

4. Learning Paths for Italian Primary School English Language

Teachers: CLIL using ICT

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1. Introduction

Here we outline a training-programme for English language teachers in Italian primary schools and consider the possible advantages of bringing together cross-discipline teaching practices, digital competences. We also examine the need for specific teacher-training to meet the goals of language learning. We strongly believe that, alone, new methodologies or the potential virtues of technology count for little in learning a further language. The three main questions addressed are:

1. How can teachers effectively contribute to the foreign language (FL) competences of their pupils?
2. How is it possible to use digital resources effectively to change and shape teachers' practices?
3. What technological smart tools together with well-grounded methodologies and innovative best-practices can contribute to effective learning?

The European Council Barcelona Summit (2002) recommended the learning of at least two additional languages from a very early age. Since then the question of FL proficiency has become pivotal for the European

Commission given that it is evident that FL competences are essential to ensure active citizenship and the free mobility of individuals throughout Europe in order to meet the aspirations of an integrated Europe. In Italy, to face the educational challenges involved, language-teacher professional training needs to be planned every single step of the way to build a new language-teaching professionalism which can result in better teacher on-the-job performance.

Indeed, improving the quality of initial teacher-training together with ensuring continuous professional development in a lifelong-learning context are key factors when it comes to describing learning paths to support the qualitative and effective teaching and learning of additional languages throughout one's life.

2.The Italian foreign language policy and the European dimension

The Primary School foreign language teachers' education training-programme in Italy reflects the general ideas of the European Union language policy which promotes the learning and teaching of foreign languages in all member states. Likewise, the national language education policies in place through school reforms promote a renewal in terms of curriculum organization, methodologies, technologies, internal organisation, achievement of competences and skills, assessment procedures, teacher recruitment and

training. In this context, teachers are expected to play a significant role as activators of the entire process of effective foreign language learning pedagogy. When it comes to foreign languages in this text, we refer to English which is possibly the main foreign language studied at schools in European Member States. Learning English has dominated EU language curricula and Italy is no exception. Based on Foreign Language Learning Statistics commissioned by Eurostat in 2015, the Italian pupils in primary education learning English totalled 98.3%, those learning French 0.9% and those learning German 1.9%¹.

English has undoubtedly acquired the role of a dominant language and of a *lingua franca* even if EU policy on language learning promotes multilingualism and the mastering of two foreign languages in addition to the mother tongue as an important asset to improve educational and employment opportunities, mobility and cultural understanding among all European citizens². The idea of multilingualism re-appears in the *Education and Training Strategic Framework 2020* and in the *Conclusions on Multilingualism and the Development of Language Competences* (2014) in which the EU invites the Member States to «adopt and improve measures aimed at promoting multilingualism and enhancing the quality and efficacy of language learning and teaching, including by teaching at least two languages in addition to the

¹ http://ec.europa.eu/eurostat/statistics-explained/index.php/Foreign_language_learning_statistics, last viewed 12.06.2017.

² See the Communication n. 566 from the Commission to the European Parliament *Multilingualism: an asset for Europe and a shared commitment*, 18.9.2008.

main language(s) of instruction from an early age and by exploring the potential of innovative approaches to the development of language competences»³. Multilingualism has also been closely linked with the measurability of competences, as presented in the *Common European Framework of Reference for Languages: Learning, Teaching, Assessment* (CEFR, 2001) which provides objective criteria for describing language proficiency using scales and descriptors. Language competences are a lever of change for mobility and employability, as well as a resource for better socio-economic outcomes. Indeed, the Communication *Rethinking Education: Investing in skills for better socio-economic outcomes* (2012) in which legislators show a mainly pragmatic vision of the development of language competences, promotes this idea.

The teaching of English as a foreign language (EFL) in the Italian primary school was decreed in the New Teaching Programmes (D.P.R. n. 104, 1985) and became compulsory with Law n.148, 1990. However, the shortage of class teachers with the necessary language competences put a halt to the government's intention. The Ministerial Decree n. 323 (June 28, 1991) identified the criteria for the choice of language (usually English, French, German and Spanish), the class in which FL teaching was to start (third year), as well as the procedures for the use of teachers who in the beginning, had to be language specialists (those who had a degree and were qualified to

³ Council of the European Union, *Conclusions on multilingualism and the development of language competences*, http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/educ/142692.pdf, last viewed 12.06.2017.

teach foreign languages). In 2003, the Moratti Reform (Law n. 53, March 28) and the following Decree, Law n. 59 (2004) introduced English as a compulsory language from the first year of Primary School⁴.

In the meantime, the figure of the specialist teacher was replaced by that of the generalist class teacher. At a nationwide-level, said class teachers who had not reached the then required CEFR Level B1 underwent in-service training given the demands of teacher-training and to enable them to operate effectively from a professional viewpoint, as established in the project “Sviluppo delle competenze linguistico-comunicative e metodologico-didattiche – lingua inglese – dei docenti di scuola primaria”⁵. Decree Law n. 137 (2008) and the following Decree n. 81 (2009) stated that the teaching of English must be taught by the specialized and classroom teachers who had to attend language in-service training classes to acquire linguistic competences⁶.

The *Indicazioni Nazionali per il curriculum della scuola dell'infanzia e del primo ciclo d'istruzione* implemented in 2012⁷ replaced the *Indicazioni per il*

⁴ It was introduced with *Progetto Lingue 2000* to improve the quality of foreign language teaching in the state school system.

⁵ *Development of linguistic-communicative and methodological-pedagogical competencies for English foreign language primary school teachers*. The project also worked on the preparation of an appropriate language syllabus regarding language skills, functions, strategies and content. The result was a model in which the language aims are embedded within a thematic framework where topics generate language content relevant to the primary curriculum objectives (Dawes and Iavarone 2013).

⁶ In art. 10, comma 5 of the Decree n. 81 it is written that: «the teaching of English is given to classroom teachers of specialized primary school. Teachers currently not specialized are obliged to participate in special three-year courses of language training as defined in the training plan».

⁷ Gazzetta Ufficiale n. 30, 05.02.2013, *National Guidelines for the curriculum of the pre-primary school and the first cycle of school education*.

curricolo of 2007⁸ and reaffirmed the role of active citizenship, but they went beyond the idea of the children's spontaneous ability to learn pronunciation and intonation. Teachers were asked to enhance a coherent and shared planning among different subjects (i.e. Italian, foreign language and other subjects) and a smooth continuity between primary and lower secondary school through a contextualized language use to convey learning related to subjects other than second language, considering that «it is also possible to create situations where the foreign language is used to promote and convey learning related to various subjects» (National Guidelines 2012: 37).

The importance of pluri-linguistic context is strengthened in the recent school reform introduced by means of law 107 (2015), known as *La Buona scuola*⁹ in which learning foreign languages appears at the core of the government's agenda. The law provides educational solutions with opportunities of language exposure to improve the quality of language teaching, fostering the use of mother tongue teachers, specialists or external agencies in case of lack of trained teachers¹⁰. Beyond the debate on the still open question of who will teach English in primary school, even if most teachers are specialised, two of the main underpinnings of the reform concern the use of a Content and Integrated Language Learning methodology (CLIL) and the development of digital competence.

⁸ Gazzetta Ufficiale n. 228, 1.10.2007 - Suppl. Ordinario n. 198, *Guidelines for the Curriculum*.

⁹ Gazzetta Ufficiale n. 162, 15.07.2015, *The Good School*.

¹⁰ See art. 2 paragraph 14.

At a national and European level, the question of providing professional foreign language teaching appeared crucial. Among the several documents produced, two are important: the *European Profile of Language Teacher Education – a Frame of reference* (EPLTE)¹¹, known as Kelly Report (2002; 2004) and the *European Portfolio for Student Teachers of Languages* (EPOSTL)¹² (2007). The *European Profile* is a guide for trainee and in-service foreign language teachers in primary, secondary and adult learning contexts and offers recommendations for language education policy makers. Instead, the EPOSTL proposes a series of items based on the key competences a FL teacher is expected to acquire in initial training.

Despite the importance of the documents, they have not yet sufficiently been implemented by national education systems, including Italy. However, we can say that recent legislation is moving in this direction. To meet the demands of a modern society, professional training is not only inevitable, but also unavoidable and pressing. Training till now has been based on voluntary initiatives which are no longer considered appropriate for our model of society and consequently it is essential to work on the skills of teaching to build a new type of teacher and of teaching performance. Improving the quality of initial teacher education and ensuring the continuous professional development in a lifelong learning context are key factors in securing the quality of school education in general.

¹¹ <http://ccll-eu.eu/cms02/fileadmin/daten/Dateien/Konferenzen/KELLY.pdf>, last viewed 12.06.2017.

¹² http://archive.ecml.at/mtp2/fte/pdf/C3_Epostl_E.pdf, last viewed 12.06.2017.

The *New Italian School Teachers Training Plan 2016-2019*¹³ aims to raise the average level of mastery of the English language spoken by all the teachers. A good ability to understand foreign languages, starting with English, is the necessary expertise for the professional development of *all* teachers, while foreign language teachers are expected to maintain a high level of linguistic, communicative and methodological expertise as a key aspect of their professional development. The emphasis is on the acquisition of language and intercultural skills through study visits, training-placements, and job shadowing activities even for general teachers.

Since the Barcelona Summit (2002), learning foreign languages has played a key role in European educational systems with the objective of educating modern citizens and improving language learning outcomes. Member States were invited “to improve the mastery of basic skills, in particular by teaching at least two foreign languages from a very early age” that has been commonly known as the Barcelona goal of the “mother tongue +2”. In 2008, a Council’s *Resolution on a European Strategy for Multilingualism* invited the states to promote multilingualism as a tool to enhance language learning and social stability. The objective was again re-proposed in the report *Conclusions on multilingualism and the development of language competences* in 2014 and it is one of the key aims of *Education and Training 2020* (ET 2020)¹⁴.

¹³ http://www.istruzione.it/allegati/2016/Piano_Formazione_3ott.pdf, last viewed 12.06.2017.

¹⁴ *Education and Training* is the Strategic framework for cooperation in education and training adopted in 2009 inside *European Strategy 2020*. It defines the long-term common strategic objectives for Member States, including a set of principles for achieving these objectives, as well as common working methods and benchmarks. The challenge in education are the following: making lifelong learning and

In an effort to improve national standards and develop functional language learning policies through the collection of reliable data, the EU has commissioned research projects which study learners' foreign language competence. In the Spring of 2011, a collaborative project was set up to assess the language proficiency of 14-15-year-olds in 16 states. Unfortunately, Italy did not participate in this *First European Survey on Language Competences* (ESLC) for reading, listening and writing undertaken in 2012. The intention was «not only to undertake a survey of language competences but a survey that should be able to provide information about language learning, teaching methods and curricula» (European Commission 2012: 5). Thus, the task of the ESLC Survey was to measure the language proficiency of learners in Europe in order to help the European Commission to create «a European Indicator of Language Competence to monitor progress against the Barcelona European Council Conclusions (2002)» (European Commission 2012: 5). As stated in the final Report: «The ESLC sets out to assess students' ability to use language purposefully, in order to understand spoken or written texts, or to express themselves in writing. Their observed language proficiency is described in terms of the levels of the Common European Framework of Reference (Council of Europe 2001), to enable comparison across participating educational systems»¹⁵.

mobility a reality; improving the quality and efficiency of education and training; promoting equity, social cohesion and active citizenship; enhancing creativity and innovation, including entrepreneurship, at all levels of education and training.

¹⁵ Ivi, p. 5

The results of the ESLC illustrated in the Final Report show that «an earlier onset is related to higher proficiency in the foreign language tested»¹⁶. It also states that, if «pupils who find learning the language useful tend to achieve higher levels of foreign language proficiency and pupils who find learning the language difficult lower levels of foreign language proficiency», it is also true that «a greater use of the foreign language in lessons by both teachers and pupils shows a positive relation with language proficiency»¹⁷. A relevant challenge is the fact that the linguistic competences need to be improved, especially for the English language whose importance for the labour market requires concrete actions. Language policies need to create specific language-friendly learning environments even through informal learning outside of school.

The document *Key Data on Teaching Languages at School* in Europe 2012 by Eurydice highlights that the students' perception of the utility of a second language fosters the learning process itself and that English is considered by far the most useful language. The reality seems to indicate that, the more input students receive, the higher the result. Nevertheless, in almost all countries or regions participating in the ESLC, students say their teachers do not regularly use the foreign language they teach in the classroom, but merely use it only occasionally, not always. Even though data referring to our Italian

¹⁶ Ivi, p. 10

¹⁷ Ivi, p. 11

students' proficiency is lacking, the implications of the findings from the survey can be considered in our national policies.

3. English Foreign language learning methodologies

In UE recommendations regarding education, language teaching has always been addressed as a relevant issue and innovative teaching methods have frequently been advocated. In the history of foreign language teaching there have been different methods and approaches linked to theories that sometimes are taken up and re-contextualized. To mention just a few, these include: *Task-Based Language Teaching* (TBLT), *Content-Based Instruction* (CBI)¹⁸, *Bilingual Education* (BE), *Cooperative Language Learning* (CLL), *Communicative Language Teaching* (CLT), *Content and Language Integrated Learning* (CLIL). Each of these terms originated from an educational context with its own historical background and purpose and is based on a specific vision of learning processes. CLT has gained popularity for many years and has been assumed as the dominant method, but, even if the benefits of the focus on communication in the foreign language learning process cannot be denied, arguably, according to Bax (2003), CLT has emphasised methodology rather than context, while context has gained a prominent role in the actual European legislation. Even if CLT continues to be referred to as the main point

¹⁸ The term *Content-Based Instruction* is mainly used in the USA and Canada and it is the equivalent of CLIL preferred in Europe.

of reference today, some researchers talk about the present age as a post-method era, the result of «the widespread dissatisfaction with the conventional concept of method» when the challenges teachers are asked to face are demanding and ask for a considerable flexible methodology, more than trusting on only one specific method (Kumaravadivelu 1994: 43; Savignon 2006).

Considering the history of policy papers issued by EU since the 1990s when the acronym started to be used, CLIL has been a topical issue and it is still on the agenda of the European Union which recommends the methodology for both general education and VET (Vocational Education and Training) as a teaching tool particularly effective in enhancing the mobility and employability of workers. Moreover, it is part of the Strategic Framework for *European Cooperation in Education and Training* (ET 2020). CLIL is still considered an innovative methodological approach through which curricular content is taught through a foreign language with dual-focused aims, namely the simultaneous learning of content and foreign language (Marsh 1994; Dalton-Puffer 2011). The guiding principle is to integrate content and language so that learners are likely to be exposed to greater language input which should make it possible to improve their language proficiency because they become active participants in their knowledge-process. Therefore, rethinking the role of teacher-training is essential.

Teachers undertaking CLIL need to be prepared to develop multiple types of expertise, they need specific training that goes beyond the specific and

separate training of a foreign language and of a subject teacher (Wolff 2002). This means that they need to develop and integrate three different types of abilities: target language ability, content knowledge, and CLIL methodology. The competences required for successful CLIL teaching are numerous.

For language teaching, different profiles and documents have been proposed such as *The European Profile for Language Teacher Education* (Kelly *et al.* 2004), *The European Portfolio for Student Teachers of Languages*, or the EPSTL (Newby *et al.* 2007)¹⁹, *The European Profiling Grid* or EPG²⁰ (North and Mateva 2006; Rossner 2009) and *The CLIL Teachers' Competence Grid* (Bertaux *et al.* 2009), a framework for the development of pre-service or professional training courses which aims to map key competencies to support a rich CLIL learning environment²¹. Other aspects that a CLIL-learning environment involves include motivation to learn, a willingness to work with others and to design materials, and, most especially, a belief in the efficacy

¹⁹ The EPSTL is created by the European Centre for Modern Languages (ECML) of the Council of Europe. It is a document for students undergoing initial teacher education and aims at developing didactic knowledge and skills to teach languages. In Italy it is known as PEFIL (Portfolio Europeo per la formazione iniziale degli insegnanti di lingue).

²⁰ The EPG project, proposed by EAQUALS (Evaluation and Accreditation of Quality in Language Services, an international association of institutions and organization) co-funded by the European Union Commission, aims at supporting professional development in language education. Cfr: http://www.epg-project.eu/wp-content/uploads/The-EPG-PDF-publication_EN.pdf. A recent evolution of the model is the *TD Framework* (TD-FRAM) which helps teachers in self-assessment and evaluation. It consists in a description of the key professional competences in terms of attitudes, knowledge and skills needed by language teachers in five key areas: planning teaching and learning, teaching and supporting learning, assessment of learning, language communication and culture, the teacher as professional.

²¹ The grid is divided into two sections: a) underpinning CLIL, referring to the skills and relationships for establishing and maintaining a CLIL programme and b) setting CLIL in motion, or the skills needed to implement CLIL, http://ccll-eu.eu/cms02/fileadmin/daten/Dateien/Konferenzen/THE_CLIL_TEACHER_latest_version.pdf, last viewed 12.06.2017.

of CLIL (Hillyard 2011). Even the *European Framework for CLIL Teacher Education* (Marsh *et al.* 2011) describes on macro level competences to be acquired by the CLIL teachers in different professional areas; it also provides integrated curricular modules. The target competences identified refer to personal reflection, understanding of the CLIL fundamentals, content and language awareness, methodology and assessment, research and evaluation, learning resources and environments, classroom and CLIL management.

In the European context, CLIL teachers are second language speakers of the instructional language and subject specialists as opposed to being qualified as language teachers (Nukula, Dalton-Puffer and LLinares 2013); however, language teachers cannot become other subject specialists, so foreign language lessons are offered separately from CLIL lessons timetabled as content lessons. The situation is different in Primary School where class teachers can add linguistic to disciplinary skills planning lessons and activities on historical, geographical and scientific subjects, for example, using the foreign language as a vehicle for learning content, turning pupil's attention away from overt grammatical rules of the language to the exploitation of its communicative aspect, in addition to developing thinking skills, and moving from an emphasis on solely accuracy towards language functionality and communication effectiveness.

There has always been a lively interest on CLIL in Italy, and this is evident in CLIL official and unofficial initiatives. In the Italian upper secondary schools, theoretically, CLIL teaching is mandatory by Law n. 249 (2010) and

should be used in at least one curricular subject in the fifth year of the upper secondary school. CLIL teachers are second language speakers of the instructional language and subject specialists rather than having qualifications as language teachers and language teachers cannot become other subjects' specialist, so foreign language lessons are offered separately from CLIL lessons timetabled as content lessons. The situation is different in primary school where class teachers can add linguistic to disciplinary skills planning lessons and activities on historical, geographical and scientific subjects, for example, using the foreign language as a vehicle for learning content, turning pupil's attention from the grammatical rules of the language to the exploitation of its communicative aspect and thinking skills, from accuracy to functionality and communication effectiveness.

Considering the evidence that children are particularly receptive to learning languages at an early age, CLIL methodology offers opportunity for plurilingual education. Indeed, the step proposed by Giannini (2015) – former Minister of Education - to get English mother tongue teachers to collaborate with subject-specific teachers in selected subjects paves the way in this direction²². It is also worth mentioning that in regions with special status, such as Trentino, experiments in the context of bilingualism have been carried out. In addition, in some Italian Primary Schools pilot-projects have been implemented such as ALI (Apprendimento Linguistico Integrato) - CLIL and

²² The proposal of the Minister appears in an interview published by Corriere Della Sera (30/01/2015), http://www.corriere.it/scuola/primaria/15_gennaio_29/buona-scuola-economia-b347cf06-a7e2-11e4-b182-cec9e96dbdaf.shtml?refresh_ce-cp, last viewed 12.06.2017.

BEI (Bilingual Education in Italy) - CLIL in Lombardy, SLIL (Science and Language Integrated Learning) in Piedmont, both organized by the Regional Education Authorities in 2001, Language 2 in Veneto, *Clil for Children* (C4C) in 2015, just to name some.

4. Foreign Language Teachers in Primary School and CLIL

Foreign language teachers in primary school can benefit from a CLIL approach: well trained teachers can communicate specific linguistic structures through subject content; the first step of a foreign language awareness students need to rule. In case of young learners, the process of acquisition of a foreign language happens thanks to the naturalness of the environment in which the attention is focused on topics, themes, facts and not on grammar. Marsh (2000) seems to express the reservations about the natural use of language by the language teacher. He proposes the creation of an appropriate educational environment *using languages to learn and learning to use languages*²³ so as to mould a multilingual society. This idea supports a competence-based educational framework which covers the eight key competences for lifelong learning promoted by the European Commission (2006)²⁴. Achieving those key-competences cannot be done through a

²³ From the title of his book *Using Language to learn and Learning to use Languages* (2000).

²⁴ The key competences are: communication in the mother tongue; communication in foreign languages; mathematical competences and basic competences in science and technology; digital competence; learning to learn; social and civic competences; sense of initiative and entrepreneurship; cultural awareness and expression.

traditional monolingual curriculum but can be fulfilled by the competence-based multilingual approach of CLIL.

The current popularity of this approach derives from the idea that, somehow, a CLIL pedagogy better guarantees the acquisition of the linguistic competence than the traditional foreign language methods do. According to Coyle *et al.* (2010), the CLT movement went in this direction of acquiring communicative ability, but it lacked the *authenticity* of classroom environments, context and the holistic assumption that constitutes the base of the CLIL educational approach that Graddol (2006: 86) defined the *ultimate communicative methodology* (Coyle *et al.* 2010: 5).

Research is underway on the learning outcomes of groups of CLIL and traditional EFL learners and the results of the comparisons seem to show that the CLIL approach is beneficial in lexical development. Through a CLIL lesson, learners can increase their vocabulary acquisition even though this seems to happen with class-grade progress because vocabulary learning happens in both cases (Agustin-Llach and Canga Alonso 2015; Tragant *et al.* 2015). In creating the conditions for a natural language learning environment and increasing the time of exposure, CLIL programmes help build a challenging experience that can boost motivation (Herrarte and Beloqui 2015). Findings seem to suggest that promising outcomes may be observable in the long run with intensive exposure to CLIL in EFL context. In the case of minimal exposure in primary school learners, the experimental data from results to

tests in relation to receptive skills do not seem to demonstrate remarkable effects (Pladevall-Ballester and Vallbona 2016).

As Darn (2006) states, real-life and meaningful contexts, circular process of language acquisition, boosting motivation, attention on fluency more than on accuracy are some aspects a CLIL methodology shares with EFL teaching. For Dalton-Puffer (2008), the two are not in contrast, rather, they both represent educational interaction models with limited learning environment. Hence, EFL and the language dimension of CLIL ought to be integrated into one foreign language curriculum and great results could be obtained starting from the Primary School by trying not to make one method prevail on the other, by getting the best from each one using a flexible approach.

We must also remember that a CLIL approach does not, per se, automatically guarantee successful teaching and learning.

The added-value rests in the teachers' hands, in their ability to create, use, re-use, adapt materials and tools. As a scaffold to the process in planning lesson, Coyle has implemented the *4Cs Framework* (Coyle, 1999, 2006) to promote knowledge creation by focusing, not only on linguistic content, but also on the dynamic aspects of integrated learning. Conceptual understanding requires cognitive and linguistic, as well as cultural and social aspects. The process is visually identified in a pyramid and the principals involved are the following: a) Content, referred to learners creating their own knowledge; b) Cognition, the process of learning and thinking; c) Communication, for interaction in the learning context; and d) Culture, or intercultural awareness.

This framework helps teachers create quality lessons and a *CLIL mindset* to develop methodological competences for a quality teaching and learning (Mayer 2010) in which the communicative competences play a relevant role in terms of language.

Building on the CLIL approach, the Council of Europe is working on a further development which is known as *Pluriliteracies Teaching for Learning* (PTL). Pluriliteracy in content-based subjects means learning the subject's specific language and, consequently, being able to communicate that knowledge across languages or multiliteracy contexts in different languages. This is a content-oriented approach to deepen learning across languages by paying attention to the development of learners' subject-specific literacies as well as their conceptual understanding of subject-specific procedures, skills and strategies. The basic idea is that of an integrated learning beyond content, cognition, communication and culture that can lead to more effective learning. The model can help learners see the world through the specific eyes of a discipline, develop subject-literacy and acquire subject expertise, this means getting to know how to use language properly since facts, concepts, strategies and procedures of a discipline are embedded in the language of each field.

The challenging task of disseminating CLIL-awareness cannot be achieved unless we work on developing effective training-paths for language teachers. In addition, we need to provide them with the opportunity for volunteer initiatives. It is hoped, in Italy, to develop a national language educational policy with universities playing a relevant role in building CLIL-training for pre-

service and in-service educators together with the necessary specific skills and competences (Catenaccio and Giglioni 2016).

5. Digital technologies at school

The initial enthusiasm towards digital technologies at the beginning of the millennium has been greatly redimensioned in recent times because of the limited evidence of a positive impact of ICT on pupils' learning (Higgins 2003; Livingstone 2012; Selwyn 2011; 2016). Despite the general and widespread perception of the usefulness of technology considered as a guarantee of educational success, it seems more credible resizing its role not to raise false hope.

The advancement in digital literacy has impacted the field of education in no uncertain manner, and teachers must cope with both challenges and opportunities in the use of technology in the mainstream curriculum. The use of technology in the FL classroom-context has always been considered relevant, even more than in other subjects and has been a powerful lever for change. When technology is applied in EFL teaching the beneficial results for learners' attainments can be investigated in the field of Computer Assisted Language Learning (CALL) or the study of computer-applications in teaching (Levy 1997) and learning to learn with, by and through technological tools. Since the 1950s, CALL has developed, through the use of Internet applications, by adapting to the pre-existing pedagogical models, beginning with behaviourist, communicative and integrative CALL through the interplay

between technological development and approaches to language teaching. Many researchers have investigated the effectiveness of CALL as a facilitator method of self-paced learning focused more on learning to improve language competence than on teaching (Warschauer and Healey 1998; Hubbard 2004). Today a re-shaping of the CALL method shows promise: foreign language teachers are working in an evolving context undergoing disruptive changes played by technology and informal environments that can enlarge the traditional opportunities for learning.

For teachers, being proficient in a second language and getting to know methodological aspects as well as assessment criteria need to be complemented by the ability to integrate new digital technologies into teaching and learning environments, which represents a real challenge. However, getting into general knowledge about technological resources does not necessarily translate into teachers being able to use them effectively. It appears extremely evident that innovative teaching with ICT requires more than the mastery of basic digital skills and the relevant point is not identifying those who use these tools, but, rather, those who use them effectively and are digitally proficient. Resnick (2002: 33) uses the expression *digital fluency* and considering the analogy between technology and learning a foreign language affirms that:

to be truly fluent in a foreign language, you must be able to articulate a complex idea or tell an engaging story; in other words, you must be able to make things with language. Analogously, being digitally fluent involves not only knowing how to use technological tools, but also knowing how to construct things of significance with those tools.

Many good factors can be non-influential, such as the possible use of resources for context or specific educational policies. Digital resources can shape teachers' practices in the learning organisation, pedagogy, approach to teaching and knowledge, and visible change can be observed over the long term depending on the teacher's personal involvement (Orlando 2014). Besides, technology offers a number of distinct advantages over traditional lesson delivery methods for all subjects. It offers more fluidity: learning can be personalized to suit each pupil's unique needs, material can be accessed at any time, from anywhere, giving them the chance to learn at their own pace. Furthermore, it encourages active participation rather than passive observation because learners can use online tools to create, share and collaborate with the others. The National Guidelines are explicit on the point that computer technology use can:

expand space, time and mode of contact and social interaction between individuals, communities and local schools. The pupil can then move gradually from an interaction centered on his/her own needs to a communication towards the others to develop social and interpersonal skills appropriate to different audiences and contexts (National Guidelines 2012: 37).

It is also evident that if approaches to teaching remain the same when using technological tools, the result of the teaching will not be effective. Cuban (2015) strongly affirms that, even if nearly all teachers can now use digital devices, students' performance has not yet improved and that:

those powerful computers have yet to alter traditional ways of teaching [...] laptops, desktops, tablets, and interactive whiteboards continue to support the dominant teacher-centered approach to instruction rather than promoting the hoped-for student-centered approach [...] In effect, new hardware and software have strengthened, not altered, prevailing teaching approaches.

Considering the processes driving and shaping the introduction of educational technologies at school, it would seem that cycles of innovation have followed the same pattern: introduction of the new tool, distribution, great expectations, becoming a trend and, before agreeing on the effectiveness and sustainability with reference to traditional methods, transformation into an out-of-use tool (Maddux Cleborne and La Mont 2011). According to Cuban (2001: 138), technological innovations and advancements mimic the swinging motion of a pendulum as they are widely used first, and only later critically reconsidered, but, in the meantime, new products and ideas substitute the previous one oversold and underused, without modifying the traditional asset since «teachers use[d] technology to maintain existing practices, rather than to revolutionize the way they teach their students». Focusing on expectations is likely to give rise to disillusionment, as happened with the Interactive Whiteboards (IWBs) used, in most cases, in the same way as a video projector without exploiting their full potential because the diffusion occurred before completing the research regarding effectiveness (Salvadori 2011). Whilst IWBs are motivating for students and facilitate cross-school use of ICT, they are not closely linked to transformational pedagogies

or learning (Wastiau 2010) simply because they have been and are being used to some extent. Without sound pedagogical practice, technology will have little or no impact in the classroom (Guerin 1998). Indeed, the Interactive Whiteboard is a technology that teachers can start using without facing great difficulties and whose possible uses fit all existing modes of teaching and learning, both traditional and innovative. For this reason, it is a very popular tool among teachers that can contribute to increase teacher's technological awareness (Somekh, Haldane *et al.* 2007), their use of the Internet, and of the personal computer for lesson-planning as well as for interaction with colleagues.

Teachers are generally considered to be only slightly familiar with technology, and their limited digital-skills have been regularly targeted in cases of unsuccessful learning that do not meet the expectations or the standards outlined. In practice, even when adopting technological tools, teachers have been viewed to bend them to their teaching method/s. Over the years, many efforts have been made to teach teachers how to use and integrate technology into their practice Mandich and Cline (2013) declared that educators need to go through four stages of technology-confidence: survival (being aware of the importance of technology but refusing to use it); mastery (practicing and feeling confident with technology); impact (embedding it into lessons and lesson-planning), and innovation (using it pervasively in innovative ways). Puentedura (2016), in the SAMR model, identifies a teacher's learning trajectory in dealing with technology and

describes four levels of the progressive functional role of technology a teacher needs to adopt moving beyond the Substitution and Augmentation stages, toward the Modification and Re-definition phases to bring about a real transformation. Teachers start to consider technology as a mere substitute for more conventional tools until they discover the functional improvement. Then, technology allows for significant task redesign (modification) and, finally, it allows for the creation of new and previously inconceivable tasks:

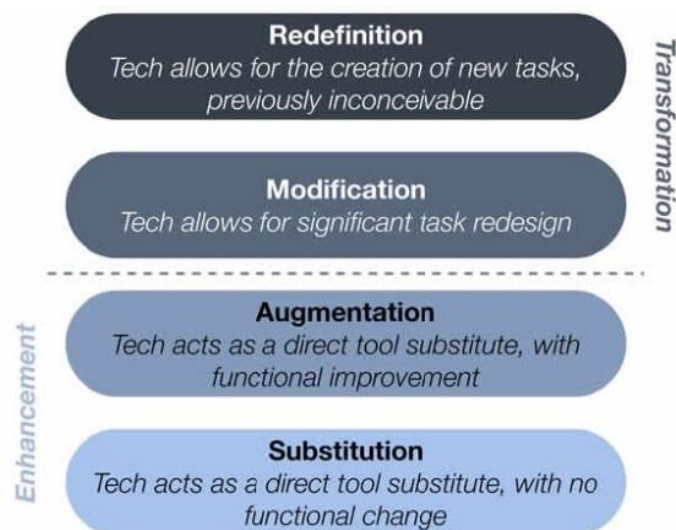


Fig 1. The SAMR model (from Ruben R. Puentedura, *SAMR: Paths to Growth*).

<http://www.hippasus.com/rpweblog/archives/000140.html> - last viewed 12.06.2017)

Another aspect which demands attention is the new training-programme for pre-service teachers with obvious ICT-approaches including knowledge and building a robust technological background. When teaching content with technologies, integrating ICT as learning tools to guide learner thinking and learning for programmes, actions, strategies and knowledge, requires reshaping and redesigning. Teachers' knowledge, according to Niess (2015)

undergoes a transformation that implies five levels of acceptance: “recognizing, accepting, adapting, exploring and expanding”. These five steps indicate teachers' technological, pedagogical and content knowledge (identified by the acronym TPACK - originally TPCK, now known as TPACK, or Technology, Pedagogy, And Content Knowledge).

TPACK is a dynamic framework which depicts the kind of knowledge teachers must rely on to implement curriculum using technology. It implies an interaction between the concepts of content and pedagogy in a technology-enhanced learning environment as Guerin (1998) Koehler and Mishra (2006) explain so as to identify the kind of knowledge teachers require for ICT-use in education. These authors identify the need for the dynamic interaction and interplay of the core components of good teaching. These are represented in three overlapping circles: the knowledge of content, pedagogy and technology that can interact to produce effective teaching using educational technologies.

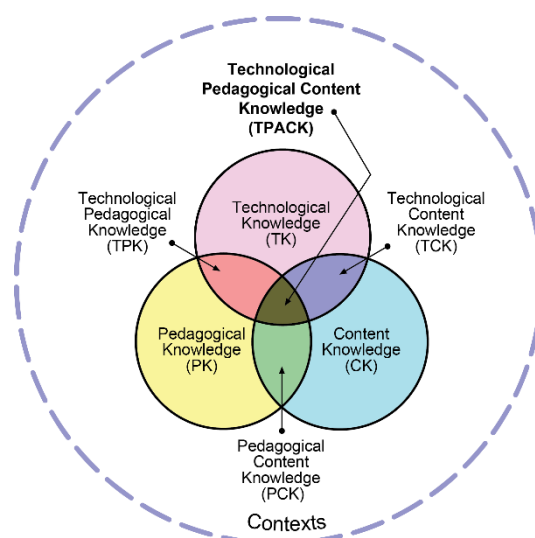


Fig. 2. The TPACK framework - <http://tpack.org>²⁵ (last viewed 12.06.2017)

There is an evident link between what is being learnt (content), the way in which it is taught (pedagogy) and sufficiently appropriate tools (technology). Education programmes need to help teachers gather content knowledge (CK) together with good pedagogical knowledge and practices (PK) and technical knowledge or skills (TK). The interaction of these bodies of knowledge, produces the types of flexible knowledge needed to successfully integrate technology into teaching. Technological Content Knowledge (TCK) is an understanding of the manner in which technology and content influence one another. On the other hand, Technological Pedagogical Knowledge (TPK) is an understanding of how teaching and learning can change when particular technologies are used and Pedagogical Content Knowledge (PCK) represents the teaching content in specific contexts. Other researchers (e.g., Avidov-Ungar and Esthet-Alkalai 2014) have examined the cognitive, affective and organisational aspects of the TPACK framework to improve its holistic nature.

Even if there seems to be no room for context in this model, it has received great attention among other educational technology researchers and framework developers (Kelly 2010; Rosenberg and Koehler 2015). Porrás-Hernández and Salinas-Amescua (2013) elaborated a conceptual framework for context on three levels: *micro* (learning environment, the design of the

²⁵ The image is “Reproduced by permission of the publisher, © 2012 by tpack.org”

room, the various resources), *meso* (factors in the learning environment such as the teaching staff, scaffolding), *macro* (the national curriculum standards), and two actors (students and teachers). Davies (2011) elaborated the APP framework: Awareness-Praxis-Phronesis - in which Praxis refers to training, while Phronesis refers to practical competence and practical wisdom - to help educators understand effective technology integration. First of all, they must be aware of the technology available, choose which technology to use and when, then practice it in authentic contexts to accomplish the learning goals. Each level requires a progression within the lower level on a continuum that includes a cycle of constant re-education to evaluate why use technology and then how well it is used to accomplish the learning task.

ICT-usage in school does not depend only on the availability of digital resources, but most of all on teachers' learning opportunities. For this reason, the Italian Government, as well as the other European institutions, has decided to invest in pre-service as well as in-service teachers. Future teachers are being prepared for appropriate educational technology use (Tondeur *et al.* 2016) starting from stating the pedagogical reasons for the change of perspective. Teachers are moving a step further from under-using technology to questioning if using or not a device has added-value, and they are becoming aware of the fact that the introduction of technology without pedagogical changes is merely a negative operation. The first and inevitable step consists of changing teacher perspectives; the next, is about adopting the equipment needed as a necessary added-value. There have been

numerous strategies adopted to facilitate pre-service teachers' integration of technology into everyday practice. Tondeur *et al.* (2012; 2016) have elaborated a method for educational technology use to prepare pre-service teachers. This is the Synthesis of Qualitative Data or SQD Model, according to which twelve key themes need to be taken into account when training teachers. These include six strategies at a micro-level (educators acting as role models, reflecting on good practices, redesigning materials for lessons, using groupwork and collaboration, using authentic settings, and using feedback), together with six at a macro-level (technology planning, cooperation within institutions, training staff, access to resources, systematic and systemic change efforts, as well as aligning theory and practice).



Fig. 3. SQD-model to prepare pre-service teachers for technology use (Tondeur et al., 2012)²⁶.

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From https://www.researchgate.net/publication/284435504_Time_for_a_new_approach_to_prepare_future_teachers_for_educational_technology_use_Its_meaning_and_measurement, last viewed 12.06.2017.

Conceivably, the following scenario will be outlined: pre-service or novice teachers with ICT-attitudes will receive SQD support from their teacher-training institution in ways that will affect their knowledge and use of technologies (their TPACK) and will develop a positive attitude in teaching staff which will be reinforced in designing technology-enhanced curriculum materials (Tondeur *et al.* 2017) as in a chain-process. Teachers, together with learners, are expected to become active designers of technology to develop the ability to effectively use technology (Chien 2012) in designing ICT-rich lessons.

What teachers need to understand is the reason why using technology is going to make learning authentic or meaningful, as well as how digital technology can be best levered to apply it to their pedagogically-focused professional development. Only when pedagogy can justify methodological choices, an effective and non-invasive technological integration with critical pedagogy can happen. In this *scenario*, technological assets can become *cognitive tools* (Jonassen 2006), mind-tools that make the difference by triggering processes of critical thinking, and not just mere instruments. As Kozma (2007) states in a debate in *The Economist*:

Technology can make a particularly significant contribution when coordinated with the training of teachers to integrate technology into their teaching, with applications that draw on the unique capabilities of technology and with supportive, curricular assessment and school contexts that advance complex problem solving, creative

thinking and life-long learning, skills that are needed to support an information society and knowledge economy²⁷.

Several efforts have been made to bridge the gap between teachers and technology or curriculum and ICT. In 2011 the EU commissioned the *Survey of Schools: ICT in Education* to benchmark access, use and attitudes to technology in schools. It investigated teachers' and students' technology use, and showed that students are more likely to use technological devices when they are taught by teachers with great confidence in their own digital competence, responsible use of the net and positive opinions about ICT. These teachers are defined as «digitally confident and supportive» (Wastiau *et al.*, 2010: 9). Indeed, their active role can guarantee the effectiveness of technology in learning by adopting a digital approach to improve the quality of the teaching and learning processes.

In order to prepare the students of tomorrow, digital competence among teachers is essential. Teachers seem to cope well with the ever-growing demands of technological competence and skills given that their perspective on teaching with technology is radically changing as a result of a growing interest in digital tools, online courses, webinars, MOOCs, etc. Compared with the other EU countries, the use of ICT by Italian teachers, as well as teachers' and students' confidence in their operational skills with ICT are close to the EU average at all grades of education. According to the *2013 OECD Teaching and Learning International Survey* (TALIS), the proportion of teachers using

²⁷ <http://www.economist.com/node/9968821>, last viewed 12.06.2017.

information and communication technologies (ICT) for student projects or class work (31%) and participating in ICT training (53%) are around the EU average, but the overall proportion of teachers undertaking professional development activities in the previous 12 months of the research is below the EU average (75% compared to 85%), as revealed in the *Education and Training Monitor 2015* for Italy. The result is a *digitally supportive teacher* who is highly confident and has a positive attitude towards ICT.

Since 2006, in the *Recommendation* on the eight key competences for lifelong learning, the European Parliament and the European Council have emphasised that the use of ICTs and digital media is essential if young people are to improve educational outcomes and enhance digital competences for a smart and responsible use of ICT potential which is a key-priority in the *Digital Agenda for Europe*, one of the seven initiatives under *Europe 2020*.

The *Europe 2020* strategy proposes a number of interventions to increase the digital literacy, curricula, assessment of learning outcomes and professional development of teachers and trainers. In this context, the Italian Government has adopted the *Digital Agenda for Europe Recommendations* and it has outlined a national strategy the *Agency for Digital Italy* (AgID), identifying priorities and actions to use ICT in the educational system and, furthermore, to realise technological development, innovation and the digital economy. The first national plan for ICT in Italian education dates back to 1985: *The National Plan for Informatics* was mainly addressed to teachers of mathematics and sciences in upper secondary schools to update their

knowledge of Informatics and support schools to create computer laboratories. The Italian Ministry of Education, University and Research (MIUR) has been planning actions for teachers' in-service training since 2000 with the *ForTIC* and *DiGi scuola* initiatives in 2003 and, then, with the *National Plan for Digital Schools* (2011) which has been implemented since 2008 when it was launched into mainstream ICT in Italian classrooms together with the use of technology as a *catalyser* for innovation with new teaching practices, and new models of school organisation (Avvisati *et al.* 2013).

At first, the objectives of the *National Plan* had been designed to embed ICT in everyday class activities as daily tools for students to experience new teaching and organisational models by providing four main initiatives: the IWB-action supported by a national training initiative through the national Agency for the Support of Schools (INDIRE), together with the three projects concerned with the development of digital classes (*Cl@ssi 2.0*), digital schools (*Scuol@2.0*), and the experimentation of innovative editorial digital products (*Editoria digitale*) with the use of e-books thanks to a digital book law. Despite these ambitious initiatives,

Italy lags behind most OECD countries when it comes to equipment and usage of information and communication technology (ICT) in school. For example, in 2011, only 30% of Italian students in 8th grade used ICT as a regular instruction tool in science classes, compared to 48% on average in an OECD country (Avvisati *et al.*, 2013: 11).

According to the 2015 OECD Report, there is a low level of ICT penetration in Italian schools, a slow pace of equipment integration, mainly of interactive

whiteboards (our IWB Plan would take fifteen years to reach the current UK level), insufficient digital development and digital resources. However, the plan is actually giving positive results in terms of teachers' involvement since they appear confident in the use of ICT, close to the EU average, and even if the pupils' use is generally lower, the 2011-2012 EU survey actually shows that students' use of ICT at school is related to the teacher confidence-level in ICT and social media skills. Therefore, a key-point to take into account is that teachers are a key factor for the successful introduction of technology; in addition, In the *New Italian School Teachers' Training Plan 2016-2019*, one of the strategic priorities is the development of digital skills and new learning environments. Among the top five skills that newly-hired teachers feel they must strengthen in the future is the appropriate use of technology. At the same time, it is worth highlighting that modest funding has limited the effectiveness of the initiatives, and created a lack of continuity in teachers' experience with ICT, thus reducing their ability «to unleash the full pedagogic potential of technology» (Avvisati *et al.* 2013: 11). The *Report* proposes to «speed up the uptake of ICT in Italian schools and classrooms» (Ibid.: 11), an action that seems to be part of the second period of the *National Plan for Digital Schools* since 2013.

Teachers need to master more than the subject-matter they teach. They must also have a deep understanding of the way the subject could be enriched by the application of specific technologies. They are required to become discipline experts, technologists and experts on learning while, at the same

time, becoming used to adapting to different teaching contexts. Teaching foreign language to six-years old learners, for example, requires different ICT uses when compared to teaching it to ten-years old or lower-secondary school teenagers.

We need investment in teachers' professional development, together with specific policies adopted to effectively and significantly increase young people's digital competence through the implementation of teachers' critical and responsible use of technology. The role played by competence is nowadays the key element within the educational systems and, arguably, a re-conceptualization of the idea of technology in terms of competence more than knowledge is needed. Taking as an example the TPACK framework, a new model could be identified, the *Technological Pedagogical Content Competence* or TP2C Model. Teachers need to acquire, not only a general or/and specific digital knowledge, but also, computer literacy, the ability to develop their digital competence starting from their perception of the value of the tools they may even choose not to use so as to fully integrate technology into their educational practices, which also requires changing attitudes.

6. Conclusion

This chapter aimed to outline a teacher-training programme for the foreign language teacher in the Italian Primary School by considering the positive aspects related to using a CLIL approach. The latter has effectively integrated

digital tools to help redefine the role of ICT in in-service and pre-service teacher-training.

The competences a foreign language teacher has to master are several and the frameworks detailed can help manage them. The analysis began with the regulations in European and national policies and the foreign language methodologies mainly used focusing on CLIL which can enrich the learning experience through the interplay of different subjects. As emphasised, among the priority objectives to be achieved that require specific actions at national level, Law n. 107 (2015) has identified the methodological innovation linked to new learning environments. The use of technology in the teaching and learning of foreign languages using new methodologies with the aim of raising the level of linguistic and communicative competences is highlighted. With the awareness of the pitfalls the usage of technology can bring, this contribution has tried to describe the learning-paths that support quality language teaching and learning. The primary school teacher training-programme that has emerged is that of an education professional, not only a language expert able to generate improvement in pupils' outcomes, but also an individual who can leverage CLIL potentiality and together with technology help learners effectively meet their learning goals in terms of competence, as suggested by the *TP2C model* that has been briefly mentioned and that could represent the ground for further research.

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