

CURRICULUM ENGINEERING FOR DUMMIES: MAKING THE DIFFICULT EASY. APPROACHING THE NEW LOMLOE CURRICULUM FRAMEWORK: UPDATING THE COMPETENCY-BASED WORK BASED ON PRINCIPLES OF UNIVERSAL LEARNING DESIGN

INGENIERÍA CURRICULAR PARA DUMMIES: HACIENDO FÁCIL LO DIFÍCIL. APROXIMACIÓN AL NUEVO MARCO CURRICULAR LOMLOE: ACTUALIZACIÓN DEL MODELO COMPETENCIAL EN BASE A LOS PRINCIPIOS DEL DISEÑO UNIVERSAL DE APRENDIZAJE

Natalia Archilla Herrero

Inspector of Education. Bachelor's Degree in Elementary Education. Bachelor's Degree in Educational Psychology. Master's Degree of Teaching English as a Foreign Language.

Dirección de Área Territorial Madrid-Norte

Abstract

In order to give continuity to the work initiated by Mr. José María Alén de la Torre, fellow Inspector of Education of Pontevedra, in relation to the new curricular architecture and author of the article "Entendiendo el Nuevo Currículo para Poder Aplicarlo" published in this magazine last July, this article aims to address in a simple and practical way the most relevant aspects of the new curricular design developed after the enactment of the Organic Law 3/2020, of December 29 (hereinafter LOMLOE), which amends the Organic Law 2/2006, of May 3, on Education (hereinafter LOE).

We will analyse the progressive implementation of the curricular design of the LOMLOE, the elements of the new curricular framework and the relationships that exist between them, the competences that educational administrations, schools and teachers have in educational planning and programming of teaching, pointing out the most relevant aspects for the implementation of a truly competent and inclusive model in the classrooms of our country.

For this purpose, we take as a reference the respective Royal Decrees of Minimum Education of the different teachings: Royal Decree 95/2022, of Infant Education; Royal Decree 157/2022 of Primary Education; Royal Decree 217/2022 of Compulsory Secondary Education and Royal Decree 243/2022 of Baccalaureate. It is also included an analysis and synthesis of the information provided by Mr. Lucio C. Calleja Bachiller, Deputy General Director of Academic Planning of the General Directorate of Evaluation and Territorial Cooperation of the Ministry of Education and Vocational Training, in the Webinar "New Curriculum Framework: From the Standard to the Centre", held on 20th September 2022, as part of the second edition of the INTEF online courses on the new curriculum, as well as from other reference documents and articles about curriculum listed in the bibliography.

Keywords: Curriculum design, competency-based learning, inclusiveness, autonomy, institutional documents, programmatic documents, reculturalisation.

1. INTRODUCTION

On 19 January 2021, the amendments to the LOMLOE, introduced in the LOE, came into force progressively, in accordance with 5th Final Provision 5 of the LOMLOE and as detailed below:

	Amendments relating to: • The participation and competences of the school council, the school staff, the headmaster or headmistress. • The autonomy of schools. • The selection of the headmaster or headmistress in public schools. • The admission of pupils.		The modifications introduced in: • Assessment and promotion conditions for the different educational stages. • The conditions for the qualifications in compulsory secondary education, basic level of vocational training cycles and baccalaureate. • Qualifications in professional music and dance education.
---	---	--	---

			The conditions for access to the different educational stages.
 Curso 2022-2023 En el curso escolar que se inicie un año después de la entrada en vigor de esta Ley	The modifications introduced in the curriculum, organisation and objectives of: - Primary education (years 1, 3 and 5). - Compulsory Secondary Education (years 1 and 3). - Baccalaureate (year 1) - Basic vocational training cycles (year 1)	 Curso 2023-2024 En el curso que se inicie dos años después de dicha entrada en vigor	The modifications introduced in the curriculum, organisation and objectives of: - Primary education (years 2, 4 and 6). - Compulsory secondary education (years 2 and 4). - Baccalaureate (year 2). - Basic level training cycles (year 2). The modifications relating to University access and admission. The diagnostic assessments of 4th year of Primary Education and 2nd year of Compulsory Secondary Education.

This academic year 2022-2023 the progressive implementation of the new LOMLOE curriculum framework has begun over the next two school years, with education administrations and schools, once again, at a key moment for redesigning and adapting the teaching-learning processes to the present and future needs of 21st century students, an unavoidable opportunity to continue improving the quality of education and contributing to the Sustainable Development Goals (SDGs) of the 2030 Agenda.

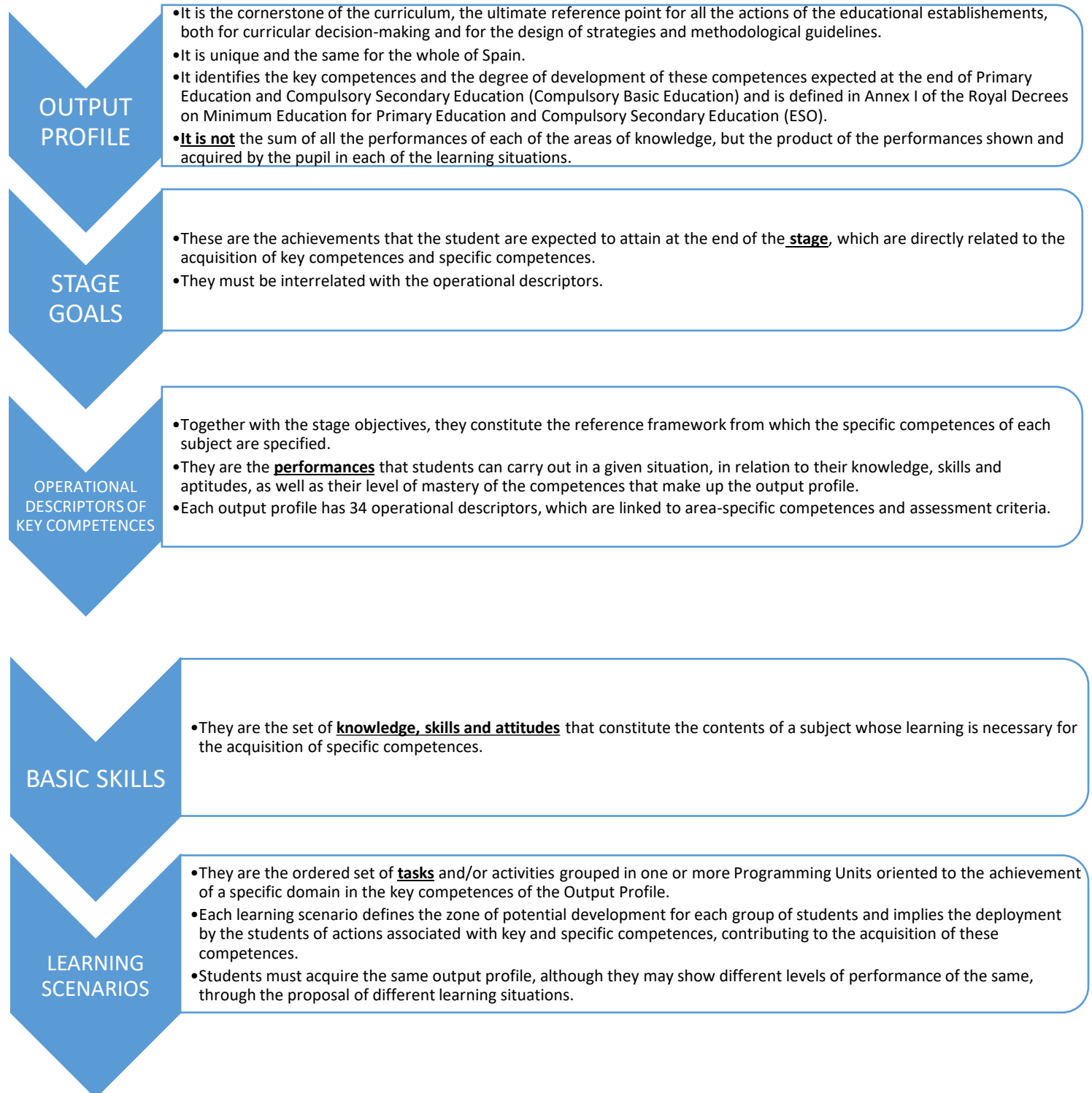
By way of background, between 1st February and 5th April 2022, the Royal Decrees establishing the organisation and minimum teaching standards for Pre-school Education, Primary Education, Compulsory Secondary Education and Baccalaureate were published in the Official State Gazette. Consequently, the vast majority of Education Administrations, although not all of them in their entirety, have published in recent months, in their respective autonomous gazettes, the Curriculum Decrees in which they have proposed the specification of the minimum teachings for the area of their competences.

One of the most relevant aspects to highlight in the new curricular proposal is the extension and reinforcement of the competency-based model, which

promotion was materialised at European level in 2006 through Recommendation 2006/962/EC of the Parliament and Council of the European Union on key competences for lifelong learning, and updated by Recommendation 2018/C 189/01. Also noteworthy is the commitment to the adoption of a truly inclusive education in which the diversity of all students is catered for, based on the principles and rights set out in Royal Legislative Decree 1/2013 approving the Consolidated Text of the General Law on the Rights of Disabled People and their Social Inclusion contained in Royal Legislative Decree 1/2013.

This competency-based and inclusive approach is the real challenge that both, the central administration and the respective education administrations are still facing today and have been facing ever since. Since the true competency-based and inclusive model of education will not be developed to its full extent in our country's classrooms as long as education is not conceived as a shared responsibility between all of them and the educational establishments. **This requires a sincere commitment and an effective pact for education on the part of the political powers, in which differences become an element of union and enrichment of our nation, and not of confrontation, so that a true transformation of education in our country will then be possible.** Likewise, it will have to be a priority for the administration to review the design and development of the ongoing and initial training of all the teachers responsible for the teachings contemplated in article 3 of the LOE, including the university professors responsible for the training of future teachers who will join our education system in its various teachings in the years to come.

2. APPROACH TO CURRICULUM ELEMENTS



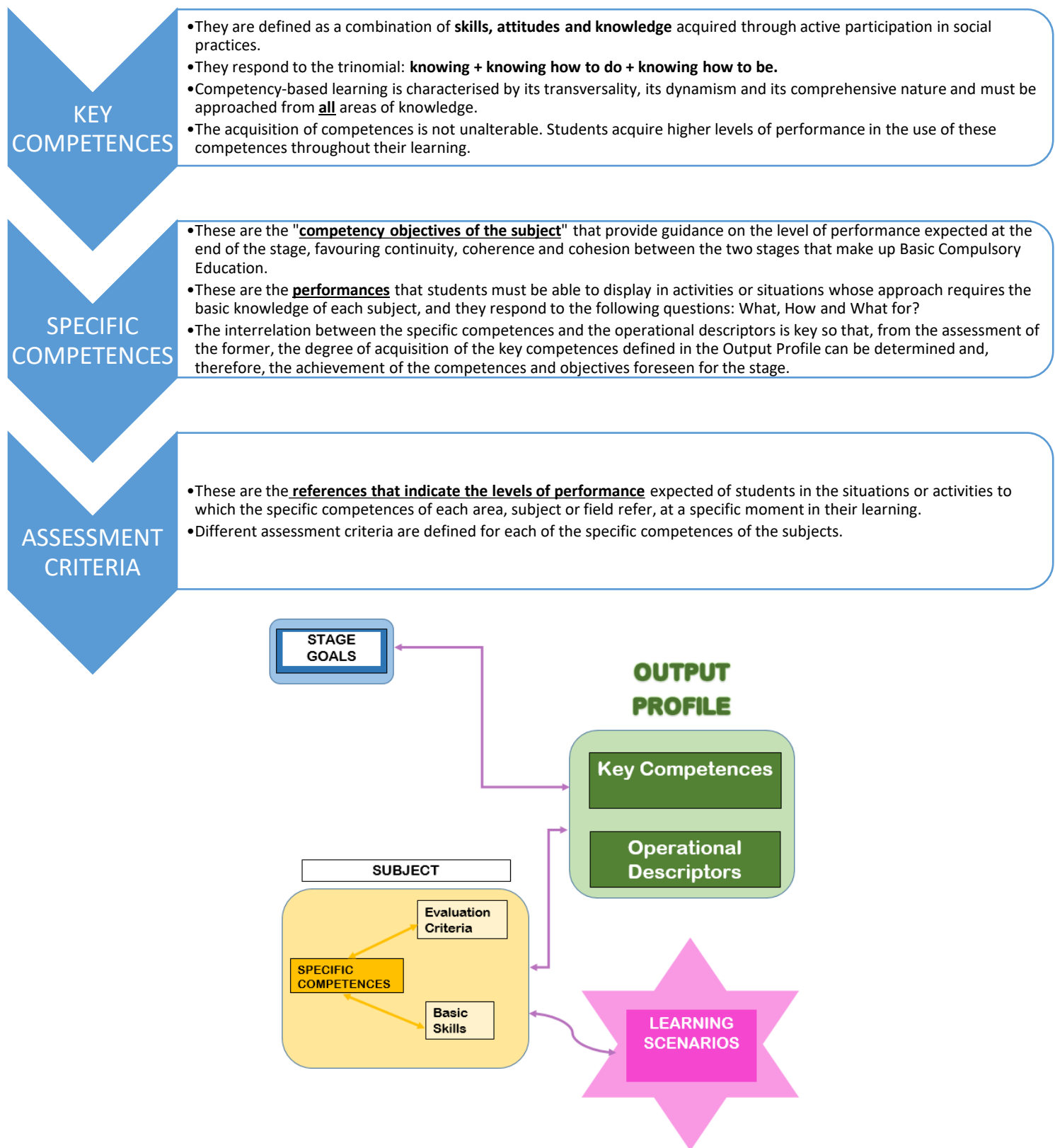


Figure 2: Relational Diagram LOMLOE curriculum elements

3. EDUCATIONAL PLANNING AND PROGRAMMING

The competency-based curriculum model is based on active, integrated and contextualised learning, which promotes and facilitates the development of pupils' autonomy, creativity and experimentation.

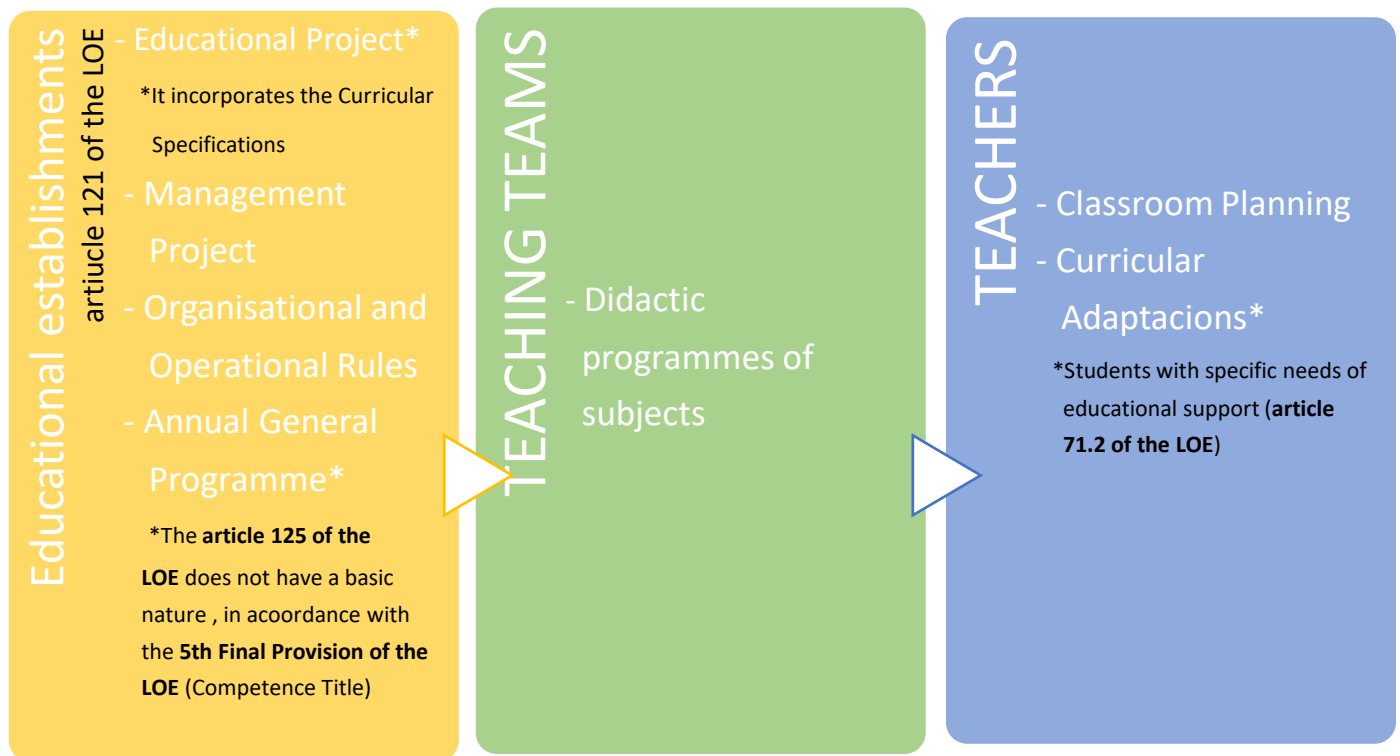
Based on the principle of **pedagogical, organisational and management autonomy** of educational centres as recognised in **article 120 of the LOE** and in accordance with the explanatory memorandum of the preamble of the LOMLOE, it is understood that:

- The flexibility that characterises our education system allows schools to ensure an appropriate response to the needs of their pupils in order to achieve academic success for all of them, within the framework of what is generally established by the educational administrations.

In this sense, and in accordance with the provisions of **article 4.3 of the LOE**, based on the **principles of Universal Learning Design**, in order to cater for the diversity of needs of all pupils, relevant curricular, methodological and organisational measures will be adopted when required to guarantee accessibility to the curriculum for all pupils and the individualisation of learning to the multiple ways in which pupils learn.

- Likewise, the educational administrations, through the Education Inspectorate, by virtue of the functions attributed to it in **article 151 of the LOE**, must establish the relevant mechanisms for the supervision, evaluation and assessment of schools, as well as for their accountability, in order to ensure the rational and effective development of the autonomy of schools.

On the other hand, in application of the principle of competence, the schools curricular autonomy is developed at different levels and implemented through relevant institutional and programmatic documents, as detailed below:



3.1. EDUCATIONAL PROJECT: CURRICULAR SPECIFICATIONS

In accordance with the provisions of **article 121 of the LOE**, the educational project [...] will incorporate the **curricular specifications** established by the educational administration, which must be set and approved by the school staff, and will promote and develop the principles, objectives and methodology of competency-based learning aimed at the exercise of active citizenship. Likewise, it will include a cross-cutting treatment of education in values [...].

The main novelties of the new LOMLOE curricular framework in relation to the tasks to be carried out during the next school years by the schools for the updating of the educational project and the curricular specifications will be the following:

1. To specify and define the students' output profile from their centre.
2. To define the contribution of each subject area to the output profile.
3. To define the levels of mastery of the output profile and the report model.
4. To define the criteria for the elaboration of the output profile reports.

5. To define the criteria for promotion taking into account the output profile.
6. To define the criteria for the creation of learning fields.
7. To define the criteria for the design and development of integrated projects.
8. To specify criteria for defining cross-cutting themes.
9. To specify criteria for defining School-Family commitments.

3.2.DIDACTIC PROGRAMMES: PROGRAMMING UNITS

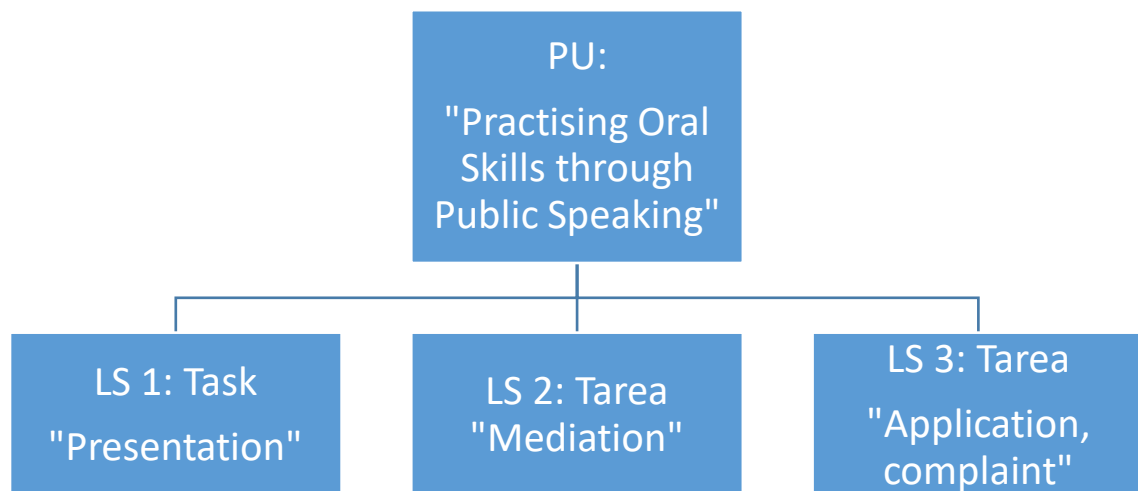
The new curricular architecture implies a qualitative change between what is known as a Didactic Unit or a conceptual programming unit, and the Programming Unit or a unit of programming that can be conceptual, thematic, disciplinary, etc.

The adaptation of the didactic programmes to the new LOMLOE design will not consist, therefore, in the substitution of the denomination of the new curricular elements, nor the elaboration of the programmes around didactic units that pursue the learning of basic skills.

It is therefore proposed that a new, more open programming model should be developed which will enable the adequate acquisition of competences so that the old model of decontextualized content learning is abandoned, which will have to specify the following aspects:

1. The assessment criteria of the specific competences and associated basic skills, as well as the sequencing of these in programming units, which will be developed through learning scenarios.
2. The methodological and didactic principles.
3. The assessment strategies and instruments.
4. The criteria for assessment, marking, promotion and qualification.
5. The teaching resources and materials.
6. The complementary and extracurricular activities.
7. The evaluation process of the teaching programme and of the teaching process.

The programming units (PUs) that make up the didactic programme will not be focused exclusively on content, but on a larger structure. They will be composed of different learning scenarios (LS) that will allow the work on specific competences, as shown below:



For the elaboration of a Programming Unit, the following should be taken as references:

- The specific competences of the subject.
- And the basic skills to be learned.

3.3. LEARNING SCENARIOS

The learning situations respond to several specific competences which acquisition enables the learning of certain basic skills. The development of all the learning scenarios of a Programming Unit will allow working on all the programmed specific competences and basic skills. When planning them, the following aspects must be taken into account:

- They should focus on the attainment of specific competences and not on the acquisition of basic skills.
- They should address the set of basic competences and basic skills of a level, cycle or stage.
- They should be adaptable to different classroom situations.
- They must be realistically sequenced.
- The interrelationships between the different learning situations will make it possible to monitor the progression of the acquisition of competences.
- The assessment of learning scenarios should be linked to the descriptors and the output profile.

When designing learning scenarios, a series of criteria must be taken into account, which are set out in Annex III of the Royal Decrees on

minimum teaching requirements for Primary Education and Compulsory Secondary Education, and which are summarised below:

- They will be designed around the learner's centre of interest.
- They will allow for autonomous, creative and experiential learning and knowledge.
- They will be appropriately contextualised.
- They will enable the coherent and integrated activation of knowledge, skills and attitudes (basic skills).
- They will be composed of complex tasks which resolution will involve the construction of new learning.
- They shall be flexible and accessible, in accordance with the principles of Universal Design for Learning. The ULD model is based on the principles and guidelines detailed below:

PRINCIPLES			
	Providing multiple forms of ENGAGEMENT Affective networks: the "reason" for learning 	Providing multiple forms of REPRESENTATION Recognition networks: the "what" of learning 	Providing multiple forms of ACTION AND EXPRESSION Strategic networks: the "how" of learning 
ACCESS	Provide options to engage learner's interest: • Optimise individual choices and autonomy. • Optimise relevance, value and authenticity. • Minimise threats and distractions.	Provide options for perception: • Offer ways to customise the display of information. • Offer alternatives for auditory information. • Offer alternatives for visual information.	Provide options for physical action: • Vary methods of response, navigation and interaction. • Optimise access to assistive tools and technologies.

CONSTRUCTION	Provide options for sustaining effort and persistence: • Highlight the relevance of goals and objectives. • Vary demands and resources to optimise challenges. • Promote collaboration and communication. • Increase mastery-oriented feedback.	Provide options for language and symbols: • Clarify vocabulary and symbols. • Clarify syntax and structure. • Promote understanding between different languages. • Illustrate through multiple media.	Provide options for expression and communication: • Use multiple media for communication. • Use multiple tools for construction and composition. • Develop fluency with graduated levels of support for practice and performance.
INTERNALIZATION	Provide options for self-regulation: • Promote expectations and beliefs that optimise motivation. • Facilitate skills and strategies for coping with challenges. • Develop self-assessment and reflection.	Provide options for understanding: • Activate or provide prior knowledge. • Highlight patterns, key features, main ideas and relationships between them. • Guide processing, visualisation and manipulation of information. • Maximise transfer and generalisation of information.	Provide options for executive function: • Guide appropriate goal setting. • Support planning and strategy development. • Enhance the ability to monitor progress.

To accompany and support the task of teachers in relation to the design and implementation of learning scenarios, the National Centre for Curriculum Development in Non-Proprietary Systems (CEDEC), within the framework of the EDIA Project, has been offering, for years, an interesting bank of Open Educational Resources (OER), which includes an extensive repository of learning situations for Pre-school, Primary, Secondary, Baccalaureate and Vocational Training. All the resources are curricularly differentiated by levels and subjects, and offer proposals linked to active methodologies and the promotion of digital competence in the classroom, as well as all the templates, guides, rubrics and documents necessary to bring the didactic proposal to the classroom. It is a validated and approved reference framework, around which teaching networks have been created to discuss the application of resources in the classroom and the use of technology, and a virtual faculty has been created for

experimentation with the aim of proposing new models of educational content, which interested educational centres can join in the framework of the annual call for applications, which was published for this school year on 18 October 2022.

<https://cedec.intef.es/recursos/>



4. CONCLUSION

We are facing an important opportunity to redefine and redesign the educational projects of schools, being essential the strengthening of their autonomy for this to be carried out successfully. It is important to point out that this autonomy should not be limited only to a structural change or "restructuring", visible in the curricular organisation, in the educational offer or in the configuration of teaching, but will require a "reculturation" of schools (Fullan, 1995), that is, a change in the culture of the teaching function, as well as in the organisation and autonomy of schools, which will allow the promotion and development of a competent and inclusive education.

Fullan pointed out, as a key aspect for reculturation, "the need to transform habits and skills, the need for teaching practices to be centred on the students who learn, and the reorientation and restructuring of the relationship between schools and their environment". He warned, at the time, that teacher education in his country had been lagging behind, considering it essential for the improvement of the Canadian education system at the time, a substantial reform of initial and in-service teacher education, which allowed, among other things, schools to become learning and innovative organisations.

Opportunities lurk in the cracks of difficulties.

As Albert Einstein said: "in the midst of any difficulty, there is always an opportunity".

Let's turn difficulties into opportunities!

5. BIBLIOGRAPHY AND WEBGRAPHY

- Asegurado Garrido, Antonio y Marrodán Gironés, Jesús (Coords) (2021). La LOMLOE y su análisis. Una mirada técnica.
- Moya Otero, José y Luengo Horcajo, Florencio. (Coords) (2021). Educar para el Siglo XXI: Reformas y Mejoras. LOMLOE: de la Norma al Aula.
- Manso, José y Moya Otero, José (Coords) (2019). Profesión y Profesionalidad Docente. Una Acción Educativa Comprometida con el Desarrollo Humano.
- Fullan, Michael (1995). The school as a learning organization: Distant dreams.
- Alen de la Torre, José María (2022): "Entendiendo el Nuevo Currículo para Poder Aplicarlo". Supervisión21, nº 65 / julio 2022, ISSN: 1886-5895.
<https://usie.es/supervision21/index.php/Sp21/article/view/638/1177> (consultado el 21 de octubre de 2022)
- Archilla Herrero, Natalia (2019): Conferencia sobre "El Cambio en el Sistema Educativo: Consideraciones a Nivel Local, Regional y Central". Supervisión21, nº 54 / enero 2020, ISSN: 1886-5895.
<https://usie.es/supervision21/index.php/Sp21/article/view/449/831> (consultado el 21 de octubre de 2022)
- Alba Pastor, Carmen. "Diseño Universal para el Aprendizaje: un Modelo Teórico-Práctico para una Educación Inclusiva de Calidad".
<https://redined.mecd.gob.es/xmlui/bitstream/handle/11162/190783/Alba.pdf?sequence=1&isAllowed=y> (consultado el 21 de octubre de 2022)
- Sánchez Hermosilla, Manuel Jesús (2022). "Otra Oportunidad". Magisterio. <https://www.magisnet.com/2022/10/otra-oprotunidad/> (consultado el 21 de octubre de 2022)
- Ley Orgánica 2/2006, de 3 de mayo, de Educación (BOE núm. 106, de 4 de mayo) modificada por la Ley Orgánica 8/2013, de 9 de diciembre, para la mejora de la calidad educativa (BOE núm. 295, del 10 de diciembre) y por la Ley Orgánica 3/2020, de 29 de diciembre, por la que se modifica la Ley Orgánica 2/2006, de 3 de mayo, de Educación (BOE núm. 340, del 30 de diciembre)
<https://www.boe.es/buscar/pdf/2006/BOE-A-2006-7899-consolidado.pdf> (consultado el 21 de octubre de 2022)
- Real Decreto 95/2022, de 1 de febrero, por el que se establece la ordenación y las enseñanzas mínimas de la Educación Infantil (BOE núm. 28, de 2 de febrero)
<https://www.boe.es/buscar/pdf/2022/BOE-A-2022-1654-consolidado.pdf> (consultado el 21 de octubre de 2022)
- Real Decreto 157/2022, de 1 de marzo por el que se establecen la ordenación y las enseñanzas mínimas de la Educación Primaria (BOE

núm. 52, de 2 de marzo)

(<https://www.boe.es/buscar/pdf/2022/BOE-A-2022-3296-consolidado.pdf>) (consultado el 21 de octubre de 2022)

- Real Decreto 217/2022, de 29 de marzo, por el que se establece la ordenación y las enseñanzas mínimas de la Educación Secundaria Obligatoria (BOE núm. 76, de 30 de marzo) (<https://www.boe.es/buscar/pdf/2022/BOE-A-2022-4975-consolidado.pdf>) (consultado el 21 de octubre de 2022)
- Real Decreto 243/2022, de 5 de abril, por el que se establece la ordenación y las enseñanzas mínimas del Bachillerato (BOE núm. 82, de 6 de abril) (<https://www.boe.es/buscar/pdf/2022/BOE-A-2022-5521-consolidado.pdf>) (consultado el 21 de octubre de 2022)
- MEFP Website: <https://educagob.educacionyfp.gob.es/inicio.html>
- INTEF Website: <http://aprende.intef.es/aprendiario/tutorizadas/el-nuevo-marco-curricular-desde-la-norma-al-centro>
- Junta de Castilla y León Website: <https://www.educa.jcyl.es/crol/es/capacitacion-docente/situaciones-aprendizaje-lomloe-7e3b8>
- CEDEC Website: <https://cedec.intef.es/recursos/>
- INTEF Webinar: <https://www.youtube.com/watch?v=6S-vETeYVGc>