Key competences and plurilingual education in the Valencian Region (Spain): A curricular analysis of Primary Education

Competencias clave y educación plurilingüe en la Comunidad Valenciana (España): un análisis curricular de la Educación Primaria

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Abstract

The purpose of this work is to study the level of transversality of key competences in Primary Education in the Valencian Community. To this end, an analysis of the Decree 108/2014 currently in effect will be carried out, along with determining the frequency with which each competence is worked on during this stage of education. The data obtained will be interpreted bearing in mind plurilingual programs and, more specifically, the basis of the methodological needs that are pursued in CLIL, the approach to teaching non-linguistic areas through a foreign language. Generally, the findings point to a lack of transversality in some of the competences, one of them being the linguistic competence. This implies the need for a more cross-curricular competence model for plurilingual education, since the rigid structure of the key competences in the current curriculum and, therefore, the lack of a greater interconnection among them may hinder to a great extent the proper functioning of the principles that the CLIL approach posits.

Keywords

Intercultural education, Communicative competence, Primary education, Cross-curricular training, Quality of education

Resumen

El presente trabajo tiene como objetivo estudiar el grado de transversalidad de las competencias clave en la etapa de Educación Primaria en la Comunitat Valenciana. Para ello se llevará a cabo un análisis del Decreto 108/2014 actualmente vigente y se establecerá la frecuencia en que cada una de las distintas competencias clave se trabaja a través de los seis cursos que conforman este ciclo educativo. Los datos obtenidos se interpretarán teniendo presentes los programas plurilingües y, más concretamente, en base a las necesidades metodológicas que se persiguen en AICLE, el enfoque utilizado para la enseñanza de áreas no lingüísticas impartidas a través de la lengua extranjera. Los resultados apuntan, en general, hacia una falta de transversalidad de algunas competencias, siendo una de ellas la lingüística. Esto nos lleva a la necesidad de contar con un modelo de competencias más intercurricular para la educación plurilingüe, ya que la estructura rígida de las competencias en el currículum actual y, por ende, la falta de una mayor interconexión entre ellas puede obstaculizar, en gran medida, el correcto funcionamiento de los principios postulados por el enfoque AICLE.

Palabras clave

Educación intercultural, Competencia comunicativa, Enseñanza primaria, Materia transversal, Calidad de la enseñanza

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1. Introduction

Competences have been a central aspect of the Spanish educational landscape since the current education law was passed in 2006. Both the quality of current curriculum plans and the learners' performance are measured against the attainment of a series of pre-set competences that the content studied must address. This competence-based approach constitutes the current basis for curriculum design, teaching, learning and assessment (Tobón, 2006).

Bilingual education, considered by many the great educational revolution of the 21st century, has adopted this system of competences based on guidelines set by Europe and the national education plan. Following the methodological framework for this teaching, the subjects taught through the medium of a foreign language require the exploitation of a set of skills by the learner, who needs to go further than merely acquiring knowledge. The student is expected, among other aspects, to interact and work collaboratively with other students, to gain greater mastery in the communicative use of languages, to develop learning skills to ensure continuous learning and acquire greater cultural awareness about the world. These are key aspects to ensure the proper functioning of the system and guarantee that the teaching of curricular modules through the medium of a foreign language does not represent an impediment to the acquisition of new knowledge.

It can therefore be said that the bilingual methodology promotes the implementation of a competence-based education model at the service of today's society. Although the results of the studies point to an improvement in the linguistic level of students in bilingual programs (Admiraal et al., 2006; Lorenzo et al., 2009; Kerstin and Ohlander, 2014; Jiménez Catalán and Agustín Llach, 2017; Pérez Cañado, 2018; Merino and Lasagabaster, 2018, Martínez Agudo, 2019, among others) and the effectiveness of the CLIL (Content and Language Integrated Learning) approach in content acquisition (Dallinger, 2016; Surmont et al., 2016), some of the very few studies analyzing content in Spain point to certain disadvantages in the acquisition of curricular content itself (Anghel et al., 2012; Fernández-Sanjurjo et al., 2019) or in the compiling of CLIL textbooks (Romeu, 2016). In addition, studies have been carried out in different autonomous communities that emphasize the need to improve certain aspects of their respective bilingual/plurilingual programs (Fernández Fernández et al., 2005; Pena and Porto, 2008; Fernández Cézar, Aguirre and Harris, 2009; Laorden and Peñafiel, 2010; Fernández and Halbach, 2011; Bolarín, Porto and García-Villalba, 2012; Lova, Balarín and Porto, 2013; Travé, 2013; Arocena, Cenoz and Gorter, 2015; Pladevall-Ballester, 2015; Durán-Martínez and Beltrán-Llavador, 2016; Lozano-Martínez, 2017; Cerezo Herrero, 2019). Although these studies yield valuable data to continue advancing and improving, none of them broadly addresses the object of study from the education act itself or, more specifically, from the framework of key competences, which constitutes the foundations on which these programs are built.

On this basis, the main aim of the present study is to analyze the level of transversality of the different key competences described in Decree 108/2014 of 4 July concerning the Valencian Community's primary education and curriculum. The intention is to establish a more intimate relationship between current legislation and plurilingual educational practice and to determine the extent to which the described competence-based framework facilitates or hinders the implementation of the methodological approaches that govern CLIL.

2. Conceptual approach to the term *competence*

Competence is not a new concept from a terminological point of view. Chomsky coined the term "linguistic competence" in 1964. Subsequently, the term *competence* became widespread and was also introduced into other areas of knowledge and the world of work. It can, however, be considered relatively new in education, since it was not until the beginning of the 21st century that the competence-based approach became part of current curricula. Nevertheless, despite the fact that competences have accompanied and shaped education for more than a decade, there seems to be no consensus among academics when it comes to defining them (Díaz Barriga, 2006; Andrade, 2008), resulting in their implementation inevitably leading to uncertainty and confusion (Gimeno Sacristán, 2008). It can, however, be accepted that competences involve the combination of three fundamental elements: information, skill and action (Díaz Barriga, 2006).

The Organization for Economic Cooperation and Development (OECD), through its Definition and Selection of Competences Project (DeSeCo), defines the term *competence* as "the ability to respond to complex demands and carry out various tasks appropriately. It involves a combination of practical skills, knowledge, motivation, ethical and attitudinal values, emotions and other social and behavioural components that are mobilized together to achieve effective action" (OECD, 2005). Competences must therefore contribute to the achievement of results with broad social and personal value that can be applied to a wide spectrum of fields and contexts. The European Union, an institution that has promoted the competence-based approach in different European countries, also adds that a competence represents multifunctionality and transferability of skills, attitudes and knowledge acquired in order to achieve personal fulfilment and development, inclusion and professional integration. Competences must thus be understood from a cross-curricular standpoint in order to guarantee that they unfold their full potential throughout the whole educational process.

Competence is therefore synonymous with ability. It is about moving from the scholarly to the utilitarian in a way that the development of the knowledge society is promoted and the worlds of work and academia are brought closer together (Díaz Barriga, 2006). In

this sense, the significance and functionality of learning is sought. The intention is not to detract from the acquisition of new knowledge, but rather to address it through the development of cognitive skills that allow students to tackle different tasks and situations successfully (Perrenaud, 2001; Díaz Barriga, 2006; Zabala and Arnau, 2007), achieve personal fulfilment and social inclusion through their active participation in citizenship, develop mechanisms to deal with adult life, embark on lifelong learning (Ayuso, 2006) and adapt to a society in constant change (Tumino and Bournissen, 2016). To achieve this, new knowledge is approached in an interrelated way, thus creating a connected knowledge and, therefore, a much more integrated curriculum (Morin, 2001). For this, Viso Alonso (2010) notes that a competence must be holistic, transferable, reflective, creative, cross-cutting, dynamic, multifunctional and contextualized. It can be said then that this competence-based approach in current education is an institutional opportunity for methodological renewal (Bolívar, 2008).

2.1. Key competences in the primary education curriculum

Key competences refer to abilities that are common to all areas of knowledge that make up the curriculum in a certain educational stage, meaning that they need to constantly develop throughout the entire educational process. The transversality and dynamism of these competences in the different curricular areas highlights the need for greater integration of the knowledge and skills acquired and consigns to the past the image of a fragmented and divided curriculum. This system enables connection networks to be established between everything that is learned and prevents new knowledge from languishing in watertight compartments and subsequently falling into disuse.

Following the recommendation of the European Parliament and Council, competences became an integral part of the curriculum in 2006. This was the year when Spain passed its new Organic Education Act (LOE), which, for the first time, introduced a set of basic competences. In 2013, the Organic Educational Quality Improvement Act (LOMCE) was passed and this amended the previous law and the set of competences described above. In this new model, the number of basic competences went from eight to seven. These also came to be known as key competences.

Taking Spanish and European regulations as a reference, the competences that make up the current educational model can be summarized as follows[i]:

Competence in linguistic communication (CCLI): communication in a mother tongue and one foreign language, both written and oral. This seeks the development of the ability to express and interpret concepts, thoughts, feelings, dates and opinions, and to interact with other speakers in diverse social and cultural contexts.

Mathematical competence and basic competences in science and technology (CMCT): the application of mathematical reasoning to solve daily problems and use scientific knowledge and methodology to explain the natural environment around us.

Digital competence (CD): critical and safe use of information and communication technologies (ICT).

Learning to learn (CAA): the ability to pursue and organize learning, information and time, both individually and collaboratively.

Social and civic competences (CSC): the development of intrapersonal, interpersonal and intercultural intelligence in order to ensure participation in social and civic life.

Sense of initiative and entrepreneurial spirit (SIEE): the ability to turn ideas into actions, including creativity, innovation, planning and project management, as well as taking risks.

Cultural awareness and expression (CEC): appreciation of the creative expression of ideas through music, the plastic and visual arts and literature.

3. Methodological principles of bilingual education

As noted by Cepero et al. (2013, p. 257), bilingual programs "se han convertido en una de las principales prioridades para la adquisición de las competencias exigidas en los Reales Decretos". The bilingual or plurilingual educational model, depending on the autonomous region, promotes the integration of skills, attitudes, values and knowledge in different situations of use in order to achieve more meaningful and long-lasting learning. It is not unreasonable to say, then, that this teaching model requires the fostering of general competences beyond those required by the subject in question.

Bilingual education in Spain is carried out mainly through the CLIL methodological approach, which, as already mentioned, is an ideal backdrop for implementing a competence-based educational model, since this approach makes use of a methodology that promotes its implementation. CLIL has a dual purpose: on the one hand, the acquisition of new knowledge relating to different curricular areas and, on the other, the enhancement of foreign language learning (Marsh, 2002; Mehisto, Marsh and Frigols, 2008). This overlapping of content and language makes it possible, in a curriculum full of subjects, for the foreign language to have a greater presence and for its acquisition to be more effective, as several studies have already shown (Admiraal et al., 2006; Alonso et al., 2008; Jiménez Catalán and Agustín Llach, 2017; Merino and Lasagabaster, 2018, among others).

CLIL is based on Piaget's constructivist approach and Vygotsky's sociocultural theory and zone of proximal development concept. Learning is expected to be social, based on interaction and cooperation. In this regard, Coyle (2013) highlights the need to create communication opportunities in the classroom by encouraging interaction. In order to ensure that the foreign language does not become an obstacle to the acquisition of content, it is necessary to make use of a number of resources and teaching strategies that ensure correct acquisition (Fernández and Halbach, 2011), such as digital materials, kinetic activities, cooperative work, etc.

It should also be noted that CLIL not only seeks the development of communicative or content competences but also the development of the student's higher cognitive abilities (Meyer, 2010). In addition, according to Meyer and Coyle (2017), deep learning occurs when the student connects communicative and conceptual dimensions. Proper practice should focus attention on the interdependent processes of content construction and the sharing and communication of this knowledge (Meyer et al., 2018).

All of this shows the need to have an integrated curriculum characterized by flexibility in the competence-based approach, with the teacher being the one who carries out the competence-based planning according to the students and their educational needs. Bilingual education is an ideal space to achieve this integration thanks to the methodological patterns that define it. Thus, the transversality of key competences in the CLIL classroom must be a reality. It is essential to establish links between different curricular areas and key competences. This will make it possible, on the one hand, to ensure the acquisition of curricular content through the foreign language, of which students have limited knowledge, and, on the other hand, to guarantee the applicability of the acquired knowledge.

4. Design of the study

4.1. Definition of the object of study

As specified by the Ministry of Education, Culture and Sport through Order ECD/65/2015, all subjects must contribute to the development of key competences. To this end, through Decree 108/2014, the Valencian Community government is responsible for establishing the relationship between content, assessment criteria and key competences. The aim is to ensure that the educational model offered is based on a competence-defined approach, in accordance with European educational recommendations.

More specifically, the need to implement a complete and balanced competence-based system in plurilingual programs is a sine qua non requirement to ensure optimum and ef-

fective implementation of them. On this basis, the present study seeks to analyze the degree of transversality of the key competences described in Decree 108/2014. The aim is to discover whether the competence-based model proposed in the curriculum responds to the methodological needs that govern plurilingual education.

4.2. Hypothesis

The starting hypotheses in this work can be formulated as follows:

• The different key competences included in Decree 108/2014 are not developed equally through the different areas that make up the primary education curriculum in the Valencian Region.

• The linguistic competence does not have sufficient curricular weight to ensure the proper functioning of plurilingual education programs.

• Competences receive equal weight throughout the entire primary education stage.

4.3. Methodology and data collection

The research proposed in this study is quantitative. The procedure followed can be divided into two stages:

A. Definition of the presence of each of the competences in the different subjects.

The frequency with which the different key competences are named in the description of each of the areas that make up the Primary Education Decree has been established.

B. Weighing of the presence of each of the competences according to the number of sessions for the different subjects, as established in the current legislation.

The results of each area will be analyzed taking into consideration the number of weekly teaching hours dedicated to each subject. The type of sample analyzed is simple, since only Decree 108/2014 currently in force has been considered.

In order to avoid both human and printing errors in counting, a dual data collection procedure has been followed. First, the information relating to competences has been copied from the document in PDF format to another in Word format. Then, the Microsoft Word search tool has been used to establish how often each competence is mentioned in each year and curricular

area. It is worth mentioning that, as opposed to other areas, the Valencian Culture area, with free regional configuration, is taught only in the fifth year. This will have to be taken into consideration when interpreting the results. Lastly, a detailed reading of the Decree and a second count of the competences has been made and the results of both procedures have been compared. This dual procedure has been repeated in cases of disparity of data between both paths of analysis. This ensured a greater degree of reliability in data collection.

It was observed that cases of disagreement between the results of both procedures are due to a number of printing errors in the abbreviation of the SIEE (sense of initiative and entrepreneurial spirit) competence as SIE. Twelve printing errors were detected in the area of *First Foreign Language: English*, within the second content block of each year; six more printing errors in the area of *Physical Education*, in the fifth content block of each year; and thirteen errors in the area of *Artistic Education: Music*, twelve of them in the second content block of each year and one in the third content block of the first year.

Once the definitive data were obtained, it has been broken down by competence, year and area and entered into the SPSS 20.0 program for statistical analysis. Univariate analyses have been carried out (frequencies, percentages and central and dispersion-tendency statistics) to show a descriptive picture of how the key competences are approached in the plurilingual educational law in force.

5. Results

The main results obtained in the analysis are presented below along with a critical interpretation of them.

5.1. Breakdown of competences by curricular areas

In this first stage of the analysis, the frequency with which each competence was named in the curricular decree throughout the whole primary education stage is presented. Although our interest lies mainly in the analysis of areas that can be taught through a foreign language (non-linguistic areas), in this analysis, all areas will be taken into account in order to obtain a more general picture and enable us to make generalizations according to the treatment that the different key competences receive as a whole.

Table 1

Frequency of competences by area and year

Science							
School year	CMCT	CAA	CCLI	CD	CSC	SIEE	CEC
1st	11	7	3	1	3	9	0
2nd	12	7	4	1	4	6	0
3rd	10	7	2	1	3	6	0
4th	13	6	2	1	5	6	0
5th	14	7	2	1	6	7	0
6th	12	7	2	1	5	7	0
Total	**72**	**41**	**15**	**6**	**26**	**41**	**0**
Mean	**12**	**6,8**	**2,5**	**1**	**4,3**	**6,8**	**0**
Standard deviation	**1,41**	**0,41**	**0,84**	**0**	**1,21**	**1,17**	**0**
Social studies							
School year	CMCT	CAA	CCLI	CD	CSC	SIEE	CEC
1st	11	14	5	2	13	3	0
2nd	6	12	4	2	17	3	0
3rd	7	13	4	2	11	4	0
4th	7	13	5	4	14	3	2
5th	8	15	4	5	14	4	2
6th	10	14	4	4	19	4	0
Total	**49**	**81**	**26**	**19**	**88**	**21**	**4**
Mean	**8,2**	**13,5**	**4,3**	**3,2**	**14,7**	**3,5**	**0,67**
Standard deviation	**1,94**	**1,05**	**0,52**	**1,33**	**2,88**	**0,55**	**1,03**
Mathematics							
School year	CMCT	CAA	CCLI	CD	CSC	SIEE	CEC
1st	13	8	8	1	5	2	1
2nd	13	8	11	1	6	2	1
3rd	14	8	11	1	6	2	11
4th	15	8	10	2	6	2	1
5th	15	8	11	1	7	2	1
6th	15	8	10	1	7	2	1
Total	**85**	**48**	**61**	**7**	**37**	**12**	**6**
Mean	**14,2**	**8**	**10,2**	**1,2**	**6,2**	**2**	**2,7**
Standard deviation	**0,98**	**0**	**1,2**	**0,41**	**0,75**	**0**	**4,08**

Physical education							
School year	CMCT	CAA	CCLI	CD	CSC	SIEE	CEC
1st	6	10	3	1	5	9	1
2nd	6	10	3	1	5	9	1
3rd	6	10	3	1	5	9	1
4th	6	10	3	1	5	9	1
5th	6	9	3	1	6	9	1
6th	6	9	3	1	6	9	1
Total	**36**	**59**	**18**	**6**	**32**	**54**	**58**
Mean	**6**	**9,7**	**3**	**1**	**5,3**	**9**	**1**
Standard deviation	**0**	**0,52**	**0**	**0**	**0,52**	**0**	**0**

Social and civic values							
School year	CMCT	CAA	CCLI	CD	CSC	SIEE	CEC
1st	0	2	5	0	9	8	1
2nd	0	2	5	0	9	8	1
3rd	0	2	5	0	9	9	1
4th	2	2	5	0	13	10	1
5th	2	2	5	1	12	10	1
6th	0	2	5	1	13	10	0
Total	**4**	**12**	**30**	**2**	**65**	**55**	**12**
Mean	**0,7**	**2**	**5**	**0,3**	**10,8**	**9,2**	**0,83**
Standard deviation	**1,03**	**0**	**0**	**0,52**	**2,04**	**0,98**	**0,41**

Artistic education: Music							
School year	CMCT	CAA	CCLI	CD	CSC	SIEE	CEC
1st	1	6	3	2	5	6	7
2nd	1	6	3	2	6	5	7
3rd	1	6	3	2	7	4	6
4th	1	6	3	2	7	5	7
5th	1	6	3	2	6	6	7
6th	1	6	3	3	2	5	7
Total	**6**	**36**	**18**	**12**	**36**	**32**	**36**
Mean	**1**	**6**	**3**	**2,2**	**5,5**	**5,2**	**6,8**
Standard deviation	**0**	**0**	**0**	**0,41**	**1,9**	**0,75**	**0,41**

Artistic education: Arts							
School year	CMCT	CAA	CCLI	CD	CSC	SIEE	CEC
1st	1	8	4	1	4	4	9
2nd	1	8	4	1	4	5	9
3rd	1	8	4	2	4	5	9
4th	1	8	4	2	5	5	9
5th	1	8	4	2	5	5	9
6th	1	8	4	3	5	5	9
Total	**6**	**48**	**24**	**11**	**27**	**29**	**48**
Mean	**1**	**8**	**4**	**1,8**	**4,5**	**4,8**	**9**
Standard deviation	**0**	**0**	**0**	**0,75**	**0,55**	**0,41**	**0**

Spanish: Language and Literature						
School year	CMCT	CAA	CCLI	CD	CSC	SIEE	CEC
1st	0	14	22	4	8	5	5
2nd	0	14	22	4	8	6	5
3rd	0	14	22	4	8	6	5
4th	0	18	22	6	8	9	5
5th	0	12	22	7	8	9	5
6th	0	15	22	7	8	9	5
Total	0	87	132	32	48	44	30
Mean	0	14,5	22	5,3	8	7,3	5
Standard deviation	0	2	0	1,51	0	1,9	0

Foreign Language: English						
School year	CMCT	CAA	CCLI	CD	CSC	SIEE	CEC
1st	0	17	16	2	11	7	3
2nd	0	17	16	2	11	7	4
3rd	0	17	16	2	11	7	4
4th	0	17	16	3	11	7	4
5th	0	17	16	3	11	7	4
6th	0	17	16	3	11	7	4
Total	0	102	96	15	66	42	22
Mean	0	17	16	2,5	11	7	3,8
Standard deviation	0	0	0	0,55	0	0	0,41

Valencian: Language and Literature						
School year	CMCT	CAA	CCLI	CD	CSC	SIEE	CEC
1st	0	14	22	3	8	5	5
2nd	0	14	22	4	8	6	5
3rd	0	14	22	4	8	6	5
4th	0	15	22	6	8	9	5
5th	0	15	22	7	8	8	5
6th	0	15	22	7	8	8	5
Total	0	87	132	31	48	42	87
Mean	0	14,5	22	5,2	8	7	5
Standard deviation	0	0,55	0	1,72	0	1,55	0

Valencian Culture						
School year	CMCT	CAA	CCLI	CD	CSC	SIEE	CEC
5th	5	10	2	2	21	2	5
Total	5	10	2	2	21	2	10
%	10%	19%	4%	4%	40%	4%	19%

The results of this first stage of the analysis show that there is a lack of balance in the approach to the key competences that make up the first level of curricular application from the different areas. The competences that are most developed in the different areas are those that are directly related to the specific curricular area. What is more, as can be

observed in the standard deviation, the distribution of the different competences throughout the different academic years does not respond to any previously set criteria. Our first starting hypothesis is therefore confirmed.

More specifically, CEC is not included in the science area despite the fact that current legislation itself refers to the link between this area and that competence (Decree 108/2014). Also noteworthy is that, at content level, CEC, which includes any type of artistic manifestation, only obtains 1% in the social sciences area, especially if we keep in mind that architecture, art and history are a major part of this curricular area. CCLI also obtains low values in general in spite of the fact that in the CLIL classroom subjects are taught in a foreign language and the objective is twofold: the acquisition of content and language. It is striking that the area with the highest values is mathematics. This subject, however, is not usually taught in a foreign language in order not to overload the cognitive capacity of students and because the teaching of mathematics differs markedly between English and Spanish.

5.2. Contribution of the areas to each competence

In a more detailed analysis, we seek to establish the relationship of each area with the seven key competences. The following table shows the percentage to which each of the different competences contributes to the curricular development of each curricular area.

Table 2

Percentage of competences by area

Competence	Science	Social Studies	Math	Physical Education	Social and Civic Values	Artistic Education: Music	Artistic Education: Arts	Spanish: Language and Literature	Foreign Language: English	Valencian: Language and Literature	Valencian Culture
CMCT	17%	12%	57%	10%	1%	1%	1%	0%	0%	0%	1%
CAA	4%	8%	13%	7%	1%	3%	4%	22%	16%	22%	1%
CCLI	1%	3%	15%	2%	3%	1%	2%	30%	13%	30%	0%
CD	2%	8%	8%	3%	1%	3%	3%	32%	9%	31%	0%
CSC	4%	12%	14%	5%	9%	3%	2%	17%	14%	17%	0%
SIEE	8%	4%	6%	12%	10%	4%	3%	21%	12%	20%	2%
CEC	0%	1%	3%	14%	2%	5%	7%	15%	7%	45%	0%

From these results, it is clear that CMCT is closely linked to their respective areas of knowledge. An illustrative example of this is that almost 75% of its contribution is in science and mathematics, just as the CCLI competence is mainly related to linguistic areas. Other competences, such as CAA, CSC and SIEE, are more inter-curricular and their distribution in different areas is more uniform. CD and CEC, however, have a much more superficial inter-curricular relationship. Both competences are mainly concentrated in the Valencian area, although, as can be seen, CEC has a somewhat more inter-curricular nature.

It is curious though, not only for plurilingual education, but also for education in general, that, with the rise of information technologies in the educational context, the presence of CD is so limited.

The competences could therefore be divided into three differentiated groups according to their degree of transversality. Mainly area-specific competences (CMCT and CCLI), inter-curricular competences (CAA, CSC and SIEE) and partially inter-curricular competences (CD and CEC).

These results have direct consequences on plurilingual educational practice, especially with regard to CCLI. The presence of this competence mainly in linguistic areas and its lack of transversality with content areas pose a threat to plurilingual education, since it makes it difficult to fulfil the main premise promoted by the CLIL approach, that is, the simultaneous acquisition of curricular content and foreign language, with the latter possibly being harmed.

5.3. Total contribution of each competence

In a more comprehensive analysis, the results presented in the following figure show the contribution of each of the competences to the different curricular areas throughout the primary education stage. For this, both the weight of each of the areas in this educational stage and the number of weekly hours dedicated to it have been taken into account.
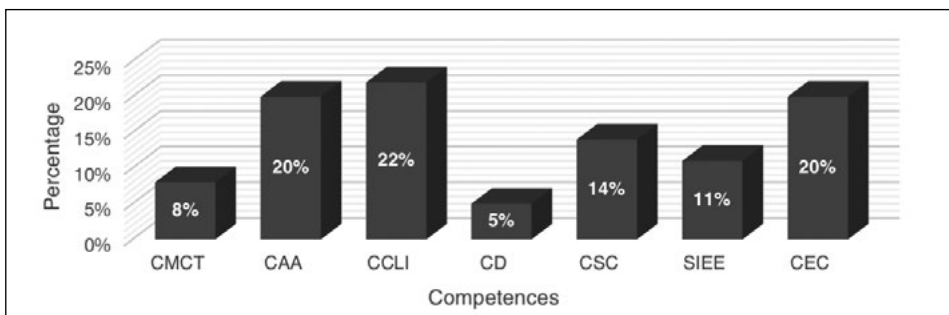

Figure 1. Total contribution of each competence

In line with the previous results, this figure clearly shows that some competences receive more attention than others throughout the educational stage. For a more uniform distribution, it is estimated that at the end of this educational stage, a total of 14% of the time should be devoted to each of them. Only CSC, however, obtains this value and SIEE obtains a proximate value. CEC, CAA and CCLI are worked on to a greater extent, although the latter, as already mentioned, mainly focuses on linguistic subjects. CMCT is worked on in general to a lesser extent and CD is practically overlooked.

From the frequencies presented in Table 1, the average contribution of each competence can be visualized in the following table.

Table 3

Statistical calculation for each competence

	CMCT	CAA	CCLI	CD	CSC	SIEE	CEC
Average	136.67	327.33	364.17	83.00	236.50	177.42	93.75

As the table shows, competences are not evenly developed throughout the whole of the primary stage, hindering thus the pedagogical potential that CLIL can offer. The CCLI is further developed if compared to the other competences. However, it must be borne in mind that this competence includes skills in all three main languages that are offered in the curriculum (not only the foreign language).

6.   Conclusions

The study carried out showed a lack of curricular transversality in the competence-based educational approach in the Valencian Region's primary education stage. This lack of inter-curricular overlapping could negatively affect the functioning of the current plurilingual educational system due to a lack of connection in legislative matters between the key competences themselves and the methodological framework governing this teaching.

In order to ensure the proper functioning of the CLIL approach and the adoption of a multi-lingual education system based on competences, it is first necessary to establish a better balance between the different curricular areas. This does not mean that, for example, in the area of Science, CMCT should have a greater presence than other competences, but if the bilingual methodology requires interaction, interdisciplinarity, collaborative work, etc., to ensure the transmission of knowledge through the foreign language, it stands to reason that the different competences, apart from those directly related to the area of expertise, must play its role in all areas.

Secondly, political commitment and investment are also necessary, as is teacher training in this approach through general and, above all, area-specific courses, since each area is different and the way of implementing the competences can vary significantly. These courses should also contribute to the development of teacher autonomy and help them to become less dependent on textbooks, which, in our opinion, greatly limit the implementation of a competence-based educational approach since, on the one hand, they do not hone competences from a cross-curricular perspective and, on the other, the Decree that the textbooks are based on lacks transversality in the educational-based approach, as shown in the results of the study. Otherwise, as Bolívar (2008) points out, everything will end up as mere discourse which has no effect on the methodological change that derives from the competence-based approach.

The results obtained in the study confirm our first hypothesis. Several curricular areas tentatively develop some of the key competences. In addition, we find a contradiction in the science area with the non-inclusion of CAA, despite current legislation stating that it should be included. In the face of this situation, responsibility for correct implementation lies with the schools and the teachers themselves. Hence the need for solid training that can guarantee the correct implementation of the competence-based educational approach.

Our second hypothesis, on the contrary, is rejected, although it is necessary to clarify the results. The CCLI competence is, as a whole, one of the competences that receives the most attention. Its presence, however, is much greater in linguistic areas, being rather limited in content areas that can be taught in the foreign language. Therefore, this could hinder the proper development of the plurilingual education system, as it constrains the active use of the language in the classroom and its potential as a means to access new knowledge.

Last but not least, our third hypothesis is also confirmed. With the exception of CD, the rest of the competences receive a balanced weight throughout the six years.

The main conclusion that we can draw from this study, therefore, is the fragility and threat presented by the competence-based system for the development of the plurilingual education system in the Valencian Region. The introduction of a plurilingual educational system requires the updating and adapting of legislation to respond to new educational needs. The current model lacks transversality as far as competences are concerned. It could be said that it is a model that has been designed without necessarily having in mind a plurilingual educational model, which requires a high degree of integration among its different components. It is the teachers themselves who are responsible for interpreting the competences as experts and balancing their implementation in teaching practice in order to comply with the principles that shape plurilingual education.

6. References

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i   For the sake of clarify, the abbreviations used are those of the curriculum originally written in Spanish.