning where errors are a useful source of information and the most important thing is that we all learn to assess not only ourselves but also our peers and the entire teaching-learning process. Alvarez (2020) notes that the use of diverse tools such as online tests, rubrics, and self-correcting exams can help to improve assessment and learning. One key to authentic assessment is that it involves directly examining the performance of students in intellectually relevant tasks, using a wide variety of assessment tools, and going beyond simply the awarding of a mark (Frey et al., 2012). This paradigm shift led to changes in the skills we recognize as being important to learn a language, and therefore in the skills we need to assess (Mustadi (2012), and this shift has continued and recent work on reviewing and updating the changing approaches to language teaching, in which an increased acceptance of the key role of communication in learning and assessing a language has been seen.

The EOIs have also moved towards exams which assessed communicative language use. These communicative language use tests were introduced back in 2010, and they examined reading, writing, listening and speaking. Mediation was added to the exams in 2018. For Chao (2009), the transferability of what is learnt to real life also needs to be assessed, in that this will appeal to student's motivation, especially when we are dealing with adults and their own motivations, as well as any potential barriers to their learning. For this, real texts were employed and focused on showing how to use the language in the real world. This was heavily influenced by the CEFL, as noted by Leis and Rodriguez (2015). New skills were

recognized as central to our ability to communicate, including the organization and planning of texts, pronunciation, the ability to paraphrase, and the ability to turn take and engage in a conversation. These new skills obviously also needed to be assessed from levels A2 right up to C2. Following North et al. (2022) the CEFL sets out a framework on which certified language exams can be based, these reflecting levels of competences, which are expressed in terms of a "can do" mechanism that gradually increases in difficulty and competence. By establishing these markers, it offers uniformity across Europe of the different certifications offered by different institutes. For Del Río et al. (2020) the CEFL is a key influencer in the decrees which the Spanish state and the Xunta have established for language assessment.

Another important state law, the Royal Decree 1041/2017, establishes the minimum teaching content and assessment standards, plus assessment criteria, to allow for this common degree of uniformity to be put into practice. It sets out that students must be examined in five language skills: reading, writing, speaking, listening and mediation. As Aldao and Calvo (2020) note, the Decree states that each skill is worth 25 points and students must obtain a minimum of 60% (12,5 points) in each skill in order to pass with a minimum overall mark of 81 (60% of this overall mark). The reason behind this testing system is that the student should be an all-rounder in the language. In Galicia, where the current study has been conducted, the Decree 81/2018 goes into more detail of how to obtain the 25 points in each of the language skills. It establishes the number of items and questions that must be set in order to attain the 25 points. If we follow the definition of Morales and Fernández (2022) then we must remember that summative assessment is applied at the end of a process, generally with the aim of gaining a certificate, and that on the other hand formative assessment is applied during the learning process with a regulating aim. In any case, we must return once more to Santos Guerra (2014) and his assertion that the most important factor is how to use assessment for learning as a way of understanding how to improve the practices surrounding it, without change it is much more difficult to improve. One key improvement is the use of ICT for online assessment.

#### 2.3.3 ICT to Assess Online

It is necessary here to explore in more detail the relationship between ICT, assessment, and the EOIs based on the current educational legislation. To propose that students can carry out an exam online in the same conditions as in class obviously requires that we need to support the idea, as set out by Wenjing and Iwashita (2021), that this will not lead to academic disadvantages but rather will in fact see students get the same results or even improve on these via the computer. Not only this, but it will lead to a more student-friendly assessment process. It should be noted that there are very few international research papers looking into the online assessment of whole courses; rather, most studies look at assessing individual skills or smaller courses. Nevertheless, from various parts we can make a whole, that is, by considering the results of these individual skill studies we can apply to them to the whole. Gaytan and McEwen (2007) argue that we need to adopt a series of strategies when assessing online; on the one hand, an ample variety of tasks that are explained clearly and which follow a previous known pattern, and on the other hand, appropriate and significant feedback when these tasks have been carried out. Singh (2019) emphasizes the advantages of immediacy offered by computers when doing online testing, since students can be given both their results and feedback more or less immediately with the testing of comprehension skills, which reduces test anxiety.

Some, like Burns (2018), argue that a more radical approach to assessing is required since online assessment needs to take advantage of the ways it differs from in situ assessment and to use these in offering a more student-centered form of assessment. While this is a very interesting suggestion, we are constrained by the legal decrees in the EOI and must set our online assessment according to what the law lays out. We should pay heed to what Hubbard (2021) terms facilitator and web-based assessment, who goes on to argues that that online open-source platforms such as Moodle offer perfect opportunities to replicate in class assessment that which is conducted online. These platforms are visually appealing and student friendly. Obviously some drawbacks exist to this form of online assessment, such as the issue of affordability and the availability of networks, especially in rural areas (Al-Maqbali & Raja Hussain, 2022), and these issues should also be borne in mind, but they can

be overcome by providing students with the physical tools necessary to carry out online assessment as supported by digital schemes initiated by the Xunta de Galicia. Abrazado (2019) also outlines the many benefits offered by online assessment for students with disabilities, such as the use of touchscreens for students with motor skills problems and voice to text option for students with visual impairment.

With respect to the integration of technology when assessing, this can act as a powerful filter. Preferences here may have developed through positive or negative learning experiences, may be culturally generated, and in either case they can constitute the grounds for a negotiation to help the learner towards the most impactful learning (Slouti et al., 2010). The student who does their exam online must feel the teacher is there, even if testing takes place at distance. Joshi et al. (2020) claims that the benefits of doing online assessment are innumerable for the adult learners, but that it needs to be carefully managed, especially for exams that lead to officially recognized titles, and that this can be controlled through the use of exam halls when doing the exam online. The adult learner is also more demanding in terms of wanting to find that the methodology used in classes is reflected in the methods of assessment. Joyce (2018) presents statistics that support the idea that students doing online assessment when studying a second language get higher marks when they are constantly doing online testing and not changing their methodology ad hoc. A statistically significant correlation was found between the formative assessment used online and the final summative exam scores when these exams were also carried out online.

ICT can be employed across virtual learning environments to assess language students' performance. This is very often efficient, innovative, achieves equivalence with other exam formats, and is affordable (Chapelle, 2007); moreover, it can be linked to tests of which the EOI exams are fully based. With the advent of online teaching, and consequently online testing, there is a growing body of literature showing that the online assessment of students not only leads to improved academic performance (or at the very least matches pen and paper outcomes) but also leads to a more student-friendly approach, as demonstrated, for example, by Tella and Bashorun (2012). In another study, by Al-Qdah and Ababneh (2017), it was shown that in a group of language students in Saudi Arabia the results of online exams

slightly improved overall and were never lower. More importantly, students generally answered questions well, and once again reported that they felt that it was a less stressful experience; the teachers also noted both economic benefits (no printing of paper exams) and a time benefit (students could compete the exams at home). Furthermore, it was extremely interesting that in a post-exam survey, a great number of students who did the exam online pointed out that they found the experience online less stressful and more rewarding.

Area and Adell (2009) report that students mentioned the fact that in comprehension tests they received instant feedback, that there online testing constituted a more relaxed environment, and that automated answering helped them feel more productive, all leading to a more positive exam experience. As always, no process is perfect, and areas mentioned by students that need to be controlled are technical problems on the day, and the quality of WIFI connections. Nevertheless, according to the study by Tella and Bashorun (2012) the vast majority of students said that would repeat the experience and believed it could be expanded to exams involving the expressive skills of speaking and writing. In a detailed although less recent study, yet one which is still widely cited today, Bocij and Greasley (1999) showed that by doing exams online students' anxiety levels were reduced. More recently, Assella et al. (2020) noted that many students claimed online assessment allowed them to focus on the questions more, to be in greater control of their time keeping, and indeed to be more in control of the whole assessment process. Students reported feeling less threatened, and this was especially useful in helping more anxious students to increase their marks, whereas students who were already high graders (with lower anxiety) maintained their marks without any great improvements. As Reiss and Dietrick Reips (2016) pointed out, the visual impact of online exams, with colors and more user-friendly type, can also help users to feel more relaxed, leading to them responding better to the questions, and to maintaining or even increasing their marks.

# 2.3.4 Advantages and Disadvantages of Online Exams

Some studies have shown that when we leave the confines of the classroom we can really change our way of teaching, of which assessment forms a vital part (Godwin-Jones, 2018).

Participants tend to show more interest, better interaction, and better results when interacting on the computer than solely in the classroom. The whole learning experience becomes student orientated, and once students feel that they are at the center of the process their results and participation improve. Whereas many studies have focused on testing and comprehensive skills, the skill of expression (writing and speaking) are often left out. With advances in ICT there is no reason why written and especially orally skills cannot be assessed online, and some studies have already begun to explore this area of communicative competence. An early example here is Liang (2010) which looked at students who were participating in an oral expression class in South Korea, and found that on a quantitative scale students who did the exam at home scored better than those who did the same exam in a classroom setting. The study showed that students, especially shyer students, felt more comfortable at home, and especially without other students around them.

In a study by Wenjing and Iwashita (2021) it was observed that not only does the computer help improve results but the tools it offers through the software used improve outcomes overall. In line with Cassady (2009) the emotional response to assessment is one of the issues which we will be exploring in the present study, since the psychological situation is a huge factor when students are engaged in exams: the more comfortable they feel the better results will tend to be. It is not only in oral production that better results are found online, but also in written expression. Cassady also looked at the results of students who upload online written essays, showing that students who did so also obtained better marks than those in classroom contexts, in that the use of apps and an online word processor led to a reduction in spelling and grammar mistakes. Critics might say that this means that online students have an unfair advantage and might even go so far as to say it is "cheating". However, we can counterargue that word processors are now so widespread that they ought in reality to be considered as just another tool that is habitually used in our world of real language use. For Nageswaran (2019) doing online tests also offers huge personal benefits for students with special educational needs such a hearing and visual impairment, in that many online tools exists to enlarge and improve tests on the screen.

The second specific objective of this study is to ascertain whether online assessment leads to a more student-friendly assessment process. This stems from the problem that the existing evaluation process in the EOI is too arduous and demanding for students in terms of length and endurance, as our own internal surveys have revealed. A number of studies have linked test anxiety to reduced test performance, and this anxiety can often reduce and impact on the results of students (Meijer, 2001), and indeed emotional wellbeing is associated with increased performance and better results for the whole language learning experience. In general, it can be claimed that students suffer anxiety when taking exams, whether online or on paper (Stowell & Bennett, 2010). For students who suffer anxiety doing exams or when doing projects online, they nearly always have the alternative option of doing an exam on paper, yet for those who get anxious in the classroom setting have often missed out on the alternative possibility of doing an exam online. A large majority of this latter group from Stowell and Bennett's study stated that they experienced far less anxiety when doing the exam online and that this option should be expanded. Similarly, Cassady and Gridley (2005) compared students who took their exams using paper and pencil and those who did so online (i.e., in the computer laboratory), finding that students who took their exams online reported lower levels of perceived test anxiety.

Other authors argued that some students may feel that if they are being monitored or invigilated via a web cam, then this may make them even more nervous (Woldeab & Brothen, 2019). However, in the present study this will be mitigated, in that we will be working with students we already know from our classroom teaching and we will previously explain the whole online testing procedure, not least because the aim here is to reduce the level of observation of students when they are being assessed online. Yulia et al. (2019) show that the results of students who carry out their assessment online are not only better, but their experience is also enhanced. Their study also notes that students frequently point out that they are less stressed and obtain better results because of this lack of stress. This is especially notable in oral exams, where shyer students observed how a computer screen afforded them an extra degree of privacy and comfort, which they perhaps do not perceive at the time. Many of these studies, such as Lai (2013), point out that whereas these feelings are often perceived

and not real, they do tend to have a positive impact on their exam performance and their whole exam experience. Some learners are shy, passive and afraid to speak, or are inhibited and reluctant to participate in conventional foreign language classes (Simkins, 2010). These students generally feel the same way, if not more, when carrying out an exam, especially an oral exam, simply because they are worried and stressed about face-to-face cooperative debate.

Rosario et al. (2018) argue that learning languages through the use of ICT tools can be distinguished from conventional education in that it encourages students to participate actively in communication. Findings here support the idea of integrating online practice tests into the teaching experience as a means of helping students to prepare for course exams, and also reveal that secure web-based testing can aid undergraduate instruction through improved student confidence and increased instructional time (Cassady & Gridley, 2005). What may be considered autonomy for some may in fact simply lead to an increase in anxiety and nervousness for others. One element that could produce this anxiety in students was identified in a 2012 study (Adeyinka & Bashorun) in which students stated that they worried about a drop in connectivity or other technical issues on the day of the exam. One way of reducing this worry, according to Salmon (2011), is by working with ICT tools that students know and feel comfortable with, something which many adult learners are well equipped to take advantage of. Familiarity with the ICT tools used leads to a reduction in nerves and a better ability to perform on the day. Expense is also another issue brought up by those who argue against online learning. Yet for Blasco-Serrano et al. (2022) such testing is actually more cost effective after the initial investment, and students truly value being able to access their marks automatically and having access to a record of the way their performance was marked after the exam.

As Fask et al. (2014) discusses in terms of online assessment, one of the main qualms that always arises is the issue of copying and cheating and the widespread idea that this is much easier behind a computer screen than in person. While this may be a genuine concern for some, for others it in fact serves as a useful safeguard against the perceived unfair advantages of online assessment. Tuah and Naing (2021) have shown that no exam has ever been proven

to be completely free from cheating. Yet the perception persists that online exams lack the quality and integrity of classroom ones, and that it is simply far easier to cheat. According to Harrison (2019) this underlying assumption runs counter to research, risks categorizing all students as cheaters, shifts the pedagogical focus away from developmental teaching and learning and toward a fixation on punishment, and wastes an opportunity for a more reflective approach to online assignment. Harris et al. (2020) conducted a study which uses statistical evidence to demonstrate that students at a large online university are not more likely to engage in cheating than in more traditional models of examination. In some cases, there is indeed less evidence of cheating, since students cannot copy from the work of others by looking or glancing at it.

Age is also a factor to be taken into account, as studies show that the older the student the less likely they are to cheat (Pilgrim & Scanlon, 2018). This is very pertinent for our present study, as the vast majority of our students are aged 30+. Hart and Morgan (2020) present empirical evidence that in situ exams, with their typical atmosphere and all the associated and stress, lead to more cheating, not less. The authors argue that measures in place, such as timing and identification, are more than sufficient to reduce levels of copying. They claim that pressure and stress are key drivers of cheating behavior, and students today experience a great deal of both. So, what was in fact found in Hart and Morgan's study of an American university was that students who felt connected, supported, and encouraged were less likely to cheat. Measures used in many Asian universities, such as cryptography and biometrics, to control for presence, port inputs and outputs, would be of doubtful legality in a European Union country. However, a compromise solution might be found through the use of a video conference to at least confirm the presence of a student and to guarantee their identity. No system is foolproof (Harrison, 2019) but this is not a compelling reason for not trying to improve and enhance technological solutions, and over time online systems can undoubtedly be made better and more secure.

This chapter has addressed the three main areas of our theoretical framework, looking in detail at their corresponding subareas of research, towards providing a solid basis for the present study. We have considered the specific profile of our intended subject of analysis,

the adult learner, and asked how specifically this group of learners approach language learning. We have then examined literature on ways to assess them, paying particular attention to specific issues related to their age profile, and finally we looked into how this assessment can be carried out using ICT tools, focusing on many recent studies in this area. The theoretical framework that we have thus established will serve as the foundation for the design of the research project to be reported. We conclude this chapter with observations by Sanmartí (2020) in discussing the Curriculum of Education in Finland from 2015, in which the claim is made that we need to move from the assessment *of* learning to an assessment *for* learning, and then move on more specifically to an assessment *seen as* learning (my emphasis).

#### 3. RESEARCH DESIGN

This chapter on research design will include five sections, each one of these with its own sub-sections. The first section is a description of the experience which will set the scene: the educational context in which we are operating, why this research proposal is needed, and ultimate aim of the study. The second section focuses on the perspectives and methodology of the research, and will describe the quasi-experimental approach that constitutes the basis of the study before moving on to look at the research methods themselves, which in this case involve a mixed approach. Detailed in the third section is the research problem itself. Emerging from this, the fourth section is where we will determine the specific objectives of the study, these divided into the principal aim and related specific objectives, and will also set out a number of hypotheses relating to the variables at hand. Finally, the fifth section explores methods and techniques of data collection and analysis within the design of the fieldwork outlined, the processes and phases of the research, and finally the four main instruments used to obtain data. The five sections which make up the chapter, then, will apply the previous theoretical framework to the real data to be used in the research.

# 3.1 Analysis of the Educational Context under Study

The description of the research experience will involve an analysis of the educational context of the study. This research proposal has been developed for the EOI of A Coruña, and this center will provide us with a case study to allow for the proposal to be implemented in other EOIs. Assessment in the school is carried out in situ through final assessment exams that are laborious and arduous. In internal surveys students frequently complain that the exams are long, tough and mentally draining, demanding over five hours' presence in a classroom. It is arguable that this does not need to be the case. The aim of the current study is to propose that ICT tools, through the virtual learning platform Moodle, can be used to assess students online, thus reducing their exam stress while maintaining their marks and making the entire process more sustainable and productive. There are three main reasons for selecting this school as the setting for the quasi-case study. First, it is a pioneering school in the implementation of semi distance courses with students who are used to working and testing

online. Second, it is one of the largest EOIs, catering for the needs of many students, and as such allows for a larger selection pool. Third, the autonomous government of Galicia actively promotes these new semi courses and is asking for feedback to improve assessment. In this way we can conduct real-life research into an actual educational setting, with the hope that we might be able to improve it as we do so.

The February exams in the EOI are often referred to by students as "mock exams", as they are used to ascertain how the teaching-learning process is progressing. These exams have been chosen for trial because, as mock exams, students will not feel under pressure as much to perform and will be more willing to partake in a trial experiment. It is important that before undertaking any experiment of this kind, researchers should pilot a test with experimental procedures to identify possible snags with any future implementation. Here we will be following Fitz-Gibbon (1996) when stating that evidence-based approaches are necessary in order to challenge the imposition of unproven practices. This selected quasi-experimental group will do their February reading, listening, speaking and writing exams online. Mediation was later added as a separate skill but will not be examined here because the change in legislation came into force later. The results will then be compared to a control group of in-situ students and a comparative analyze will be conducted. A questionnaire, plus an interview and content analysis, will also be carried out to ascertain students' feelings and exam experience. If the results of students are observed to improve, or at the very least are maintained, then we will propose that this experiment be repeated for other exams for semidistance students.

This research proposal is of personal interest to the investigator, who works in the EOI and has frequently heard students complain about the assessment process. The investigator is also a teacher of the semi-distance courses and has first-hand experience of how students of these courses see how not to be able to do their testing online is a contradiction, in that the online element in the teaching-learning methodology they are following is not reflected in the assessment process. As head of studies, the investigator has also seen how students with genuine, justifiable reasons for not taking the exam are put into situations of stress if they cannot come to the school to be examined, but could do the exam online perfectly well in

their own homes, an exam, we might add, is already in electronic format when the school receives it. The huge amount of paper used in a one-off exam is both an economic burden and is not environmentally sustainable, especially for a school which is looking to reduce its carbon footprint. The recent pandemic has shown this inflexible regime of in situ exams needs to be overhauled. The absence of the use of ICT tools in exams is a contradiction when we see how integrated they are into teaching in the semi classroom, leading many students to ask why technology is not being used more for assessment. For all these reasons, the investigator, a teacher, has sought to run a quasi-experiment to explore this issue and hence to look for a pathway to a possible solution.

In discussing the educational context under study, it is of fundamental importance to know the specific profile of those participants who will be the subjects of the investigation. The EOI in A Coruña is one of ten such centers that together form the EOI network in Galicia, and is its largest, with over 4,000 students studying one of 11 languages offered. English is by far the most popular language, accounting for around 70% of student enrollments in a given academic year. Most students study what are termed "in situ classes", two-hour classes held at the center twice a week for an academic year. The schools and the regional government are trying to vary this fixed offer. The semi-distance course was introduced for the first time in 2019 and is proving to be very popular with students. This allows students to attend in situ once a week, with the other class done online on the Moodle virtual platform. As Cohen et al. (2007) note, the population as a whole is comprised of a wide range of subjects and individuals, who might have one or more characteristics or features in common, whereas the sample in any study is by its nature a smaller sub-set of a population. The aim in any study of this kind is to have two groups that are as alike as possible, thus allowing for comparisons to be made of their results, and indeed this is the approach taken in the present study.

The sample for the research here is three groups of students from the C2 semi-distance course at the EOI in A Coruña. This will allow for a comparative analysis with the exam results of C2 in situ students. The control group results were chosen at random from the internal

computer system centrosnet, with the aim of matching the characteristics of the sample group as much as possible, and thus taking the sample group as the base.

GROUP	NUMBER	MODALITY	AGE	GENDER
POPULATION	52 out of 250	IN SITU	20-65 Average: 42	37 women 15 men
			_	
SAMPLE	52 out of 52	SEMI	25-67 Average: 45	39 women 17 men

At first sight it might appear to be a small sample: 52 students out of 250 who study the semi C2 English course. However, quasi-experimental research methodologies very often require a sample size of around 15 participants, so this investigation satisfies this condition. Furthermore, we can argue that it is an appropriate sample size, in that it is often acknowledged that the size of a sample is constrained by many factors, such as time, money and, in this case, the number of available groups, because this new teaching model only has one C2 semi-distance course in the afternoon and two in the morning. Thus, for the sample group itself we have quite a representative number, in that there are only three C2 semidistance courses on offer in the EOI throughout the academic year, yet all three groups were willing to participate in this quasi-experiment. Of course, this means that this sample is of both a non-probable and purposive nature, as not all members of the population have the chance to take part in the research process, given that it is a pre-selected group. This has been done intentionally, the semi group having been chosen specifically because these students are working online for half of their weekly classes and do progress testing online. Their familiarity with both the process and the ICT tools makes them a predisposed group, one which is ideal for research and large enough to allow for conducting a solid quasiexperiment.

# 3.2 Research Approach and Methodology

We now turn to the experimental framework: the methodology and approaches to quasi-experimental research that have been used as the basis for this study, before moving on to look at the research methods themselves, which themselves are of a mixed kind. This research proposal has been carried out following the principals of a quasi-experimental methodology, applying mixed methods of research in which both qualitative and quantitative data collection and analysis will be employed with a triangulation of the results obtained, thus allowing for conclusions to be drawn which consider elements that focus on the actions involved in the research itself. According to Cohen et al. (2007), this form of active research approach centers on the aim to improving education by changing it and learning from the consequences of these changes. When planning research, it is important to clarify that a distinction needs to be made between methodology and methods, approaches and instruments, styles of research, and ways of collecting data. The decision on which instrument (method) to use frequently follows from an important prior decision on which kind (methodology) of research to undertake, as the two are clearly connected and linked. We will now explain these elements as they arise in this research proposal.

# 3.2.1 Research Approach

The methodology adopted in this study is of a deductive nature. What does that mean? It means that the aim of the investigation is to check and prove an initial theory though collected data, which here will be done though real classroom research. Also, a quasi-experimental design is followed, in that we will have the experimental group, whose results we will be able to compare to the control group, and in this way the main results will be generated and generalized. This will allow for future studies into the role of online assessment not just for the experimental group but for all students in the school. The study forms part of a classroom-based approach, as we are dealing with a real group with a real teacher in real exam circumstances. The aim to improve future assessment processes through the use of ICT gives weight to our claim that this study forms part of the action research approach. Taking into account that it is the technique that is the most suitable to meet the proposed objectives of a research project like this one, the investigation itself is developed

though a quasi-experimental design which aims to establish a cause-and-effect relationship between an independent and dependent variable (Thomas, 2020).

In this research it is not possible for us to undertake true experiments as we are dealing with students' end-of-term marks, nor is it possible to allow for the random assignation of participants to the control or experimental groups. Quasi-experiments fall within the area of field experimentation because they take place outside the lab, in this case in the classroom (Cohen et al., 2007). It is also termed a quasi-experiment and not a full experiment in that it does not rely on random assignment. The subjects of this study are assigned to their groupings based on non-random criteria. Thus, the researcher does not have full control over the groupings, but rather intervenes in pre-existing contexts and groups. In non-equivalent group design we seek to choose existing groups that appear similar but where only one of the groups experiences the experimental treatment. Such research situations are termed quasi-experimental, and the methodologies employed are termed quasi-experimental designs (Kerlinger, 1970).

This proposal will be based on the quasi-experimental design of post-test, non-equivalent groups, because the two involved groups, experimental and control, have not been balanced by randomization (which is why they are non-equivalent). It is not possible to match groups as there are far more students enrolled in the ordinary courses than in the semis. For this reason, we will aim for samples that are as similar as possible. Quasi-experimental designs identify a comparison group that is as alike as possible to the treatment group in terms of baseline (pre-intervention) characteristics. The comparison group captures what would have been the outcome if the program/policy had not been implemented (that which is counterfactual). Hence, the program, policy or intervention can be said to have caused any difference in outcomes between the treatment and comparison groups (White & Sabarwal, 2014). Quasi-experimental methods that involve the creation of a comparison group are most often used when it is not possible to assign randomize subjects or subject groups to treatment and control groups. But it can never be completely certain that the groups are wholly comparable. In other words, it is unlikely that the two groups would be as similar as they would if they had been assigned in an entirely random way (Trochim & Donnelly, 2006).

In this research proposal we will be following the seven steps to undertake a quasiexperiment, following Cohen et al. (2007).

- 1. Identify the research problem as precisely as possible, only admitting a problem that it is possible to solve.
- 2. Formulate the hypothesis that we wish to test, making predictions about the link and relationship between specific variables and making decisions about other variables that are to be excluded.
- 3. Select appropriate levels at which to test the independent variables.
- 4. Decide what type of experiment to adopt.
- 5. Determine what population to be studied.
- 6. Select appropriate instruments and tests to allow for validity.
- 7. Run a pilot test.
- 8. Follow test procedures.

Following Price et al. (2020), the specifics of the post-test nonequivalent groups within the realms of the quasi-experiment must also be set out. In this design, participants in the sample group are exposed to a treatment, in this case doing their exam online, a nonequivalent group are not exposed to this same treatment, and then we compare the results of the two groups. This design is one of nonequivalent groups because the students were not assigned randomly to the groups by the researcher, meaning that there could be notable differences between them, even taking into account prior attempts to find groups with profiles that were as similar as possible. The difference between results and exam experiences might be caused by the assessment tool used or might be due to the variables involved. That is why it is essential to take steps to ensure that the groups are as similar as possible by trying to select students from the control group as alike as possible to those of the sample group in terms of characteristic such as age and gender. This will increase the internal validity, but other variables at play must always be borne in mind when addressing and analyzing the resulting data.

By running this quasi-experiment as set out above we will move towards evidence-based education research (Fitz-Gibbon, 1996). The educational community needs evidence on which to base its judgements and actions, since without this any future action could be open

to skepticism and doubt. Evidence-based education research states that policy formation and decision making should be based on the best available information, and not just hunches. Our approach here is a practical one, in that we already have two differing groups who preexist in a real context and setting. In this way we can take advantage of data that is already available. As with all approaches, there are advantages and disadvantages that need to be considered when selecting one approach over another. On the downside we have lower internal validity, because without full randomization we cannot be absolutely certain that the confounding variables have been accounted for, as well as the issue of having a semi group that is already predisposed in a certain way. However, with the quasi-approach we gain external validity, in that we are dealing with real interventions, and we have internal validity that allows for greater control of the variables and groups that already pre-exist and are real case studies.

It is important to mention here that this research methodology falls within the realm of the action research approach to the investigation of problems. According to Hopkins (2008), this involves a form of disciplined inquiry in which an attempt is made to understand, improve and reform practice, and it can be used in a large number of areas, including teaching methods, thus replacing more traditional methods with an innovative one, as well as using evaluative procedures to improve the methods of assessment, both of which form part of the objectives of this research. Following McNiff (2002), the study is designed to bridge the gap between research and practice and focuses on practical issues that have been identified by the active participants and which are on the one hand problematic, but on the other are also capable of being changed. In this way, the study gives rise to the principal of action research, this being an approach aimed at improving education by changing it (Kemmis, 2009).

## 3.2.2 Research Methodology

Grotjahn (1987) points out that there are many parameters that we can use to differentiate between types of research, including the type of data, method of analysis, and forms of data collection. The main method used in this study is a mixed one, as we will be working with both qualitative and quantitative methods to ensure that the proposal itself tests the

hypotheses. In broad terms we can say that the quantitative approach will work to test the first hypothesis: that students' exams results are maintained by doing their exam online, whereas we can approach the second hypothesis with a qualitative method, in that we will be determining students' feelings and wellbeing with regard to the assessment process. Following Cresswell (2012), mixed-method research is the combination and integration of both qualitative and quantitative methods in the same study, allowing for a broader and deeper understanding of the subject as well as corroborating the results and subsequent conclusions. For Fetters and Freshwater (2015), this mixed method allows for a great synergy and provides a better understanding of a problem than either of the two methods might achieve alone.

Gray (2009) argues that qualitative research is subjective and inductive in nature, which often highlights the significance of the research process. While there are many approaches to qualitative research, they all tend to be flexible and focus on retaining rich meaning during data interpretation. It allows us to know the perception that subjects have of their particular reality. According to Golden-Biddle and Locke (2006), such an approach is useful for research into initial problems, since it can allow for an in-depth description of the phenomenon. On the other hand, quantitative research has at its fore an objective and deductive point of view, focusing as it does on the objective of the study rather than on the study itself. Clearly, a mixed method such as the one employed in this research proposal uses elements of each to test the two principal hypotheses: that exams results will be maintained when employing ICT tools to test online (quantitative method) and that the experience will be more student friendly (qualitative method).

The resulting data will be collected and analyzed through the corresponding tools, and this triangulation of the data will help us to reach conclusions. Triangulation is a form of analysis used in multi-method research designs such as the present one. Arias Valencia (2000) notes, the notion of triangulation comes from the world of sailing and navigation, and involves marking multiple reference points to locate an unknown position; it is also defined as the use of at least two methods (usually qualitative and quantitative) to orientate the same research issue. Arias Valencia also notes that there are four basic types of triangulation: the

triangulation of data; the triangulation of the researcher; the triangulation of theory from multiple perspectives; and the triangulation of methodology. As we are using more than one data collection method, this leads to the development of different datasets, and while these will be analyzed independently, they will also be brought together to allow for comparison.

Such triangulation is centered on a fundamental question: what good would it be for the exam results to be maintained, and a new system implemented, if students expressed a dislike for this exam system in their (qualitative) assessments of it? Or indeed, the other way around: if students were very positive in their qualitative assessments of the process, but had a higher failure rate in the exams. For this reason, cross-checking through triangulation will allow for a comprehensive review and findings into the proposed practice (Nightingale, 2009). If the results lead to the same conclusions, that is, that the ICT tools do indeed improve the entire assessment process, then the methods selected will help to validate each other. For this reason, we can state that this research paper adopts the quasi-experimental-mixed-interpretative paradigm; it is mixed in that it works with both qualitative and quantitative methods that provide analysis which is both deductive and objective.

#### 3.3 Research Problem

In this third section we will now explore the research problem itself by going following on a step-by-step basis the justification for the research itself. The EOIs are teaching and evaluation centers, and have this dual and equally important role. The EOI of A Coruña had over 4,000 students enrolled in the academic year 2020-21, studying one or more of the eleven languages it has on offer. The reasons given for attendance are as varied as the adult learners themselves: in the school's plan of action for the coming academic year, the reasons given for attendance range from needing a foreign language for their job to visiting grandchildren overseas. Many students come to learn and certify their given level in a language. In recent years the importance of assessment and certification has grown, and now stands as equally important as the center's role as a teaching center in terms of reasons given for attendance. There are non-certificate exams developed in each individual school at the

end of each year of learning, and these lead to standardized certificate exams at the end of each cycle: A2, B1, B2, C1 and C2.

All certificate exams in Galicia are unified, meaning that a candidate in Vigo does the same exam as in A Coruña on the same day. These exams are developed and designed by a centralized board of exam developers who then send the exams to the management team of each language school via an encrypted electronic folder. Every year the regional government, through the EOIs, offers exams in 11 languages at 5 levels corresponding to the CEFL levels. All exams are done in situ, in person, in the EOI centers. Students who are enrolled in an EOI as official students can be examined at two points: the first at the start of June and the second at the end of the same month. If they do not pass all the parts in the first June exam, then at the end of the month they need only to be examined in those parts which they previously failed. In a typical, pre-covid year, over 6,000 students, both official and external candidates, took these exams in the EOI, A Coruña, to certify their level. Each student is examined in five language skills: comprehension of written and oral texts, written and oral production, and mediation. Mediation is not covered separately in the present study because it had yet to become a separate exam when the research began, but it will be mentioned in the results and conclusions since it is also a skill that can be clearly be studied and examined online.

In internal studies that are carried out at the end of the school year, students frequently complain about the assessment process, noting that the exams in the EOI are notoriously long, inflexible and exhausting. The total duration of the written exams, which take place over the course of a single day, is over four hours, and students return on a different day to do their oral exam. The exams are extensive in both time and physical material. In the same internal survey some teachers also state that students abandon their classes before the end of year due to the fear of taking these tests, which they find daunting. This assessment process is said to play a role in the high dropout rate during the year (especially notable in April), with many students not wanting to do the exams. At the same time, there is also a high failure rate of students doing the exams. While the reasons for this are complex, potential solutions must be sought, and these tried and tested. The department responsible for exam preparation

in the autonomous government is open to a certain degree of change. We are not faced with a closed book that is not opened to change, but any changes must conform to the legal framework within which the language schools operate on a regulated basis. A recent change in learning options might serve as the springboard for such changes to come about: the introduction of semi-distance classes.

Students and teachers, in the same internal and external surveys, have constantly been asking for classes with more flexibility, and as a result of this demand, the modality of semi-distance classes was finally introduced in 2020. This offering is a huge change, and for the first time allows the EOI more flexibility in how and when the learner learns. Students come to the school once a week for two hours to practice especially the expression skills, and the other class is done asynchronically online using the virtual learning platform. The students and teacher are constantly in contact online as they carry out language-based activities and testing to assure that the teaching-learning process is progressing adequately. This is a new offering but one which has already been very well received by students in terms of enrolment. Currently, all students (official, external, traditional, semi) take the same end-of-year exam. However, the Department of Education has confirmed and encouraged the idea that these semi students can have more flexible assessment procedures, especially in terms of assessment tools, in that they constitute a group of students who are used to working online.

With the advent of semi-distance classes in which students and teachers are used to working on online virtual platforms, the need to rethink this model of obligatory in situ exams exists. Students in these groups, as well as teachers, see it as a logical progression to do their summative testing online. This forms the principal justification for the present research: a desire to improve assessment as a fundamental pillar of teaching and learning through the use of available ICT tools on the Moodle platform, which would allow students to do these exams online where studies suggest they would feel more relaxed and at ease. This would be likely to lead to such students performing to their optimal level in the exam and thus to maintain the marks they would attain, and would also allow for an all-round improvement in the student's exam experience. This would provide benefits, not only to the students themselves, but to teachers and to the school itself, as the exam process would not be such a

stressful experience. The emergence of a new modality of learning in the EOIs, semidistance, means we now have a group of students who are used to working with ICT tools to carry out their language learning.

# 3.4 Objectives and Hypothesis of the Study

The research problem outlined above illustrates the main issue that has led to this paper. The obligatory nature of in situ exams in the EOIs are inflexible, arduous and costly, according to internal quality control evaluation by students. The use of ICT tools to allow for optional online assessment would result in an alternative student assessment procedure and would potentially maintain exam results while reducing stress and transforming the entire assessment process from a stressful student experience to a student-friendly and student-centered one. In light of the above, the general objective of this study will be to analyze and evaluate available ICT tools on the Moodle platform for the implementation of online assessment in the EOIs of Galicia. This above general objective can be broken down into four more specific objectives, which are outlined as following. The specific objectives of this research proposal, then, are:

- 1. To compare performance with in situ exams and online exams to determine the effect that online assessment has on results, especially considering that this impact should not be negative and at the very least should maintain exam results. This will be done by comparing in quantitative terms exam results from the control group and the sample group, when these take the same exam using different evaluation tools.
- 2. To contrast in situ exam experiences to online ones to determine students' feelings and attitudes towards the differing evaluation tools. This will be carried out in quantitative terms through a questionnaire to classify students' reactions to the evaluation tools and to ascertain whether the models used result in an improved student exam experience.
- 3. To analyze the different perspectives of students and experts on the two assessment models and their corresponding influence on exam results and performance, this through open interviews with both the sample group and expert interviewees. This

- qualitative approach will compare and contrast the answers given in open ended interviews and classify these into categories.
- 4. To calculate the economic cost of operating both systems of assessment to check if the high financial cost of in-situ exams can be reduced by introducing online exams. A cost analysis of both will be undertaken, with information drawn from the financial records of the secretary of the center and compared in quantitative terms to the cost of running online assessments. The question is whether the move to online assessment results in economic savings for the school, as well as environmental ones.

Following this description of the objectives related to the problem at hand, we can subsequently now establish the two main hypotheses that will be addressed in the study. The first hypothesis is that language assessment in the EOIs can take place online by employing available ICT tools such as Moodle, and that this will result in the maintenance of equally high exam results for students. The second hypothesis is that the implementation of online assessment through these same ICT tools will lead to an overall improved exam experience for students and will make the exams more student friendly and in turn increase their motivation. For this reason, the purpose of this investigation is to see whether ICT tools can be used to promote the use of online assessment in the EOIs of Galicia, and whether in this way students marks will be maintained while increasing motivation and thus improving the entire exam experience.

Following McCombes (2022), the above hypotheses propose a relationship between two or more variables that must be explored. Previous research, for example Cohen et al. (2007) has noted that there are many different types of variables here, and in this research we will be focusing on two broad categories: dependent and independent variables. An independent variable is one that is expected to influence another variable, whereas a dependent variable constitutes an aspect or characteristic that is expected and should be influenced by the independent variable. In other words, an independent variable remains fixed and unchanged and affects the dependent variables, which indeed can be influenced. An independent variable is the cause, and its value is independent of other variables in this study, whereas a dependent variable is the effect, so its value depends on changes in independent variables

(Thomas, 2020). The dependent variables in this research paper are the improvement in exam results and an increase in student motivation and well-being while being assessed, as well as a more sustainable exam process. The independent variables are gender, age, modality of study, internet access, and level of computer skills. In conclusion, the relationship between these variables is fundamental to the testing of the hypotheses.

## 3.5 Methods and Techniques of Data Collection and Analysis

## 3.5.1 Fieldwork Design

It is undoubtedly the case that meaningful research can only be carried out if the best and most appropriate instruments and techniques of data collection are used (Robson, 2002). Accurate data collection instruments and techniques are indeed fundamental to the success of any research. It guarantees that the integrity of the research question is maintained, minimizes the possibility of mistakes in terms of results, and provides the basis for sound decision making by reducing the risk of errors in this process in that the researcher will thus not make uninformed decisions. Sanmartí (2020, p. 19) cites Arthur Conan Doyle in the classic Adventures of Sherlock Holmes when she reminds us that, "It is a capital mistake to theorize before having data". The objective behind data collection is to acquire quality evidence that allows subsequent analysis towards to the forming of convincing and believable answers to questions that have been previously formulated. On these lines, Pino and Rodríguez (2016) remind the researcher that the selection of instruments can be independent of them being more or less polarized to use with qualitative or quantitative paradigms, and that, rather, we should take into account those techniques that best allow us to know and understand the educational reality we are researching.

In general, three main types of instruments can be distinguished in educational research:

- A) social instruments, which are tools such as samples, that is, populations, related to social activity or social involvement or work;
- B) Psychological instruments, which work with the psychological features involved in the whole research process, such as constructs, languages, feeling and beliefs

C) Physical instruments, that is, any tool which is physically present in its used within the research.

Having established this, we will move on to deal with some of the instruments involved in this particular study. The data collection techniques and instruments used here depend on which area of the study we are working on, as the mixed method approach allows for the use of both qualitative and quantitative data collection and analysis.

As previously mentioned, what will then follow is triangulation, in that the use of multiple data collection techniques and sources strengthens the credibility of outcomes and allows for different interpretations to be included in the data analysis (Shanks & Bekmamedova, 2018). In the third section of this paper, above, we noted how to carry out the triangulation of data, and as Arias Valencia (2000) observes, the triangulation of data can be defined as a type of cross control between different access points to the data obtained in a research proposal. With this technique we are seeking to contrast different data to validate the final analytical process and thus to avoid anticipating conclusions which might prove erroneous. Thus, we will compare and contrast the data obtained from the four techniques of data collection that are to be employed in the process namely: 1) Statistical tabulation; 2) Validated Questionnaire; 3) Semi-structured interviews; and 4) Financial material analysis.

# 3.5.2 Processes and Phases of the Research

An experimental investigation must follow a set of logical procedures, but these may at the same time be treated with a degree of circumspection, in that it is very difficult to set out clear cut rules as guides in quasi-experimental research. However, a plan of action establishing a series of steps is necessary so that the research is carried out in as organized a way as possible. As Cohen et al. (2007) states, the researcher can identify the ideal route to be followed while knowing full well that educational research rarely proceeds in such a systematic fashion.

Identification and definition of the problem: in the context of language assessment in the
 Official Language Schools, the researcher identifies a general feeling of dissatisfaction
 with the evaluation process, which is seen as long and arduous by students, many of whom

are used to carrying out elements of their classwork online and would like to be given the same opportunity to do this when being assessed. The researcher identifies the advent of semi-distance classes with students and teachers used to carrying out mini tests and activities online as an alternative means of confirming the following hypotheses that will be tested.

- Formulation of hypothesis: ICT tools hosted on the Virtual Learning Environment Moodle offer an online alternative to carry out the assessment of students that will not negatively impact on their results and will in fact improve the entire assessment process.
- Elaboration of theoretical framework: before undertaking the design of the research project, extensive background reading on theories and the literature on the topic is necessary. This goes from the general to the more specific, towards clarifying the theory on which this proposal is based and render it specific to the context and situation we will be dealing with. This includes reading about existing studies, especially those looking at adult online assessment.
- Development of the research design: in this phase of the research, we must plan the methodology which will be followed (quasi-experimental), the method that will be used, and the data collection techniques that will be employed (statistical comparison, questionnaire, interview and content analysis). Following on from this we will apply data triangulation to verify and validate the results from a series of different angles. Through such comparative analysis (statistics of exam results, analysis of these, questionnaires, interviews, content analysis) we will be able to compare the differences and similarities between the two exam systems from a variety of angles.
- Data collection: students carry out the exams on Moodle at the same time as their non-online classmates do the exam on paper. The results are collected and a graph generated which will be used to compare the pass/failure rate with the control group. Once this has been done, students will be asked to complete a questionnaire about the experience and a random group within the experimental group will be asked to attend an informal interview. This will also be done with experts. The price of preparing in situ exams will be sourced from the secretary office of the school.

- Data analysis: this will involve tabulation of results by placing the data logically and systematically into columns and rows to allow for statistical analysis, and in turn will allow for comparative analysis through triangulation. The interview and questionnaire will be used to ascertain students' feelings about the online exam assessment procedure. Content analysis will tabulate the cost per exam.
- Confirmation or Rejection of Hypotheses: with the results we obtain we will be able to ascertain whether the initial hypotheses were confirmed or rejected.
- Conclusions and final reflections: once the research has been carried out we will arrive at a conclusion which in itself will lead to a process of reflection, this with the aim of proposing improvements in the process and future ideas for research in this area, or even used as the basis for working groups to put the outcomes of the study into practice for the coming academic year.

#### 3.5.3 Instruments to Obtain Data

We will now move on to describe the instruments that will be employed in this quasi experiment to obtain the data that will be used to test the hypothesis of this dissertation and thus determine the degree to which the objectives have been met. The first will be the statistical analysis of exam results essentially to allow for a comparative analysis of the two groups, the second will be a validated questionnaire uploaded on the Moodle platform, the third will be semi-structured recorded interviews with both the implicated students and leading experts in the field and finally content analysis to look at the financial prospects.

## 3.5.3.1 Statistical Analysis of Exam Results

An analysis of students' summative exam results will be based on collected data relating to pass and failure rates for the in situ and online groups, comparing these results in tabulated form using statistical means. The first tool used to gather information for this research paper is quantitative data collection in terms of the exam results of students. Data collection helps create measurable outcomes. The quantitative data collection techniques are data analysis through statistics and results that will have been obtained from the students' exams on

Moodle. Descriptive statistics is the most commonly used level of analysis in quantitative data analysis methods. It aids the researcher to summarize the given data, and to identify any resulting patterns. Among the most commonly used devices for the conducting of descriptive statistics are mean, median, mode, frequency, percentage and range. The results are expressed in terms of absolute numbers, and the variables at play will assist the analysis of the reasoning behind these numbers. We will then proceed to cross-check these exam results, and this correlation will allow us to draw conclusions.

Cross-tabulation is a method that determines the relationship between various variables. Also known as cross-tab, it is one of the frequently most used methods of analysis when working with quantitative data. By employing cross-tabulation, we can compare the results of one variable with another. The results in our study can be easily classed into pass and fail numbers, since a mark lower than 12 is a non-pass rate; we can claim, then, that we are looking at comparative data in that it permits a comparison between the two garget groups based on more than one variable. The data we are handling is real, existing data, since it arises from the results of exams and does not need to be created especially for the research. The teacher can access the results in the Moodle gradebook, which classes exams in terms of percentage pass and fail rates for a whole group. This allows for easy comparison and analysis with the control group, who carried out their exam in-situ. The results of these in situ groups will be gathered from centrosnet, the platform used by teachers to upload their results once students have carried out their exams. These quantitative results are presented in tabular, descriptive form to highlight the characteristics of both groups, and this analysis of exam result data will determine the degree to which we reach the principal objective of this study. The degree of influence of the variables will also be analyzed before drawing conclusions.

## 3.5.3.2 Verified Questionnaire

Questionnaires and the information which are obtained from them are an optimal tool in any research that seeks to contrast and compare information of the kind we are currently dealing with. However, it is recommended that they be complemented with other techniques of data

collection, such as like interviews, as a means of verifying the information gathered. Rattray (2007) notes that questionnaires can offer valid objective information and also act as a partial text in support of general theories. They are easy to carry out and validate, and they provide for directly quantifiable data. These quantitative data are words, meanings and views, as collected in tools such as the questionnaire included in Annex I, which 52 students from one C2 class who carried out the online exam answered. This Survey of Online Assessment Experience was developed and validated at the Department of Computer Science at Kocaeli University, Turkey, by Yasar Ozden, Ismail Erturk and Refik Sanli, and is reproduced in its entirety in Annex I. The main aim in using this questionnaire with students is to gather in a systematic and rigorous way their opinions, feelings and suggestions related to the topic in question here.

The questionnaire involves five categories with a varying number of questions in each category, these distributed according to their typology, using the Moodle platform to host the validated questions from the original Kocaeli University questionnaire on our own Virtual Learning Environment (hereafter VLE):

- one category that asks students to answer questions based on yes/no questions.
- four categories that ask students to grade their degree of agreement with a statement from 1-5 (being 1 the minimum and 5 the maximum) based on different aspects of doing online tests. Scales of intensity or appreciation are a type of attitude scales which structure opinions based on ways of answering on a grading scale following an evolution or grading of a continuum of attitudes (Volchok, 2015).

The tool used to host this questionnaire is the Survey App contained on the virtual learning platform Moodle. This was chosen for a variety of reasons:

- the plug-in tool allows the author to copy the questions exactly as they are written in the original Turkish survey.
- The VLE operates under the data protection laws of the autonomous regional government of Galicia and protects both students' data protection rights and the authors in case of any unlawful breach of data.
- The plug-in tool operates on an anonymous basis so students can answer freely.

#### 3.5.3.3 Semi-structured Interviews

One of the principal qualitative tools which will be used in this research project is that of interviews, which, as Pino and Rodríguez (2016) have pointed out, are one of the most commonly used tools in the field of educational research, and here serve to complement the survey described above. Nowadays, interviews are considered to be an important and effective tool to contrast information and to allow for measures for improvement to be put in place. An interview should be structured and with a final aim. The questions in this study are to some degree structured; that is, they are semi-structured questions with certain orientation in the questions asked, but both the interviewer and interviewee also have a degree of freedom to ask and answer different questions depending on how the interview develops. Following Rodríguez-Gómez and Paré (2016), we can state that there are various types of questions which can be the object of study in an interview, and the ones used in the present interview focused on experience, opinions and values. According to Pino and Rodríguez (2016), a frequently used technique in interviews is the group interview on a specific topic, the number of participants being between 6 and 12 in a homogenous group: in this case the C2 semi group.

Interviews with experts are of fundamental importance because such individuals possess specialist knowledge, status, and communicative skills, and are willing to collaborate with the interviewer. This vision allows for an enrichment in the investigation because they bring different viewpoints to the study that might not be mentioned by the control group. In this study there will be two expert interviews whose questions have already been validated in the same research questions given in the Turkish university. These two expert interviews will be from a legal and pedagogic viewpoint, as it is essential that any changes are grounded both legally and pedagogically. Both will be asked the same structured questions on their knowledge and opinions as experts in the field. The questions are open ended and structured, and recorded answers will be given. They are contained in their entirety in Annex II.

For the legal viewpoint, an advisor to the Galician Department of Education in the area of EOI exams and progress gave a recorded interview in person. He is in charge of the

coordination, organization and evaluation of the exam process in the autonomous community. This interviewee was asked for his expert view on six questions related to the area of online assessment. There was also room for further debate and comments at the end of the session, and hence this can be defined as a semi-structured recorded interview. For the pedagogic viewpoint a senior lecturer from the University of A Coruña was interviewed. This person's main area of expertise is online assessment in the educational field and the implementation of this in various areas of education. This expert was asked the same validated questions as the legal educational expert, so as to allow for an interesting qualitative comparison of information.

# 3.5.3.4 Content Analysis

Another quantitative tool used in this research paper is content analysis, since we will be analyzing documents with economic data. We will do this by gathering financial cost data, this being existing data from the records of the school secretary. This financial data will be recorded and tabulated in a graph to show the cost per exam, and which will be summed for all five language activities. The cost per exam will then be multiplied by the number of students taking the test to determine the overall cost. Here we will be using an approach based on descriptive statistics, as we did when working to determine the first objective. The overall costs will then be compared to the cost of developing an online test, to determine the cost savings involved in the latter. This qualitative comparative data cost analysis will determine the financial cost of exam preparation, but there is also an environmental and sustainability cost involved in these exams, and this will also be analyzed through controlled observations as we observe the human resource cost of photocopying the exam, the emotional stress of preparing and correcting the exam, and issues of sustainability, in that we examine not just the base cost of the paper used to photocopy the exam but also the amount of paper used overall, which is a prime resource.

Let us recall Cowman's (1993) definition of triangulation as the combination of multiple methods in the study of the same object or event to best capture the phenomenon which is being investigated. It is also worth noting that triangulation uses at least two methods, normally qualitative and quantitative, to arrive at an optimal vantage point from which to

understand the topic in question. In light of the above outline of the instruments and techniques of data collection, we can claim that in this research proposal a triangulation of results will be made through the use of a range of both qualitative and quantitative tools: the questionnaire, the interview, the expert interview, and content analysis allowing for a triangulation of results. In this way we are following Pino and Rodríguez (2016) who claim that the combination of qualitative and quantitative tools and techniques is a fundamentally interesting one in that the two procedures converge, confirming each other and helping to support the same conclusions. The differing results obtained through different tools and techniques look at different aspects of the same problem, and are complementary and convergent, leading us towards one conclusion.

#### 4. RESULTS

This chapter of this research paper will look at:

- The process of data collection (an explanation and tools employed)
- An analysis of the data through triangulation (tabulation of data and analysis of the results)
- Pre-conclusions (conclusions of the results obtained from each stage and tool which will lead to the general conclusions)

This research has followed a four-step process in which each step has its own independent tools to gather, collect and subsequently analyze the results obtained. While these are considered individually, they are all interconnected, and the results taken as a whole should satisfy the main objective of the study through the corresponding specific objectives. It will also be useful to first review briefly the procedures used to collect the data that will be presented in this chapter.

To do this, we have first undertaken an analysis of students' exam results from the control group, who sat the exam in situ, and from the experimental group, who sat the exam online. The number of students who passed and failed has been collected from the internal exam records. Having gathered this evidence, we now proceed to tabulate it in graphic form. Given that the students are at the center of this investigation, we have also sought to determine their feelings and emotions about doing online testing. This has been done by contrasting their exam experiences in the two exam models through the use of a pre-validated questionnaire. Furthermore, we have qualitatively analyzed their perspectives on how the two different exam formats influence this exam experience by interviewing the experimental group and allowing them, through open ended questions in a semi-structured interview, to compare this experience to previous exams in situ. Qualitative, open-ended interviews have also been recorded with two experts to determine the degree to which this proposal has legal and pedagogical validity. Finally, a qualitative cost analysis comparison has been made to determine whether online exams constitute a more sustainable system. Let us now consider the results for each one of the processes outlined.

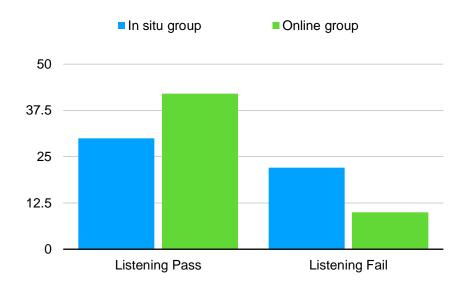
#### 4.1 Exam Results Tabulation

We will begin our results section with a statistical data analysis of students' summative exam results, looking at pass and failure rates for the in situ and online groups and comparing these results in a tabulated form using statistical analysis. The first tool used to gather information here is quantitative data collection. The means calculated for students' exam results will give us the first main results of the study. With the collection of exam statistics we are looking to compare in a systematic and rigorous manner the results of students when doing the same exam online and in situ, and to this end we will take the results of their February exams. Students did their online exam of reading and listening, which was corrected automatically by the Moodle system, which was preconfigured with the correct answers, and these results, expressed as percentages, will be compared to the results of the students who do the exam in-situ. They were given 50 minutes to complete the reading exam, which involved three written texts, and 35 minutes to complete the listening exam, which was pre-configured so that they were able to hear the text twice. The speaking and writing exams were marked by two teachers using pre-determined rubrics, and which the Moodle platform was also preconfigured to follow. Each of these exams has a maximum mark of 25 points, with 12 being the pass mark.

Next, we present the results in tabular form, using a bar graph. This representation has been chosen because it is extremely useful for analyzing a set of data and making comparisons between the two sets, in this case the in-situ and online groups. The Y-axis represents the dependent variable, the number of students who have attained the given category, here the number who passed or failed a skill. The X-axis represents the skill involved, and the bar thus indicates the marks obtained (pass or fail). The Y-axis, then, shows the number of students in the categories pass and fail; we recall that there were 52 students who took the exam online, and the same number were randomly chosen from the in-situ group. There are two colors: one for the in situ group and the other for the group who took the exam online. The listening and reading exams have been classified together, since they both deal with comprehensive skills where students receive the information and give set answers. Results

for the productive skills, speaking and writing, will then be tabulated; here, students were able to respond to a set question with their own creative expression and interaction.

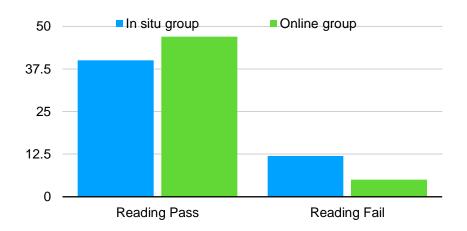
Table 1: Results of Listening Comprehension Exam



Let us first consider the listening exam, which can be seen in Table 1. The blue bars represent the group who did the exam in-situ and the green those who did the exam online. We might recall that there are 52 students in each group to allow for as an equal comparison as possible. There are two categories on the X-axis: exam pass and exam fail, and with results for the two groups. For the in-situ group, 30 students out of 52 passed the exam, that it, attaining 12 points or more, whereas in the online group 42 students passed. This is a clear difference, with 12 more online students passing, representing a difference of almost 15%. This is indeed greater than what we might have expected, in light of the original objective, which was to confirm whether doing the listening exam online would in fact lead to an increase in the failure rate, or that the pass rate would at the very least be maintained. The pass rate of the listening test shows that it has actually increased when students did the exam online in their own learning space, which in the majority of the cases was their own home.

The number of students who failed the exam in situ was at 22 out of 52, whereas the number of students who failed online was 10 out of 52. By failure we mean students who did not attain the minimum pass mark of 12 points. This represents a difference of 12 students which works out again at the same rate (15%). These results were better than expected for the online group, given that the original hypothesis was that the listening pass rate would be at least at the same level, whereas they are in fact higher by almost 15%. A number of variables could be at play here and must be taken into account: these online students are accustomed to carrying out progress tests online and are very much used to this assessment process. From the above table, then, we can see that in general the students who did the listening exam online obtained better results that those who did the exam in situ, at a difference of almost 15%, which is a notable difference. Online students could see the results of their exam immediately on the computer screen and received an automated response feedback once the results were handed back. Students who did the exam in situ received their results a week later, their exams having been manually corrected by the teacher.

Table 2: Results of Reading Comprehension Exam

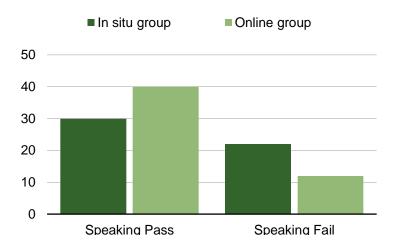


Now, let's move onto the other receptive skill: the reading exam which can be seen in Table 2. Here students had to answer questions relating to three tasks, and were given 60 minutes to do so. The blue bars in Table 2 represent the group who did the exam in situ and the green

those who did it online. There are two categories on the X-axis: exam pass and exam fail. The number of students involved in the study is again 52. In general terms, from past exam records we can state that the reading exam usually has a higher pass rate than the other skills, as it is the skill that typically causes students the least difficulties. This is the case across all levels and languages in the school, and can be seen in the annual school report. In the in-situ group 40 students out of 52 passed the exam, a pass rate of almost 76%, whereas in the online group 47 students passed out of 52, a pass rate of 90%. The difference, then, is 7 students or an almost 12% increase in the pass rate for the students doing the exam online. The difference here is less than in the case of the listening exam, although it also be could be noted that we are dealing here with very high pass rates in general. That said, the difference is almost 12% in favor of the online students' results, which is once higher than what we might have expected, given that the original objective was to see whether online results would at the very least be maintained.

With regard to the correlating failure rate, the number of students who did not pass the exam in situ was at 12 out of 52, that is 23%, whereas the number of students who failed online was 5 out of 52, only 9%. This represents a difference of 7 students, or 15%, between doing the exam online and in situ. So, these were better than expected results for the online group, in light of the original hypothesis. From Table 2 we can see, then, that in general the students who did the reading exam online obtained better results that those who did the exam in situ. More of them passed the exam, and thus the failure rate was lower. Participants online could see the results immediately on the computer screen and received an automated response feedback once the results were handed back. Students who did the exam in situ received their results a week later, the exams having been manually marked by the teacher using the answer key, and then need to return the physical exams to the teacher.

Table 3: Results of Speaking Production and Interaction Exam

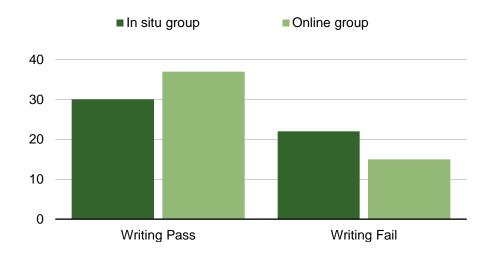


The productive skills of speaking and writing have been classified by colors together as they both deal with expression skills where students emit the information and give voluntary answers. For this reason, the bars have a different color to represent this change of skill, but the X and Y criteria remain the same: the X-axis represents the skill involved and its success rate, and the Y-axis represents the number of students attaining this level. These productive exams cannot be corrected by Moodle automatically but rather by applying criteria following a rubric set out by the Department of Education. These are set out fully in Annex III. Exams here are marked by two examiners on pen and paper for the in-situ exams, but are uploaded and held within the Moodle marking scheme for the online exams, using an app which allows for the importation of rubrics in the advanced marking scheme of the Tasks plug-in. The full title of the speaking exam is 'oral production, coproduction and interaction'. The speaking exam involves students developing a monologue on a previously unseen topic for two minutes, followed by an interaction with a partner who also does a monologue. There is currently a mediation task which is not included in the present study, but the results in general terms can be extrapolated to this skill as the same visual prompt is used as for the monologue.

As can be seen in Table 3, in the in-situ group 30 students out of 52 passed their speaking exam whereas in the online group 40 students passed, a difference of 15% (12 students). Overall, there is a lower pass rate in the speaking exam, but the online group maintains a higher pass rate. That said, there is still almost a 12% difference in favor of the online group,

which is again higher than what we might have expected, given the original objective of seeing whether results for in online exams would at the very least be at the same level as those for in situ exams. 22 out of 52 students failed the in situ exam, which is the highest for any of the skills, whereas the failure rate for this skill online was 12 out of 52. Once again, this was far better than expected in light of the original hypothesis. From Table 3, then, we can see that in general the students who did the speaking exam online obtained better results that those who did the exam in situ, and by turn, the number of students who failed the speaking interaction and production exam was higher when carried out in situ than online.

Table 4: Results of Written Production and Interaction Exam



We now consider the final skill: writing production, coproduction and interaction. This is represented on X-axis, and the success rate, expressed as the number of students reaching this level, on the Y-axis. With regard to the writing exam, in the in-situ group 30 students out of 52 passed their speaking exam, whereas in the online group 37 students passed, this constituting a difference of 15% (7 students). In general, there is a lower pass rate in the writing exam across the board, but the online group still maintain a higher pass rate, here at almost 15%. This is again higher than what we might have expected, given the original hypothesis. Once again, not only has the success rate been maintained but it has in fact

improved. The number of students who failed the exam in situ was at 22, which is the highest of all of the skills, whereas the number of students who failed online was 15 out of 52, a difference of 7 students. Once more, this was better than expected results for the online group in light of the original hypothesis. From Table 4 we can see that in general the students who did the writing exam online obtained better results that those in situ.

From the results of the four exams and their consequent analysis it can be seen that in all four skills more students passed the exam when doing it at home online than in situ, and hence more students failed the exam when doing it in situ than online. It can be observed that a higher percentage of student who did the receptive skills online achieved better results than students who did the exam in situ, whereas the difference in the productive exam was less immediately obvious, although a higher percentage pass rate was still observed for those students doing the exams online using the available Moodle ICT tools than in situ exams. Certain variables are very possibly at play here, in that we are dealing with a group of semidistance students whose mode of study, internet access, and levels of computer skills are likely to be higher than those for the main group of students, and this probably leads them to be able to carry out testing online with greater success. Many of these students have spent previous years studying at the school so are familiar with the testing system of the EOI. The main age range of the sample group is 30-40, and all of these factors might serve to help explain how doing the exam online does not put these students at a disadvantage. The one variable that does not seem to be at play is gender, with pass and failure being shared equally between men and women.

### 4.2 Questionnaire Results

To examine the second of our specific objectives, we have sought to contrast the in situ exam experiences with that of online exams, to determine students' feelings and attitudes towards these different modes of evaluation. This has been carried out in quantitative terms through the validated questionnaire described above to classify students' reactions to the two different forms of evaluation and to ascertain how these models result are represented in student perceptions of the exam experience and their well-being. This instrument is used

with students to collect data in a sound, systematic and rigorous manner, towards classifying their reactions to the evaluation tools used and whether these resulted in an improved student exam experience in the case of online testing. The questionnaire consisted of 5 obligatory question categories, these divided according to their different typologies. 52 students responded to the questionnaire, which was previously uploaded on the Moodle platform as explained in Chapter Three.

# 1. Category One: Prior Experiences of Sample Group (Yes/No)

PREVIOUS EXPERIENCE				
1 IAM TAKING COURSES ONLINE	50%			
1 HAVE ATTENDED AN ONLINE COURSE BEFORE	25%			
I HAVE TAKEN TOEFL OR GRE BEFORE	25%			
I HAVE TAKEN SOME KIND OF ONLINE ASSESSMENT BEFORE	10%			
5 I HAVE TAKEN AN ONLINE QUIZ ON THE WEB	10%			

The first category, entitled Prior Experiences, looked at students' backgrounds and is especially concerned with their past history with online courses, in that this involves the variables that might influence in this study. There are five questions related to this area and the possible answers are on a simple scale of yes/no and do allow for comments to be added in the form of an open comment section at the end. The answers are given anonymously and uploaded and scaled by the Moodle questionnaire app. The first question was to determine whether students were carrying out other online courses, and the result was that only half of them were doing so. This should come as no surprise, as most of them comment in the open comment section "more information" that they are already doing their semi-English course and that this occupies a lot of their online study. Rather surprisingly, only 25% of respondents had studied an online course before and the same percentage had done an online

quiz on the web. From this, we can again surmise that these students dedicate their online learning to this course but are not constantly undertaking online courses or tests. So, we are dealing with a group who are not consistently doing online courses or undertaking testing online, and in general terms the extent of their online learning is this course.

In relation to the question about having previously taken TOEFL exams, only five of the respondents had done so, and in the comment section most respondents noted that they were students of the EOI in previous years, albeit in fully in situ classes. An important question that student had to respond to was whether they had previously taken some kind of online assessment, as this could have had a bearing on the results of their exams in that they would thus have been experienced in doing, conferring on them a potential advantage. However, only 10% had done so. This is a surprisingly low percentage, and shows that this is not a group with great expertise in doing online assessment, and in general terms their current experience is limited to this particular semi-distance course. The overall results of the Prior Experience questions, then, were that we are dealing with a group of students whose only current contact with online learning and assessment was the course they were taking at the time of the survey. 75% of the sample group reported little or no prior experience with online assessment and learning.

## 2. Category Two: Computer Familiarity of Sample Group (Intensity Scale from 1-5)

COMPUTER FAMILIARITY: how would you describe your competency where 1 is inexistant and 5 is proficient	t					
				Rango	promedio	$\downarrow$
	1	2	3	4	5	
Competency with web browser					1	4.8
Competency with chat					1	5.0
Competency with virtual learning environment (Moodle)					1	4.8
Competency with email					1	5.0
Competency with mailing lists					ı	4.8

The second category examines Computer Familiarity and asks students to rate their familiarity with a range of computer skills as this too is a variable that needs to be examined to determine whether it has an impact on students' ability to carry out an online test. Respondents were asked to rate their IT competence on a scale of 1-5, where 1 is nonexistent and 5 is fully competent. The first question asked students to rate their competence with the web browser, as this ability to interact will impact on the ability to carry out the exam online. 90% of surveyed students rated themselves at 5 on the scale of competence here, so that we can assume that we are dealing with are fully proficient users of web browsers. The second element was competence with the chat tool, since they will need to employ this tool in case of any difficulty when carrying out the test; 100% of students here marked themselves at the full degree of competence, meaning that they all consider themselves fully competent in dealing with online chat tools. The third category sought to determine competence in the virtual learning environment itself, Moodle, a fundamental aspect in that students need to be able to manage the VLE in which they will be carrying out the exam. The average selfassessment here was 4.8 out of 5, with almost 90% of students judging themselves as being wholly proficient (marking themselves as 5). The results suggest with an overwhelming degree of certainty that respondents considered themselves to be wholly competent in the use of the VLE.

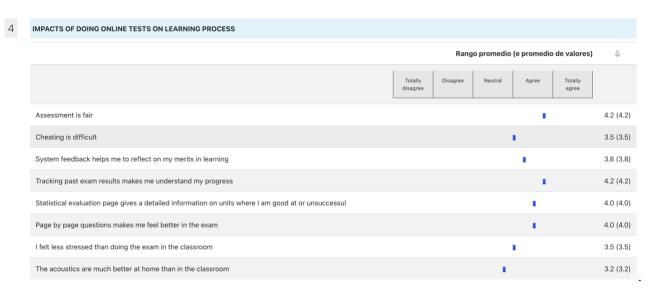
## 3. Category Three: User Interface Evaluation (Intensity Scale from 1-5)

USER INTERFACE EVALUATION: how would you describe the Moodle page						
	Rango promedio (e promedio de valores					$\downarrow$
	Totally disagree	Disagree	Neutral	Agree	Totally agree	
The overall framework and operation levels of the system are clear and smooth					1	4.6 (4.
The overall configuration color and background is normal harmonious for the system						4.4 (4
The overall screen layout and window design of the system is appropriate				100		4.0 (4
The overall interface operation method is easy and appropriate				1		4.2 (4
The Login interface is clear and easy to operate				1		4.2 (4.
The exam interface is clear and easy to operate				1		4.2 (4.
The exam interface design is appropriate						4.2 (4

The third category seeks information on User Interface Evaluation, and here we are moving into the area of respondents' evaluation of the online learning platform, echoing to some extent the results of questions on computer familiarity. Students were asked to rate the user interface evaluation by asking how they would describe the Moodle page, and a series of 7 statements then followed. There are seven statements in this category and respondents were asked to mark their responses to statements using a scale of 1 to 5, where 5 was *totally agree* and 1 was *totally disagree*. This section is of vital importance because, as mentioned above in the theory section, a good, clear, user-friendly interface is fundamental to not only for carrying out of the exam but for students' reaction to the process itself. The nature and quality of the interface has been shown to influence both exam results and students' performance, as well as their well-being during the exam assessment process itself.

In general terms the respondents are extremely positive about the interface used for the assessment. Their average rating was 4.6 out of 5 for the overall framework of Moodle, indicating that using the system was a clear and smooth process. This was the highest mark in this category, and arguably also the most important when online assessment is being carried out. The color and background was rated at an average of 4.4, which is also a very high overall assessment. The lowest mark, an average of 4.0 out of 5.0, was given to the screen layout and window design, this possibly due to the fact that Moodle is an open-source platform, and has some limitations, such as all the exam questions having to be displayed on the same page. The overall interface was given an average mark of 4.2, and so too was the login and the exam interface itself, all of which were described on the scale as being clear and easy to use. When asked whether the exam interface design was appropriate, responses were either to agree or totally agree with the statement, at an average of 4.2 out of 5, and 45 of the respondents totally agreed that the learning platform was clear, harmonious, appropriate and logging in was easy. In overall terms, 90% of students fully agreed with the statement that the Moodle page was easy, appropriate and clear. This could be due to the fact that these students were used to doing "mock" exam practice on the VLE, and this familiarity meant that doing the exam online was even more appealing and comfortable.

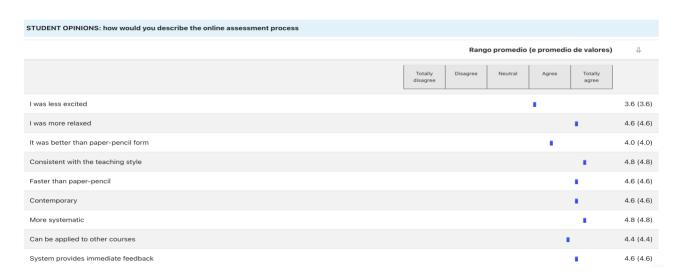
# 4. Category Four: Impacts of Doing Online Tests on the Learning Process (Intensity Scale from 1-5)



The fourth category is entitled Impacts of Doing Online Tests on the Learning Process, and again is a fundamental category. The impacts of doing exams online on the entire learning process is a factor of major significance. 8 statements are presented in this section, and students have to respond on a scale from 1-5, where 1 is totally disagree and 5 is totally agree. The data from these illustrate a variety of different responses depending on the question. When asked whether they consider assessment to be fair, students agreed with the statement at an average of 4.2 out of 5, thus they almost all fully agreed about the fairness of their online assessment. They also have no doubts as to the objectivity of online assessment, with almost 90% of responders stating that it is an objective process. However, on the issue of whether cheating is difficult online, responses are less unequivocal, at an average of 3.5 out of 5, indicating that most students neither agreed nor disagreed with the statement, and thus there was a degree of doubt about this controversial element of online assessment. The same level of doubt was shown in response to another important issue, expressed through a statement relating to them feeling less stressed than doing the exam in the classroom; here, a less unequivocal response was recorded, at an average agreement of only 3.5 out of 5. Students were asked to elaborate on this, and many responded that they were nervous doing the exam either way.

The same number of students answered neutrally to the statement that the acoustics are much better at home than in the classroom, with an average agreement of just 3.2 out of 5.0. When asked to elaborate on this in the open question, the reason most often given was distractions at home that they do not have in the classroom setting, such as the presence of children. On the other hand, two questions related to feedback and formative assessment received very positive responses. Regarding the question about tracking past exam results serving to allow students to better understand their progress, the average agreement here was an overwhelming 4.2 out of 5. Also, the statement that statistical evaluation helps students to see their weaknesses was also agreed with, at an average of 4.0 out of 5. From these responses, the overall results show that online tests in themselves do not reduce students' stress levels to a major degree, yet they also do not increase them. However, of fundamental importance is the fact that students do value the formative aspect of online tests in allowing them to go back and view the test in a statistical manner and in giving them more instant and lasting feedback that can be marked and recorded. The results in this sense indicate a very positive valuation of online assessment by students.

# 5. Category Five: Students' General Opinions (Intensity Scale from 1-5) and open question box



The fifth and final category gathers information on Students' General Opinions where they were asked how they would describe the online assessment process; they are given a series

of statements to respond to here, using the same 1-5 scale, with 1 being *total disagreement* to 5 *complete agreement*. We now turn to students' evaluations of their own personal feelings and emotions as relating to assessment on the online learning platform. This section is of fundamental importance because, as we noted in the theory section, students' feelings and well-being when they are doing their exam is of utmost importance in this study. In general terms the respondents are extremely positive about using Moodle to undertake their online assessment. The respondents agreed at an average score of 4.6 out of 5 with the statement that they were more relaxed doing the exam online, and that students in general terms are also less excited about doing the exam when it was online. This was a high mark in this category, along with responses to the statements that online assessment was more systematic and consistent with the teaching style, with both of these statements scoring 4.8 out of a possible 5, thus achieving near universal agreement. This is to be expected if we bear in mind that these respondents are doing a semi-distance course and are very much used to doing practice tests online.

Students expressed high degrees of agreement with the statement that the system provides immediate feedback, with an average 4.6 out of 5.0 rating. Another statement that garnered high-scoring responses was that students found doing the exam online to be faster and better than the pen and paper mode, with average agreement of 4.6 out of 5.0. Also highly valued was the contention that it was more contemporary than the pen and pencil form. So, while in the previous category students suggested that their stress levels had not been reduced very much (in that they were dealing with a serious exam) they did still express a preference for doing the exam online over using pen and paper (average valuation of 4.0 out of 5.0). From this we can surmise that students agreed or strongly agreed that doing their online assessment exams made them more relaxed and that they found it easier than doing the exams with pen and paper. The move to online assessment is welcomed by students, who also valued the contemporary features that Moodle offers like immediate feedback, the systematic way of working that it offers, and its consistency with the teaching styles already employed in semi-distance courses. This category of statements describing the online assessment process receives very high positive responses, with nearly all students in agreement with the

statements that describe this process in positive terms; indeed, no statement here receives less than an average of 4.0 out of 5.0.

The results from the five sections of the verified questionnaire show that students' nerves are not made worse by doing the exam online and that the entire experience is in fact rated as more student friendly. However, as students comment in their open comment box, the desire to pass and obtain their certificate is the determining factor in this process and doing the exam at home does not radically improve things here. Students distinguish between nerves at the prospect of doing an exam, which is more or less maintained, and claiming to feel more relaxed than in the classroom. There are three particularly interesting sections here: that feedback is greatly improved, the immediacy of the results is welcomed, and students value being able to track and look back over their results after the exam. The overall results show that we can say that while students' nerves remain the same, the experience itself is more positive than doing the exam in situ and involves certain aspects, such as immediate feedback and the tracking of results, which are definitely food for thought. A surprising result was that students felt it was a logical continuation of their studies to do online summative testing for a course where half of the teaching hours are online and in which formative assessment already takes place.

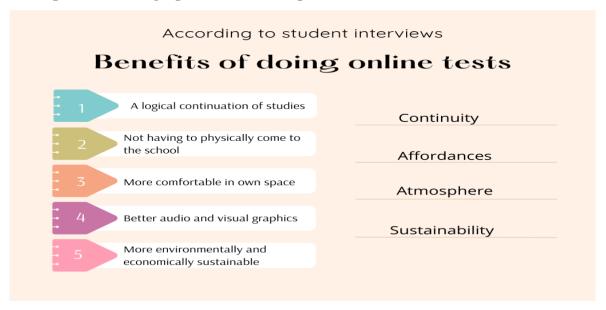
## 4.3 Structured Recorded Interviews Results

Open interviews are an important tool in the current research, and hence they were conducted with the experimental group as well as experts, whose presence in the study adds a considerable degree of professional knowledge and expertise. The reason for interviewing students is clear: their feelings and reflections on the assessment process are the central focus of our research. The reason experts were also interviewed is twofold: these exams are official state exams and must comply with the existing legislation, yet they should respond not just to the legal framework in which they operate but also have a solid pedagogical foundation. The qualitative approach encapsulated in open-ended interviews will allow us to compare and contrast the answers given and to classify these into categories. The questions were asked in interviews to the sample group, who answered a series of semi-structured questions in a relaxed manner after class; the group comprised 22 students who happened to attend class

that day and who agreed to stay behind afterwards to be recorded answering questions about their experiences of using the online learning platform Moodle to do their February exams. The questions themselves were based on the main findings of the questionnaire and sought to explore these issues in greater depth. They were as follows:

- 1. What did you think of using Moodle to do your February Exam?
- 2. What are the benefits of doing your exams online?
- 3. What could you see to be the drawbacks?
- 4. How would you like to see these exams carried out in the future?
- 5. What did you prefer about using Moodle to do your February exam?

## 1. Graphic One: Infographic of General Opinions Given



The above graphic is a summary of the main comments made by students in relation to questions about their overall opinions of doing online exams. The sample group of C2 semi students remarked that they found doing online tests in general terms a great advantage. The main point in favor that they noted was not having to come to the center to do the exam, thus allowing them to satisfy their work life balance. In relation to the first question, students said that they felt that doing the exam online was a logical continuation of their method of studies. They felt that doing the exams in situ would actually be a contradiction when they had constantly been doing their progress exams online. They also commented that since it was a

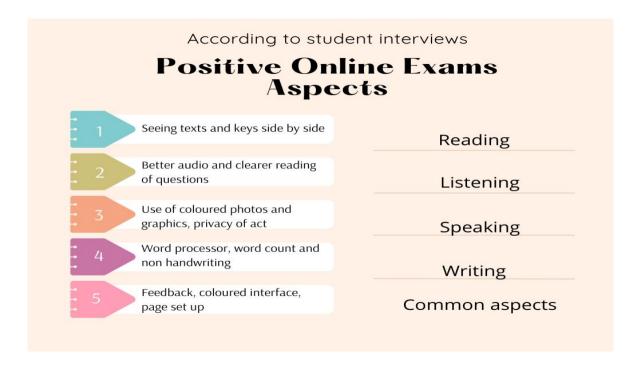
progress exam for formative assessment, they appreciated not losing class time in doing the exam, as well as not having to come to the center, which all students also noted was a bonus in terms of helping them in managing their work-life balance. Moving to the more specific question of what they specifically preferred about using Moodle to do their February exam, a variety of reasons were given. There was a general consensus that they appreciated the flexibility of doing the exam when it suited their needs. This flexibility allowed them to be more relaxed and to schedule the exams at a time that best suited their needs.

With regard to the third question, which explored potential drawbacks, students observed that distractions constituted the main problem, distractions that on the whole they would not have had in the in-situ setting. No students suffered a loss of connectively during the test, but they did comment that they were afraid that this would happen, and it did make them nervous, despite having been reassured that the system automatically saves their answers. Another potential drawback seen was the lack of a teacher present in case of doubts, but this was counterbalanced by other students remarking that even in an in situ exam the teacher cannot answer questions related to the content of the exam. It should be noted that students, unlike some teachers in the school, did not see cheating as a potential drawback, noting that they were connected for a limited, controlled period of time and that there would not have been time for looking up words or solutions on the internet. There was also no fear expressed in terms of not being able to afford connectivity, as all of these students when they sign up to the semi-distance course already know that they need to have connectivity. Here we see the variables of the sample group at play, in that it is an experienced group who like doing work and classes online.

Turning to the fourth question, about how they would like to see the evolution of these exams, students directly asked why they were not already doing these exams online. In fact, they stated that they saw it as inconsistent to do online progress tests during the academic year and then have to come to the school to do a paper and pen test, and in fact some went on to state that they saw it as almost prejudicial to them. Students who do all their learning in situ have an exam which is consistent with this methodology, whereas the semi group must do a final year of end test that differs from their form of study during the academic

year. There was also a general consensus that online testing was more visually friendly, and students felt more relaxed doing the exam online due to their familiarity with the platform. At the end of the recorded interviews, students were asked if they wished to comment on anything else. In general terms they confirmed that they felt more relaxed and valued being allowed to do their exam in a similar manner to their classwork, and also rated the interface and the immediate feedback. All of them commented that they would prefer to do their final June exam online even if this had to be done physically on school premises. This would involve going to an already existing computer laboratory in the school and carrying out the exam there on the computer screens there, using the VLE under the direct supervision of an invigilator.

# 2. Graphic Two: Infographic on Specific Elements of Online Skill Testing



The above graphic summarized responses to questions on the specifics of examining certain skills online. There was a variety of answers given by students depending on the skill assessed with regard to the question of the benefits of doing the exam online. Concerning the reading exam, students remarked that seeing the reading texts next to the answers greatly their facilitated ability to scan the text and to look for the answer in the answer book. The

division of texts on various pages was also noted to have greatly aided the ability to scan and skim the text. Regarding the listening exam, students commented that the audio sound was of better quality from the computer, where they could use their own headphones and adjust the volume accordingly, although some also noted that they found they were more distracted by noise in their own home or place where they did the exam. There was a general agreement that if the student was alone in front of their own screen with headphones then the control of the audio was far better online than in the classroom.

With regard to both of the receptive skills, students mentioned the fact that the visual representation was impressive and that they very much valued getting immediate feedback on their marks. On the same question but moving on to the productive skills in the writing exam, students valued being able to do their work on a pre-formatted page where they typed their answers and thus did not have to worry about their handwriting, but they did have to do their own spelling as the auto-check was turned off. The automatic word count was also valued as they did not have to manually count the words written, and the format was easier to handle on the ready-made editable document. Finally, for the speaking exam, students remarked that they heard their partner better online, the audio was excellent, and they felt more relaxed as they were used to doing oral production activities online.

Recorded semi-structured interviews were also conducted with experts, with questions taken from the same validated questionnaire from the Turkish experts. It was felt necessary to ask structured questions that were sent beforehand and then to record the interview in situ, this due to the positions of knowledge and authority occupied by both experts. These two experts in the field were chosen to represent equally valid but different viewpoints: legal and pedagogical. The legal legislative expert was from the Department of Education, being the person directly responsible for exam preparation and examinations; the pedagogical expert was an expert in online assessment from a Galician university. These were the structured questions from the validated questionnaire, also contained in ANNEX II. Both interviews were recorded.

- 1. Are the contents of this online assessment system appropriate?
- 2. Is there any shortcoming or inappropriateness?

- 3. Is there any way that the unique features or functions of online assessment system can be much more manifested?
- 4. Which component or area needs to be improved most?
- 5. Is the screen and interface design of this online assessment system appropriate and convenient to use?
- 6. Are there any other issues or areas that have not been mentioned but need to be improved?

# 3. Graphic Three: Infographic on the Departmental Expert Viewpoint



First, we look at the responses from a legal educational viewpoint, which are summarized in the above graphic. In relation to the first question, which asked whether the content of this online assessment system is appropriate, the representative of the Department of Education observed that indeed they were, in that the exam is a digital copy of the exam that he himself sent in encrypted form to the schools, and which was uploaded to the Moodle platform. The files for the exam are uploaded to the platform without any changes, so they are totally appropriate. In relation to the second question, the main shortcomings for this expert were what they saw as the ease with which students could copy in the exam and plagiarize their answers in the written expression and production. They were also worried about students not

having access to internet connection off site. The issue of buffering was raised many times in the interview, and it was felt that exams done off site are more open to cheating both by the person doing the exam and run the risk of a candidate's identity being compromised or stolen. They felt that cameras on students would not solve this issue, as it would be an invasion of people's rights under data protection laws.

Regarding the third question, about whether there is any way that the unique features or functions of online assessment system could be better manifested, the expert recognized the economic advantages of online assessment in the money saved by not having to print out over 20 pages per candidate, and that whereas this saving cannot be replicated for in situ exams, he did state that costs here could be reduced by using tablets for the presentation of the reading texts. The audio control in the listening exam could also be improved, since personal headsets could be brought to the school. Furthermore, he adjudged the screen and interface design of the Moodle assessment tools to be totally appropriate and convenient for use. For students with specific educational needs, doing the exam online might also afford them more comfort, and that the benefits of using a screen was an improvement for visually impaired students, although he added that these students are already guaranteed this right when doing exams within the school. With regard to the fourth question, he stated that the component or area that needed to be improved most before moving to online assessment is security: that is the ability to reduce the dangers of cheating in an online test. He believed this to be at least twice as much of a potential problem as cheating in an in-situ exam. The repetition of this point in two answers well illustrates the deep concern that the department has about this issue.

Looking at the final question, asking if there are any other issues or areas that have not been mentioned but need to be improved, he noted that he would worry about connectivity but again repeated that his main concern was online cheating. He stated that the tools offered by Moodle to assess students through online tests work excellently and have received very favorable feedback in internal regional government assessment. He said that he believes these tools should be used more, and beyond semi courses, to allow for formative assessment for all students. In the medium-term, he could see certain groups, such as the current semi-

distance students or That's English students, doing online end-of-year certificate tests, but doing so on site in controlled environments such as the school's computer rooms. The idea of setting up controlled exam centers in a medium-term future has not been rejected, but would need to be cost productive. Finally, he went on to agree that there needs to be more formative assessment in the schools, especially in non-certificate levels, and that this could be done through work in the classroom and progress tests online, like those that the students of the semi-distance courses are already undertaking on a weekly basis, but that they would actually count for formative assessment in these non-certificate courses towards passing the course.

With regard to the pedagogic expert viewpoint which was also recorded and asked the same questions as the legal expert from the department: the professor of pedagogy with a special interest in online assessment, answering the same above questions adopts a different approach to the fears and worries remarked upon by the departmental representative. An overall summary of his answers can be seen in the graphic below.

# 4. Graphic Four: Infographic on the Pedagogical Expert Viewpoint



The educational expert responded to the main criticism of online assessment, that it is far more open to cheating, by stating that studies refute the claim that online exams lead to more cheating in exams. As he argued, no exam system is ever foolproof, and we live in a digital age, and in an in-situ exam deceitful practices can also occur, through people using false identities or seeking help through digital devices like internet-connected watches. We can take measures to reduce the possibility of cheating online, such as making tests random and making sure that the starting time is exactly the same for all participants and setting a time limit to the test; as is the case with in situ EOI exams, time management is essential. He also stated that we could ask students to turn on the cameras on their computer to allow for monitoring of the exam as it is being done, although, as noted by our legal expert, this might lead to issues of privacy. He further noted that productive exams skills like writing and speaking are even more suited to online exams as they allow for a more relaxed atmosphere, and when students are more relaxed they are less likely to cheat, according to studies undertaken in his own university.

In his expert opinion, the topic of cheating in in situ exams does exist, but its prevalence is exaggerated as a means of denying the use of online testing. If this is a real and present worry, he suggests that although it sounds paradoxical, we could also do the exam online in situ: bring the semi students to a room in the school where the entire exam is online. In this way we get the benefits of online exams: the teacher is present, the feedback is instant, and the audio and visual interface which is so valued by students at home is available to them, but with the added bonus of having a teacher present to control the entire process. In this way we are also covering the fourth specific aim of this study related to cost reduction which is described in the following section. He also believes that the introduction of more formative assessment, especially in non-certificate courses, would allow us to employ more online assessment, and this would truly change the way we teach and assess in the EOIs. He clearly states that formative assessment can take place through work within the classroom and by using progress tests to mark the progress of students as they work throughout the year. This point was also commented on by the representative from the Department of Education: both experts emphasized the need to detach learning from certification and allow more progress testing, especially at non-certificate levels.

## 4.4 Content Analysis Results

The results of content analysis will be used to check whether the extreme financial cost of in situ exams can be reduced by introducing online exams. We use the term extreme as it is estimated that in the EOI of A Coruña alone these exams cost up to 5,000 euros in photocopies, without taking into account manpower and the huge environmental impact of using so much paper (up to 30 pages per student) for a one-off exam that cannot be re-used. A huge amount of time is also spent by teachers, administrative staff and caretakers in getting these exams ready, photocopied and allocated to separate envelopes for different rooms. If there is a mistake, then the entire exam must be destroyed and reprinted. Once the exams are finished, they cannot be kept by students and must be returned, and can then be destroyed after one year of storage.

A cost analysis of the two systems of assessment will now be presented, which has been undertaken with information drawn from the financial records of the secretary of the center, and compared in quantitative terms to the cost of running online assessment. The cost per page of each exam was multiplied by the number of papers needed in each exam, bearing in mind that each student is entitled to one such exam. The school secretary records this in tabulated form, which is then multiplied by the number of students who undertake each exam. The cost of the online exam is almost nil because the exam is uploaded in digital form from the model sent by the department to the Moodle of the education center. What follows is the tabulated cost analysis of the photocopied in situ exams, specifically the average exam cost of English C2 exams:

EXAM SKILL	COPIES NEEDED	TOTAL COST (PAPER ALONE)
Reading exam	205 copies of 10 double pages	45 euros
Listening exam	205 copies of 7 double pages	25 euros
Writing and mediation exam	205 copies of 5 double pages	15 euros
Speaking exam	40 color copies of single pages	35 euros

C2 is the smallest exam in terms of student numbers, with only 205 students taking the exam. By contrast, there would be 500 students taking B2. Nevertheless, we can see that the total C2 exam costs 120 euros in our school simply in terms of photocopying, without taking into account that there are ten schools in all of Galicia teaching this level. The numbers of students, and hence costs, for levels C1, B2 and B1 would be far greater. The C2 reading exam costs 45 euros to photocopy and requires 2,055 single sheets of white paper to be fully photocopied. The listening exam costs 25 euros to photocopy, taking 1,435 sheets of paper as well as USBs to copy the audio of the exam, each one costing 5 euros. The writing exam costs 15 euros, using 1,025 sheets of paper, all of which that need be photocopied since it is not permitted to correct the original printed exam. Finally, the speaking exam requires 40 sheets of paper, sometimes colored, at a cost of 35 euros. The total cost of photocopying the C2 exam, then, is over 120 euros.

In our own school this exam costs 100 euros in terms of photocopying the paper, but this does not take into account the manpower involved. The exam must be photocopied, the audios copied to the USB, the exams distributed into different classrooms where attendance sheets must also be drawn up. When mistakes occur, which happens frequently, then if the exam is online it is easier to go to Moodle and change the questions there. The entire exam does not have to be discarded, as happened almost every year in the school since the current exam system was introduced in 2008. The difference in the financial burden, then, is 100 euros for the C2 exam alone. In terms of the environmental costs, online assessment would also reduce this, in that we would not be employing huge amounts of paper, a costly environmental resource, plus far less manpower would be needed as the exams are uploaded by each individual teacher to the Moodle platform. While the online exam might not reduce price costs that much in C2 alone, in the long term it would reduce the carbon footprint of this exam. For C1 and B2 exams, students need the same amounts of photocopied exam material, but there are far more candidates in absolute terms, in that the exam is only converted to digital form for students of the semi option.

Having now presented the results for each of the instruments of data collection and subsequent analysis, we can move on to assess and discuss the conclusions section of this dissertation, in a step-by-step way. All of these results will now allow us to reach general and specific conclusions in the following section to ascertain the degree to which the objectives originally set out have been reached. In this way we will also be testing the hypothesis set out at the start of this study by moving through the specific objectives before determining if the general objective of this study has been reached.

## 5. CONCLUSIONS

In this chapter we will present the conclusions which have been reached, based on the results set out in the previous chapter. This will be done on a step-by-step basis by drawing conclusions based on the results obtained from the previous data collection and analysis. To do this it is necessary to begin by restating the hypotheses that were proposed at the start of this project, and then to see whether or not these have been confirmed. We will do this by addressing each one of the specific objectives as they related to and aim to reach the general objective. After this we will lay out the specific conclusions to which we have arrived, these being directly related to our specific objectives, before presenting a triangulation of the results to test the general objective. Finally, we will propose some future lines of research in the area of assessment in the EOIs, as well as recognizing some limitations as to the conclusions of this paper.

First, let us recall our initial hypotheses to be tested during the experimental research stage. The first hypothesis was that in the EOIs language assessment could take place online by employing available ICT tools (Moodle) and that this would result in similar or at least not lower exam results for students. The second hypothesis was that the implementation of online assessment through these same ICT tools would lead to an overall improved exam experience for students and would make this more student friendly and environmentally stable, in turn increasing student motivation. The student is at the center of these hypotheses, and the improvement of their whole educational experience is paramount to this research. We shall now examine on a case-by-case basis, and linked to the original specific objectives, how the results largely confirm the initial hypotheses.

The first specific objective was to compare performance for in situ exams and online exams to determine the effect that online assessment has on results, especially considering that this impact should not be negative and should at the very least maintain exam results. With this first step, the aim was to prove that students' results are not negatively impacted by doing the exam online, as this is the primal concern of the study: students do the exam to pass and obtain a certificate, and any change that would lead to these conditions being diminished

would immediately need to be eliminated as an element of innovation. The analysis here was done by comparing in quantitative terms exam results from the control group and the sample group, these two groups undertaking the same exam using different evaluation tools. The statistical analysis with data tabulated on bar graphs compared students who do the same exam in situ with those who did the exact same exam online, and clearly showed that not only are marks maintained by those doing the exam online, but they are in fact improved. In exams for all four language skills, the tabulation of the results show that students' marks were improved by doing the exam online in comparison to those doing the exam in situ.

In this way the specific objective of determining the effect that online assessment has on results has been proved to have been reached and even expanded upon, since the exam results actually improved. Students doing their reading, listening, writing and speaking exams had a higher percentage pass rate than students doing the exam on pen and paper in situ. There are many reasons for this which subsequently emerged in the questionnaire and interviews. The reading comprehensive exam improves the pass rate significantly when doing the exam online as the texts are easier to see when the activity involves matching text with a key. The listening comprehensive exam also has a higher percentage pass rates, with the design of the interaction and the improved acoustics using own devices influencing this. The two exams of expression, writing and speaking, were also seen to yield improvements online. The written expression has better pass rate and was seen to offer an improved presentation through the pre-model uploaded to Moodle. The oral expression also has a better pass rate, with improved acoustics and a better atmosphere being noted. In all four language exams, the tabulation of the results shows that students' marks were improved by doing the exam online in comparison to doing the exam in situ.

As previously mentioned, the new activity of mediation is not included in this paper as it was a skill that was introduced after the planning of this research, but we can still draw some conclusions here. We can extrapolate the results from the speaking and writing exams and conclude that the use of computer screens actually helps, in that the data that students need to locate and understand in the mediation texts, typically graphs and statistics in color, and the advantages of on-screen texts was mentioned by respondents as providing additional

help. We can surmise from this that using Moodle to do exams online positively impacts on student results, these being improved when carried out by the semi-distance student group online. Due to this we can claim that the first hypothesis has been confirmed, and indeed expanded upon: doing exams online does not have a detrimental effect on students marks, and even improves these results.

However, in drawing conclusions it is important to remember that a number of variables are at play: the students from the sample group are used to doing online exams, half of their class is online, and they are constantly doing online testing as part of their learning profile. For this reason, we can also conclude that online summative testing should be first introduced for students of the semi-distance courses, in that they are a smaller group and have greater control over this process. Indeed, online assessment is tailor made for them. This sample group should be allowed to do their end-of-year exams online in the case of non-certificate courses, and at the very least on computers in the school for the certificate courses. We can conclude that not allowing them to do so would be detrimental to their marks as they would not have the continuity of learning that other students enjoy. This should be done on a pilot basis, before moving on to offer this as an option for all main groups, although never imposed, since variables involving computer skills and doing online assessment are clearly at play and would need to be assessed before offering the possibility to non-semi-distance students.

The findings of our study are in line with those of Wenjing and Iwashita (2021), demonstrating that doing the exam online does not lead to academic disadvantages, and indeed these semi students' marks were not only maintained but in fact improved. Our results improve on Al-Qdah and Ababneh (2017), who showed that doing exams online did not worsen students marks and did maintain them; our study goes a step further by showing that for certain groups of students marks actually improved when following the same continuity of teaching-learning as used in class, in this case involving online work and assessment. This corroborates the study by Joyce (2018), who found that students achieve higher marks when continuing to use their habitual assessment tools when being assessed and not changing ad hoc. Our findings also echo those of Sanmartí (2020) in that by carrying out these February

formative tests we are offering students feedback that will allow them to improve their own decision making and thus allow them to adapt their learning appropriately. This was also found by García Aretio (2021), who noted that such results will cement the need to allow for assessment of learning and to permit the teacher to make any future instructional changes.

However, our findings differ from those of Burns (2018), who argued for a more radical approach when using online assessment tools to take advantage of these to revolutionize the exam experience; in our case, we found that that certain legal constraints within the system in which we are operating made this impossible. The same can be said of claims by Godwin-Jones (2018), who argued for a more radical approach to testing in adult education, but again his suggestions fall outside the legal scope available to us in our regulated education system. Meanwhile, our findings were not wholly in line with those in a study by Bocij and Greasley, from 1999 but still quoted today, which showed that results only really improved for students who were generally weaker in the subject area and not so much for the high achievers; our study, by contrast, showed higher marks across the board, regardless of previous level. To this end, we can claim that the current research moves on from previous studies and proves that doing online assessment actually improves test results overall.

The second specific objective of our study was to determine students' feelings and attitudes towards the differing evaluation tools, as it is of little use if results are maintained or improved (as we showed to be the case) if students' overall exam experience was negatively affected. Following an analysis of responses to the validated questionnaire results, we can conclude from each of the six categories of questions that students' exam experience was indeed improved by doing their assessment online. We can deduct from answers to the first category of questions that, in terms of little prior experience, this is not a conditioner in doing online assessment and does not impact on student's exam results or experiences when we compare it to students who have a previous background in this area, since many of the respondents had no experience of this system of assessment from previous years of study. This is of fundamental importance because it proves that the variables are not an absolute conditioner of successfully doing an online test. Prior experience may not be a conditioner, but the results prove that knowledge of and the ability to work with ICT tools constitute an

important variable to be borne in mind, especially when selecting a group with which this proposal could be introduced on a pilot basis.

Following this, from the answers given in the second category, on computer competence, we can conclude that although the respondents were not familiar with online assessment before joining this course, we were indeed dealing with a group of students who were highly competent at an upper-intermediate level of computer literacy, and this might have had a bearing on the fact that they had no additional difficulty in doing online assessment. This variable might have influenced the results and should be borne in mind when promoting online assessment. For this reason, online assessment should ideally be introduced as a pilot scheme with semi-distance students off site for non-certificate courses, as well as in the school computer room for certificate courses. Furthermore, we could argue that this group of students should have the option, and indeed the right, to be assessed online, whereas students in the other groups may not want this. To conclude with this point, the results from the validated questionnaire strongly suggest that there does not have to be a universal exam assessment tool for all students, but that those for whom such technology forms part of their modality of learning should be afforded the right to do their assessment online as a continuation of their habitual mode of study.

From this third section of questions, on user interface evaluation, we can conclude that students found the Moodle interface easy to use as well, including in the exam. Their positive response to the interface is clear to see, with the online mode being appreciated by students for allowing them to be more relaxed doing the exam; familiarity is a key issue here. From the fourth section, on the impacts of doing online tests on the learning process, we can draw the conclusion that online tests in themselves do not reduce students stress levels to a major degree, yet neither do not increase them. When doing a certificate exam, the nerves of passing or failing the exam override the assessment tool used. It is curious that in a later question, students stated that they were less excited when doing the online test, so we might claim that the nerves and desire to pass the exam remain the same but in general terms students feel better in themselves and in terms of their mood when doing the exam online.

One aspect that many respondents mentioned, and that was not given due importance at the outset of this study, is the value of formative assessment when using online tests. Students do value the formative aspect of online tests in allowing them to go back and view the test in a statistical manner and giving them more instant and lasting feedback that can be marked and recorded. From this, we can conclude that there should be more formative testing in the EOIs with progress tests where students can keep a record of their own progress, and that they can access this information when needed, so that it comes to serve as a portfolio. These learning portfolios are gaining momentum in adult language teaching and are actively promoted in the EOIs of Galicia. Finally, with regard to the fifth section of the questionnaire, on students' general opinions, we can determine that students who are on semi-distance courses would prefer to do their exams online in their own chosen space, since they see it as both a continuation of their studies and a better option than doing the exams on pen and paper.

As stated in the Introduction and Methodology sections, one of the specific aims of our study was to determine students' online exam experiences, because there is no point improving marks if the exam experience also becomes more stressful. The overall analysis from the validated questionnaire given to the sample group shows that students value doing exams online and that in general terms it does indeed improve the overall student exam experience. It should be noted that the experience of doing summative exams for certification level is not so less stressful that it would warrant fully implementing online assessment. Students note that they feel almost as stressed doing exams online as in situ because they are so anxious to pass the exam. However, the fact that they are not more nervous is a plus. Rather than the factor of nerves, they value aspects that the online assessment tools of Moodle offer, such as immediate feedback and the ability to look over and track your marks, as well as the interface itself. For this reason, the second hypothesis, that online assessment will lead to an overall improved exam experience, is confirmed, and shows that with the sample group formative and summative assessment should be used as a continuation of their studies, especially at non-certificate levels.

Another interesting conclusion is that formative assessment should be promoted more by employing online tools to help students improve and reach the end goals of their course. In terms of summative assessment, online assessment should be promoted as a continuation of the methodology for end-of-year promotion tests and gradually introduced in a controlled setting for certificate exams. In the medium to long term, it can be argued from the validated questionnaire results that all semi-distance students should be afforded the right to do their summative assessment online, and with regard to certificate courses, for reasons of security, these could be carried online within secured environments like the school computer room, but also using the online assessment tools offered by Moodle. In this regard we can conclude that the second specific objective of this study has been confirmed: students' feelings and attitudes towards online assessment tools are extremely positive, and online assessment leads to an overall improvement in the student experience for this specific group.

The results of the validated questionnaire are wholly in line with Yulia et al. in (2019) in showing that the academic results of students doing exams online are not only better but so too is their exam experience. Tella and Bashorun (2012) note that, in overall terms, students found doing online exams to be a much more student-friendly approach, especially when they are used to studying in ghat way, and these findings echo those of a previous study by Cassady and Gridley (2005). The flexibility offered in terms of time and space by online testing is highly rated by students and corroborates the claims of Kaufmann (2022) that adult learners need this time and space to perform optimally. In our questionnaire the interface of the VLE was highly valued, and this corroborates Reiss and Deitrick-Reips' (2016) claim that the interface, with its colors and user-friendly type, can make learners more relaxed. With regard to the suggestion that one drawback of online testing is being worried about failing connections, students in our study agree with this factor, an issue also outlined by Rosario et al. (2018). Our findings also agree with those of González Motos (2018) in that that formative assessment is valued by students as a springboard to final summative assessment. An important factor valued by students was the immediacy of feedback and the ability to look back over results, and this corroborates observations by Singh (2019).

Students confirm what Salmon (2013) notes, that is, they are surprised at the lack of opportunities to do testing online and do not understand the reason why they cannot do their testing in this way. However, they differ from Conrad and Openo in 2018, who state that assessment adds yet another layer of complexity to the assessment process which is already emotionally charged; the students in our survey stated that online assessment actually reduces their levels of anxiety and stress to some degree. Our students also effectively contradicted claims by Fletcher Wood (2018), who argued that we have to try to avoid summative assessment during the learning process; our study shows that summative assessment in February does not necessarily have to be negative. To this end, we can claim that the current study supports other studies in the field and proves that doing online assessment improves the overall student exam experience, albeit for one specific group.

The third specific objective of this paper was to analyze students' perspectives on the two assessment models, as well as those of legal and pedagogic experts. There would be no point implementing this system if students rejected it, if it was not based on a solid legal framework, or if some pedagogically based reason made it untenable. The analysis of the results here has lead us to some very interesting conclusions. It should be borne in mind that this was done through recorded semi-structured interviews with students randomized from the sample group, and with expert viewpoints to provide some counterbalance from pedagogical and legal frameworks. We can conclude that the second hypothesis has been confirmed, in that online assessment does result in an overall improved exam experience for students. The specific variables noted are seen to be at play, in that we are dealing with students who are specifically from a group accustomed to doing tests online. This must be borne in mind when promoting online assessment as we can argue that it should be aimed towards the specific group of semi-distance students.

From the results of the students in recorded semi-structured interviews we can conclude that they support and indeed almost demand the implementation of online assessment for the semi-distance group. These semi-distance students stated that it gave continuity to the profile of their teaching-learning methodology, since as semi-distance students they already do many progress tests online and constantly use these tests to mark and assess their progress.

They are accustomed to the style, interface and mechanisms of online work, and also saw it as a paradox that they then have to make an abrupt change and do their final end-of-year exam in situ. It can be claimed that having to do their end-of-term test in a different way to the learning methodology of the course itself puts them at a disadvantage to students who follow fully in situ courses and who thus do the exam in the same mode that they follow in class. The respondents placed great value on the idea of a logical continuation of their studies, feedback and interface, and demand to be offered this continuity when carrying out exams online. Thus we can clearly conclude that they want to use the available online tools to carry out the exams online.

With regard to the expert view from the Department of Education, we can conclude that in the short term the department would fully back formative online assessment for all students as it would allow them to practice testing online. This is especially true for semi-distance students who could also do their end-of-year test online if it was not a certificate course. For these courses, the department would not have an issue with end-of-year summative tests for semi-distance students taking place online and off site, and it can be concluded that they believe all semi students should be afforded this right. With regard to certificate exams, due to the significant confidentially clauses involved and the genuine worries about copying, these exams could also be done online but this would have to be done within the center and limited to students of the semi-distance courses in the medium term. These online certificate exams could take place in the computer rooms of the schools under the supervision of an invigilator or even by students bringing their own devices, but again under the supervision of a teacher. In this way they would be given continuity in their learning methodology but within a controlled scenario. Furthermore, all students, semi or not, should be allowed to take advantage of formative assessment through online progress tests, as this would allow them to see the benefits ICT tools.

From the semi-structured recorded open expert interview, we can surmise that students who follow online methodology in their learning need to be afforded that right in their assessment, in order to allow for continuity of teaching-learning approach. We can also conclude through this expert view that the online platforms such as Moodle provide great benefits, such as offering instant feedback and the storing of results that can help students to avoid missing

class-time for mock exams while still taking advantage of these tools to practice for their final exams through using formative assessment. In the medium term, online summative assessment should be used for semi-distance students doing non-certificate exams, as it allows for the continuation of their learning methodology. For certificate students, these exams could also be carried out online, but they should take place in controlled settings within the school, under the supervision of invigilators and in exam settings We can also conclude from this interview that the risk of cheating online, while existing, is often used as an excuse for not implementing this method of assessment; no assessment system is free of this risk, and in situ exams can indeed pose a greater risk in terms of the switched identity of candidates. Thus, this expert interview allows us to state that no exam system is foolproof or perfect, and that is not a valid reason not to offer semi-distance students the right to do their exams online.

In conclusion, both students and educational experts believe semi-distance candidates should be afforded the opportunity to do their exams online, especially semi students, being this an existing possibility that needs to be put into place for non-certificate courses; for certificate exams, this could be done in controlled settings within the school. To this end we can claim that the third objective of this study has been reached, having fully analyzed the differing perspectives of students and experts regarding online and in situ exams. Results of our study are in keeping with Hubbard (2021) in that they show that students value the logical continuation of studies that match what they do during online progress tests with what they do in their online learning. They also agree with Abrazado (2019) that online tests offer advantages in terms of visibility and auditive improvements that cannot be guaranteed in the in-situ situation. The relaxation that has been noted in doing oral exams at home corroborates the benefits mentioned by Liang (2010) for shyer students when carrying out oral exams in particular. Our student interviews also echo Meijer's (2001) claim that increased emotional well-being is directly connected to better exam results. The positive responses of students in these interviews agrees with Jones (2018), who argues for the use progress tests to show students what they are learning and the advantages of being examined without real-life exam pressure.

However, this goes against what Woldeab and Brothen claimed in 2019 in stating that students might feel more anxious if they felt that they were being monitored by their teachers on a webcam; our interviewees stated that this would not be a problem for them. Our findings also are slightly in conflict with Joshi et al. (2020) who stated that students would only feel more comfortable when carrying out online exam in situ in the school, as the students in that study only mention such a possibility in order to refute the negative associations of online testing. The expert viewpoint from the representative of the Department of Education, in stating that on online testing is more open to cheating, goes against many studies, such as Fask et al. (2014) and Tuah and Naing (2021), which argue that this risk has been greatly exaggerated and is in fact not supported by real-life examples. However, the expert viewpoint that we recorded here is indeed upheld by Al-Maqbali and Raja Hussain (2022), who recall that not all students have access to the necessary hardware to do online tests and would need to come to the school to do an online test. This reflects what Joshi et al. (2020) observed as the benefits of having exam centers in the school to do online testing, an idea that was supported by the pedagogical expert in our study. To this end, we can claim that our current research supports other studies in demonstrating that doing online assessment is solidly grounded in pedagogical and legal terms, as well as reflecting student preferences.

The fourth, and final, specific objective of this investigation was to calculate the cost budget for operating both systems of assessment to determine if the financial cost of in situ exams could be reduced by introducing online exams. In the C2 exam alone in one school the cost saving was calculated at over 120 euros per entire C2 certificate exam. This might seem a modest amount, but it should be remembered that C2 is the smallest exam in terms of student numbers, so thus it is essential to look at it in its wider picture. In doing so, we found that introducing online assessment for all semi-distance students would result in a huge cost savings for B1, B2 and C1 students. There are over 3,000 students studying these levels in the EOI in A Coruña, with each one needing their own printed exam. Beyond financial concerns, the online alternative would also lead to a more sustainable exam, avoiding as it does the printing of over 30 pages of paper per student. Moreover, paper is a resource whose production puts huge strain on sustainability issues and exams in the EOIs use a huge amount

of paper and photocopying. The online exam cost is almost nil, as the content comes in digital format and can simply be uploaded onto the Moodle platform.

For the teachers involved, it also reduces the stress of exam preparation. When a mistake needs to be corrected, then it is only necessary to go to the Moodle site and edit that mistake in the page itself, which would reduce the stress that staff members feel when, having printed exams, an entire batch must be destroyed and re-printed. With an online exam, changes can even be made right up to the moment immediately before the exam. We can also conclude that for teachers, the exam preparation would become far easier: there would be no student lists to prepare and print, no preparation of exam envelopes for invigilators, no need for these teachers to spend hours correcting comprehension exams, because these are corrected automatically, and no copying of audio sounds to USBs as these are already securely contained on the Moodle platform. These exams also take up time for non-teaching staff, as support staff do not have to spend hours photocopying and storing exams nor do the staff in the secretary's office have to print out endless lists of students' names.

In conclusion, while the introduction of an online exam might not reduce price costs that much for C2 alone, in the future it would reduce the carbon footprint offset by this exam. In our school 700 students study B1, 800 B2 and 790 C1 in English alone. If we multiple the cost per exam, then the sums do all add up within the English Department. This cost would then be multiplied by each one of the ten languages studied in the school. We can also surmise that in financial terms there would be significant cost savings to doing at least some of the exam online. It must also be remembered that, in addition to any financial concerns, sustainability is a major issue here. These exams leave a huge paper trail, in that once an exam has finished none of this paper can be used again. Teachers' time producing and preparing the exam is also reduced. Thus, in terms of financial and human resource management as well as reducing our carbon footprint then the benefits are clear. For all these reasons, we can conclude that online assessment saves money in terms of photocopying but also reduces the amount of human resource time spent preparing the exams. This again serves to confirm the second hypothesis, that online assessment tools result in a better all-round exam experience for all.

These conclusions corroborate what Trujillo (2017) observed when he said that innovation allows for flexible learning and economic savings. The pedagogical viewpoint that we have seen here also supports what Sangrà (2020) claims are the limitations that also exist in the in-situ classes and that should not impede the implementation of ICT tools in the assessment process. It also agrees with Santiago et al. (2017) in stating that online assessment and learning is more sustainable in terms of its teaching and assessing on the road to innovation. The cost savings corroborates what Chapelle (2007) notes to be the affordability offered by online ICT tools. This is also supported by Burns (2018) who notes that the initial costs of buying online equipment, even for an in-situ exam center, is off set in the long term by the savings afforded by online assessment. To this end, we can claim that this research paper supports other studies and proves that doing online assessment results in more sustainable schools in the medium to long term.

Having analyzed the data collected in the present study and contrasted it, as outlined in the sections above, we can arrive at the following overall conclusions based on the original objectives set out in Chapter Three. Our general objective was to analyze and evaluate available ICT tools on the Moodle platform for the implementation of online assessment in the EOIs of Galicia. We can state that this objective has been reached and that the already existing ICT tools for exams and tests on Moodle should be used for online assessment in the EOIs. This conclusion has been reached through each one of the more specific objectives.

The first specific objective was to compare performance for in situ exams and online exams to determine the effect that online assessment has on results, especially considering that this impact should not be negative and at the very least maintain exam results. This was confirmed, and indeed surpassed; through statistical tabulation of the data we saw how students' results were not only maintained but improved by doing their exams online on the available Moodle tools. The variables at play here, such as online experience and computer competence, were seen to have influenced this and that must be borne in mind when extrapolating the results to other potential groups beyond the semi-distance students.

- The second specific objective was to contrast in situ exam experiences with the online one, to determine students' feelings and attitudes towards the differing evaluation tools. Our original objectives were partially achieved here in that students felt somewhat more relaxed doing summative final assessment online, but they continued to experience nerves. The formative benefits of immediate feedback, a clear interface and storage of result, and the ability to review of results later were all highly valued in the previously validated students' questionnaire, leading us to a new perspective, one which the outset of this research project had not originally been identified as so important.
- The third specific objective was to analyze students' and experts' different perspectives on the two assessment models and the corresponding influence of these models on exam results and performance. We can conclude that this specific objective was also reached, in that we were able to show through the semi-structured interviews with experts the existence of both legal backing and pedagogical benefits to doing online assessment. Students went even further in their interviews, demanding to be given the right to do their assessment online as a continuation of their studies. Action here should focus first on the specific sample group involved in the current study, and then move towards using these tools for semi-distance students, who demanded this continuation of their learning methods in their recorded semi-structured interviews.
- The fourth and final objective was to calculate the cost budget in operating both systems of assessment to check whether the extreme financial cost of in-situ exams could be reduced by introducing online exams. This specific objective was also reached as the statistical analysis shows the financial costs are substantially reduced by introducing online tests, and that this would also lead to more sustainable schools and exam systems.

As a general conclusion from the above specific objectives and based on the analysis of the data collected for this study, we can state that the EOIs should implement online assessment for semi-distance students using the available Moodle tools. From the analysis of these data we can conclude that the first hypothesis set out at the beginning of this paper has been wholly confirmed: students' success rates are not only maintained but indeed improve when they do their exam online. The second hypothesis was also largely confirmed, in that students

valued doing online exams and stated that it does improve their overall exam experience. The hypothesis that we might say was not fully supported is that ALL assessment should take place over Moodle, since we have seen that this should be differentiated between groups of students. Rather, we have found that an optimal approach here would be to introduce online assessment with the semi-distance students, who want to continue with their method of learning and assessment. Regarding end-of-year testing, we can argue that semi students who are doing non-certificate exams should do their testing online off site. However, with certificate levels, due to issues of security, assessment might also be done online but in the center in controlled exam halls. With regard to all students, semi or not, they should be encouraged to use online testing on Moodle as a formative assessment tool.

No research provides foolproof and wholly unequivocal findings, and this must always be recognized when presenting the conclusions of a study, since in this way we will help to improve on other work in the field, both current and future. One of the shortfalls of this study could be said to be the use of the February exams, as it might be argued that these act as mock exams and thus the results are different, with students perhaps being more relaxed and not taking them as seriously. Yet any research proposal must begin somewhere, and it would not have been appropriate to conduct the present study using students' official certificate exams, since it would be counterproductive to trial a new assessment proposal in a real-life situation, leading to the risk of making the students even more nervous. While it may be true that for the February exams students are more relaxed, that does not mean that the results are likely to be substantially different, because the exams and student performance are in fact very similar, as the yearly class records every held on centrosnet show. Past records on centrosnet also show that students very often improve in the February exams, and indeed this can be extrapolated to the present study.

Replication is a central part of any academic study (Mackey & Gass, 2021), in that if one cannot repeat the results then their validity can be called into question. Our results here can indeed be repeated by other investigators, who might wish to use another group or exam type to test related hypotheses when carrying out research into exams in the EOIs. This study has proved to be very enlightening and rewarding and it would be interesting to continue research

into this topic with five future research lines. The first would be to look at introducing online assessment to non-semi-distance students, as the advantages of ICT are available to all, although we would be dealing with different variables which would need to be borne in mind. Second, an analysis could be made of the benefits of using only formative assessment without end-of-year summative testing for students in non-certificate levels. This is an interesting topic, and one which arose constantly when questioning students in this study. A third possible line of research would be the issue of introducing centralized exam centers for certificate exams, especially for languages with the greatest numbers of students, Galician and English, as a cost-saving measure.

A fourth question that was raised during the writing up of this paper is a rather controversial one: to what extent are the exams used in the EOI outdated as a means of determining students' linguistic abilities? The fact that end-of-year summative tests account for 100% of the marks is not something that either teachers or students particularly like, with both feeling that formative assessment needs to be implemented more. This is also an area that is currently being explored in some EOIs, and the input of scientifically grounded research into the role of formative assessment in these schools would be welcome. The final area of possible interest is the question of long, drawn-out exams: many teachers ask if it is really necessary to write two written texts, answer multiple texts, and do two speaking tests. Perhaps one might be enough, they ask, or perhaps a reading exam with less texts and questions might serve to determine a student's level. This is another hypothesis that is calling out for qualitative research, and research here might involve setting a shorter or a different exam for a sample group as a means of comparing performance against a control group. Online assessment is in its early stages in the EOIs of Galicia, and the future is bright, especially in terms of research, as these five possible future research lines well illustrate.

The above proposal for five future research lines is a good indication that innovation is happening in the EOIs, although progress is slow. The expansion of existing ICT tools, both in teaching and in assessment, would allow this to happen. As a final comment, we would like to reiterate that the general objective presented at the very start of this study has been met as we have provided an analysis and evaluation of the available ICT tools to implement

online assessment in the EOIS of Galicia and we can conclude that the ICT tools offered by Moodle should be used for the online assessment of semi-distance students as this improves both marks and the student exam experience, while reducing costs. It goes without saying that this study would not have been possible without the help of teachers and the students, especially the C2 semi-distance groups, of the EOI of A Coruña. With this conclusion we hope that this paper will lead to a modernization of the assessment system in the EOIs of Galicia.

#### REFERENCES

# Legislation

Council of Europe. (2001). Common European Framework of Reference for Languages.

Government of Spain. (2006). Ley Orgánica de Educación, 2/2006.

Government of Spain. (2008). Orden ESD/1742/2008.

Government of Spain. (2006). Real Decreto 1629/2006 que fija los aspectos básicos del currículo de las enseñanzas de idiomas de régimen especial regulados por la ley orgánica.

Xunta de Galicia. (2020). Circular 3/2020: Preinscripción. Admisión y matrícula en el curso 2020-21.

Xunta de Galicia. (2018). Decreto 81/2018: Currículo de los niveles de las enseñanzas de idiomas de régimen especial en la Comunidad Autónoma de Galicia.

Xunta de Galicia. (2012). Orden del 19 de abril que modifica la orden de evaluación del alumnado.

Xunta de Galicia. (2011). Orden del 5 de agosto que desarrolla el ROC de las Escuelas oficiales de Idiomas.

Xunta de Galicia. (2011). Decreto 189/2010 que establece el regalamiento orgánico (ROC) de las escuelas oficiales de idiomas de Galicia.

Xunta de Galicia. (2008). Decreto 239/2008 que establece el currículum del nivel avanzado y las enseñanzas de régimen especial de idiomas.

Xunta de Galicia. (2008). Orden del 8 de septiembre: Regalamiento de la evaluación y cualificación del alumnado que cursa las enseñanzas especializadas de idiomas de régimen especial.

Xunta de Galicia. (2007). Decreto 191/2007: Ordenación de las enseñanzas de idiomas de régimen especial y curricular de los niveles básico y intermedio.

#### **Bibliography**

Acaso, M. (2021). REDUvolution: Hacer la revolución en la educación. Paidos Contextos.

Adams, P., & Gingras, H. (2017). *Blended Learning & Flipped Classrooms: A comprehensive guide*. The Part-Time Press.

Alonso, J., & Prieto, A. (2017). Flipped learning. Aplicar el modelo de aprendizaje inversión. Narcea SA.

Al-Qdah, M., & Ababneh I. (2017). Comparing online and paper exams: Performances and perceptions of Saudi students. *IJIET*, 7(2), 106–109. 10.18178/ijiet.2017.7.2.850

Al-Maqbali, A. H., & Raja Hussain, R. (2022). The impact of online assessment challenges on assessment principles during COVID-19 in Oman. *Journal of University Teaching & Learning Practice*, 19(2), 73-92. <a href="https://doi.org/10.53761/1.19.2.6">https://doi.org/10.53761/1.19.2.6</a>

Anderson, T. (2008). Teaching in an online learning context. In T. Anderson (Ed.), *The Theory and Practice of Online Learning* (2nd ed., pp. 343–365). Athabasca University Press.

Area, M., & Adell, J. (2009). ELearning: Enseñar y aprender en espacios virtuales. In J. de Pablos (Ed.), *Tecnología educativa*. *La formación del profesorado en la era de Internet* (pp. 391-424).

Arias Valencia, M. (2000). La triangulación metodológica: Sus principios, alcances y limitaciones. *Investigación y Educación en Enfermería*, 18 (1), 13-26. <a href="https://dialnet.unirioja.es/servlet/articulo?codigo=5331864">https://dialnet.unirioja.es/servlet/articulo?codigo=5331864</a>

Arthur, L., & Beaton, F. (2000). Adult foreign language learners: motivation, attitudes and behaviours. *The Language Learning Journal*, 21 (1), 31-36.

Assella, A., Dias, U., & Palihawadana, P. (2020). Effectiveness of Online Assessments in the Perspective of NSBM Green University Town, Sri Lanka. *International Conference on Business Innovation*.

Bahrani, T. (2011). Technology as an assessment tool in language learning. *International Journal of English Linguistics*, *1*(2), 295-298. <a href="https://pdfs.semanticscholar.org/4ed4/a42fbb47a6b399ecd6a83db2b2f896d48ce2.pdf">https://pdfs.semanticscholar.org/4ed4/a42fbb47a6b399ecd6a83db2b2f896d48ce2.pdf</a>

Barbosa, H., & García, F. (2005). Importance of online assessment in the e-learning process. *6th International Conference on Information Technology Based Higher Education and Training*, (pp. F3B/1-F3B/). DOI: 10.1109/ITHET.2005.1560287.

Benson, P. (2003). *Teachers' and learners' perspectives on autonomy*. Hong Kong Institute of Education.

Birdsong, D. (2014). Dominance and age in bilingualism. *Applied Linguistics*, 35(4), 374-392.

Blasco-Serrano, A., Bitrián-González, I., & Coma-Roselló, T. (2022). Incorporation of ICT into preservice teacher training using the Flipped Classroom so as to enhance inclusive education. *EDUTEC*, 79 <a href="https://doi.org/10.21556/edutec.2022.79.2393">https://doi.org/10.21556/edutec.2022.79.2393</a>

Bocij, P., & Greasley, A. (1999). Can computer-based testing achieve quality and efficiency in assessment? *International Journal of Educational Technology*, *I*(1), 1-18. <a href="http://www.outreach.uiuc.edu/ijet/v1n1/bocij/index.html">http://www.outreach.uiuc.edu/ijet/v1n1/bocij/index.html</a>

Bodmann, S. M., & Robinson, D. H. (2004). Speed and performance differences among computer-based and paper-pencil tests. *Journal of Educational Computing Research*, 31(1), 51–60.

Brockett, R. (2015). Teaching adults. A practical guide for new teachers. Jossey-Bass.

Brown, H.D. (2007). Principles of language learning and teaching. Pearson.

Brookfield, S. (2013). *Powerful techniques for teaching adults*. Wiley & Sons.

Canale, M., & Swain, M. (1980). Theoretical Bases of Communicative Approaches to Second Language Teaching and Testing. Applied Linguistics, 1, 1-47. http://dx.doi.org/10.1093/applin/I.1.1

Cassady, J. C. (2009). Test anxiety: Contemporary theories and implications. In J. C. Cassady (Ed.), *Anxiety in Schools*. Chapter One. Peter Lang.

Cassady, J. C., & Gridley, B. E. (2005). The effects of online formative and summative assessment on test anxiety. *Journal of Technology, Learning and Assessment*, 4(1). <a href="https://ejournals.bc.edu/index.php/jtla/article/view/1648">https://ejournals.bc.edu/index.php/jtla/article/view/1648</a>

Chapelle, C. (2007). Technology and Second Language Acquisition. *Annual Review of Annual Review of Applied Linguistics*, 27 (98). *Doi: 10.1017/S0267190508070050*.

Chao, R. (2009). *Understanding the adult learners' motivation and barriers to learning. ESREA, Inaugural Conference Proceedings*, 905-915.

Cleveland-Innes, M., & Wilton, D. (2018). (eds). *Guide to blended learning*. Commonwealth of Learning.

Cohen, L., & Waite, S. (2017). *Theories of early childhood education: Developmental, behaviourist, and critical.* Chapter Eight. Routledge

Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education*. Sixth Edition. Routledge.

Conrad, D., & Openo, J. (2018). Assessment strategies for online learning: Engagement and authenticity. Au Press

Cotterall, S. (1995). Readiness for Autonomy Investigating Learner Beliefs. *System*, 23 (2), 195-205. https://www.sciencedirect.com/science/article/abs/pii/0346251X95000088

Cowman, S. (1993). Triangulation: A means of reconciliation in nursing research. *Journal of Advanced Nursing* 18(5), 788-792.

Cresswell, J.W. (2012). Educational research: Planning, conducting mixed methods research. (4th Ed.). Pearson.

Dawn, T., Harkin, J., & Turner, G. (2000). *Teaching young adults: A handbook for teachers in post-compulsory education*. Routledge. <a href="https://doi.org/10.4324/9780203132524">https://doi.org/10.4324/9780203132524</a>

Dornyei, Z., & Kubanyiova, M. (2014). *Motivating learners, motivating teachers: Building vision in the language classroom*. Cambridge.

Fask, A., Englander, F., & Wang, Z. (2014). Do online exams facilitate cheating? An experiment designed to separate possible cheating from the effect of the online test taking environment. *Journal of Academic Ethics*, 12 (2), 101-112.

Fetters, M. D., & Freshwater, D. (2015). Publishing a methodological mixed methods research article. *Journal of Mixed Methods Research*, *9*(3), 203–213. https://doi.org/10.1177/1558689815594687

Fitz-Gibbon, C.T. (1996). *Monitoring education: Indicators, quality and effectiveness*. Cassel.

Fletcher Wood, H. (2018). *Responsive teaching: Cognitive science and formative assessment in practice.* Routledge.

Frey, B., Schmitt, V., & Allen, J. (2012). Defining authentic classroom assessment. *Practical Assessment, Research, and Evaluation*, 17,(2). https://doi.org/10.7275/sxbs-0829

García Aretio, L. (2021). ¿Podemos fiarnos de la evaluación en los sistemas de educación a distancia y digitales? *Revista Iberoamericana de Educación a Distancia*, 24(2), 09-29. <a href="https://doi.org/10.5944/ried.24.2.30223">https://doi.org/10.5944/ried.24.2.30223</a>

Gaytan, J., & McEwen, B. (2007). Effective online instructional and assessment strategies. *American Journal of Distance Education*, *21*, 117-132. 10.1080/08923640701341653

Gilmore, A. (2007). *Authentic materials and authenticity in foreign language learning*. Cambridge.

Godwin-Jones, R. (2018). Second language writing online: An Update. *Language Learning & Technology*, 22(1), 1–15. https://dx.doi.org/10125/44574

Golden-Biddle, K., & Locke, K. (2006). Composing qualitative research. Sage.

Gray, D. (2009). Doing research in the real world. Sage.

Grotjahn, R. (1987). On the methodological basis of introspective methods. In C. Faerch & G. Kasper (Eds.) *Introspection in Second Language Research* (pp. 54-81) Multilingual Matters.

Harris, L., Harrison, D., McNally, D., & Ford, C. (2020). Academic integrity in an online culture: Do McCabe's findings hold true for online, adult learners?. *Journal of Academic Ethics*, 18(4), 419-434.

Hart, L., & Morgan, L. (2020). Academic integrity in an online registered nurse to baccalaureate in nursing program. *Journal of Continuing Education in Nursing*, 41, 498-505.

Hopkins, D. (2008). A teacher's guide to classroom research. 4th Edition. Open University Press.

Huang, S., Wang, H., & Wang, K. (2006). Learning styles and formative assessment. *Journal of Computer Assisted Learning*, 22, 207-217.

Hubbard, P. (2021). An invitation to CALL. Foundations of Computer Assisted Language Learning. APACALL.

Isaac, E. P. (2011). *Assessing adult learning and learning styles*. 143–153. <u>10.4018/978-1-61520-745-9.ch009</u>

Jones, K (2018). *Retreival practise: Research and resources for every classroom.* John Catt Educational Ltd.

Joshi, O., Chapagain, B., Murray, B. D., Kharel, G., Poudyal, N. C., & Mehmood, S. R. (2020). Benefits and challenges of online instruction in agriculture and natural resource education. *Interactive Learning Environments*, 1-12. doi:10.1080/10494820.2020.1725896

Joyce, P. (2018). The effectiveness of online and paper-based formative assessment in the learning of English as a second language. *Journal of Language Teaching and Learning in Thailand*, 55, 126-146.

Kemmis, S. (2009). Action research as a practice-based practice. *Educational Action Research*, 17, 463-474. DOI: 10.1080/09650790903093284

Kerlinger, F. N. (1970). A social attitude scale: Evidence on reliability and validity. *Psychological Reports*, 26(2), 379–383. https://doi.org/10.2466/pr0.1970.26.2.379

Komorowska, H. (2003). Young language learners in Poland. In *An early start: young learners and modern languages in Europe and beyond* (pp 117-133). Council of Europe

Komorowska, H., & Krajka, J. (2020) The culture of language education. Foreign Language Teaching in Diverse Instructional Contexts. Peter Lang GmbH.

Lai, C. (2013). A framework for developing self- directed technology use for language learning. *Language Learning and Technology*, *17*(2), 100-122. http://llt.msu.edu/issues/june2013/lai.pdf

Latchem, C. (2014). Quality Assurance in Online Distance Education. In O. Zawacki-Richter, & T.Anderson (Eds.), *Online distance education; Towards a research agenda* (pp.311–34). Athabasca University Press.

Liang, M.-Y. (2010). Using synchrornous online peer response groups. EFL writing: revision-related discourse. In *Language Learning and Technology*, *14* (1).

Lightbown, P., & Spada, N. (2013). *How languages are learned*. 4<sup>th</sup> Edition. Oxford University Press

Little, D. (2006). The Common European Framework of Reference for Languages: Content, purpose, origin, reception and impact. *The Journal of Language Teaching*, 39(3), 190.

López González, L. (2019). Educar la atención: Cómo entrenar esta habilidad en niños y adultos. Plataforma Editorial.

López Pastor, V. (2009). Evaluación formativa y compartida en educación superior: Propuestas, técnicas, instrumentos y experiencias. Narcea.

Mackey, A., & Gass, M. (2021). Second language research. Methodology and design. Routledge.

McNiff, J. (2002). Action research: Principles and practise. Routledge.

McCarthy, J. (2015). Evaluating written, audio and video feedback in higher education summative assessment tasks. *Issues in Educational Research*, 25(2).

Meijer, J. (2001). Learning potential and anxious tendency: Test anxiety as a bias factor in educational testing. *Anxiety, Stress & Coping: An International Journal*, *14*(3), 337–362. https://doi.org/10.1080/10615800108248361

Merriam, S., & Baumgartner, L. (2019). *Learning in adulthood: A comprehensive guide*. 4th Edition. Jossey-Bass.

Merriam, S., & Brockett, R. (2007). *The profession and practise of adult education*. Jossey-Bass.

Merriam, S. (2002). Andragogy and self-directed learning: Pillars of adult learning theory. *New Directions for Adult and Continuing Education*, 89, pg.3-14.

Mishra, P., & Koehler, M. J. (2006). Technological Pedagogical Content Knowledge: A new framework for teacher knowledge. *Teachers College Record*, 108(6), 1017-1054.

Moeller, A., & Catalano, T. (2015). Foreign language teaching and learning. *International Encyclopedia for Social and Behavioral Sciences*, 9 (2), 327-332. DOI: 10.1016/B978-0-08-097086-8.92082-8

Moran, J. J. (2001). Assessing adult learning. Krieger Publishing Company.

Morales, M., & Fernández, J. (2022). La evaluación formativa. Estrategías eficaces para regular el aprendizaje. SM

Mosquera Gende, I. (2022). Herramientas digitales colaborativas para la formación de futuros docentes en una universidad online. *REDU. Revista de Docencia Universitaria*, 20(1), 35-50. https://doi.org/10.4995/redu.2022.16806

Motteran, G. (2013). Assessment for English language teaching. British Council.

Mustadi, A. (2012). Communicative competence-based language teaching. An English course design for PGSD. Universitas Negeri Yogyakarta.

National Research Council, (2000). How People Learn Brain, Mind, Experience, and School. (2000). In *Early Childhood Development and Learning: New Knowledge for Policy* (pp. 61–105). National Academy Press.

Nightingale, A. (2009). Triangulation. *International Encyclopedia of Human Geography*, 489-492. DOI: 10.1016/B978-008044910-4.00552-6.

North, B., Piccardo, E., Goodier, T. Fasoglio, D., Margonis-Pasinetti, R., & Ruschoff, B. (2022). Enriching 21<sup>st</sup> Century language education- The CEFR companion volume in pracitse. Council of Europe.

Parrish, B.(2019). *Teaching adult English language learners: A practical introduction*. Cambridge.

Pascuas, Y., García, J., & Mercado, M. (2020). Dispositivos móviles en la educación: Tendencias e impacto para la innovación. Revista Politécnica, *16* (31), 97-109. DOI:10.33571/ rpolitec.v16n31a

Pawlak, M. (2016). Teaching foreign languages to adult learners: Issues, options, and opportunities. *THS*, 12(45). DOI: 10.12775/ths.2015.004

Pino, M., & Rodríguez, B. (2016). Métodos y técnicas de recogida y análisis. UNED.

Pringganti, A. (2013). Children VS adults second language learning. Universitas Indonesia

Radojewski, K. (2020). The Flipped Classroom. How to take your classroom digital. Kindle.

Raposo-Rivas, M., & Cebrián de la Serna, M. (2020). *Tecnologías para la formación de educadores en la sociedad del conocimiento*. Piramide

Rattray, J. (2007). Essential elements of questionnaire design and development. *Journal of Clinical Nursing*, 16(2), 234-243.

Read, J. (2019). The Influence of the CEFR in the Asia-Pacific Region. *LEARN*, 12 (1).

Reeves, D. B. (2008). Assessing educational leaders. SAGE.

Reiss, S., & Dietrick Reips, U. (2016). Online assessment in principles and methods of test construction. In K. Schweizer and C. DiStefan (Eds.), *Psychological Assessment - Science and Practice* (pp.120-131). Hogrefe.

Robson, C. (2002). Real world research. Blackwell Publishing.

Rodríguez-Gómez, D., & Paré, M. H. (2016). *Técnicas de investigación social y educativa*. UOC.

Rosario, A., Rivera, I., & Namanya, S. J. (2018). Teaching and assessing language skills online. *The Journal of Adventist Education*, 80(2), 15–22.

Rosen, D., & Stewart, C. (2015). *Blended learning for the adult education classroom*. DOI: 800.931.8069.

Salmon, G. (2011). E-moderating: The key to teaching and learning online. Routledge

Salmon, G. (2013). *E-tivities: The key to active online learning*, Routledge

Sambell, K., McDowell, L., & Montgomery, C. (2012). Assessment for learning in higher education. Routledge.

Sangrà, A. (coord.) (2020). Decálogo para la mejora de la docencia online. Propuestas para educar en contextos presenciales discontinuos. UOC.

Sanmartí, N. (2020). Evaluar y aprender: Un único proceso. Octaedro

Sanmartí, N. (2007). Diez ideas clave: Evaluar para aprender. Gzi, pp 16.

Santiago, R., & Bergmann, J. (2018). *Aprender al revés. Flipped Learning 3.0 y metodologías activas en el aula.* Paidós Educación, pp. 240.

Santiago, R., Díez, A., & Andía, L. (2017). Flipped Classroom: 33 experiencias que ponen patas arriba el aprendizaje. UOC.

Santos Guerra, M.A. (2003). Una flecha en la diana. La evaluación como aprendizaje. Narcea.

Santos Guerra, M.A. (2014). La evaluación como aprendizaje. Cuando la flecha impacta en la diana. Narcea.

Shanks, G., & Bekmamedova, N. (2018). *Case study research in information systems*. In Research Methods, (pp. 193-208). DOI 10.1016/B978-0-08-102220-7.00007-8.

Sharples, M., Taylor, J., & Vavoula, G. (2005). *Towards a theory of mobile learning*. *Proceedings of mLearning*. University of Birmingham.

Sharma, P., & Barrett, B. (2018). Blended Learning: Using technology in and beyond the language classroom. Macmillan.

Simkins, R. (2010). Online Learning in Higher Education: A review of research on interaction among teachers and students. *Education Communication and Information* pg.241-280.

Slouti, D., Onat-Stelma, Z., & Motteram, G.(2010). Technology and adult language teaching. *Innovations in learning technologies for English language teaching*. British Council, 67-86.

Smith, A. (2009). Adult language learners. Context and innovation. TESOL Press

Spalding, D. (2019). *How to teach adults*. Jossey-Bass

Stannard, R., & Basiel, A. (2013). A practice-based exploration of technology enhanced assessment for English language teaching. In G. Motteram (Ed.) Innovations in learning technologies for English language teaching. British Council.

Stowell, J. R., & Bennett, D. (2010). Effects of online testing on student exam performance and test anxiety. *Journal of Educational Computing Research*, 42(2),161-171. 10.2190/ec.42.2.b

Stoynoff, S. (2012). Looking backward and forward at classroom-based language assessment. *ELT Journal*, 66(4), 523–532, <a href="https://doi.org/10.1093/elt/ccs041">https://doi.org/10.1093/elt/ccs041</a>

Swan, M. (1996). Language teaching is teaching language. *IATEFL Conference Report*, (pp. 34–38).

Tella, A., & Bashorun, M. T. (2012). Attitude of undergraduate students towards computer-based test. *IJICTE* 8(2), 33–45. 10.4018/jicte.2012040103

Tennant, M., & Pogson, P. (1995). Learning and change in the adult years: A development perspective. First Edition. Jossy-Bass

Trochim, M.K., & Donnelly, J. (2006). *The research methods knowledge base*. Third Edition. Atomic Dog.

Tuah, N. A. A., & Naing, L. (2021). Is online assessment in higher education institutions during COVID-19 pandemic reliable? *Siriraj Medical Journal*, *73*(1), 61–68. <a href="https://doi.org/10.33192/SMJ.2021.0">https://doi.org/10.33192/SMJ.2021.0</a>

Tucker, C. (2018). Power Up Blended Learning: A professional learning infrastructure to support sustainable change. Corwin.

Tucker, C., Wycoff, T. & Green, J. (2016). Blended Learning in action. A practical guide towards sustainable change. Corwin.

Vaello Orts, J. (2009). El profesor emocionalmente competente. Un puente sobre aulas turbulentes. Editorial Grao.

Wenjing, Y., & Iwashita, N. (2021). Comparison of test performance on PBT and CBT by English-majored undergraduate students in China. *Language Testing in Asia*, 11(32). https://doi.org/10.1186/s40468-021-00147-0

White, H., & Sabarwal, S. (2014). Quasi-experimental design and methods: methodological briefs. *Impact Evaluation No. 8, Methodological Briefs no. 8.* UNESCO.

William, D. (2018). Embedded formative assessment. Solution Tree Press.

Woldeab, D., & Brothen, T. (2019). 21st Century assessment: Online proctoring, test anxiety, and student performance. *International Journal of E-Learning & Distance Education*, 34 (1) https://files.eric.ed.gov/fulltext/EJ1227595.pdf

Yulia, A., Husin, N. A., & Anuar, F. I. (2019). Channeling assessments in English language learning via interactive online platforms. *SiELE*, *6*(2), 228–238. 10.24815/siele.v6i2.14103

#### Webography

Abrazado, M. (2019). Seven reasons why you should conduct assessments online according to students. E-Learning Industry. Retrieved from <a href="https://elearningindustry.com/conduct-assessments-online-according-students-7-reasons">https://elearningindustry.com/conduct-assessments-online-according-students-7-reasons</a>

Audenaert, H. (2019). *Why do adult learners dropout?* EPALE. Retrieved from <a href="https://epale.ec.europa.eu/en/content/why-do-adult-learners-dropout">https://epale.ec.europa.eu/en/content/why-do-adult-learners-dropout</a>

Aldao, S., & Calvo, N. (2021). *Semi Distance Learning*. Conference of EOI Schools. Retrieved from <a href="https://view.genial.ly/61acfc2fb86eb10df3625183/presentation-escuelas-amigassemi">https://view.genial.ly/61acfc2fb86eb10df3625183/presentation-escuelas-amigassemi</a>

Aldao, S., & Calvo, N. (2020). *Sistema de avaliación nas EOI*. Retrieved from <a href="https://view.genial.ly/5dd3a93641cc270f64cd7f99">https://view.genial.ly/5dd3a93641cc270f64cd7f99</a>

Alvarez, D. (2020). *La Colina de Peralías*. Blog. Retrieved from <a href="http://blogs.zemos98.org/lacolinadeperalias/2019/04/18/10-ideas-clave-evaluar-para-aprender-de-neus-sanmarti/">http://blogs.zemos98.org/lacolinadeperalias/2019/04/18/10-ideas-clave-evaluar-para-aprender-de-neus-sanmarti/</a>

APPF, (2021). ¿Que son las TIC, TAC y TEP? Retrieved from Appf.edu.es

Blasco, L. (2022). ¿Qué es la Web3 y cómo podría transformar internet? BBC News. Retrieved from <a href="https://www.bbc.com/mundo/noticias-59746140">https://www.bbc.com/mundo/noticias-59746140</a>

Burns, M. (2018). *15 Benefits of computer-based testing*. E-Learning Industry. Retrieved from <a href="https://elearningindustry.com/15-benefits-of-computer-based-testing">https://elearningindustry.com/15-benefits-of-computer-based-testing</a>

Chacon, S. (2018). Scientists prove adults learn language to fluency nearly as well as children. Medium. Retrieved from <a href="https://medium.com/@chacon/mit-scientists-prove-adults-learn-language-to-fluency-nearly-as-well-as-children-1de888d1d45f">https://medium.com/@chacon/mit-scientists-prove-adults-learn-language-to-fluency-nearly-as-well-as-children-1de888d1d45f</a>

Costandi, M. (2014). *Am i too old to learn a new language?* The Guardian. Retrieved from <a href="https://www.theguardian.com/education/2014/sep/13/am-i-too-old-to-learn-a-language#:~:text=Collectively%2C%20this%20body%20of%20research,itself%20in%20response%20to%20experiences.">https://www.theguardian.com/education/2014/sep/13/am-i-too-old-to-learn-a-language#:~:text=Collectively%2C%20this%20body%20of%20research,itself%20in%20response%20to%20experiences.

Cots, T. (2021). *Introdución ao ensino semipresencial*. CAFI. Retrieved from <a href="https://www.edu.xunta.gal/centros/cafi/aulavirtual/mod/book/view.php?id=65021&chapterid=5012">https://www.edu.xunta.gal/centros/cafi/aulavirtual/mod/book/view.php?id=65021&chapterid=5012</a>

Couros, G. (2019). George Couros Blog. Retrieved from https://twitter.com/gcouros/status/510094558320152576?lang=en

Del Río, M., Valdés, M., & Medina, C. (2022). *Niveles C*. Escuelas Amigas. Retrieved from <a href="https://www.youtube.com/watch?v=duqmgzUvKLo">https://www.youtube.com/watch?v=duqmgzUvKLo</a>

EOI Santiago. (2022). *O Ensino Semipresencial*. Retrieved from <a href="https://sites.google.com/eoisantiago.org/cursossemipresenciais/o-ensino-semipresencial">https://sites.google.com/eoisantiago.org/cursossemipresenciais/o-ensino-semipresencial</a>

Harrison, D. (2019). *How to discourage student cheating online*. Inside Higher Education. Retrieved from <a href="https://www.insidehighered.com/advice/2020/04/29/how-discourage-student-cheating-online-exams-opinion">https://www.insidehighered.com/advice/2020/04/29/how-discourage-student-cheating-online-exams-opinion</a>

Hull, T. (2019). *The elements of Language Curriculum*. Pilgrims. Retrieved from <a href="https://www.hltmag.co.uk/dec2019/the-elements-of-language-curriculum">https://www.hltmag.co.uk/dec2019/the-elements-of-language-curriculum</a>

González, F. (2021). *Boas prácticas na EOI de Málaga*. CAFI. Retrieved from <a href="https://www.edu.xunta.gal/centros/cafi/aulavirtual/mod/book/view.php?id=65021&chapterid=5017&lang=es">https://www.edu.xunta.gal/centros/cafi/aulavirtual/mod/book/view.php?id=65021&chapterid=5017&lang=es</a>

González Motos, S. (2018). ¿Es la evaluación del alumnado un mecanismo de mejora del rendimiento escolar? Fundació Jaume Bofill e Ivàlua. Retrieved from <a href="https://fundaciobofill.cat/uploads/docs/r/6/w/7/h/x/z/0/9/que\_funciona">https://fundaciobofill.cat/uploads/docs/r/6/w/7/h/x/z/0/9/que\_funciona</a>

Kaufmann, K. (2022). *Learning languages*. The Linguist. Retrieved from <a href="https://blog.thelinguist.com/">https://blog.thelinguist.com/</a>

Latimer, R. (2022). *25 Reasons to study world languages*. Auburn Liberal Arts. Retrieved from <a href="https://cla.auburn.edu/world-languages/future-students/25-reasons-to-study-world-languages/">https://cla.auburn.edu/world-languages/future-students/25-reasons-to-study-world-languages/</a>

Leis, J., & Rodriguez, C. (2015). *Asignar niveles desde A2-C1*. Obradoiros para a elaboración de probas de certificación de EOI. Centro de Formación Autónomica de A Coruña. Retrieved from

https://www.edu.xunta.gal/centros/cfrcoruna/aulavirtual/course/view.php?id=356

Leis, J., & Rodriguez, C. (2020). *EOI Evaluación*. Formación para el profesorado de EOI. Retrieved from <a href="https://view.genial.ly/5dfca9277c54700fa8f3824c/vertical-infographic-eoi">https://view.genial.ly/5dfca9277c54700fa8f3824c/vertical-infographic-eoi</a>

Lluna,S., & Pedreira, J. (2017). *Los nativos digitales no existen*. Retrieved from <a href="https://nativosdigitales.com/wp-content/uploads/2017/01/Los\_nativos\_digitales\_no\_existen\_cap1.pdf">https://nativosdigitales.com/wp-content/uploads/2017/01/Los\_nativos\_digitales\_no\_existen\_cap1.pdf</a>

Malamed, C. (2021). *Characteristics of adult learners*. Adult Learning Principles. Retrieved from https://theelearningcoach.com/learning/characteristics-of-adult-learners/

Marquès Graells, P. (2004). *How ICT could help teachers*. Retrieved from <a href="http://peremarques.net/aracena2.htm">http://peremarques.net/aracena2.htm</a>

McCombes, S. (2022). *How to write a strong Hypothesis. Steps & Examples*. Retrieved from <a href="https://www.scribbr.com/author/shona/">https://www.scribbr.com/author/shona/</a>

Monereo, C. (2014). Tiching Blog. Retrieved from <a href="http://blog.tiching.com/carles-monereo-dime-como-evaluas-y-te-dire-como-aprenden-tus-alumnos/">http://blog.tiching.com/carles-monereo-dime-como-evaluas-y-te-dire-como-aprenden-tus-alumnos/</a>

Mishra, P. (2021). Retrieved from <a href="https://punyamishra.com/research/tpack/">https://punyamishra.com/research/tpack/</a>

Nageswaran, K. (2019). Blog. Continuous Reporting and Feedback. Teaching and Learning. Retrieved from <a href="https://schoolbox.com.au/blog/7-key-benefits-of-online-formative-assessment/">https://schoolbox.com.au/blog/7-key-benefits-of-online-formative-assessment/</a>

Nieto, M., & Vergara, D. (2021). *La desconocida evolución de las TIC: TAC, TEP y TRIC.* Magisnet. Retrieved from

https://www.magisnet.com/2021/11/la-desconocida-evolucion-de-las-tic-tac-tep-y-tric/

Pappas, C. (2013). *The adult learning theory-Andragogy-of Malcolm Knowles*. Retrieved from <a href="https://elearningindustry.com/the-adult-learning-theory-andragogy-of-malcolm-knowles">https://elearningindustry.com/the-adult-learning-theory-andragogy-of-malcolm-knowles</a>

Pilgrim, C., & Scanlon, C. (2018). *Don't assume online students are more likely to cheat*. The Conversation. Retrieved from <a href="https://theconversation.com/dont-assume-online-students-are-more-likely-to-cheat-the-evidence-is-murky-98936">https://theconversation.com/dont-assume-online-students-are-more-likely-to-cheat-the-evidence-is-murky-98936</a>

Price, P., Jhangiani, R., Chiang, I., Leighton, D., & Cuttler, C. (2020). *Non-Equivalent Groups Designs*. Retrieved from <a href="https://opentext.wsu.edu/carriecuttler/chapter/non-equivalent-control-group-designs/">https://opentext.wsu.edu/carriecuttler/chapter/non-equivalent-control-group-designs/</a>

Reig, D. (2016). *Aprender en la sociedad aumentada*. El caparazon. Retrieved from <a href="http://www.dreig.eu/caparazon/2012/04/17/aprender-en-la-sociedad-aumentada-ponencia-y-entrevista/">http://www.dreig.eu/caparazon/2012/04/17/aprender-en-la-sociedad-aumentada-ponencia-y-entrevista/</a>

Salmon, G. (2021). *The five stage model*. Retrieved from <a href="https://www.gillysalmon.com/five-stage-model.html">https://www.gillysalmon.com/five-stage-model.html</a>

Sanmartí, N. (2022). *Educación 3.0*. Retrieved from <a href="https://www.educaciontrespuntocero.com/noticias/erase-una-vez-un-alumno-que-se-evaluaba-educaria-lab/">https://www.educaciontrespuntocero.com/noticias/erase-una-vez-un-alumno-que-se-evaluaba-educaria-lab/</a>

Singh, V. (2019). *The impact of online assessment on the educational sector*. Retrieved from <a href="https://elearningindustry.com/online-assessment-on-the-educational-sector-impact">https://elearningindustry.com/online-assessment-on-the-educational-sector-impact</a>

Thomas, L. (2020). *Independent and dependent variables*. Retrieved from <u>www.scribbr.com/methodology/</u>

Trujillo, F. (2017). *Innovación en los centros de adultos*. De Vuelta. Retrieved from <a href="https://fadultos.blogspot.com/2017/09/innovacion-en-los-centros-de-adultos.html">https://fadultos.blogspot.com/2017/09/innovacion-en-los-centros-de-adultos.html</a>

Trujillo, F. (2022). *La EOI como hub de innovación en Educación Lingüística*. Retrieved from <a href="https://fernandotrujillo.es/la-eoi-como-hub-de-innovacion-en-educacion-linguistica/">https://fernandotrujillo.es/la-eoi-como-hub-de-innovacion-en-educacion-linguistica/</a>

Tuomi, L. (2020). *Blended Learning in adult education*. EPALE. Retrieved from https://epale.ec.europa.eu/is/node/163681

Volchok, E. (2015). *Attitudes, behaviors and rating scales*. Measurement & Measures. Retrieved from <a href="http://media.acc.qcc.cuny.edu/faculty/volchok/Measurement\_Volchok/Measurement\_Volchok/Measurement\_Volchok7.html">http://media.acc.qcc.cuny.edu/faculty/volchok/Measurement\_Volchok/Measurement\_Volchok7.html</a>

UNESCO. (2016). *Las TIC en la educación*. Retrieved from <a href="http://www.unesco.org/new/es/unesco/themes/icts/">http://www.unesco.org/new/es/unesco/themes/icts/</a>.

# ANNEX I: VALIDATED QUESTIONNAIRE

Age : Sex (f/m) :

### Part 1

	Prior experiences	Yes	No
1	I am taking course(s) online		
2	I have attended an online course before		
3	I have taken TOEFL or GRE before		
4	I have taken some kind online assessments before		
5	I have taken an online quiz on the web		

### Part 2

	Computer Familiarity	Advanced	Good	Introductory	Poor	None
1	Competence with web-browser					
2	Competence in chats					
3	Competence using VLE					
4	Competence using email					
6	Competence using Mailing lists					

## Part 3

	Evaluation of User Perception toward Online Assessment	Strongly Agree	Agree	Average	Disagree	Strongly Disagree
	User interface evaluation					
1	The overall framework and operation levels of the system are clear and smooth					
2	The overall configuration color and background is normal harmonious for the system					
3	The overall screen layout and window design of the system is appropriate					
4	The overall interface operation method is easy and appropriate					
5	The Login interface is clear and easy to operate					
6	The Login interface design is appropriate					
7	The exam interface is clear and easy to operate		_			
8	The exam interface design is appropriate					

		Strongly Agree	Agree	Average	Disagree	Strongly Disagree
	Impacts on learning					
	process					
1	Assessment is fair					
2	Cheating is difficult					
3	System feedback helps me to					
	reflect on my merits in					
	learning					
4	Tracking past exam results					
	makes me understand my					
	progress					
5	Statistical evaluation page					
	gives a detailed information on					
	units where I am good at or					
	unsuccessful					
6	It helps me to better					
	understand my growth and					
	improvements in the course by					
	using the system					
7	I feel less stressed than doing					
	the exam in the classroom					
8	The acoustics are much better					
	at home than in the classroom					
9	8 7 1 8 1					
	me feel better in the exam					
	<b>Student Opinions</b>					
1	System provides immediate					
	feedback					

		Strongly Agree	Agree	Average	Disagree	Strongly Disagree
2	Less excited					
3	Better than paper-pencil form					
4	Consistent with the teaching style					
5	Faster than paper-pencil					
6	Contemporary					
7	More systematic					
8	Can be applied to other courses					

## ANNEX II: EXPERT VIEW INTERVIEW QUESTIONS

## **EXPERT VIEW INTERVIEW QUESTIONS**

Are the contents of this online assessment system appropriate?

Is there any shortcoming or inappropriateness?

Is there any way that the unique features or functions of online assessment system can be much more manifested?

Which component or area needs to be improved most?

Is the screen and interface design of this online assessment system appropriate and convenient to use?

Are there any other issues or areas that have not been mentioned but need to be improved?

## ANNEX III: RUBRIC FOR WRITTEN PRODUCTION

Avaliador/a 1: Avaliador/a 2:							
EFICACIA COMUNICATIVA ADECUACIÓN		ORGANIZACIÓN E COHESIÓN	RIQUEZA E CORRECCIÓN GRAMATICAL	RIQUEZA E CORRECCIÓN LÉXICA			
2,5 puntos  Desenvolve os puntos de forma elaborada e precisa.  Destaca ideas complexas, integrando subtemas e apoiándoas con detalles e exemplos relevantes, de forma destacable.  Expresa as súas ideas de forma clara, precisa e lóxica.	2,5 puntos  O estilo é apropiado fienza e natural.  O rexistro é axeitado e moi natural.  O formato axuistase á tipoloxía de texito.  A extensión é adecuada.	2,5 puntos Usa unha moi ampla variedade de estruturas organizativas, conectores e mecanismos de cohesión de forma eficaz. Presenta unha distribución en parágrafos idónea, fosica e eficaz, que facilita a comprensión. A puntuación é correcta.	2,5 puntos  Mostra total domino jeden de lingua complexo de lorma natural.  Exprésase con corrección e sen erros.	2,5 puntos  Domina un repetroio fisico moi variado e preciso, sen incorreccións.  Exprésase sen limitacións, con naturalidade e flexibilidade; transmite matices sutis de significado.  Destaca no uso de expresións fixas ou idiomáticas.			
2 puntos	2 puntos	2 puntos	2 puntos	2 puntos			
1.5 puntos Desenvolve os puntos con precisión. Destaca as ideas máis importantes, integra subtemas e pequenos matices, de forma que axuda a fixarse no sencial. Expón as súas ideas de forma clara e com/incente, apoiándoas con detalles e exemplos relevantes.	1,5 puntos  O estillo é convincente e entural.  O rexistro é axentando e natural.  O formato axsistase á spolocía de texto.  A extensión é adecuada.	1,5 puntos Usa unha ampla viandade de estruturas organizalivas, conectores e mecanismos de cohesión de maneira adecuada. Presenta unha distribución en parágrafos lóxica e eficaz, que axuda á comprensión. A puntuación é axeitada.	1,5 puntos     Mostra un consistente dominio gramatical dun rivet de lingua complexo.     Exprésase con corrección e case non presenta erros.	1,5 puntos Domina un repertorio sisco moi variado e preciso, case sen incorreccións. Exprésase sen limitacións, con naturalidade e fecebilidade; transitie diferentes matices de significado. Utiliza axvelladamente expresións fixas ou idiomáticas.			
1 punto	1 punto	1 punto	1 punto	1 punto			
0.5 puntos     Non desenvolve os puntos con corádo axeitado.     Trata o tema principal de forma xeral sen integrar subtemas, con detalles ou exemplos pouco relevantes. Expón as ideas de forma pouco clara.	O,5 puntos     Non se axusta á extensión requirida (±15%).     O estilo é, ocasionalmente, pouco axeitado.     O rexistro é, ocasionalmente, pouco axeitado.     O formato non é adecuado.	0,5 puntos Usa estruturas organizarios apropiadas en xeral. Fai un uso correcto, pero pouco variado de conectores e outros mecanismos de cohesido. Presenta unha distribución en parágrafos pouco eficaz. Fai un uso axeitado da puntuación, con descoidos.	Emprega un núme limitado de recursos e estruturas morfosiráfacicas complexas. Exprésase con certa corrección, aínda que presenta erros.	0.5 puntos Usa un repertorio léxico amplo, con incorreccións esporádicas. Exprésase con algunha limitación e con dificultade para transmiér diferentes matices de significado.			
Capacidade comunicativa limitada.     Mostra de lingua insuficiente.     A produción non se corresponde coa tarefa.	0 Capacidade comunicativa limitada. Mostra de lingua insuficiente. A produción non se corresponde coa tarefa.	0 Capacidade comunicativa limitada. Mostra de lingua insuficiente. A produción non se corresponde coa tarefa.	0 Capacidade comunicativa limitada. Mostra de lingua insuficiente. A produción non se corresponde coa tarefa.	0 Capacidade comunicativa limitada. Mostra de lingua insuficiente. A produción non se corresponde coa tarefa.			
Tarefa 1: /2,5 Tarefa 2: /2,5	Tarefa 1:/2,5 Tarefa 2:/2,5	Tarefa 1:/2,5 Tarefa 2:/2,5	Tarefa 1:/2,5 Tarefa 2:/2,5	Tarefa 1: /2,5 Tarefa 2: /2,5			

# ANNEX III: RUBRIC FOR ORAL PRODUCTION

EFICACIA COMUNICA	ATIVA E ADECUACIÓN	FLUIDEZ, PRONUNCIA	RIQUEZA E CORRECCIÓN	RIQUEZA E CORRECCIÓN LÉXICA	
TAREFA 1	TAREFA 2	E ENTOACIÓN	GRAMATICAL		
S puntos  Elabora o tema principal de forma destacable, integra subtemas e remata cunha conclusión eficaz.  Organiza a intervención dunha forma tóxica e eficaz que axuda a fixuarea nas ideas importantes e lembralisa, con detalles e exemplos significativos.  Usa unha mai ampla variedade de estruturas organizativas, conectores e mecanismos de cohesión de forma eficaz.  Adopta un nivel de formalidade moi aveitado e natural.	principal de forma destacable, interga material		Mostra total dominio gramatical dun nivel de lingua complexo de forma natural.	2,5 puntos  Domina un repertorio léccio moi variado e preciso, sen incorreccións. Exprésase sen initradioris, con naturalidade e flexibilidade; transmite matices suits de significado. Destaca no uso de expresións fixas ou idomáticas.	
4 puntos	4 puntos	2 puntos	2 puntos	2 puntos	
3 puntos  Deservolve o tema principal de forma elaborada, integra subtemas e remata cunha conclusión eficaz.  Organiza a intervención dunha forma fóxica e eficaz que axuda a fixarse nas ideas importantes e lembralas, con detalles e exemplos relevantes e lembralas, con detalles e exemplos relevantes e lembralas, con detalles e exemplos relevantes e entendade de estruturas organizativas, conectores e mecanismos de cohesión de maneira adecuada.  Adopta un nivel de formalidade axeitado e natural.	Trata o tema principal de forma precisa, resaltando matices e utilizando os textos como referencia. Expón a súa postura argumentando e contraurgumentando de forma cara, ben organizada e convincente. Relaciona habilmente, con naturalidade, a súa contribución coa dos interdocutores. Introduce as súas intervencións con naturalidade, facendo un uso eficaz da quenda de palatra. Adopta un nivel de formalidade axeitado e natural.	1,5 puntos     Exprésase con mota fluidez e espontaneidade, sen esfotzo ningún. Proruncia de forma clara e mó natural. Varía a entosución e a efitase para expresar matices sutis de significado.	1.5 puntos  Mostra un consistente domirnio gramatical dun rivel de lingua complexo.  Exprésase con corrección e case non presenta erros.	1,5 puntos  Domina un repentorio lécico moi variado e preciso, case sen inorreccións. Exprésase sen limitacións, con tantariladade e fecibilidade; transmite diferentes matices de significado. Utiliza axietatamente expresións fixas ou idiomáticas.	
2 puntos	2 puntos	1 punto	1 punto	1 punto	
1 punto  Describe o tema principal de forma xeral sen integrar subtemas OU sen rematar cunha conclusión adecuada. Espón a súa postura, responde a preguntas e comentarios con detalles e exemplos pouco relevantes. Usa estruturas organizativas, concertores e mecanismos de corbesión con opuca variedade. Apenas refaciona a contribución coa dos interiocutores. Introduce as súas intervencions ofin de tomar a palabria ou gafar tempo para mantela mentres pensa, pero non sempre con solura. Adopta un nivel de formalidade aveitado en xeral, con algunha varcilación ou falta de claridade.		O,5 puntos     Emprega un número limitado de recursos morfosinidácicos complexos.     Presenta algunhas incorreccións e, en xeral, corrixeas cando aparecen.	Usa un repertorio lietro amplo, con incorreccióne seporádicas. Exprésase con algunha intración, con discutade para naramier aferentes matices de significado.		
Q Capacidade comunicativa limitada. Mostra de lingua insuficiente. A produción non se corresponde coa tarefa.	Capacidade comunicativa limitada, Mostra de lingua insuficiente. A produción non se corresponde coa tarefa.	Q Capacidade comunicativa limitada. Mostra de lingua insuficiente. A produción non se corresponde coa tarefa.	Q Capacidade comunicativa limitada. Mostra de lingua insuficiente. A produción non se corresponde coa tarefa.	0 Capacidade comunicativa limitada. Mostra de lingua insuficiente. A produción non se corresponde coa tarefa	
Tarefa 1:/5	Tarefa 2:/5	Tarefa 1: /2,5 Tarefa 2: /2,5	Tarefa 1:/2,5 Tarefa 2:/2,5	Tarefa 1: /2,5 Tarefa 2: /2,5	

### ANNEX IV: DECREE ON CURRICULA IN GALICIA

DECRETO 81/2018, de 19 de julio, por el que se establece el currículo de los niveles básico A1, básico A2, intermedio B1, intermedio B2, avanzado C1 y avanzado C2 de las enseñanzas de idiomas de régimen especial en la Comunidad Autónoma de Galicia.

One can read the entire <u>text here</u>