

Module 1: ICT

Basic Module – English

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1. Introduction

Hello and welcome to the first module of this training, called “The role of ICT in language learning”, which was created by Laura and Cristina. In this module, we will provide you with basic knowledge about the current trends of ICT tools in education, some theoretical concepts linked to this topic and their practical usage when teaching a foreign or second language. Note that we will put **key terms** in this module in bold and blue highlights, **like this**, so that you can easily find them later. You can also check the **glossary** at the end of this module for more key terms.

Approaching ICTs as novelty or anxiety: the case of Ms. López

Meet Ms. López, a 43-year-old secondary education teacher. She teaches English as a foreign language to a group of 24 students, and frankly, they always seem bored. She has seen her younger colleagues do things in class like online quizzes and games: they seem colourful and attractive, and aren’t all teenagers glued to their phones these days, anyway? But she has lost connection to the latest updates regarding ICTs and digital competence in education, and she feels left behind and unsure where to start to look for manageable ideas for new resources to bring into her classroom. She has little time to take a course on this. Finally, she is also a bit anxious about possible negative effects on her students brought on by ICTs: should they really be using more screens?

What do you think?

- a) What does she need to consider about language teaching that would connect with ICT use in class?
- b) Where can she look to get help on how to start with ICTs in a way that she could slowly incorporate into her classroom, without feeling overwhelmed?
- c) Is her worry about the harm of ICTs in the classroom valid, and how to balance it if so?

Ok then, let us get started with some theoretical background to introduce the module and see how we can give answers to these questions to help Ms. López.

*Pop quiz: What does **ICT** stand for?*

If you said Information and Communication Technology (ICT) you are correct. That was easy enough, but let's break down these two components: **Information:** where we gain knowledge about something and **Communication:** where we communicate about or transmit knowledge in some way, and finally **Technology:** the application of scientific knowledge for practical purposes, especially in industry. It can also include machinery and equipment developed from the application of scientific knowledge.

We are sure you can think about some ways in which you use technology to both gain knowledge and transmit it: reading an online newspaper you may learn about a new concert series, which you might send a text message to your best friend about. In the middle of the message you hear a *ping* from your closed laptop, where your work chat application (Slack, for example) has begun firing off about the report you are collaborating on with colleagues from two other departments in Google Drive. In all these cases, different digital technologies are being employed to transmit and move information among people.

So, when we say **ICTs**, we are referring to: digital tools, applications, and platforms, including computers, the Internet, multimedia technologies, and digital devices (Aris & Orcos, 2015), like that minicomputer you carry in your pocket and hope never to drop anywhere too wet or too hard: some of these tools have become synonymous with our daily functioning. We also mean the new (and exciting? or shadowy?) world of Artificial Intelligence or AI.

All these can be part of our teaching processes and they can also be used to facilitate the acquisition of a foreign or second language and its continuous training and mastery. Nonetheless, although we underscore its possible effectiveness and impact for the development of language skills, there are also some concepts and uses that could lead to bad habits that should be taken into account by educators in order to make the most of the ICTs.

Recall, so you won't forget: Take a moment to try to remember these terms and definitions, because if we pause and reflect **as** we learn, we retain new information better.

1. What does ICT stand for?
2. What are examples of ICTs?

2. Applied linguistics and ICTs

As part of your studies to become a language teacher you probably had some training in **language acquisition**, the branch of linguistics that focuses on developing and refining models and theories to explain the fundamental nature of how we come to have language skills, including language characteristics and its underlying structures. You will be looking at this in this training in another module, but as a quick overview, this theoretical branch seeks to understand the principles and rules that govern language phenomena, aiming to provide a systematic and coherent explanation of linguistic knowledge.

One of the most relevant and seminal works that has been published related to language acquisition is the linguistic theory, developed by Noam Chomsky from the 1950s onwards, which states that there are **three components implicated in a linguistic expression: syntax, semantics, and phonics**. **Syntax** has a categorical factor, meaning it refers to the organization and order of words, as well as a **lexicon**, or vocabulary; **semantics** consists of giving a meaningful representation to a syntactic structure: and **phonics** turns the **morphemes**, or letter groups, into **phonemes**, or units of sound, so that words can be pronounced.

When we as language teachers try to get our students to pronounce a certain word correctly focusing on an individual vowel or when we correct an error in their question order, or supply them with an unknown word they need to describe something in class, we are helping them in their linguistic expression. In this sense, did you know that as a language teacher you are a sort of **applied linguist**? Sounds fancy and maybe like you need a raise? When we say applied linguistics, we mean: linguistics concerned with practical applications of language studies, for example language teaching, translation, and speech therapy.

Practical can also mean that we are focusing on getting our students to learn and USE the foreign language in some context, which is what the Communicative Language Teaching approach you have heard about in these modules aims for. Can ICTs be helpful for doing so? Could students for example practice their pronunciation online with an automated speech response (ASR) and better acquire that odd vowel sound? Could they use online chats to write back and forth with international penpals to improve their writing skills and improve syntax as well (or would it matter, when emojis can take the place of verbs?). Can they pick up the nuances of semantics through some in-depth blog reading online?

Reflect:

- What ICTs have you used in class?
- Why did you pick those ICTs?
- How effective were they for students' language acquisition in the language that you teach?

3. ICTs: A background

If you recall, Ms. López was unsure just how beneficial technology could be for her high school English classroom, and it's true that ICTs may be a double-edged sword for education these days. On the one hand, there are numerous indications that ICTs can improve student motivation. This may be because it is often gamified, where using ICTs means introducing games into the classroom. It may be because of its innovation and novelty, or even it may be, as Ms. López thought, just visually attractive and attention getting.

On the other hand, ICTs have also been shown to have detrimental effects that we should not ignore. They can diminish students' attention spans (Firth, 2020), create difficulties for some social skills (like recognizing human emotions, see Uhls et al, 2014) or unexpectedly burden students psychologically (see Azila & Reyes, 2023). Teachers may even be suspicious of ICTs these days as they ponder how to manage artificial intelligence tools such as Chat GPT which turns homework assignments into potentially empty and pointless exercises. Some even consider that technology may also render language education unnecessary, with AI translation almost widely available.

All of this may be true, yet, would you give up your phone, computer, or Wi-Fi? Probably not: digital tools and the ability to use them is essential for participation in modern life, where social exclusion can occur simply as a result of lacking the skills or proper access to ICTs (Olanrewaju et al., 2021; Molala & Makhubele, 2021). The call for greater digital competence and responsibility for using ICTs in education became clear after the world-wide pandemic (Cheshmehzangi et al., 2022; Dúo-Terrón et al., 2022; Christopoulos et al., 2021), with their nearly universal introduction in the classroom. For better or worse, ICTs are now a staple of educational curriculums, supported by empirical research that indicates that ICTs can foster greater motivation and interest in learning (Huang et al., 2021; Shoraevna et al., 2022; European Commission, 2019), though we need to use them responsibly in the classroom given the worrisome research on their possible negative effects.

Reflect:

- What does a “responsible” use of ICTs in the classroom look like for you?
- Would you advocate limiting technology in school in any way?

3.1 ICTs in Education

Education is democracy's sharpest tool, and the great social leveller for truer equality. New educational practices and policies reflect this as they seek to promote equality and respect, and ICTs represent a part of today's educational practices to do so, as was painfully clear in the pandemic when universal Internet access became an entry point for basic education.

As such, when ICTs are mentioned in the educational field, they often make reference to the promotion of new methods and forms of teaching and learning to make education more inclusive, practical, and adapted to the advances of the modern world and the increasingly diverse needs of individuals. All this implies working on quality education without forgetting that integrating technologies in the classroom can positively contribute to the improvement of the teaching practices as much as it can have side effects on learners if they are used inappropriately in the classroom. For this reason, educators should know how to use ICTs in class to make the most of them.

Therefore, within the educational field, we can define **educational ICTs** as didactic and instrumental resources that can be used with the purpose of managing, administrating and organising the classroom, which also encourage students to communicate, to mediate in that communication, and to foster the construction of knowledge (Salmerón et al., 2010). Moreover, ICTs are tools that help educators to control traditional space-time barriers, thanks to virtual teaching platforms, which allow students and teachers to attend class virtually and not only physically (Herrada, 2018), or to make the most of activities carried out in person using ICTS to obtain, analyse and organise information through virtual means (Çakici, 2016).

Reflect:

- How do you use ICTS to analyse and organise information in your work life?
- Do you use them in collaboration with other teachers?
- Do you use them to organise or showcase content to students?

3.2 The benefits of ICTs

Although studies show we should be cautious of an over-reliance on ICTs given some of their drawbacks, they clearly have their benefits when used responsibly. Firstly, ICT offers a wide range of interactive and engaging resources that support language acquisition. For instance, digital tools such as language learning applications, online dictionaries, and multimedia resources provide learners with immediate access to **authentic language materials, or realia**, which are materials we use in class that were not designed for language learning (Chapelle, 2020), such as that fascinating TED talk on emojis you might consider for your students. Thanks to these resources, learners are exposed to native speakers' pronunciations, cultural contexts, and real-life usage, which enhances their language skills. Plus, other multimedia tools, like social media, videos and podcasts, can accommodate different learning styles and help maintain learner's motivation by making language learning more dynamic and enjoyable (Golonka et al., 2014).

Secondly, synchronous tools like video conferencing and chat rooms provide opportunities for real-time interaction, allowing students to engage in dialogues, discussions, and collaborative projects that are a medium for natural language use (Wang & Vasquez, 2012). The use of ICTs in language learning fosters collaborative learning environments, since online platforms and social media enable learners to virtually connect to people from their immediate context, and also to people across the globe, which facilitates online connection and intercultural competence, allowing meaningful communication and cultural exchange (Blake, 2013).

Thirdly, ICTs not only permit teachers to accommodate different proficiency levels, but they also support personalised and self-paced learning, which makes room for diverse learner needs and preferences (Godwin-Jones, 2011). This personalization enables learners to progress at their own pace, focusing on areas where they need the most improvement, going back and recycling the material as many times as they need, thereby enhancing their overall language proficiency (Hampel & Stickler, 2015). Moreover, automated assessment tools and online quizzes provide immediate feedback on learners' performance, even for pronunciation (Carrier, 2017) and speaking, helping them identify strengths and weaknesses and guiding their subsequent learning activities (Hirata & Yoshida, 2019). This immediate feedback loop is ideal for language learners to correct errors, refine their skills, and build confidence in their language abilities.

Recall, so you won't forget:

1. Name 3 benefits to using ICTs in education.
2. Name 1 drawback we should keep in mind as we use them responsibly.
3. What is **realia** and how can we incorporate it into the classroom through **ICTs**?

3.3 Adapting to present and looking ahead: Using ICTs beyond passive presentations

As a final note to the benefits of ICTs in the language classroom, merely having digital tools in the classroom is not sufficient to guarantee learning will be enriched, or even affected, at a student level. It may be that a teacher's use of ICTs is nothing more than a new (attractive) medium for pre-existing and even outdated didactic objectives (Adams, 2011). Other studies have indicated that ICTs are not always used for actual teaching-learning purposes and that teachers even experience pedagogical-related obstacles in using ICTs in class. The European Commission (2019) found that

Within the category of pedagogy-related obstacles, teachers especially perceive a lack of pedagogical models on how to use ICT, a lack of adequate skills of teachers and insufficient pedagogical support for teachers in general (*ibid*, p. 49).

For example, Pozo et al. (2021) concluded that ICT was passively used to reproduce information in a study with 1,403 teachers from Spain (734 primary and 669 secondary teachers), where teachers utilised reproductive activities more often than constructive ones, in particular with a tendency to highlight verbal and attitudinal learning, and using least often cooperative activities (*ibid*). In studies with pre-service teachers, although pre-service teachers (PSTs) feel confident about digital tools, they also indicate feeling a lack of preparedness to apply ICTs pedagogically in the classroom (Cheal et al., 2012; Manchado et al., 2023) a feeling echoed by some active primary school teachers (Murithi & Yoo, 2021).

This is unfortunate, since modern ICT has been directly connected to constructivism (Chaudhary, 2018; Pozo et al., 2021) and thus the sort of active learning that is foundational for deeper learning in integration of content and language in language classes (Fielden & Rico, 2024). Digital tools also have the potential to deviate from the traditional focus on the teacher as the primary source of L2 input and are essential to teacher development

programs (Abel et al., 2022), providing the potential for greater student autonomy and engagement, as mentioned in the last section.

Reflect:

- How often do your students use ICTS to create something in your class?
- What sorts of ICTS do you have them use, in that case?
- What other activities could you see them doing with ICTs in the future that promote an active, creative use of ICTs, over a passive one?

3.4 A European perspective on ICTs in Education: DigCompEdu

When we examine digital tools for education, a very useful framework for doing so is with the **European Framework for the Digital Competence of Educators (DigCompEdu)**, created in 2017 and updated in 2022 (Redecker, 2017; 2022), which describes what it means for educators to be digitally competent. It provides a general reference frame to support the development of educator-specific digital competences in Europe.

These competences in DigCompEdu focus on “how digital technologies can be used to enhance and innovate education and training” in three larger areas: professional, pedagogic and learner competences (Redecker, 2017), and they support the new scales and descriptors in the field of Online Interaction and discussion; Goal-oriented online transactions and collaboration in the Common European Framework of Reference for Languages: Learning, Teaching, Assessment – Companion Volume With New Descriptors related to Online activities for language learning:

Figure 1. *Online interaction and discussion.*

Online	There are two new scales for the following categories: – <i>Online conversation and discussion</i> – <i>Goal-oriented online transactions and collaboration</i> Both these scales concern the multimodal activity typical of web use, including just checking or exchanging responses, spoken interaction and longer production in live link-ups, using chat (written spoken language), longer blogging or written contributions to discussion, and embedding other media.
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Note. The CEFR Illustrative Descriptor Scales, p. 51.

DigCompEdu has numerous resources available here on its [website](#). DigCompEdu encompasses **22 competences organised in 6 areas** which are the following:

1. Professional engagement
2. Digital resources
3. Teaching and learning
4. Assessment
5. Empowering learners
6. Facilitating Learners' Digital Competence

The focus of DigCom Edu is not on technical skills, instead, the framework aims to detail how digital technologies can be used to enhance and innovate education and training.

The DigCompEdu study builds on previous work carried out to define citizens' [Digital Competence](#) in general, and [Digitally Competent Education Organisations \(DigCompOrg\)](#). It contributes to the Commission's recently endorsed Skills Agenda for Europe and to the Europe 2020 flagship initiative Agenda for New Skills for Jobs.

The EU Framework for the Digital Competence of Educators includes 22 separate competences within the aforementioned 6 areas that range from professional engagement to empowering learners, which gets to the heart of what was discussed in the last section on an effective use of ICTs in the language classroom: it is not just about packaging traditional content in new wrappings, but rather using ICTs for learners' skill development in creative and productive ways that promote critical thinking.

Reflect:

- What does DigComEdu stand for?
- Which area might mean learning how to create materials for class?
- Which area might include sharing a Google Drive document with colleagues online?

4. Conclusion

Coming back to Ms. López situation, try to infer your own conclusion from this module. How would you give answer to Ms. López's questions in a paragraph?

- d) What does she need to consider about language teaching that would connect with ICT use in class?
- e) Where can she look to get help on how to start with ICTs in a way that she could slowly incorporate into her classroom, without feeling overwhelmed?
- f) Is her worry about the harm of ICTs in the classroom valid, and how to balance it if so?

ICTs EXTRA GLOSSARY: (IDEAL, 2021, p. 6-7)

Digital technologies refers to any gadget, software, or service that can be used to electronically create, view, store, transmute, and receive information in a digital form.

Digital tools refers to internet technologies, programs, websites or online resources that can be used for content creation, communication, knowledge and information management, safety and problem solving in online environments.

Digital environment refers to a “place” created through the use of digital devices and/ or software to facilitate communication and collaboration.

Synchronous digital tools enable distance education that happens in a virtual space in real time and allows for live interaction with the trainer. It implies video conferencing, teleconferencing, live chatting, and live-streamed lectures.

Asynchronous digital tools refers to tools used in a virtual space, but which are self-guided and not specifically scheduled, although it can be available only within a set period.

Traditional classroom refers to in-person language teaching use of traditional analogue and digital devices, e.g. tape recorder, CD-player, DVD, overhead –projector.

Peer-learning refers to a process whereby learners (“peers”) support, communicate with and offer feedback to each other in order to better facilitate learning. Peer learning can improve learner autonomy and encourage critical reflection, analysis and evaluation skills.

Peer-assessment can be broadly characterised as a process of learners viewing, analysing, offering feedback on and even marking each other's assessment activities either independently or with the support of a teacher.

VLE, or a “Virtual Learning Environment”, also sometimes referred to as a **Learning Management System (LMS)**, is typically a web-based platform which provides a range of teaching, learning, assessment and communication tools and spaces which can be utilised to facilitate digital teaching and learning.

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