

Research Article

Development of key competences through Latin and Greek in secondary school in Italy and Spain

Daniela Canfarotta, Crispino Tosto and Raquel Casado-Muñoz

University of Palermo, Department of Pedagogical Psychological Sciences, Physical Exercise and Training, Viale delle Scienze – Edificio 15. Postcode: 90100. Palermo, Italy

Abstract

With regards to the latest European Recommendations, developing key competences has become an important goal of education. The purpose of this comparative study is to focus on this topic considering the teaching of Latin and Greek in upper secondary school in Italy and Spain. A multiple case study with a mixed research design was used, with 173 students and 25 teachers as participants in the quantitative part and 40 students and 18 teachers in the qualitative part. The underlined results are a) the importance of working on the learning concepts of the students of Classics, as this influences the way they study b) the teaching factors that help pupils to develop key competences are evaluation, feedback, teacher personality, interactivity and discipline. Useful paths for daily teaching and new perspectives for future research in this field are offered.

Key words: Classics, Key competences, Metacognition, Mixed Method, Secondary School

Introduction

After the European Recommendation on Key Competences for Lifelong Learning (European Council, 2018 and 2006) many educational reforms were made in Europe to focus on key competences evaluation and to foster them in national curricula: for example, the Italian and Spanish governments indicated a precise list of key competences, called ‘of citizenship’, because they allow the future citizen to mature and act actively and responsibly (Government of Italy, 2007, 2015; Government of Spain, 2013).

In general, an evaluation is defined as a process that is focused on something that has already happened (summative evaluation) or for future improvements (formative evaluation) (Rømer, 2019). Research by Richardson (2010) suggests that students are sceptical about the value of any subject that does not provide a ‘final’ grade. For this reason, it is important to focus on the value of formative assessment. One should consider, for example, metacognitive strategies that make students more effective in planning, organising, and evaluating the results of their learning (Raaijmakers et al., 2019; Veenman, 2006).

Moreover, students’ conceptions of learning are very important for us to understand student beliefs on how knowledge acquisition and learning work (Pintrich, 2004). In general, studies on conceptions of learning are based on the fact that the operational level of actions or strategies - what is done - is preceded by a theoretical and epistemological level that filters through the subject’s beliefs about learning - what is said about learning and what is said that it has done. On the basis of this, superficial and profound conceptions of learning can be distinguished (Martínez Fernández, 2007).

Author of correspondence: Daniela Canfarotta, E-mail: danielacanfarotta@hotmail.com

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This study is focused on Latin and Greek subjects, because generally they are considered far from everyday life and not useful for employment (Canfarotta & Casado-Muñoz, 2019). Nevertheless, there is a lack of knowledge of how classical studies develop key competences in secondary schools in Italy and Spain. For these reasons it is important a) to deepen what these teachers and students of Classics think about key competences development at school, and b) to consider if and how key competences are improved through classical studies.

First, we highlighted similarities and differences in the key competence framework between Europe, Italy and Spain (Figure 1). Then, we analysed educational systems regarding classical studies in these nations; and finally we focused on an empirical study that involved both teachers and students.

In Italy, following the European Recommendation of 2006 (European Council, 2006), the Decree No. 139/2007 “*Regolamento recante norme in materia di adempimento dell’obbligo di istruzione. Decreto ministeriale n. 139, allegato 2*” (Government of Italy, 2007) further identified eight key competences which each student must obtain at the end of the second year of the high school.

In Spain the Government tried to implement key competences within the LOE (Government of Spain, 2006) and the LOMCE (Government of Spain, 2013): the assessment of students in citizenship competence is held by teachers in primary education, compulsory secondary education (ESO, *Educación Secundaria Obligatoria*) and *bachillerato* (post-compulsory education). As we can see, there are similarities between the Italian and Spanish competences.

A new European Recommendation (2018) proposed a revised European Reference Framework of Key Competences for Lifelong Learning, but the substance remains the same as 2006.

European key competencies (according to the European Recommendation of 2006)	Key competencies in Italy (according to the Government of Italy, 2007)	Key competencies in Spain (according to the Government of Spain, 2006, 2013)
1. Communication in the mother tongue	1. Communicate	Linguistic communication competence
2. Communication in foreign languages		
3. Awareness and cultural expression		Cultural and artistic competence
4. Mathematical competence and basic competence in science and technology	2. Identify relationships 3. Problem solving	Mathematical competence, knowledge competence and interaction with the physical world
5. Digital competence	4. Acquire and interpret information	Competence in information processing, digital competence
6. Learning to learn	5. Learning to learn	Learning to learn
7. Social and civic competence	6. Collaborate and participate 7. Act responsibly	Social and civic competence, competence of autonomy
8. Spirit of initiative	8. Design	Personal initiative competence

Figure 1. Comparison between Competences in Europe, Italy, Spain

Case studies context

In Italy *liceo classico* is one of six types of high secondary school (*Scuola Secondaria di Secondo Grado*) where Latin and Greek are taught. Other types are scientific, linguistic, human sciences, artistic, musical *liceo*. At scientific, linguistic, and human science *liceo* students do not study Greek, but only Latin (Government of Italy, 2010).

In the education system of Spain students start to study Latin at ESO with a subject called 'Classics Culture'. After the compulsory secondary education programme, students who want to continue in academic instruction can choose the *bachillerato*. This lasts for two years and has three modes: Sciences, Humanities and Social Sciences, and Arts. Latin and Greek are among subjects that students can choose in Humanities and Social Sciences (Government of Spain, 2013)¹.

Aim

We wanted to gain a deeper understanding of teachers' and students' perceptions of key competences which were developed through classical languages in secondary schools in Italy and Spain.

Method

With a personalist-constructivist paradigm and a phenomenological approach, a multiple case study with a mixed research design was used (Creswell, 2014), using qualitative and quantitative methodologies that allowed us to triangulate the results. We used the convergent parallel design, which collects and analyses two independent quantitative and qualitative data lines at the same time in a single phase (Bryman, 2016; Creswell, 2014; Coggi & Ricchiardi, 2008). In this design it is important to:

- Prioritise the methods equally
- Maintain independent data analysis
- Mix the results during the general interpretation
- Try to look for convergence, divergence, contradictions, or relationships between two data sources

The procedure involves:

- Collecting both types of data at the same time
- Analysing two sets of data separately
- Combining the results
- Interpreting the combined results

Sample and setting

The participants were Italian and Spanish students and teachers of Latin and Greek. In the quantitative part of the research there were 173 students (125 Italian and 48 Spanish) and 25 teachers (13 Italian and 12 Spanish). In the qualitative part of the investigation there were 40 students (20 Italian and 20 Spanish) and 18 teachers (9 Italian and 9 Spanish).

A sampling of convenience or availability was chosen, based on the available subjects, in both Italian and Spanish schools. The quantitative and qualitative data were collected in the same months, between February and June 2018. The convenient sample has the advantage of accessibility and data collection in a short period of time, of simplicity, and of utility for pilot studies. However, it has the disadvantages of the inability to generalise the research results, the relevance of the bias and the high sampling error (Bryman, 2016; Creswell, 2014).

In the categorisation phase of the variables, we distinguished between lower studies (the first two years of the Italian *liceo* and the ESO) and higher studies (the last three years of the Italian *liceo* and the first and second of the Spanish *bachillerato*).

Data Collection

Regarding information collection instruments, questionnaires were used for teachers and students in the quantitative phase and semi-structured interviews with teachers and students in the qualitative phase.

In the quantitative part of the study, students were asked to complete an online questionnaire during the lesson while in class. The link had been previously sent to their email addresses by teachers. The measures used to evaluate metacognitive strategies and conceptions of learning are described below.

Measures

For the quantitative study, observational and correlational, we used:

- a) A questionnaire for students that was composed of two parts: one (CONAPRE: Conceptions of Learning) refers to each student's conception of learning (items 1–15) and the other (SMI: Strategy Metacognitive Inventory) to metacognitive strategies used to study (16–35).

The CONAPRE (Conception of Learning; Martínez-Fernández, 2007) to measure students' conceptions of learning is a self-report questionnaire including 14 items measured on a five-

Meaning unit	Code	Subcategory	Generic category
Q2 What key competence do you want to achieve through classics studies?			
I want to have a greater command of the Italian language and, in the future, to study some other language to have more job opportunities	Communicate	Reasons to study Classics	Key competence

Figure 2. Examples of the Analysis Showing the Abstraction Process

point Likert scale. Three subscale scores can be derived: 1) Rote conception of learning (items: 3, 6, 10, 14) refers to students' understanding of the learning process as a simple reproduction of received inputs; 2) Interpretative conception of learning (items: 1, 4, 9, 12, 13) reflects the idea that learning is an active process; 3) Constructive conception of learning (items: 2, 5, 7, 8, 11) indicates learning as a process that promotes student development.

The SMI (State Metacognition Inventory) was used to assess students' use of metacognitive skills (O'Neil & Abedi, 1996). It is a self-report questionnaire consisting of 20 items on a five-point Likert scale. The questionnaire defines metacognition as a construct comprising several skills, such as planning, monitoring, cognitive strategy, and awareness and separated scores for these skills can be computed. In the present study, total scores were derived by summing all the item scores and these were used as an overall measure of students' attitude toward the use of metacognitive strategies.

In the present study, we calculated the Cronbach's alpha for the 34 items: it was 0.90.

- b) Teachers were given the TMI Questionnaire (Jiang, Ma and Gao, 2016), which was designed to evaluate teacher metacognition comprehensively. The TIM questionnaire deepens the following variables: metacognitive experiences (items 1-5), metacognitive knowledge (items 6-9), metacognitive reflections (items 10-16), metacognitive knowledge about oneself (items 17-20), metacognitive planning (items 21-23), and metacognitive control (items 24-28).

In addition, to see what teachers thought regarding the difficulties for students studying classical languages and strategies that could improve the results, the following items were added: motivation (item 29), grammar knowledge (item 30), self-regulation (item 31), teamwork (item 32), self-evaluation (item 33), and utility of Latin and Greek (item 34).

Cronbach's alpha for the 34 items was 0.922.

For the qualitative study we carried out semi-structured interviews, after appropriate adaptations, based on the work of Lloyd (2017). Below are the variables that were used for the interviews with the students, showing what was taken from Lloyd (2017):

1. Key competences developed by studying Latin and Greek (added)
2. Interest during the classes (Lloyd, 2017)
3. Links between life and study (added)

The variables that were used for the interviews with the teachers are listed below:

1. Objectives of the Latin and Greek classes (Lloyd, 2017)
2. Activities in the classroom (Lloyd, 2017)
3. Evaluation by competences (added)

Data analysis

The IBM SPSS Statistics 21 program was used to analyse the quantitative data; and, for the qualitative, the Open Code 4.3 program was used.

Regarding the qualitative study, an analysis of the discourse was made according to a classical approach. They are formulated not as 'research objectives' but 'field of analysis', since the interest focuses on reproducing the discourse related to the subject of study in experimental situations (Bryman, 2016). In addition, the descriptive approach was adopted to meet the aim of the study – to describe teachers' and students' perception about metacognition and key competences development. All interviews were transcribed verbatim. A 'meaning unit' could be a sentence or a part of the dialogue related to the aim. The meaning units were coded and grouped into subcategories. These were in turn abstracted into one main category (Figure 2).

Ethics

In the research the ethical norms of the British Educational Research Association (2018) were taken into account, according to which all persons and institutions involved in the investigation were protected in any way possible and as far as possible from any harm they might suffer as a result of their participation. All participants received written information about the study, their consent and their right to cancel the interview at any moment.

Findings

Insights from Quantitative Data

In the quantitative study descriptive statistics were expressed as means and standard deviations, and percentages were used to describe the sample characteristics and present students' average scores on the selected psychological measures.

Regarding the Italian and Spanish students, we evaluated a) the association between participants' scholastic grade and the reported use of metacognitive strategies and conceptions of learning, and b) the relationship between the overall use of metacognitive strategies and conceptions of learnings.

Based on the reviewed literature, we expected that students attending higher scholastic grades would report a greater attitude toward the use of metacognitive strategies and higher levels of constructive and interpretative learning. Moreover, we hypothesised that students with higher awareness about their metacognitive strategies use would also show higher levels of rote, interpretative, and constructive learning.

For the first aim of the quantitative study, regarding the students, a dichotomous variable was created for the scholastic grade. Specifically, students from the first and second grades of the Italian

Variable	Italian			Spanish			Total		
	M (SD)	N (%)	Range	M (SD)	N (%)	Range	M (SD)	N (%)	Range
Male		24 (19.2)			16 (37.3)			40 (23.1)	
Female		101 (80.8)			32 (62.7)			133 (76.9)	
Age	15.94 (1.47)		14-18	16.6 (1.00)		15-18	16.13 (1.39)		14-18
Grade									
1		37 (21.4)							
2		20 (11.6)							
3		15 (8.7)							
4		37 (21.4)							
5		16 (9.2)							
Eso					17 (9.8)				
1 bac					22 (12.7)				
2 bac					9 (5.2)				
Latin only		7 (25.6)			87 (72.9)			67 (38.7)	
Latin and Greek		93 (74.4)			13 (27.1)			106 (61.3)	

Notes: M = Mean; SD = Standard Deviation

Figure 3. Participant Characteristics by Nationality

schools and from the lowest grade (last ESO grade) of the Spanish schools were categorised as belonging to the low school grade; on the other hand, students from the third to the fifth grade of the Italian schools and from the two *bachillerato* grades of the Spanish schools were classified as being in high grade.

A one-way analysis of variance (ANOVA) was then used to evaluate the difference in the SMI total scores between students attending low versus high scholastic grade. Moreover, a one-way multiple analysis of variance (MANOVA) was run on the three CONAPRE subscales with low versus high scholastic grade as the between factor.

With regard to the second aim of the study, the sample was first divided into two groups on the basis of the SMI total scores, using a median split (median = 73). This resulted in one group representing a low use (N = 89) and a second group with a high use of metacognitive strategies (N = 84). A one-way MANOVA was subsequently performed on all the CONAPRE subscales with low versus high use of metacognitive strategies as the between factor. All the statistical analyses were performed using the SPSS software (version 20). A $p < 0.05$ was considered significant.

Overall, students participating in the study were 173 (77% female). Most of them (N = 125, 72.3%) were Italian and attended both Latin and Ancient Greek lessons during their high school classes. A detailed description of participant characteristics by nationality is provided in Figure 3.

Figure 4 presents means and standard deviations, and ranges for the scores obtained by students on SMI and CONAPRE subscales by nationality and for the group as a whole. Notably, average SMI total scores and CONAPRE subscales scores were roughly comparable across nationalities.

With regard to the first aim of the study, ANOVA revealed no significant difference in SMI total scores between students attending lower and higher scholastic grades ($F(1, 171) = 0.234, p = 0.629$). Similarly, MANOVA did not show statistically significant differences in CONAPRE subscales scores based on students' scholastic grade (lower vs. higher) ($F(3, 169) = 2.059, p = 0.11$).

For the second aim of the study, MANOVA revealed a significant multivariate effect of level in the use of metacognitive strategies (low versus high SMI total scores) on students' conceptions of learning (CONAPRE subscales scores) ($F(3, 169) = 72.987, p < .001; \eta^2_p = 0.56$).

Subsequent univariate ANOVAs indicated that students with higher awareness about their use of metacognitive strategies reported to be more interpretative ($F(1, 171) = 125.134, p < 0.001; \eta^2_p = 0.42$), constructive ($F(1, 171) = 135.112, p < 0.001; \eta^2_p = 0.44$), and mnemonic ($F(1, 171) = 96.129, p < 0.001; \eta^2_p = 0.36$) in their learning attitude than their counterpart with lower awareness about metacognitive strategies.

Regarding Italian and Spanish teachers, we wanted to assess the degree of metacognitive reflection in their teaching based on competences.

Variable	Italian	Spanish	Total	Range
	M (SD)	M (SD)	M (SD)	
SMI Total Scores	72.48 (10.77)	74.44 (10.82)	73.02 (10.79)	20-100
CONAPRE Direct	14.16 (2.50)	14.71 (2.50)	14.31 (2.51)	4-20
CONAPRE Interpretative	18.14 (3.18)	19.33 (2.64)	18.47 (3.090)	5-25
CONAPRE Constructive	19.22 (3.06)	18.46 (3.33)	19.01 (3.15)	5-25

Note: M = Mean; SD = Standard Deviation

Figure 4. Descriptive Statistics of the Psychological Measures

		Experience	Knowledge	Reflections	Personal Knowledge	Planning	Control
Experience	Pearson correlation	1	0.453	-0.008	0.271	0.283	0.346
	Sig. (2-code)		0.23	0.969	0.190	0.170	0.098
	N	25	25	25	25	25	24
Knowledge	Pearson correlation	0.453	1	0.293	0.438*	0.544**	0.572**
	Sig. (2-code)	0.23		0.155	0.028	0.005	0.004
	N	25	25	25	25	25	24
Reflections	Pearson correlation	-0.008	0.293	1	0.328	0.525**	0.704**
	Sig. (2-code)	0.969	0.155		0.109	0.007	0.000
	N	25	25	25	25	25	24
Personal Knowledge	Pearson correlation	0.271	0.438	0.328	1	0.578**	0.526**
	Sig. (2-code)	0.190	0.028	0.109		0.002	0.008
	N	25	25	25	25	25	24
Planning	Pearson correlation	0.283	0.544**	0.525**	0.576**	1	0.596**
	Sig. (2-code)	0.170	0.005	0.007	0.002		0.002
	N	25	25	25	25	25	24
Control	Pearson correlation	0.346	0.572**	0.704**	0.526**	0.596**	1
	Sig. (2-code)	0.098	0.004	0.000	0.008	0.002	
	N	24	24	24	24	24	24

Figure 5. Correlations between Variables

Regarding teachers, a descriptive analysis of TMI data showed:

- Regarding gender: female teachers were in the majority in the two countries (four men (16%) out of a total of 25, of which one was Italian and three Spanish).
- Regarding age: 12% of teachers had an age between 25 and 35 years; 16% between 36 and 45 years; 40% between 46 and 55 years old; 32% 56 or older. Thus, there is a high average age (45 years).
- Regarding years of service in the school: 12% had been teaching for one to five years, 4% from six to ten years, 12% from 11 to 15 years, 16% from 16 to 20 years, 56% from 21 years up. It is also confirmed, from the age, a highly experienced teaching staff.
- Regarding nationality: 52% were Italian and 48% Spanish.
- Regarding the city where teachers worked: there were teachers who came from 3 Spanish cities (Madrid with 8%, Burgos and Miranda de Duero with 32%, and Toledo with 8%) and from 3 Italian areas (North: Torino, Savigliano, Brescia, Firenze with 20%; South: Locri with 8%; Sicily: Palermo with 24%).

Considering the contingency table to measure the relationships between variables, we saw that there was a statistically significant correlation ($p < 0.05$) between the variables (Figure 5). The results showed that these constructs were associated with each other, that is, it is possible to see a covariation.

Regarding the questionnaire, we indicated the percentage of Italian and Spanish teachers who answered with a strong degree of agreement (many times or always) on each item:

- I always worry that students get bored in my class: 88%
- I worry about not being able to control the rhythm of the class well: 60%
- When my class does not work, I get nervous: 36%
- When I successfully complete the teaching task in the classroom, I feel very relaxed: 80%

- When my class goes as I expected, I am very happy: 86%
- I am convinced that a demonstration makes abstract knowledge more concrete: 88%
- I am convinced that the Socratic method makes students think: 92%
- I know that group work cannot be applied when you have little time: 72%
- I know very well that interacting with students makes them concentrate more on the task: 96%
- I re-evaluate the suitability of my teaching objectives after each class: 56%
- I reflect on whether my teaching design is appropriate after each class: 64%
- I wonder, after each class, to what extent I have achieved my teaching objectives: 80%
- I wonder, after each class, if I have considered other possible teaching methods: 68%
- I reflect after each class if there has been an effective learning: 68%
- I reflect after each class if I have taught properly: 80%
- I check after each class to what extent the teaching objectives have been developed: 68%
- I know well the concepts, principles and methods of the subject that I teach: 88%
- I quickly overcome my mood before starting the class: 92%
- I know my strengths when teaching: 96%
- I am aware of my weak points when teaching: 88%
- I prepare myself for unexpected situations that may arise in the classroom: 68%
- I always set a specific teaching goal for each class: 68%
- I design in advance the specific teaching program for each class: 84%
- I pay attention to my possible emotional changes in class: 72%
- I check the progress of the teaching periodically to determine if it meets my expectations: 76%

26. I wonder, while I'm teaching, if I'm doing it right: 76%
27. I wonder periodically if my teaching method is effective in a specific group of students: 84%
28. I regularly check to what extent the students understand the content, while I am teaching: 80%
29. I believe that the greatest difficulty for students when studying classical languages is the lack of motivation: 52%
30. I believe that the greatest difficulty for students studying classical languages is linguistic and grammatical ignorance: 76%
31. I believe that the greatest difficulty for students when studying classical languages is the inability to regulate themselves during the task: 40%
32. If each lesson includes a moment of group work, the students will be more motivated: 40%
33. If each lesson includes a moment of self-evaluation, the students will learn to reflect more on the study: 72%
34. I think that students do not perceive the usefulness of studying Latin and Greek today: 73%

Insights from Qualitative Data

With regard to the qualitative part of the research work, we interviewed students and teachers. Regarding the students we can see participant characteristics in Supplementary Appendix 1.

The themes identified while analysing the qualitative data were:

1. *Key competences in the study of Latin and Greek.* Some students perceive that they develop these eight key competences through classical languages:

Personal, social and learning competence: some students, both Italian and Spanish, say that studying Latin and Greek teaches a useful methodology not only to make a good translation, but also to use in other contexts, such as highlighting learning competence: 'It is interesting to see, in a translation, why we are wrong' (Italian student, female, 16 years).

Entrepreneurship competence: some students reveal that studying Latin and Greek helps their organisation skills. One participant noted: 'Latin helps a lot when it comes to organising, because being such a logical language, it helps you prioritise' (Spanish student, male, 18 years).

Literacy competence: other students, mostly Spanish, said that learning the Classics is a good programme teaching them to communicate better. One participant noted: 'Latin class helps me to see how to speak and know how to use the correct words' (Spanish student, female, 15 years).

Linguistic competence: some students know that studying Classics facilitates the study of other languages. One girl said: 'I understand English language, until I studied Latin I could not really relate to it: I hear a word in English and I remember if it comes from Latin origin' (Spanish student, female, 15 years).

Cultural awareness and expression competence: other students say that Latin and Greek are important because they develop a positive and open-minded attitude towards those that are different. One girl said: 'Latin also serves to improve relationships with people: if one has a more open mind, one can also understand them better' (Italian student, female, 16 years).

Science, technological, engineering, and mathematical competence: Classics are a good program to develop scientific thinking. One boy said: 'Studying Latin, I got used to thinking more about the issues and then I found the solution even easier' (Italian student, male, 15 years).

Digital competence: other students said that they used new technologies to study Latin and Greek. One participant noted: 'Sometimes we study Latin by playing games on the internet' (Italian student, male, 15 years).

Civic competence: Latin and Greek are useful to learn to be more democratic and inclusive. One student said: 'Latin and Greek allow me to relate more with my colleagues, know them more, and makes me closer to them' (Spanish student, female, 17 years).

2. *Metacognitive competences (interest, motivation):* Some students said they started these studies because their parents had advised them to do so. This extrinsic motivation became intrinsic afterwards and students were happy to study Latin and Greek. For example, one participant noted: 'It was my dad who pushed me to choose the classical high school; my mother left me freer to choose, but she told me that everything she had studied during classical high school had opened her mind' (Italian student, female, 17 years).
3. *Relations between Classics and life:* A lot of students recognised the relationship between the studying of Classics and everyday life. For example, one girl explained how her way of thinking has changed: 'If you know Latin well and know how to construct sentences and translate a version and give it a meaning, then there is a sort of interlocking game in your brain that can help you not only in Latin, but also in everyday things' (Italian student, female, 16 years).

To summarise, Italian and Spanish students considered that metacognitive and key competences were developed through classical studies. However, they asked for a tool that could help them to be more aware of this growth.

With regard to teachers, we interviewed 18 teachers of Classical studies (their characteristics are given in Supplementary Appendix 2).

The themes identified were:

1. *Objectives of Latin and Greek classes:* Many teachers highlighted how many competences studying the Classics developed. One participant said: 'Latin and Greek seem to be useless, they are not theoretically pragmatic; but afterwards they will give many resources at the intellectual and linguistic level; they develop critical sense' (Spanish teacher, female, 55 years).
2. *Activities in the classroom:* Some teachers often change their teaching methods in the classroom. One participant confirmed: 'I think the key is to vary, so that the class has a surprise every day' (Spanish teacher, male, 52 years). Others noted: 'I use the flipped classroom method because it helps students socialise and concentrate better. Moreover, I often do group work because collaborating with others is an added value' (Italian teacher, female, 35). Others used a traditional method of a lecture. One teacher said: 'The truth is that I hit the manual a lot, we review it, we read it' (Spanish teacher, male, 58 years).
3. *Evaluation by competences:* Some teachers noted how important the problem-solving competence is. One participant noted: 'One of the main activities of Latin is the problem solving that leads to verifying things, taking nothing for granted, but they must evaluate what is said and find solutions' (Italian teacher, female, 56 years). Others underlined metacognitive competences: 'Metacognitive competences are found in many activities: for example, the ability to find one's own errors, to try to reconstruct lexical paths and to find connections with other areas' (Italian teacher, female, 54 years). Another teacher said that evaluation

by competences is very difficult: 'Some of these things are pure entelechy or fiction' (Spanish teacher, male, 56 years).

Discussion

The aim of this study was to describe teachers and students' perceptions regarding metacognition and key competences developed through Classics.

Relating to Italian and Spanish students of the Classics in secondary schools, we evaluated: a) the association between participants' scholastic grade and the reported use of metacognitive strategies and conceptions of learning, and b) the relationship between the overall use of metacognitive strategies and conceptions of learning.

Regarding the first question, the data showed that age did not influence the relationship between participants' scholastic grade and the reported use of metacognitive strategies and conceptions of learning. In contrast with Martínez Fernández (2007), the development of metacognitive strategies did not depend on the different levels of study. It was as if the students did not grow during the course of study or, to put it more positively, that the perception of the students was always to have control over their own performance. It is important to contrast this result with a qualitative analysis to find out the students' awareness of what they say they do and the issues that refer to metacognition: the way of learning is more important than the amount of information that is learnt (Magno, 2010).

Regarding the second question, there was a significant multivariate effect between the levels of use of metacognitive strategies and students' conceptions of learning. This confirmed that the conceptions that students of Classics had of their own learning were important variables that influenced the choice of the appropriate strategies (Martínez-Fernández, 2007). This is the best condition for self-regulated learning: proactive students, in their efforts to learn, are aware of their strengths and limitations, and they are guided by established personal goals and strategies related to the task (Zimmerman & Schunk, 2011). In this perspective a metacognitive tool that helps students of Latin and Greek be more aware of their strengths and limitations could be very useful. Therefore, key components of self-regulated learning are monitoring, evaluation of performance and control (Raaijmakers et al., 2019). To improve in monitoring accuracy students should have a clear explanation of the task objectives from their teachers to be able to know and to monitor their growth (Lloyd, 2017). The feedback of the teacher becomes an essential tool to perform Latin and Greek tasks well.

Furthermore, the results emphasised the importance of working on the conceptions of learning that students of Classics have, as this influences the modality with which they study (Entwistle & Peterson, 2004): those who say that they learn by remembering information have a more superficial focus. On the other hand, those who know how to make personal changes through culture and studies have a deeper focus. In summary, among the factors that can help with a more critical approach are evaluation, feedback, teacher personality, interactivity, and discipline (Baeten et al., 2010). We underline the following positive effects of the feedback and formative evaluation (Rømer, 2019): reactivate or consolidate skills or knowledge of prerequisites before introducing new material; focus attention on the important aspects of the subject; encourage active learning strategies; provide knowledge of results and corrective feedback; help students monitor their progress and develop self-assessment skills; help students to have a sense of

achievement; offer an interesting stimulus to increase student motivation (Harrison & Vallin, 2017; Pintrich, 2004).

This greater participation of students in the learning process can encourage the transfer of these attitudes into a greater participation in the life of society, as active citizens (Asikainen & Gijbels, 2017). What is more, with respect to the students, there is a significant relationship between their conceptions of learning and their learning strategies: working on the conceptions of learning means deepening the types of learning they develop in class and the purpose of their studying. In this way, how Classics teachers work in the classroom influences the students' conceptions of learning: hence, a metacognitive methodology that develops awareness of the relationship between study and life increases the interest of students for classical disciplines.

To sum up, quantitative data showed that age did not influence metacognition strategies. This could mean that students were not aware of what 'Learning to Learn' competence is. This could be so, because it is not taught in Italian schools, while it is taught in Spanish schools at ESO, but is not specific to Latin and Greek. For future investigations, it could be very interesting to develop a specific metacognitive tool for Classics students to help them to develop their self-evaluation after school tests.

With the qualitative part of research, statistical data is contrasted by a more narrative way that allows people to better explain their thinking. The narrative of why an action was done has the effect of fostering critical thinking which is one of the most important objectives of education (Pring, 2016; Rømer, 2019).

Finally, this study confirms that for Classics studies, contextual factors, such as the personality of the teacher, their approaches, competences, qualities, or materials used or situation in which learning takes place, influence the students' behaviours. Teachers must consider the prescribed curriculum and educational policies as a flexible guide that leads, through different approaches to the development of students' cognitive, volitional and emotional aspects (Baeten et al., 2010).

All these statements reflect that Italian and Spanish teachers in their evaluation practices have begun to change their way of doing things and the key competencies assessment have offered them the possibility of experimenting with new forms of formative evaluation for an effective development of competences (Jiang et al., 2016). There is a change in the evaluation of students of Classics (Newland, 2016). This is in line with the modernisation of the *liceo classico* curriculum that the Ministry of Education started in Italy (Government of Italy, 2016).

Another interesting result is that more expert teachers participated in this research without receiving any reward: this is an important result as far as the cooperation between schools and universities is concerned. When teachers perceive that research is an aid to their teaching activity, they spare no effort to make themselves available. A reciprocal growth is thus verified: for teachers, because it improves their professional identity, and for researchers, because they learn from the experiences lived by others, contrasting theory with life.

From the methodological point of view, mixed methods allowed for a richer, more informed, assessment of this topic and ensured a deep understanding of a phenomenon (Bryman, 2016) by contrasting the same phenomenon with a different data source.

Among points of divergence between the quantitative and qualitative parts, we have not found any relevant aspects. We only emphasise a curiosity: in the quantitative part, teachers obtained high scores about their metacognition in teaching. We wonder why, if they have metacognitive skills, they did not explicitly teach

metacognition to students. This is probably due to the schoolwork, its programmes with very narrow time allocations, making the teachers focus more on the contents, which are perceived as more urgent because they are the important part for examination. This approach puts the problem of evaluation, at school, not only in the content but also in the competences of teachers and students. For this reason, our research has implications for teachers, the preparation and practice of school leaders, and for the initial training of teachers (Perry et al., 2019).

As new lines of research based on mixed methods one could a) study the learning concepts and opinions of students on key competences before starting high school in order to investigate to what extent students are aware of what it means to study classical languages; b) repeat the study with the same methodology applying it to other school subjects and check if higher or lower results are obtained, and c) compare if the same results are obtained with other languages of the European Union.

There is a case for saying that the methodology is also a factor: in fact, we have seen in this research that students intuit that they develop some competences thanks to didactics. This gives us the opportunity to focus on the importance of the educational purpose that teachers propose in teaching (Pring, 2016).

Conclusions

In short, we studied the perception of teachers and students about the development of the key competences of citizenship through Latin and Greek in the secondary school, in Italy and Spain. Comparing the quantitative and qualitative results, we gained a deeper understanding of this topic. In particular, we have shown that some teachers primarily consider assessing some competences and that students are asking for a tool that can help them be more aware of this growth.

Daniela Canfarotta, University of Palermo, Department of Pedagogical Psychological Sciences, Physical Exercise and Training. Viale delle Scienze – Edificio 15. Postcode: 90100. Palermo, Italy.

Crispino Tosto, Ph.D. in Psychological and Social Sciences, National Research Council, Institute for Educational Technologies, via Ugo La Malfa, 153, Palermo, Italy.

Raquel Casado-Muñoz, University of Burgos, Department of Education Sciences. C/ Villadiego s/n. Postcode: 09001. Burgos, Spain.

Supplementary material

The supplementary material for this article can be found at <https://doi.org/10.1017/S2058631021000544>

Note

1 In Italy the respondents are in the high secondary school, when students are between 14 and 18 years old. In the first two years of classical high school Italian students study Latin 5 hours per week and Greek 4 hours per week. In the second two years and in the fifth year the hours of Latin are 4 per week, as are the hours of Greek.

In Spain the respondents are between 14 and 18 years old. Some of them, aged 12 to 16, attend ESO, the compulsory secondary education. The ESO is divided into 2 cycles: 1) from 12 to 14 years old: first and second year; 2) from 14 to 16 years old: third and fourth year. In the third year it is compulsory to study a subject called Classical Culture, so that all students know the basics. In the fourth year they can choose to continue studying Latin as an optional subject of the humanities curriculum. Between the ages of 16 and 18, students can choose to continue studying in the bachillerato. If they choose it with a specialization in

Human Sciences, they have 4 hours of Latin + 4 compulsory hours of Greek in the first year; in the second year they have 4 compulsory hours of Latin, but 4 optional hours of Greek.

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