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Technologies for Teaching Italian L1/L2 and Foreign Languages. An Experimental Investigation.

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ABSTRACT

This contribution discusses the results of a questionnaire focused on the use of some indicators aimed at evaluating the technologies used for teaching foreign languages and Italian as first and second language (L1/L2). Starting from the scientific literature review (Facchetti, Grosso and Nitti), a glottodidactic questionnaire (Nitti 64) was structured to detect the critical issues associated with the adoption of glottotechnology. The sample for the questionnaire was a group of language teachers trained in teaching modern languages and educational linguistics within the courses provided by the Centro Interculturale della Città di Torino (Intercultural Center of the City of Turin). Data analysis clearly shows the desire for linguistic-educational training and the need for further and tighter linkages between the academic and professional spheres.

1. Introduction

Regardless of the historical period, the socio-cultural setting and the subject being taught, the updating of teaching staff is an essential factor in the educational processes. As a matter of fact, over time, any form of teaching tends to lose its connection with reality and becomes anachronistic (Emanuel and Nitti). It needs to be remembered, in fact, that the types of approach that have developed in regard to the teaching of languages, have mirrored – and an approach still represents today - a "basic philosophy: the idea that anyone has about language, culture, communication, students, teachers, the teaching itself" (Balboni 6) and that this idea reflects historical-cultural factors (Facchetti). Moreover, according to the OECD TALIS 2013 report, the teachers participation in professional updating activities in Italy ranks as one of the lowest in the surveyed countries (75% Italy, 88% TALIS average), with a decrease of 10 % compared to 2008. The number of teachers who state that they have benefited from incentives, mostly economic in nature, in regard to updating activities, is even lower and it would be necessary to add the teaching staff not employed in traditional education cycles and working in the private sector.

In recent years, the Italian Ministry for University and Research (MIUR) has been providing tenure-track teachers who work in ordinary education (kindergarten, primary and secondary schools) 1 with a voucher that can be spent in training activities and other types of benefits.

Based on the above, the training needs perceived by teachers of foreign languages and L1/L2 Italian seem particularly worth of investigation; to this end, we chose to individuate and select a representative sample, also taking into account that the scientific literature is rich in speculative contributions, but substantially poor in terms of research of an applicative nature (Nuzzo and Rastelli).

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1 “Tenure-track, full-time and part-time teachers belonging to public educational institutions, including those who are in a training and probation periods, those who were declared unsuitable for health reasons according to art. 514 of Legislative Decree 16/04/94, n. 297, and following amendments, teachers with managerial responsibilities, those who are out of role or otherwise employed, and the teachers working in foreign and military schools"(Translation by the Authors of https://cartadeldocente.truction.it/#/, last accessed on 03/01/2020).
Basically, there has been a significant fragmentation of the research efforts focused on the teachers’ training needs, and this has prevented from coming up with a unitary perspective (Nitti). Furthermore, no academic journal focuses specifically on the training of language teachers, while in the Italian scenario there are lots of settings dealing with the teaching of languages and, in particular, of Italian L2.

The teachers’ training needs depend on a number of factors and, particularly, on the territorial setting within which the teachers work. Therefore, our research is limited to Lombardy and Piedmont, though it can provide a representative picture of many other areas in Italy and abroad.

2. Training needs
The teachers’ training needs can be subdivided according to the emphasis placed on:

1) The attention to administration and training;
2) The quality of teaching;
3) The management of students as individuals and as groups;
4) The discipline’s contents in terms of updating processes;
5) The adoption of educational technologies.

In the first case, it is mainly about the relationships between the teachers and the institution they are working in: therefore training is centered on the ability to attract funding and foster the involvement in educational activities, on safety courses and needs associated with the institution and its surrounding setting.

On the other hand, in regard to the quality of teaching, the training needs are decidedly more complex as they are mainly linked with time management, teaching methodologies in terms of strategies and techniques, the ability to use software and hardware for educational purposes (glottotechnologies). The management of students is another particularly relevant training need. In this case, mention should be made to teaching aimed at inhomogeneous settings (Nitti), to the presence of students having special educational needs, the use of games in teaching, cooperative and collaborative teaching and learning (Dörnyei).

The second to last case about a key connection point between the institution and the students, as collaborative teaching refers to the teachers’ ability to carry out a lesson, a teaching unit, a program and, more generally, any teaching process together with their colleagues. Regarding the adoption of glottotechnologies, it is possible to identify two different attitudes: the first one permeated by distrust, the second by excessive confidence. Thus, we wish to point out that technology represents a tool through which the didactic process can be performed (Ciliberti).

As a matter of fact, academic research keeps progressing over time and there is a steady improvement in the study of each of the disciplines taught; a well-known example is relative to the "directionality/bimodality" dichotomy (Danesi). According to academic research dating back to the second half of the twentieth century, the human brain perceives and learns a language by activating both cerebral hemispheres, the precedence is given to the right one. This way, the linguistic material is perceived as a whole and, only later in time, it can be decomposed, analyzed and processed. Indeed, the most recent studies have highlighted that both hemispheres are at work from the very first moments in which linguistic material is absorbed, thus making the directionality factor much more flexible (Marini).

Language teachers who received their training before the dichotomy was put into question, have learned that languages have to be taught according to a global dimension, which, later on, will be followed by a more analytical one. Thus, without a language educational updating, it won’t be possible for teachers to work according to cutting-edge scientific criteria and this will undoubtedly lead to forms of learning that won’t be as scientifically and qualitatively valid. Needless to say, it is not our intention to claim that the work of a teacher who has been subject to a lesser degree of updating
will necessarily result in an ineffective learning; this is, indeed, a matter of complying with a scientific perspective, because the purpose of second language teaching is to model “the relationship between a given type of teaching and a given type (speed, rhythm, quality) of learning” (Rastelli 25). Moreover, we need to highlight that the training needs perceived by teachers do not always correspond perfectly to the challenges of modernity and scientific progress; in many cases attempts are made to improve the quality of foreign language teaching (Mezzadri) or, more simply, teachers are motivated in this direction by curiosity or professional updating needs.

In 2006, the Italian Ministry for University and Research (MIUR) issued a set of Guidelines aimed at the reception and integration of foreign students, which was later revised in 2014; the document features some good practice examples, which are useful to improve classroom management and foster the development of multilingual groups. According to the Guidelines, teachers are asked for a number of specific skills, among which the ability to simplify the language used in the classroom, a good initial non-verbal communication, the ability to explain the contents of home assignments and the texts of the various disciplines. In addition, teachers are required to have expertise in ICT (Information and Communication Technologies), which can result in enhancing the engagement of both Italian-speaking and foreign students, as well as raising their interest (Santalucia). An additional skill required is relative to the evaluative structure (Serragiotto), both in progress and summative, of the students’ abilities, as well as the employment of an intercultural approach to the teaching of school subjects, so as to foster integration and prevent, as much as possible, the onset of conflicts (Dusi, Guidetti and Portera).

From the above, it is clear that teachers have a major need for preliminary training and throughout their career, both in the more traditional settings of compulsory schooling, and, even more, in teaching environments not regulated by MIUR directives such as private training institutions, intercultural centers and the wide spectrum of associations as well as the private-social sector.

3. Technologies for language teaching
It is well known that, Educational Linguistics - an applied discipline, tightly connected with other disciplines - has been characterized by an interest in technologies since the 30s and 40s of the 20th Century (Nitti).

The tendency to use technologies, during the world conflicts, can be explained in terms of the need to teach languages quickly, for war-related and diplomatic purposes. The teaching programs based on audio-oral methods, proposed to the American Army (known as Army Specialized Training Programs, ASTPs), were based on the use of devices for recording and speech reproduction; the purpose was to make learners accustomed to the continuous repetition of sentences and exercise both the comprehension and speech reproduction of foreign languages.

The use of technology in teaching modern languages is called “glottotechnology”, encompassing all the tools, as well as hardware and software devices suitable for improving, perfecting and optimizing second language learning.

Examples of glottotechnologies are the “new media”, the tools that teachers use to write syllabuses, curricula and school planning, as well as recording and audio-visual reproduction devices, Interactive Whiteboards (IWBs), overhead projectors and smart appliances, such as smartphones, smart TVs, smart PCs and tablets. This list cannot be regarded as definitive, due to the continuous progress of technology as regards the accessibility of products and their availability to training agencies, teachers and, of course, students.

The relationship existing between the teaching of Italian L2 (and more generally, of modern languages) and glottotechnology has been described, over the last sixty years, in the framework of psycholinguistic and language acquisition theories (Nitti).

According to Porcelli “the channel through which the message is to be conveyed plays a major role in determining some key qualities of the message itself; therefore, it is not without consequences...”

2 http://www.istruzione.it/archivio/web/ministero/focus190214.html (last accessed on 03/01/2020).
whether or not to employ advanced teaching technologies and, generally, audiovisual and IT tools” (Porcelli 151-2).

A simple and intuitive example of the extent of Porcelli’s reflection is relative to being able to reproduce different kinds of language, otherwise unnatural or almost impossible to render during a lesson. In case a teacher, within an advanced level language course, would like to highlight the different phonological and morphosyntactic features of two or more varieties of Italian, glottotechnologies would allow him/her to reproduce the communication exchanges, play them back and review them, so as to be able to highlight the structures dealt with during the lesson (Peacock).

The communicative event can be made available to the group of learners and be part of the teaching process, hence allowing for the recreation and analysis of the reality of the interaction. According to Porcelli, the technological level of a language teaching technique is one of the main parameters that enable classifying activities within a teaching unit: “the techniques that require the use of technological devices and tools […] can be offered pending their availability and proper functioning” (Porcelli 220).

Language educational research has found out that language acquisition is favored by the activation of both cerebral hemispheres, generally in compliance with a sequence that starts from the whole and reaches the analysis (Danesi). Glottotechnology allows for the reproduction of visual and interactive features, hence facilitating the exposure to inputs through mediators that are far more dynamic than an image printed on a book and integrated by a cartoon; a linguistic input can be provided in a lively and dynamic fashion, and can thus be regarded as a real communication exchange. The exposure to a real communication exchange can potentially lead to problems: in fact, in daily interactions, the input is spontaneous and not calibrated according to the learners’ interlanguages (Selinker).

The teachers’ selection of contents as well as their teaching methods are functional in linking the activities to the teaching units and the topics being taught (Nitti).

As far as the use of glottotechnologies is concerned, there can be some issues that need to be taken into account: teachers and educational institutions can be resistant to the introduction of technological innovations, as they require time to be mastered and their use may lead to a destabilization of standard teaching practices. There may be risks also in case the opposite approach is followed, marked by the omnipotence and omnipresence of glottotechnologies; this kind of attitude characterizes those who believe that a language lesson can be solved, and even represented, by technology. The first two, above illustrated issues, specifically pertain to teachers and training agencies, but also the students themselves may go as far as to believe that technology is capable of replacing the intellectual efforts required for understanding and studying a language; in fact, several applications claim, more or less explicitly, to be a substitute for the student’s work, especially when it comes to the memorization of vocabulary items and grammatical rules. On the other hand, the students may make the opposite mistake of believing to be “ICT illiterates”. The latter approach is associated with the possible lack of knowledge of the technological medium: any student attending a middle high school class, despite being young and belonging to the category of “digital natives”, appears to be unable to use an application or a software, because he (or she) has never tried to do it or, more simply, shows resistance to the use of information technology. It goes without saying that teaching the use of any software or device is time-consuming; thus, it would always be advisable to examine the costs and benefits beforehand, when a new way of teaching may be introduced, which is beyond the students’ current level of knowledge. This situation is typical of many Italian L2 teaching contexts, with particular regard to illiterate and poorly educated speakers; the adoption of glottotechnologies may take up a long time for introducing the basics and this would negatively affect the overall process, considering the purposes and duration of the course.

Whenever glottotechnology is introduced, the teaching and learning processes undergo a sort of cultural revolution: “[the new media] generate a new cultural, social and existential sensitivity”
(Maragliano 17), and it cannot be taken for granted that institutions, students, their families and the teachers themselves are in favor or prepared for change. Technological progress has made it possible to establish new forms of interaction and communication, such as, for example, synchronous and asynchronous distance communication. Many applications enable to connect native speakers and learners from all over the world, thus fostering linguistic exchange and communicative practice. During classes, it is possible to arrange tandem teaching units, to conduct chats, messaging or e-mail exchanges with students from faraway locations. The problems concerning student privacy and issues related to the profile of the users who connect with the students have been partially solved, thanks to platforms exclusively dedicated to teaching, protected and managed by teachers (an example is the Edmodo educational media). When it comes to teaching Italian as L1/L2 and modern languages, it can be advisable to encourage socialization across the virtual environments set up for didactic use and connected with the Italian language; educational applications are very expendable when teaching Italian abroad (LS) or within so-called “linguistic islands” that, although being located in Italy, do not use Italian for communication, except for rare occasions (foreign universities, embassies, schools in Italy).

4. Indicators for evaluating glottotechnologies
As mentioned above, the use of a specific application or technology may lead to some problems of affordability and sustainability within the language lesson; the teaching staff can be supported by the selection and adoption of a grid of indicators that may guide their application within the teaching process.

The proposal for indicators (Nitti 59) is designed to be open and adaptable to the given teaching context, because the envisaged analysis is non-specific, whereas teachers always work within particular settings.

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Table 1 - Grid for the evaluation of technological devices for teaching purposes (The scale is subdivided into a range of judgements: 1 = insufficient/deficient, 5 = excellent.)
The first item in Table 1, graphics, refers to the visual quality of the program that is being used; on the other hand, interface pertains to the relationship between the user and the application, in terms of operativity.

Information density assesses the amount of information in the program (instructions, parameters, language material).

Practicality, on the other hand, concerns the specific use targeted to a particular group of students; some applications can be appreciated by an adult audience, while others are designed for a children’s audience. In addition to the relationship between the application and the learner’s profile, practicality refers to the procedure of use both for the installation and configuration and for the familiarity that can evoke in the student.

An example of high degree of practicality is represented by the educational platforms (educational media) similar to social networks, which people generally use to interact with friends: in such cases, the degree of familiarity with the settings and dynamics of use is certainly very high.

The possibility of reuse is a parameter that refers to any reuse of the applications and programs; as mentioned above, training a class of learners to the use of a procedure can be complex, time-consuming and energy-consuming, but the possibility of going back several times to the same path can help reduce, to some extent, the level of fatigue.

As far as intuitiveness is concerned, reference is made to the simplicity of use of an application; as this is, like many other indicators, subjective one, what is simple for a person may be complex for another.

It is not easy to clearly separate the boundary between intuitiveness, interface and practicality: the three parameters are often related to each other; however, on a descriptive level, it is possible to analyze them individually in order to conduct a scientific examination of glottotechnology.

Cost is an often underestimated parameter among the criteria guiding the choice of the materials used in the teaching of modern languages but, in many instances, it turns out to be critical for training agencies, families, trainees and teachers.

Another item featured in Table 1 is privacy and data protection; particular attention must be paid to the operating modes of an application: Student productions are to be considered, for all purposes, data to be protected, regardless of the amount of personal information contained. The same applies to the publication of portfolios, class photos and proofreading; it should always be made sure that the privacy and data processing of the programs are safeguarded.

The possibilities of cooperative employment are indicative of the level of development of communication competence: without interaction it is not possible to develop the whole range of sub-competencies that compose communication competence; an application may not be cooperative stricto sensu, but it may be used for cooperative purposes, within the framework of parallel, successive activities and the contribution of teachers.

Cooperative activities are generally motivating for students, as they lower the affective filter – if present (Porcelli 107) – and enable to develop communicative competence through verbal interaction.

The degree of multimediality is related to the simultaneous or deferred use of multiple media; in language learning, the multimedia dimension helps the learner to fix language structures and allows, often, to recreate similar communication settings that resemble reality.

The presence of interaction is to be traced back to two aspects: the interaction between the individual and the machine, and in this case the quantity and quality of interactive participation between the user and the program needs to be verified, and the interaction between students, which can be productive in terms of the development of communicative competence, the creation of a serene and cooperative working environment, and for socialization.

5. The research

In view of the above, the goal of the present research is focused on framing the attitude of language teachers with regard to the use of teaching technologies; the overall purpose is come up with an up-to-date and useful profile for the development of an effective training strategy, both adequate and in
line with expectations. To achieve the above, we have made use of the indicators described in Table 1 (§ 4).

In order to select a sample of respondents, we used a mailing list, which we had previously set up, composed of a list of teachers who were trained according to the above illustrated indicators, in the framework of the activities which were carried on at the Centro Interculturale della Città di Torino (Intercultural Center of the City of Turin). The first contact has consisted in sending email to 90 potential respondents in our database, inquiring on whether or not they wished to take part in the survey, the aims of which were illustrated in the email text. Out of all the replies received, it was possible to assemble the sample for the research, composed of 75 language teachers, of whom 36 Italian L1/L2 teachers. Later on, a structured questionnaire was proposed on Google Modules, composed of a total of 20 questions, among which 15 were closed-ended and 5 were open-ended.

The questionnaire submitted to the respondents was subdivided into three sections, each covering a specific survey area. The first section, the classification of the sample, contained 8 socio-biographical questions such as age, gender, educational qualifications, years of experience, the municipality of residence, the working environment and the type of institution of membership, as well as any specialization in language teaching (D’Agostino).

The second core of questions consisted of 7 more technical and language educational questions, focused on topics ranging from the use of the technologies employed within teaching units, to the strategies and tools used in class management, to the teacher’s reflections on the teaching of vocabulary and grammar, to the most critical aspects of teaching in multilingual context, to the management and correction of errors, the adopted timetables and materials.

The final section was the longest one to be filled in, as it was made of the 5 open-ended questions; respondents were asked to delve further into their own formative needs and teaching competences, as well as their organizational and professional desires. The last questions were aimed at investigating more in depth the teachers’ needs based on their position, the reception of the Guidelines, the students’ characteristics, with particular attention to the identified problems and their possible short-, medium- and long-term resolution.

6. The sample

Most of the respondents, as shown in Graph 1, work at compulsory schools, while a much smaller portion operates within associations and universities.

Graph 1 – The respondents’ teaching institutions.

3 These are teachers who attended training courses for teaching Italian L2 at the Intercultural Center of the City of Turin (www.intercultura.torino.it, last consultation 03/01/2020).
In regard to the educational qualification of the sample, as can be observed in Graph 2, most respondents have a first-level university degree (correspondent to a BA or a BSc); a significant number of the respondents possess language educational certifications. Most of the teachers who have only a secondary school diploma, work at primary schools or associations.

Graph 2 - Educational qualification of the respondents.

As far as the use of the indicators and the satisfaction level are concerned, as shown in Graph 3, it is worth highlighting that the grid discussed in § 4 was adopted (with a significantly high level of satisfaction) by the total majority of the sample, regardless of the educational qualification. Teachers who used the indicators described in § 4 were substantially satisfied with the training, stating that they had greatly improved their teaching performance.

Graph 3 – The use of the grid to assess technology and satisfaction rate
7. Conclusions

Based on outcomes of our survey, it is clear that the teachers have manifested a major need for further training, transversal to teaching levels and work settings. At the same time, our research allowed us to gain further insights into the training needs not only of those who currently work as teachers of Italian and modern languages, but also of those who are currently pursuing the qualifications needed to become teachers. Topics such as good practices and critical issues in language teaching, intercultural competence, techniques for developing integrated skills, the time interval over which is it possible to acquire basic language skills in Italian and the selected foreign language, the technologies for teaching purposes (Favaro), all the above are necessary pieces that any teacher should acquire to be able to perform their task.

Furthermore, the relationship between school and university is an essential requirement for the success of any training or updating effort; universities, responsible for identifying, through rigorous scientific research, the theoretical foundations and methods useful for dealing with the current urgencies and operational lacks in the schooling system, should be able to dialogue with school teachers to carry out a thorough and targeted assessment of training and updating needs.

Unfortunately, empirical research applied to the field of education, in Italy, has been so far insufficient to address the actual needs (Vannini) and there has also been a worsening in the quality of research itself. Despite the genuine research efforts and the good number of studies on the teaching of languages that have been conducted in recent years (Balboni), there has not been a real application of the research to everyday teaching practices; in fact, hardly ever have these studies been integrated within decision-making dynamics.

The use of the grid, therefore, has proven to be an effective tool for language teachers, regardless of the language taught and the profile of the learners, enabling to raise their degree of awareness about these topics, to an extent that would have been difficult to reach by the teachers independently (Dusi, Guidetti and Portera), unless they had attended updating courses in language educational disciplines. In addition, the results of the questionnaire highlight a strong desire, by most of the sample, for training and refresher courses in language educational disciplines. This is a very encouraging outcome, attesting to a high level of self-awareness and need for improvement. It is also worth noting that the respondents used the questionnaire section dedicated to further training necessities. Here, they expressed their need for practical proposals, such as teaching methods useful for the management of problematic classes due to their heterogeneity in terms of schooling, language level, age and L1.

The solution to the problem is not at hand, but it is not at all unreachable: A first step toward the desired direction could be represented by an increase in internship and traineeship opportunities at institutes and schools providing language courses; this would certainly facilitate the introduction and comparison with professionals already working in the sector.

Distance learning, for example, could help to overcome organizational difficulties, and making free online resources available would further shorten the distance between institutions and people (Cambiaghi, Milani and Pontani). In addition to the above, the availability of new training possibilities after the diploma, such as degree and master courses, would be the necessary prerequisite for the effective definition of the figure of the Italian L2 teacher (Balboni).

Such efforts should necessarily be taken, as mentioned above, on the basis a synergic work by the institutions involved, according to a modern perspective of wider accessibility and through panels of experts who may come up with interdisciplinary proposals, capable of bringing together theory and practical application (Vedovelli).
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This is a two-author paper, it has been conceived by the two authors together, but for a correct attribution Giulio Facchetti has written the abstract, chapters 1-5-6, and Paolo Nitti chapters 2-3-4-7.