

# DIAGNOSTIC ASSESSMENT (DA 2017)



## TRENDS IN OVERALL RESULTS AND IN PERFORMANCE LEVELS

(4<sup>th</sup> year of Primary Education and 2<sup>nd</sup> year of Compulsory  
Secondary Education)



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IRAKAS-SISTEMA EBALUATU  
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INSTITUTO VASCO DE EVALUACIÓN  
E INVESTIGACIÓN EDUCATIVA

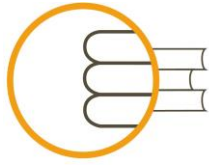
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In this section of the report, we present two graphs for each stage and each competence assessed, showing:

- firstly, trends in the overall results;
- and secondly, the evolution of the students percentages in each of the three performance levels established in this assessment: initial, intermediate and advanced.

The following graphs include information about each of the editions in which each competence was assessed (six in *linguistic communication in Basque and Spanish* and in *mathematical competence*, four in *scientific competence* and three in *linguistic communication in English*) and they provide the following data:

- Overall result in 4<sup>th</sup> year of Primary Education (PE) and 2<sup>nd</sup> year of

Compulsory Secondary Education (CSE) in each edition.

- Percentage of students at the initial level and at the advanced level in each edition.
- Significance of the difference between the overall scores in 2015 and 2017. In this case, the arrow pointing up means that the result from 2017 is significantly better than in 2015: the arrow pointing down indicates that the result from 2017 is significantly worse than in 2015. The equal sign is used to show that there was no significant change.

Finally, we have included a brief analysis of the overall trends, with the graphs from each stage being analysed individually and then as a whole.



## I. Definition of the performance levels

Each level is defined according to the knowledge, skills and abilities that a student requires to deal with any situations that they may face at that level.

When a student is at a given level, we can say that they are competent in the skills at that level and at all previous levels.

Below there is a detailed description of the performance levels of each of the five competences assessed in Diagnostic Assessment 2017 (DA17), namely:

4 <sup>th</sup> year of PE	MATHEMATICAL COMPETENCE	SCIENTIFIC COMPETENCE
<b>Initial level</b>	At this level, the students use basic numerical skills and solve very simple problems in a calculation, using addition, subtraction and multiplication. They estimate length measurements and recognise different positions in space. They are able to associate data from very simple tables and graphs.	Students at this level are starting to learn about basic aspects of science, technology and health, through simple examples. They can identify the most obvious causes of some phenomena. They classify and compare simple information and complete graphs and diagrams by following instructions. With help, they arrange the steps that must be followed to solve a problem in the right order. They are familiar with some common equipment and tools in their environment. They identify some healthy eating, hygiene and body care habits. They also detect some of the obvious impacts of everyday human activities on the quality of their environment and they are capable of identifying specific actions to protect it.
<b>Intermediate level</b>	Students at this level are skilled at solving problems in which addition, subtraction and/or multiplication must be used. They solve simple puzzles and problems with logical and operational reasoning and problems where different units are used (money, weight, length, capacity, time). They establish connections between different mathematical topics, making it easier to solve problems with a certain complexity.	In addition to the skills described in the initial level, at this level the students can identify the main elements of the natural environment. They recognise the differences and similarities between simple scientific concepts and they classify objects and materials. They independently use sources of information and represent this information in simple graphs and diagrams. They clearly describe the steps taken to conduct an experiment by using a tool or operating a machine. They explain the most obvious cause and effects of an event and relate it to scientific knowledge. They recognise basic safety rules for using common equipment. They identify balanced diets and healthy habits. They analyse environmental problems in their immediate environment and propose solutions.
<b>Advanced level</b>	The students at this level use elaborate reasoning to solve original problems and complex mathematical situations that involve using the four basic operations (including division) or the conversion of units of measurement. They confidently resolve problem situations and are able to mathematically express the calculations that they have done and the solution.	In addition to the skills described in the initial and intermediate levels, students at this level describe and establish relationships between the main elements of the natural environment. They classify and sort objects, matter and changes based on their characteristics. In their explanations, they identify various causes and draw reasoned conclusions. They sort, classify and compare relevant information from various sources. They analyse diets and appropriate hygiene and body care habits and link them to their impact on health and preventing diseases. They are capable of examining the equipment and technological resources around them. They propose solutions to the problems of their immediate environment.

2 <sup>nd</sup> year of CSE	MATHEMATICAL COMPETENCE	SCIENTIFIC COMPETENCE
<b>Initial level</b>	Students at the initial level use traditional procedures and, with limitations, set out and successfully complete the exercises typical of their educational level. They are capable of identifying information and carrying out routine procedures by following direct instructions in explicit situations. They normally use so-called reproduction techniques (they reproduce procedures and strategies in similar contexts), but often have problems in applying them and make mistakes when doing so.	Students at this level recognise simple scientific knowledge (names, facts, terminology, simple rules, etc.) and use it to draw simple conclusions. When explaining a scientific phenomenon, they superficially explain the relationships between the components and describe the causes and effects. They can interpret simple graphs. They use classification but need models and other aids to perform experimental activities and assess results. They find it difficult to identify variables and understand their impact on an experiment.
<b>Intermediate level</b>	Students at the intermediate level use appropriate mathematical language, they are able to connect the various mathematical topics together and confidently complete mathematical exercises typical of their educational level. They can interpret and use representations from various information sources and draw direct conclusions from them. They are capable of providing a written summary of their interpretations, results and reasoning. They regularly use connecting techniques (interconnecting knowledge and various mathematical procedures), enabling them to solve problems with a certain level of difficulty, but only in familiar contexts.	In addition to the skills described in the initial level, students at this level use scientific concepts to make predictions or provide explanations. They recognise questions that can be answered through scientific research and they can identify the details of what happens in scientific research. They select relevant information from data when drawing conclusions. They use simple formal models to explain a scientific phenomenon and can identify multiple causes for a single effect or multiple effects with a single cause. They try to figure out why things are as they are. They can plan simple experiments but require help to infer relationships from the results.
<b>Advanced level</b>	In addition to being able to link together the different fields of mathematics, students at the advanced level use elaborate reasoning, they are reflective, they reason with logic and they are capable of solving original problems. They frequently use reflective techniques (they analyse the process followed and draw conclusions that can be used to solve problems or improve the solution for the proposed problem) which require a deep understanding of the problems posed. They also often demonstrate creativity when identifying the mathematical elements of a problem and establish appropriate interrelations to solve it.	In addition to the skills described in the initial and intermediate levels, students at this level use scientific concepts and simple models to make predictions, provide explanations for situations based on data and draw conclusions with a scientific basis. They generate and verify possible causal explanations. They analyse scientific research and experiments, controlling the variables involved. They can interpret complicated graphs. They put forward arguments and provide detailed and accurate scientific descriptions. They use strategies to solve problems with different variables.



4 <sup>th</sup> year of PE	L.C. BASQUE	L.C. SPANISH	L.C. ENGLISH
<b>Initial level</b>	<p>Students at the initial level have limited communicative competence and find it quite difficult to understand texts in Basque. They are able to identify information in familiar spoken and written texts such as stories, brief news summaries and leaflets. These students can also identify the overall meaning and main ideas in simple and clear texts.</p>	<p>Students at the initial level find it quite difficult to understand spoken and written texts (informative texts, newspapers, stories, news, etc.). They are able to recognise the overall idea and identify information from simple and familiar texts.</p>	<p>Students at this level are starting to develop linguistic competence; they use single words to communicate and they find it difficult to understand. In terms of oral and written comprehension, they are capable of identifying the topic and certain specific information in simple and familiar texts. In terms of written expression, they find it difficult to express themselves and normally do so using single words, copying from the example or using other languages. Their grammatical, orthographic and lexical knowledge is poor for their educational level.</p>
<b>Intermediate level</b>	<p>Students at the intermediate level have adequate communicative competence. In addition to the skills described in the initial level, they are capable of linking together the different ideas from the texts that they have listened to or read and they recognise the usual vocabulary for their level of school.</p>	<p>In addition to the skills described in the initial level, students at the intermediate level are able to distinguish the relevant information in a text and they are able to recognise the main ideas in different texts that they have read or listened to. They recognise the structure of different types of texts and link together the ideas that appear in them.</p>	<p>Students at this level have adequate linguistic competence; they use linguistic elements and strategies to communicate independently. In terms of oral and written comprehension, they are able to recognise the main idea, find specific and important information and interpret the content based on their own knowledge. In terms of written expression, their level is acceptable; they are capable of writing understandable text with the help of a prior example. Their grammatical, orthographic and lexical knowledge is appropriate for their educational level.</p>
<b>Advanced level</b>	<p>The students at this level have strong linguistic and communicative competence. In addition to the skills described at the above levels, these students can complete oral and written comprehension tasks with more complex texts that are not related to their personal experience. They recognise the purpose of the texts, distinguish between the main and secondary ideas and interpret the content in relation to their own ideas.</p>	<p>In addition to the skills described for the initial and intermediate levels, students at the advanced level can effectively complete comprehension tasks (oral and written) with more difficult texts. They are able to identify, relate and interpret information from different types of spoken and written texts.</p> <p>They are capable of relating information and personal knowledge.</p>	<p>Students at this level have good linguistic competence; they use linguistic elements with ease and effective strategies to communicate independently. In terms of oral and written comprehension, they are able to recognise the main idea, find specific and important information, interpret and integrate the information received with their own knowledge and to infer and foresee things. In terms of written expression, they are better than expected at their educational level; they are able to write an easily understandable text based on an example given and provide their own ideas. They have a good command of linguistic resources and grammar, orthography and lexicon.</p>

2 <sup>nd</sup> year of CSE	L.C. BASQUE	L.C. SPANISH	L.C. ENGLISH
<b>Initial level</b>	The students at this level have incomplete linguistic and communicative competence. They are able to recognise the general meaning of spoken and written texts, provided that they are simple or related to their personal experience. They are capable of identifying specific information. They can make basic inferences based on the text or draw conclusions from one of its passages. They establish simple links between the text and their own personal knowledge.	The students at this level have partial and incomplete linguistic communication competence. They are able to identify and summarise significant information in spoken and written texts that are simple and related to their personal interests. They establish links between the content of the text and their personal knowledge, provided that it is simple.	The students at this level have limited linguistic competence; they use few linguistic elements to communicate and require help to complete tasks. In terms of oral and written comprehension, they are capable of identifying the topic and specific information in familiar texts. In terms of written expression, they express themselves in an incomplete manner, copying parts of the source text. Their grammatical, orthographic and lexical knowledge is poor for their educational level.
<b>Intermediate level</b>	The students at this level have an appropriate communicative capacity and can communicate independently. In addition to the skills referred to in the initial level, these students are able to recognise and interpret specific information from a variety of spoken and written texts, even texts not related to their personal experience. They recognise and distinguish between the main and secondary information and establish links between that information and their knowledge and ideas. They are capable of making inferences from the text and interpreting parts of it. They establish links between texts with a certain complexity and their own personal knowledge.	The students at this level have adequate linguistic communication competence. In addition to the skills described in the initial level, they are capable of identifying, interpreting and summarising information in spoken and written texts that are not always related to areas linked to their own personal experience. They can recognise important and secondary information and establish links between the content of the text and their personal knowledge in texts of a certain complexity.	Students at this level have good linguistic competence; they use varied linguistic elements with ease and effective strategies to communicate independently. In terms of oral and written comprehension, they are able to make inferences, recognise vocabulary and interpret text without difficulty. In terms of written expression, their level is higher than expected for their educational level; they are able to write a text that is very easy to understand and embellish it with a lot of information and original ideas. They have a good command of linguistic resources and grammar, orthography and lexicon.
<b>Advanced level</b>	Strong communicative competence, enabling them to effectively perform the tasks that they are given. In addition to the skills described for the previous levels, these students are capable of recognising, interpreting and relating specific information in various kinds of spoken and written texts. They are able to establish links between their personal knowledge and the information from unusual, varied and complex texts, and to critically interpret the content of those texts.	The students at this level have strong linguistic communication competence. In addition to the skills described in the initial and intermediate levels, they are able to identify, interpret and relate information in varied and complex spoken and written texts. They relate their personal knowledge to the content of various types of text that they do not commonly use and they are capable of interpreting them in a critical manner.	Students at this level have adequate linguistic competence; they use linguistic elements appropriate for their educational level in an independent manner. In terms of oral and written comprehension, they are able to easily recognise the overall meaning of the texts, find new and important information and interpret their content. In terms of written expression, their level is acceptable; they are able to write an original text that is easy to understand. Their grammatical, orthographic and lexical knowledge is appropriate for their educational level.

## 2. Overall performance results and analysis of trends

### 2.1. Mathematical competence

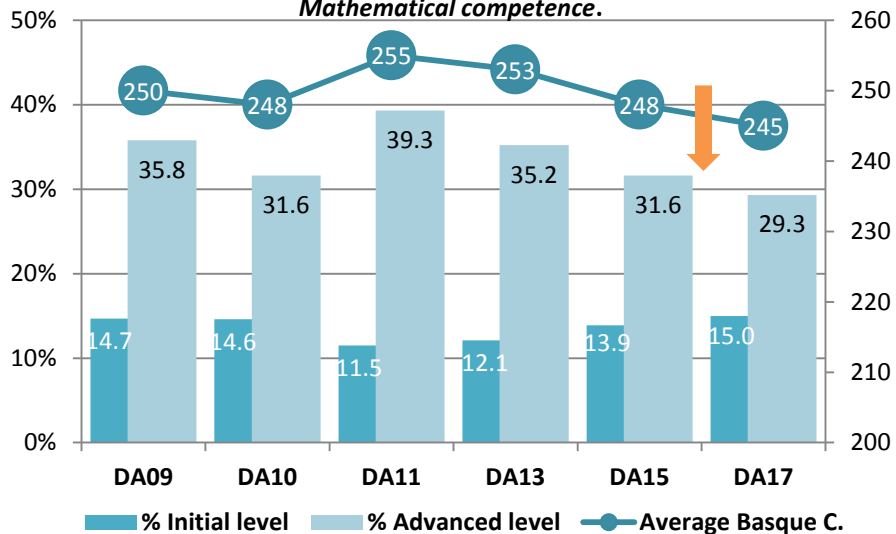
For *mathematical competence* in the 4<sup>th</sup> year of PE, scores have gradually worsened since 2011, the edition in which the highest scores were achieved. In fact, the score for 2017 is the lowest of all six editions. In the 2<sup>nd</sup> year of CSE, the score has been highly stable across all editions, apart from the drop in the score in 2015, which recovered in 2017.

In Primary Education, 2017 is the edition with the highest percentage of students at

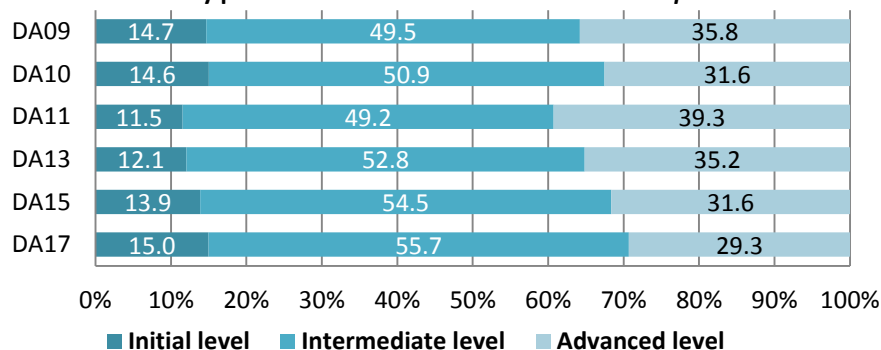
the initial level and the lowest number at the advanced level. In Compulsory Secondary Education, the percentages have improved since 2015, especially among the most competent students. What stands out most at this stage, and also in the percentages for each level, is the stability of the data; however this is not the case in Primary Education.

### 4<sup>th</sup> YEAR OF PRIMARY EDUCATION

**Graph 2.1.a:** 4<sup>th</sup> year of EP. Evolution of overall scores and of the percentage of students at initial and advanced level in *Mathematical competence*.

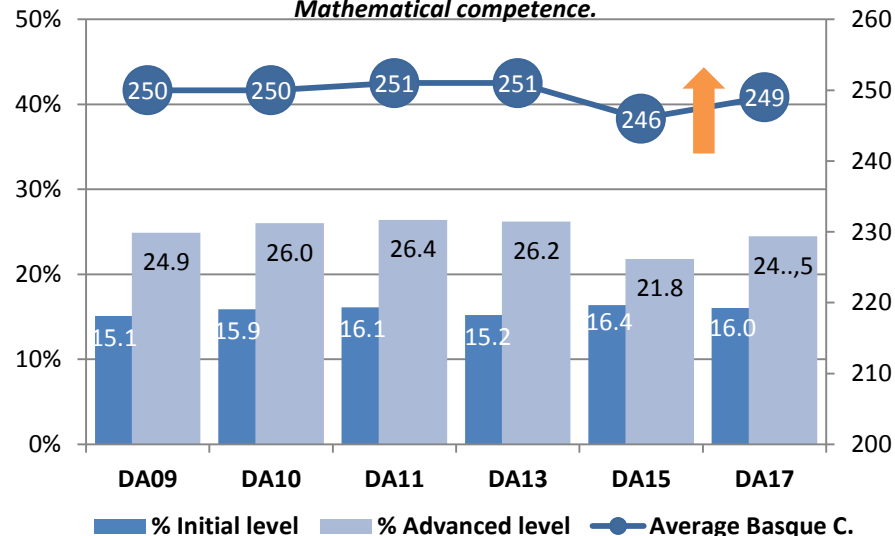


**Graph 2.1.c:** 4<sup>th</sup> year of PE. Evolution of students percentage by performance levels in *Mathematical competence*.

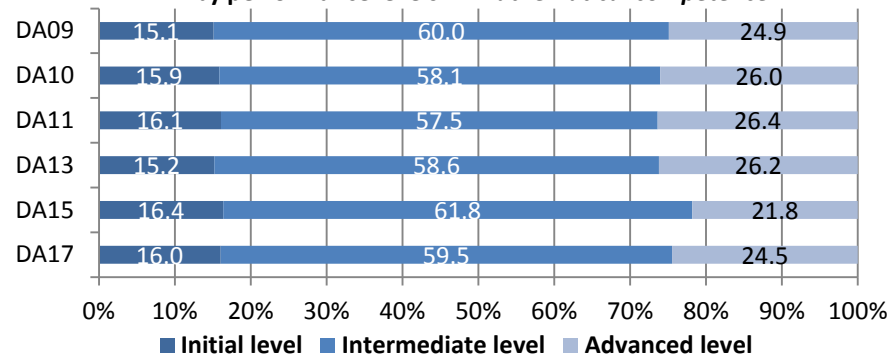


### 2<sup>nd</sup> YEAR OF COMPULSORY SECONDARY EDUCATION

**Graph 2.1.b:** 2<sup>nd</sup> year of CSE. Evolution of overall scores and of the percentage of students at initial and advanced level in *Mathematical competence*.



**Graph 2.1.d:** 2<sup>nd</sup> year of CSE. Evolution of students percentage by performance levels in *Mathematical competence*.



## 2.2. Scientific competence

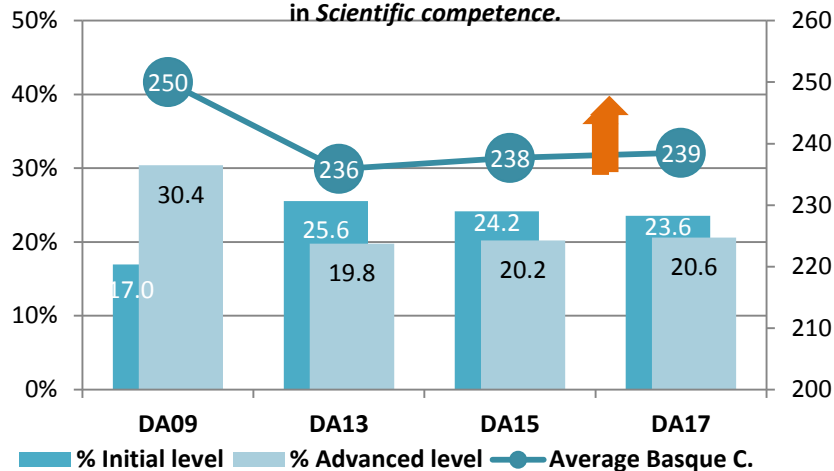
In both stages, *scientific competence* shows similar trends across all of the editions in which it has been assessed: after an initial drop, the data from the following editions show a steady upward trend although, as we said in the introduction, the figures for this competence are not directly comparable. For the 4<sup>th</sup> year of PE, the result from 2017 is significantly better than

it was in the previous edition. In the case of the 2<sup>nd</sup> year of CSE, there is no significant difference between the two latest editions.

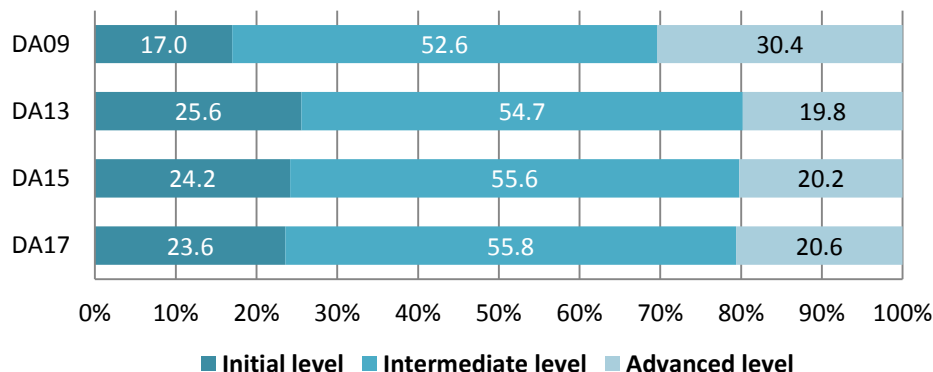
One notable and positive fact is that the number of students from both stages who fail to progress beyond the initial level is falling, although there has only been a slight reduction and the percentage is still higher than in 2009.

### 4<sup>th</sup> YEAR OF PRIMARY EDUCATION

**Graph 2.2.a.: 4<sup>th</sup> year of PE. Evolution of overall scores and of students percentage at initial and advanced levels in *Scientific competence*.**

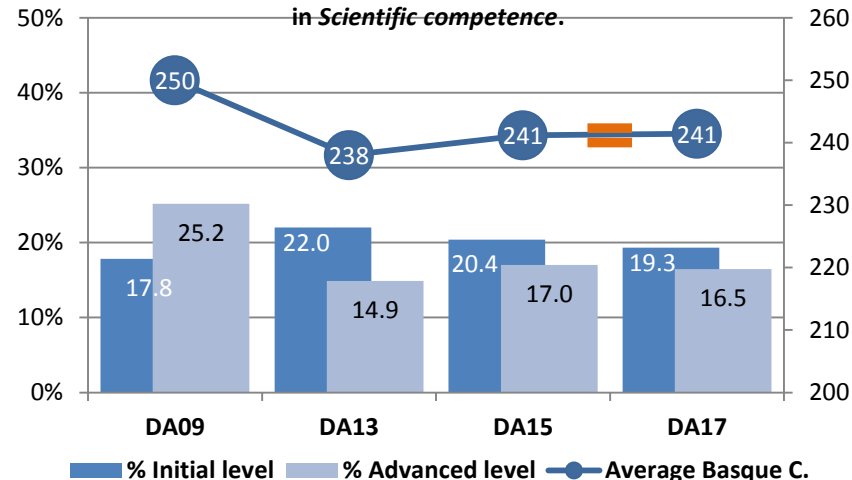


**Graph 2.2.c.: 4<sup>th</sup> year of PE. Evolution of students percentage by performance levels in *Scientific competence*.**

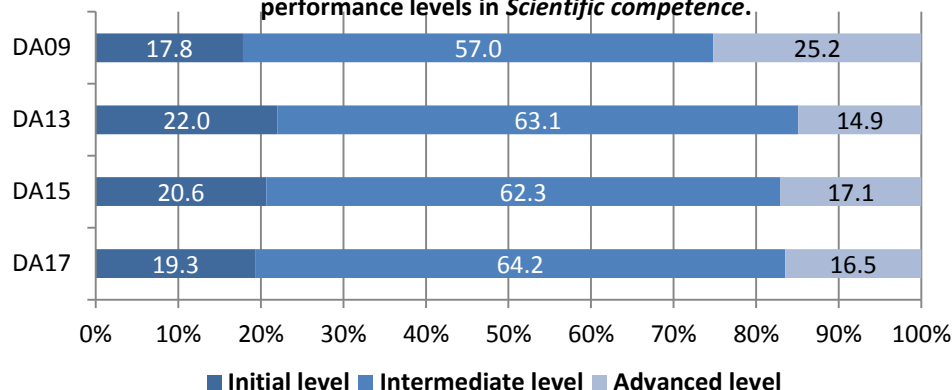


### 2<sup>nd</sup> YEAR OF COMPULSORY SECONDARY EDUCATION

**Graph 2.2.b.: 2<sup>nd</sup> year of CSE. Evolution of overall scores and of students percentage at initial and advanced levels in *Scientific competence*.**



**Graph 2.2.d.: 2<sup>nd</sup> year of CSE. Evolution of students percentage by performance levels in *Scientific competence*.**



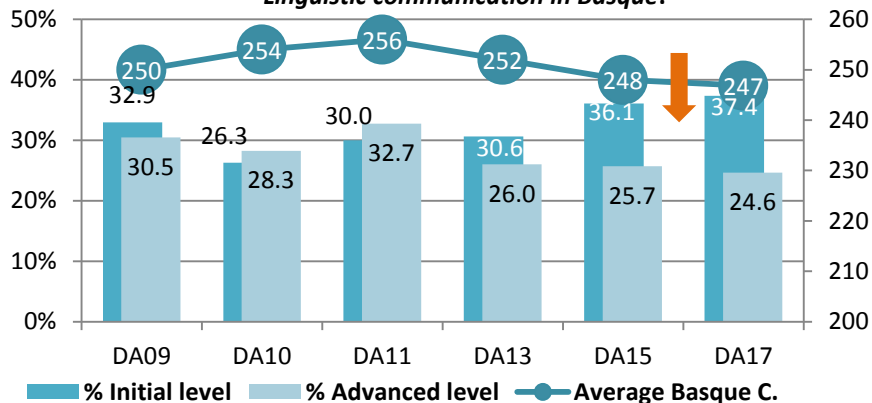
### 2.3. Linguistic communication competence in Basque

The most notable conclusions to be drawn from looking at the graphs on *linguistic communication competence in Basque* are as follows:

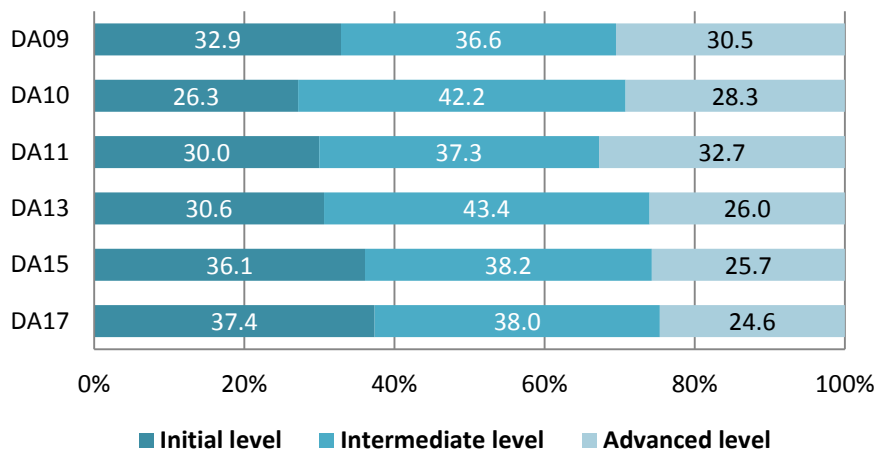
- Across virtually all editions of the Diagnostic Assessments carried out since 2009, both in PE and CSE, the number of students at the initial level is consistently above 30%.
- The percentage of students who are at the initial level has also always been consistently higher in the 2<sup>nd</sup> year of CSE than in the 4<sup>th</sup> year of PE.
- It can also be observed that since 2010, the number of students at the initial level has continued to grow, reaching 37.4% in PE and 45.6% in CSE. Meanwhile, the number of students at the advanced level has continuously fallen.
- It seems that both trends abated or even stalled between 2015 and 2017.

### 4<sup>th</sup> YEAR OF PRIMARY EDUCATION

**Graph 2.3.a.:** 4<sup>th</sup> year of PE. Evolution of overall scores and of students percentage at initial and advanced levels in *Linguistic communication in Basque.*

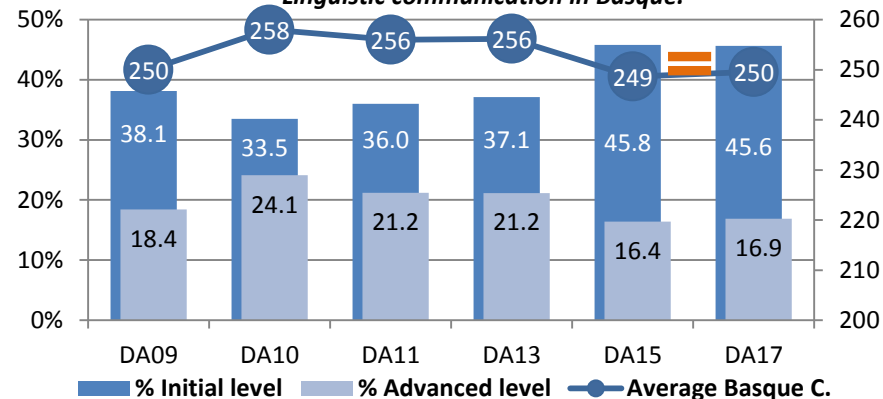


**Graph 2.3.c.:** 4<sup>th</sup> year of PE. Evolution of students percentage by performance levels in *Linguistic communication in Basque.*

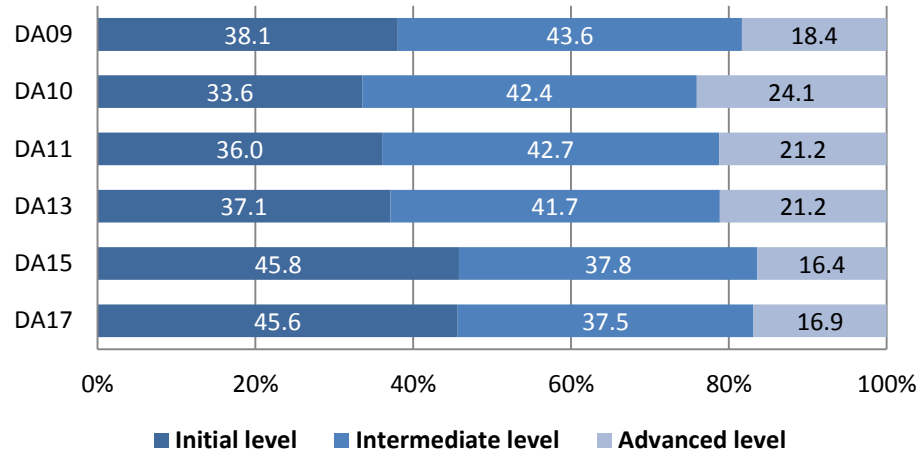


### 2<sup>nd</sup> YEAR OF COMPULSORY SECONDARY EDUCATION

**Graph 2.3.b.:** 2<sup>nd</sup> year of CSE. Evolution of overall scores and of students percentage at initial and advanced levels in *Linguistic communication in Basque.*



**Graph 2.3.d.:** 2<sup>nd</sup> year of CSE. Evolution of students percentage by performance levels in *Linguistic communication in Basque.*





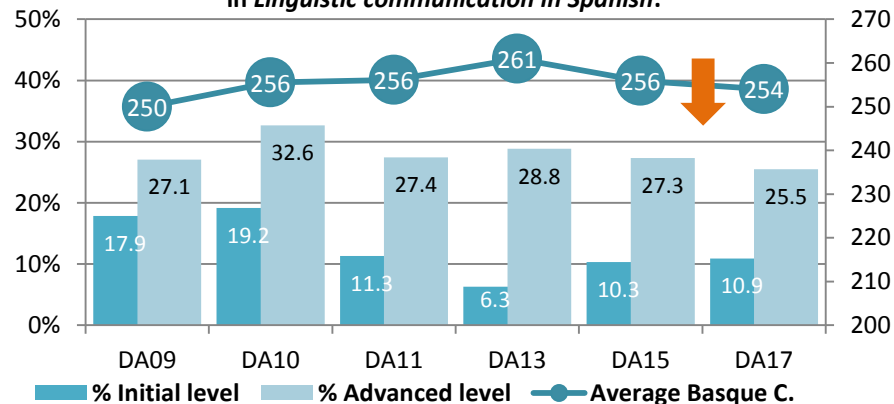
## 2.4. Linguistic communication competence in Spanish

The situation is very different regarding *linguistic communication competence in Spanish*:

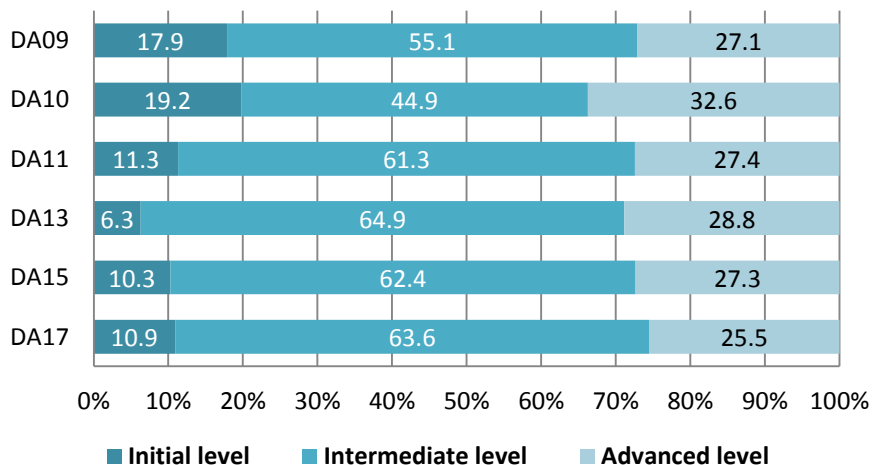
- Except on rare occasions, the number of students at the initial level has remained below 15%, both in PE and CSE. Since 2010, the percentage of students at the initial level in Primary Education has fallen significantly, while in CSE it has remained quite stable.
- We can also observe a gradual fall in the average score achieved in PE, while the average score in CSE has remained at the same level.

### 4<sup>th</sup> YEAR OF PRIMARY EDUCATION

**Graph 2.4.a.:** 4<sup>th</sup> year of PE. Evolution of overall scores and of students percentage of students at initial and advanced levels in *Linguistic communication in Spanish*.

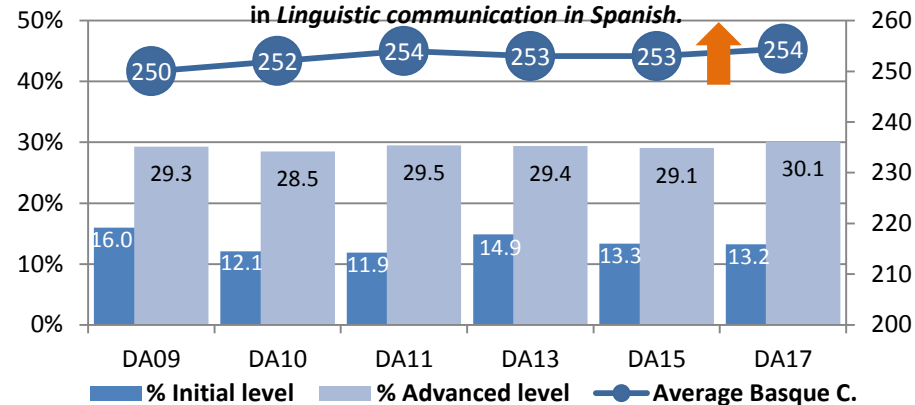


**Graph 2.4.c.:** 4<sup>th</sup> year of PE. Evolution of students percentage by performance levels in *Linguistic communication in Spanish*.

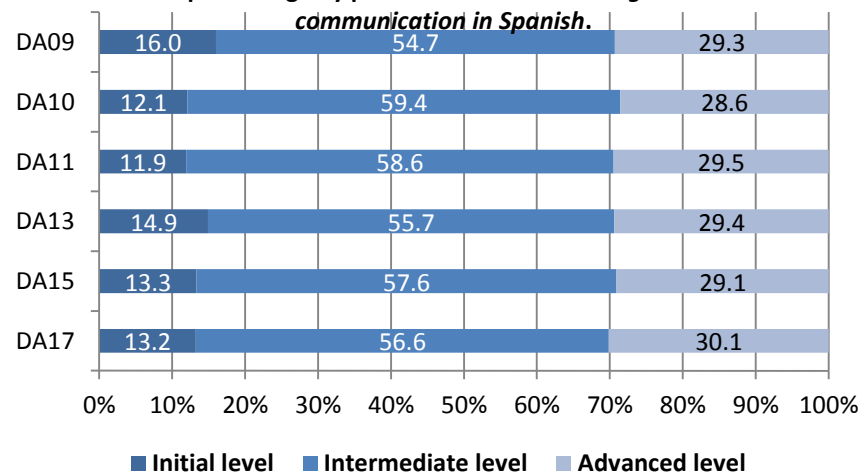


### 2<sup>nd</sup> YEAR OF COMPULSORY SECONDARY EDUCATION

**Graph 2.4.b.:** 2<sup>nd</sup> year of CSE. Evolution of overall scores and of students percentage of students at initial and advanced levels in *Linguistic communication in Spanish*.



**Graph 2.4.c.:** 2<sup>nd</sup> year of CSE. Evolution of students percentage by performance levels in *Linguistic communication in Spanish*.



## 2.5. Linguistic communication competence in English

Performance in each of the two compulsory stages is completely different in *linguistic communication competence in English*: the competence in this language of 4<sup>th</sup> year students in Primary Education has gradually declined, while in the 2<sup>nd</sup> year of CSE, the scores have increased.

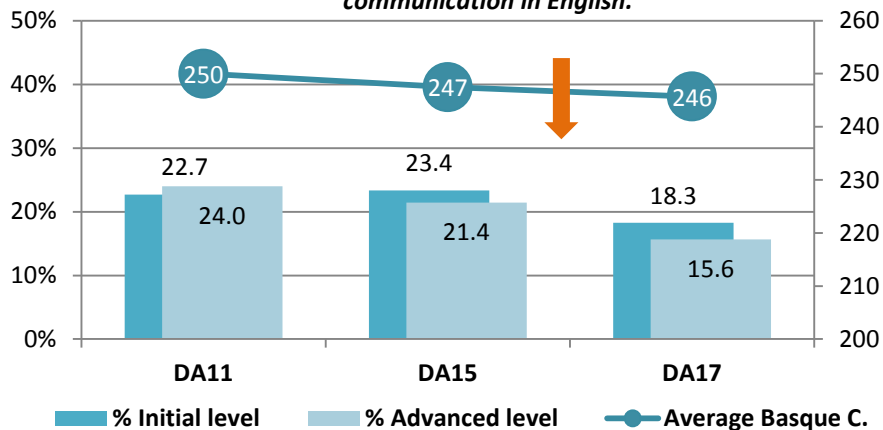
In the latest edition, in Primary Education, there is the lowest percentage of students at the initial level. However, there is also

the lowest percentage at the advanced level, so there is a high concentration of students at the intermediate level for this competence, reaching 66.1% in 2017.

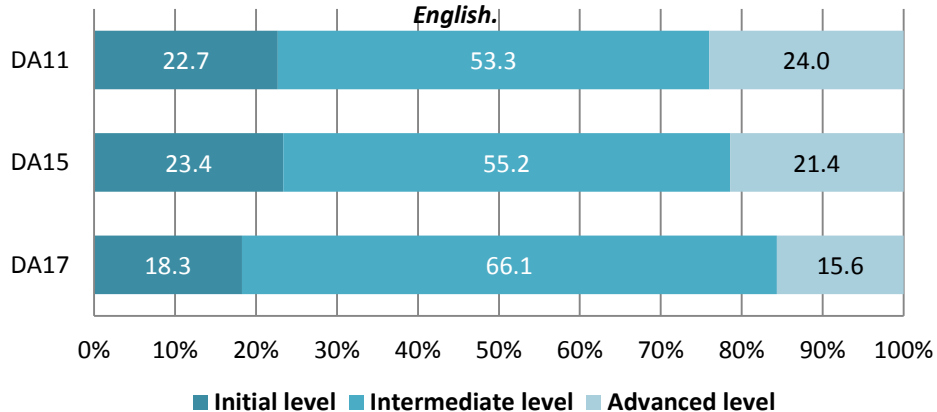
In the 2<sup>nd</sup> year of CSE, there has been a small increase in the number of students at the advanced level, in addition to a slight fall in students who fail to progress above the initial level. In any event, the figures remain largely unchanged.

### 4<sup>th</sup> YEAR OF PRIMARY EDUCATION

**Graph 2.5.a.:** 4<sup>th</sup> year of PE. Evolution of overall scores and of students percentage at initial and advanced levels in *Linguistic communication in English*.

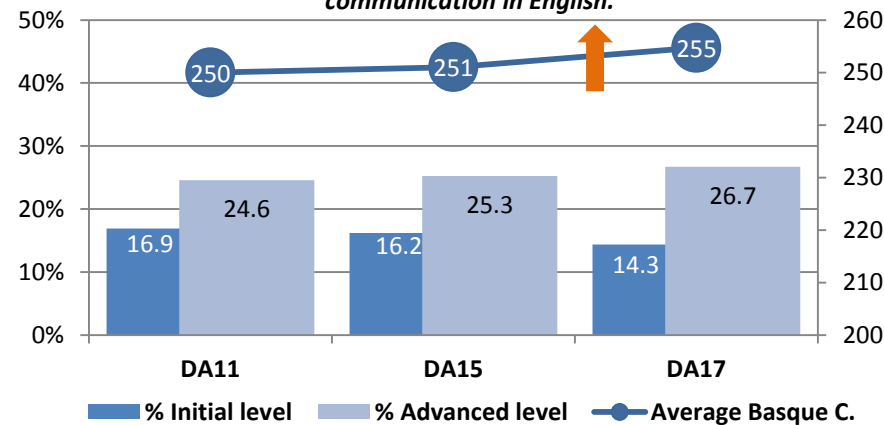


**Graph 2.5.c.:** 4<sup>th</sup> year of PE. Evolution of the percentage of students by performance levels in *Linguistic communication in English*.

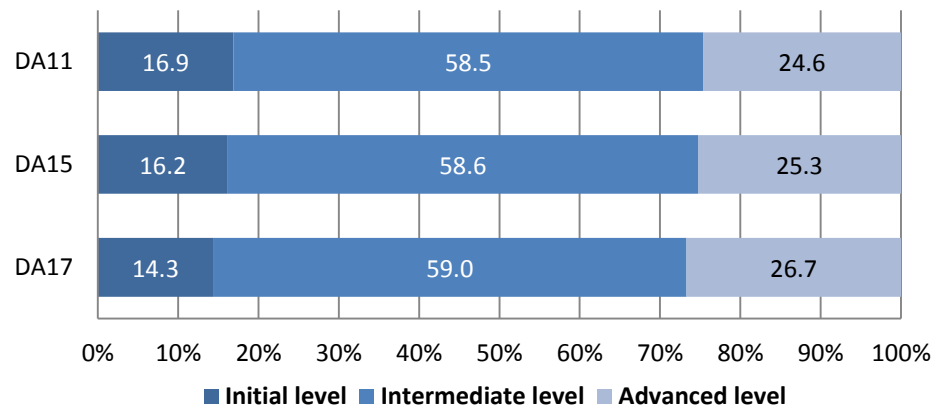


### 2<sup>nd</sup> YEAR OF COMPULSORY SECONDARY EDUCATION

**Graph 2.5.b.:** 2<sup>nd</sup> year of CSE. Evolution of overall scores and of students percentage at initial and advanced levels in *Linguistic communication in English*.



**Chart 2.5.d.:** 2<sup>nd</sup> year of CSE. Evolution of the percentage of students by performance levels in *Linguistic communication in English*.



## 2.6. Analysis of overall trends

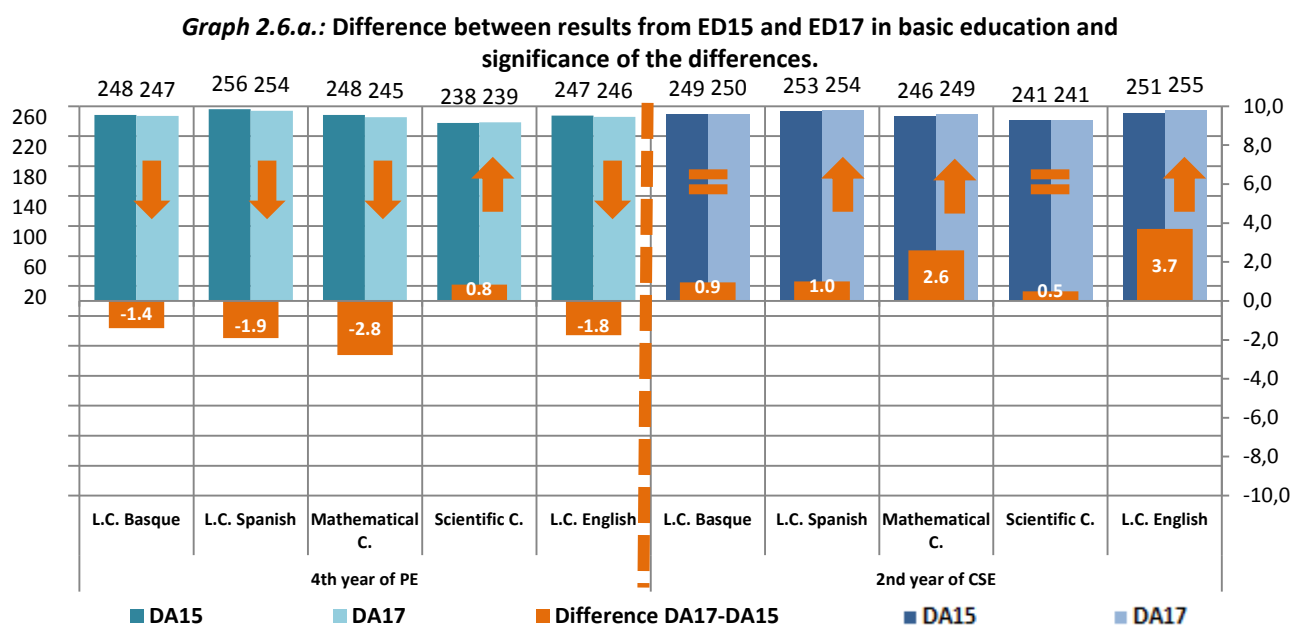
There is a visible difference between the trends in the two basic stages:

- in the 4<sup>th</sup> year of Primary Education, the overall results reveal a decline in four of the five competences assessed in 2017:
- however, in the 2<sup>nd</sup> year of CSE, the trend is more positive, as there is an improvement in three of the five competences, significantly so in some cases.

The progression of competences measured across schools in each stage of basic and

Compulsory Secondary Education offers a contrasting picture: a gradual decline in the results in the 4<sup>th</sup> year of Primary Education, and an improvement, in some cases significant, in CSE.

The results for each competence in every edition of the Diagnostic Assessment can be seen in section 2 of this report. The graph below only compares the results from the last two editions and notes the statistical significance of the differences.



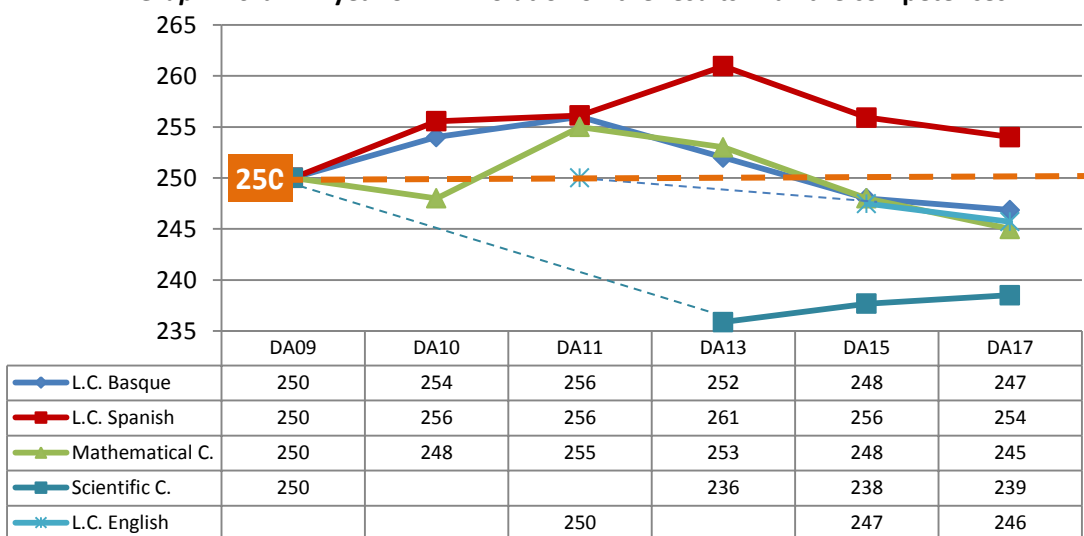
In the 4<sup>th</sup> year of PE the scores have been on a continuous downward trend since 2013. Only *scientific competence* has recovered slightly, and by less than one point.

One revealing figure is that, in 2017, only one of the five competences assessed, *linguistic communication in Spanish*, has maintained a score that exceeds the 250 points scored in the first edition in 2019, although even this competence lost 7 points between 2013 and 2017.

As shown in the graph below, of the five competences assessed in the 4<sup>th</sup> year of Primary Education, there are three (Basque, English and Mathematics) that have maintained a similar trend and behaviour since 2011.

However, although it has the worst results, *scientific competence* is the only one whose scores have increased slightly, by 0.8 points. Nevertheless, in any event, this is a significant improvement from a statistical perspective.

**Graph 2.6.b.: 4<sup>th</sup> year of PE. Evolution of the results in all the competences.**



In the case of the 2<sup>nd</sup> year of Compulsory Secondary Education, the following graph shows the overall trend of scores for all competences increasing in the latest editions, although for two of them (Basque and Science) that improvement is not statistically significant.

Four of the competences assessed (all of them besides *scientific competence*) scored above or around 250 points, which was the original baseline in 2009.

**Graph 2.6.c.: 2<sup>nd</sup> year of CSE. Evolution of the results in all the competences.**

