# DEPIT

## Designing for Personalization and Inclusion with Technologies

2017-1-IT02-KA201-036605

# Deliverable IO1 – A1
# Study on educational planning methods

| Document information | |
|---|---|
| **Due date of Intellectual Output** | M6 |
| **Actual submission date** | M10 |
| **Revision** | Version 1.0 |
| **Author** | UNIMC, Rete Depit, Crescendo, CEP Sevilla |

# Theoretical framework

**1. The learning design and its history**

The document gives evidence of the evolution of the studies on learning design through the retracement of the main bibliographic references on the topic, that are essential to start the theoretical and methodological framework of the research field. In the first part a bibliographic review organized in a historical perspective is based on the main methodological and theoretical models and on the fundamental theories on the design for learning. Afterwards some concepts related to the concept of design, accompanied by specific bibliographic references, are reported.

On an informative and encyclopaedic level, please see the website:

http://www.instructionaldesign.org/index.html
http://www.celt.iastate.edu/teaching/effective-teaching-practices/revised-blooms-taxonomy/blooms-revised-taxonomy-model

**1.1 History (some important international reference points until 2010)**

**The "founding fathers"**

1918 KILPATRICK, W.H. (1918). The project Method. New York, Columbia University.
1950 SKINNER, B.F. (1950). Are theories of learning necessary? Psychological Review, 57(4), 193-216.
1954 SKINNER, B.F. (1954). The science of learning and the art of teaching. Harvard Educational Review, 24(2), 86-97.

**Some key texts**

1962 ASIMOV M. (1962), *Introduction to Design*, Prentice Hall, Englewood Cliffs. (NJ).
1970 ARCHER B. L. (1970), An Overview of the Structure of the Design Process, in G. T. Moore (ed.), *Emerging Methods in Environmental Design and Planning*, MIT Press, Cambridge (MA), pp. 285-307.
1970 JONES J. C. (1970), *Design Methods*, Wiley, New York.

**The linear model. ADDIE and "his sons"**

1974 GAGNE' R.M., Briggs L.J., Wager W.W. (1974). Principles of Instructional Design. Rinehart & Winston, Holt (NY)
1980 GERLACH V. S., ELY D. P. (1980), *Teaching & Media: A Systematic Approach*,. Prentice-Hall, Englewood Cliffs (NJ) (2nd ed.).
1983 REIGELUTH C. M. (ed.) (1983), Instructional-Desing Theories and Models: An. Overview of Their Current Status, Lawrence Erlbaum, Hillsdale (NJ).
1983 MERRILL M. D. (1983), Component Display Theory, in. C. M. Reigeluth (ed.). Instructional-Design Theories and Models. A New Paradigm of Instructional. Theory. Volume II, Lawrence Erlbaum, Hillsdale (NJ), pp. 279-333.
1985 GAGNÉ R. M. (1985), *The Conditions of Learning*, Rinehart & Winston, Holt. (NY) (4th ed.).

**The Nineties. The antithesis between instructional design and behaviorism.**

1991 BRIGGS L. J., GUSTAFSON K. L., TELLMAN M. H. (eds.) (1991), *Instructional Design: Principles and Applications*, Educational Technology Publications, Englewood Cliffs (NJ).
1992 GAGNÉ R. M., BRIGGS L. J., WAGER W. W. (1992), *Principles of Instructional. Design*, Rinehart & Winston, Holt (NY) (4th ed.).

1993 WILSON B. G., JONASSEN D. H., COLE P. (1993), *Cognitive Approaches to Instructional. Design*, in G. M. Piskurich (ed.), *The ASTD Handbook of Instructional. Technology*, McGraw-Hill, New York, pp. 21.1-21.22.

1995 WILSON B. G. (1995), Situated Instructional Design: Blurring the Distinctions. between Theory and Practice, Design and Implementation, Curriculum and Instruction, in M. Simonson (ed.), *Proceedings of Selected Research and Development Presentations, Association for Educational Communications and Technology*, Washington DC.

1997 GUSTAFSON K., BRANCH R. M. (1997), *Instructional Design Models*, ERIC Clearinhouse on Information and Technology, Syracuse (NY).

1997 HANNAFIN M. J., HANNAFIN K. M., LAND S., OLIVER K. M. (1997), *Grounded. Practice and the Design of Constructivist Learning Environments*, in. "Educational Technology Research and Development", 45, 3, pp.101-17.

1998 KEMP J. E., MORRISON G. R., ROSS S. M. (1998), *Designing Effective Instruction*,. Prentice-Hall, Upper Saddle River (NJ) (2nd ed.).

1999 JONASSEN D. (1999), Designing Constructivist Learning Environments, in C. M. Reigeluth. (ed.), *Instructional-design Theories and Models. A New Paradigm of. Instructional Theory*. Volume II, Lawrence Erlbaum, Hillsdale (NJ), pp.. 217-39.

2000 GORDON J., ZEMKE R. (2000), *The Attack on ISD: Have We got Instructional. Design All Wrong?*, in "Training Magazine", 37, pp. 43-53.

2001 DICK W., CAREY L., CAREY J. (2001), *The Systematic Design of Instruction*, Addison-. Wesley Educational Publishers, New York (5th ed.). 208.

2002 GUSTAFSON K. L., BRANCH R. (2002), *Survey of Instructional Development Models*,. ERIC Clearinghouse on Information & Technology, Syracuse (NY). (4th ed.).

1999 REIGELUTH C. M. (ed.) (1999), What is Instructional-Design Theory and how is It Changing?, in. Id. (ed.), *Instructional-Design Theories and Models. A New Paradigm of Instructional* Theory. Volume II, Lawrence Erlbaum, Hillsdale (NJ), pp. 5-29.

2002 MERRILL M. D. (2002a), *First Principles of Instruction*, in "Educational Technology Research and Development", 50, 3, pp. 43-59.

2002 MERRILL M. D. (2002b), *A Pebble-in-the-pond Model for Instructional Design*, in "Performance. Improvement", 41, 7, pp. 39-44.

2004 MERRILL M. D. (2004), *First Principles of Instruction: A Synthesis*, http://cito.byuh.edu/.merrill/text/papers/Reiser%20First%20Principles%20Synthesis%201st%.20Revisio.pdf (checked on 2 February 2009). LINK TO BE CHECKED

2005 WAGER W., GAGNÉ R., GOLAS K., KELLER J. (2005), *Principles of Instructional. Design*, Wadsworth/Thomson, Belmont (CA).

2007 MERRILL M. D. (2007), First Principles of Instruction, in C. M. Reigeluth, A. Carr (eds.), *Instructional Design Theories and Models*. Volume III, Lawrence Erlbaum,.Hillsdale (NJ), pp. 62-71.

***A general overview***

1990 COYNE R. D., ROSENMANN M. A., RADFORD A. D, BALACHANDRAN M., GERO J..(1990), *Knowledge-based Design Systems*, Addison-Wesley Publishing. Company, New York.

1990 GERO J. S. (1990), *Design Prototypes: A Knowledge Schema for Design*, in "AI. Magazine", Winter, pp. 26-36.

1994 GERO J. S. (1994), *Computational Models of Creative Design Processes*, in T. Dartnall. (ed.), *AI and Creativity*, Kluver, Dordrecht, pp. 269-81.

2002 GERO J. S., KANNENGIESSER U. (2002), *The Situated Function-Behaviour-Structure. Framework*, in J. Gero (ed.), *Artificial Intelligence in Design '02*,. Kluver Academic Publishers, Dordrecht, pp. 89-104.

2002 LENART M., PASZTOR A. (2002), *Constructing Design Worlds*, in J. S. Gero. (ed.), *Artificial Intelligence in Design '02*, Kluver Academic Publishers,. Dordrecht, pp. 65-89.

2008 CUD (2008), *The Center for Universal Design*, College of Design, NC State. University,

**<u>Overcoming the antithesis</u>**

2004 REIGELUTH C. M. (2004), Comparing Beans and Potatoes, or Creating a Balanced Diet? Different. Purposes and Different Approaches, in "Educational Technology",.44, 3, pp. 53-6.

2005 WILSON B. G. (2005), Broadening Our Foundation for Instructional Design: Four Pillars. of Practice, in "Educational Technology", 45, 2, pp. 10-5.

2006 BOTTURI L., DERNTL M., BOOT E., FIGL K. (2006), A Classification Framework. for Educational Modelling Languages in Instructional Design, in *International. Conference on Advanced Learning Technologies,* IEEE Press, Kerkrade. (NL), pp. 1216-20.

2006 KOPER R. (2006), *Current Research in Learning Design*, in "Educational Technology. & Society", 9, 1, pp. 13-22.

2007 BOTTURI L., CANTONI L., LEPORI B., TARDINI S. (2007), *Fast Prototyping as a. Communication Catalyst for E-Learning Design*, in M. Bullen, D. Janes. (eds.), *Making the Transition to E-Learning: Strategies and Issues*, Idea. Group, Hershey (PA), pp. 266-83.

## 1.2. The Learning design today

The complexity of the situation assigns even greater importance to the design. The need for situated designs and a recursive process between design, action, testing, and documentation:
- places the design artefact as a bridge element between the three phases,
- requires an explicit design in which the various threads of the plot find a space and intertwine with each other
- impacts with the teaching professionalism, with its agency, and its community

LAURILLARD, D. (2012). *Teaching as design science.* Routledge. London.
ROSSI, P.G. (2017). *Visible Design*. *Revista Fuentes, 19(2),* 23-38.

## 1.3 Design and inclusion

The inclusive school is a school able to promote at the same time equity and sensitivity to differences by adopting a didactic that in addition to taking into account the learning objectives shows a similar attention to the dimension of participation and the relationship between school and extra-school. It is a school that is characterized by being a dynamic place, capable of welcoming and interpreting changes. Research and literature at international level have offered important contributions to think and rethink the issue of school inclusion of which the curriculum is its core: in fact, not only foresees the development of disciplinary contents, but also includes the pedagogical-didactic components and management of the school. Assuming the perspective of inclusion means ensuring that the components mentioned are designed, developed and monitored by adopting criteria and indicators capable of detecting the presence or absence of the inclusive dimension in relation to cultures, policies and school practices (Ainscow e Both, 2002, 2014).

Operating in an inclusive perspective poses new challenges to the curriculum design starting from the fact that an inclusive curriculum is not an ordinary curriculum, addressed to all students, to which are added individualized and personalized paths for those who need it. The inclusive dimension of curricular design implies, on the opposite, from the beginning, a design addressed to everyone considering the differences and able to provide the best opportunities for each student (Cottini *et Al.*, 2016; Morgan e Houghton, 2011).

Specifically, the design of an inclusive curriculum, regardless of the scholastic level, should be guided by some fundamental questions, summarized as follows: "How is it possible to consider the organization of the curriculum in order to implement an effective inclusive culture, and again: which indicators should be essential to evaluate the presence or the absence of an inclusive school identity starting from the planning of the curriculum itself?" (Giaconi *et Al.*, 2017).

It is a planning that should be the result of an organization attentive to the objectives, at the same time sensitive to the specificity of the context, of the students and to the didactic experiences and social participation. In fact, the inclusive curriculum is characterized by being flexible and constantly moving towards a model that develops itself daily in micropractics: a model that seeks personalized paths "where diversity becomes the elements of educational and social cohesion of the curriculum itself" (ivi, p.53).

Some studies in the High School level (Nind *et Al*, 2013) have highlighted difficulties in adopting the inclusive perspective in the field of curriculum design, including: being able to integrate individualized educational programs into the curriculum especially in the high school; identify contact points and synergies between the individualized educational plan and curriculum design and planning for the class; harmonize the criteria with which to define the contents and carry out the evaluation. Within this framework, the specific component of inclusive education does not consist of a set of specific contents but it is characterized by an organizational and methodological orientation to be adopted in everyday practices. This statement implies that within the curriculum there is not a specific area dedicated to the subjects of inclusive didactics, but it means managing the disciplinary contents, adapting and developing them through a participatory approach (Meyer Rose e Gordon, 2014) that takes into account specificities of each student.

Morgan H., Houghton A.M (2011). *Inclusive curriculum design in higher education Considerations for effective practice across and within subject areas* https://www.heacademy.ac.uk/system/files/resources/introduction_and_overview.pdf.

Nind M., Rix J., Sheehy K., Simmons K. (2013), *Curriculum and Pedagogy in Inclusive Education*. Taylor & Francis Group

Booth T., Ainscow M. (2002). *Index for Inclusion developing learning and participation in schools*. Centre for Studies on Inclusive Education, Bristol.

Booth, T., & Ainscow, M. (2011). *Index for inclusion: developing learning and participation in schools* (3rd ed.). Centre for Studies on Inclusive Education, Bristol.

Booth, T. & Ainscow, M. (2016). *Index for inclusion: a guide to school development by inclusive values* (4th edition). Index for inclusion network, Cambridge.

Giaconi K., Del Bianco N., Capellini S.A. & Taddei A. (2017). *Curriculum and inclusion: critical issues and redefinition lines*. FrancoAngeli, Milano.

Meyer, A., Rose, D.H, & Gordon, D.T. (2014). *Universal Design for Learning: theory and practice*. Wakefield, MA: National Center on Universal Design for Learning.

Cottini L., Fedeli D., Morganti A., Pascoletti S., Signorelli A., Zanon F. & Zoletto D. (2016). *A scale for assessing Italian schools and classes inclusiveness*. In Form@are-Open Journal per la formazione in rete Vol.16 (2), Firenze. DOI: http://dx.doi.org/10.

Faubert B. (2012), *A Literature Review of School Practices to Overcome School Failure.* OECD Education Working Papers, 68, OECD Publishing, http://dx.doi.org/10.1787/5k9flcwwv9tk-en.

## 2. The alignment

A situated design proposes two directions:
-   to build a path that is comprehensible to the students, through an accessible language and knowledge;
-   to share the path with students to ensure the alignment;

These two processes belong to the umbrella concept of alignment. The first is also a process of transposition and Visible Learning.

Ausubel, D. P. (2000). *The acquisition and retention of knowledge*. Dordrecht: Kluwer.

Biggs, J. (2003). *Teaching for quality learning at university*. Buc*kingham: SRHE/OUP. link*

*Bransford, J. A., Brown, A. L., & Cocking, R. R. (Eds.). (2003). How people learn: Brain, mind, experience and school*. Washington D.C.: National Academy Press.

Entwistle, N., & Peterson, E. R. (2004). Conceptions of learning and knowledge in higher education: Relationships with study behaviour and influences of learning environments. *International Journal of Educational Research*, 41, 407–428.

Fry, H. (2009). *A handbook for teaching and learning in higher education: Enhancing academic practice*. London: Taylor & Francis.

Rossi P.G. (2016). Alignment. *ESS.* 2016, 2, 33-50.

## 3. The didactic transposition

As for "*transposition didactique*", Chevallard and Develay mean the way in which teachers build the taught knowledge starting from the "*savoir savant*": how they restructure the definitions, how they reinvent the experiments based on the resources present in the classroom or at school, how they choose metaphors. The process is not a simplification because often the languages used are different from those of the university classrooms or the research centers, as well as - in scientific subjects - the mathematical tools and the experimental supports are different.

The concept of *transposition* was created in France in the last decade of the twentieth century.

### 3.1 The transposition and the transpositions

In current school contexts, speaking of transpositions (in plural) seems more appropriate, because the plans that stand in the transition from the knowledgeable knowledge to the taught knowledge (and then learned) are multiple. Already Chevallard (1985, 1991) had introduced the idea of a double level of transposition, internal and external, then enriched by the concept of "chaîne transpositive", created by Perrenoud (1988). This latter means a series of passages from one knowledge to another and from a reference to the other (epistemological, ethical, social, political, procedural). Thinking about an ecological approach to knowledge, we can decline the transposition to the plural, meaning it as a transplant of knowledge (Winsløw & Gronbæk, 2014), from one context to another, in order to structure something new. This will not be trivial and predictable, depending on the modalities with which it takes root and evolves on the new «terrain».

Therefore the process of educational transposition is enriched by the subsequent adaptations of a knowledge object to the "ecologies" that contaminates and from which it is contaminated. These adaptations include reorganizations, substitutions, simplifications, extensions and transformations (Achiam, 2014): we no longer speak of didactic transposition but of successive and stratified teaching transpositions. Rather than a chain of knowledge, it consists of a network of elements that overlap and influence each other within a process declined in the plural: not only internal and external transposition, but a group of overlapping transpositions. For their interpretation and organization, the central role of the teacher should be re-evaluated, role that reconnects everything into a single system, the knowledge to teach and reify it in the classroom.

### 3.2 From the concept transposition to the curriculum transposition

The didactic transposition, as presented by Chevallard and Develay, and today by Duit, mainly refers to the contents and the disciplinary concepts. Instead, the concept of transposition is extended here to the curriculum. In other terms, it refers to the way a curriculum, designed by the teacher, is transformed to become a "*bridge*" artifact between teacher and student. It must be taken into account that in the curriculum at the beginning of the path there are contents and terms that students do not yet know. The terms and concepts in the curriculum, shown to the students, must be understood by the students and could change during the course to make the changes of the students clear. If the project created by the teacher is a necessary and functional tool for the teacher himself, the visible design is a design and documentation tool that will be useful for the students, for the teacher's team and for the school institution.

Achiam, M. (2014). *Didactic Transposition: From theoretical notion to research programme*. Paper presented at ESERA, Neveshir, Tyrkiet, Denmark.

Chevallard, Y. (1991). *La transposition didactique: du savoir savant au savoir enseigné*. Grenoble: La Pensée Sauvage.

Chevallard, Y., Concepts fondamentaux de la didactique: perspectives apportées par une approche anthropologique, in "*Recherches en didactique des mathématiques*", n. 12, 1992, pp. 73-112.

Damiano E. (2013). *Mediazione didattica.* Franco Angeli. Milano.

Develay, M., A propos de transposition didactique en sciences biologiques, in Develay M., Astolfi J.-P., La didactique des sciences, PUF, Paris 1993, pp. 119-138.

Develay, M., De l'apprentissage à l'enseignement, ESF, Paris 1992.

Develay, M., Le sens d'une réflexion épistémologique, in Develay M. (dir.), Savoirs scolaires et didactiques des disciplines. Une Encyclopédie pour aujourd'hui, ESF, Paris 1995, pp. 17-31.

Joannert P. (2011). Curriculum, entre modèle rationnel et irrationalité des sociétés. *Revue Interntionale d'éducation*. 56, 135-145.

Joannert P., Van der Borght C. (2009). *Créer des conditions d'apprentissage. Un cadre de référence socioconstructiviste pour la formation didactique des enseignants.* Paris/Bruxelles: De Boeck-Université.

Perrenoud, P. (1998). Voyage autour des compétences: vers un métier nouveau? *L'éducateur, 8*, 22-27.

Shulman, L.S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1-21.

## 4. Visible Design

A transposed curriculum must also be constructed in an appropriate manner both in the concepts, the texts, and the graphic structure. Regarding texts and concepts, when it comes to the choice of titles and labels, the use of a vocabulary that can be understood from students is a key aspect. When a teacher designs one of the references, that is the structure of the subject. If instead the teacher has to build a curriculum and a daily design that can be shared with the students, language and content must also take into account students' knowledge and processes for motivation "to construct the bridge between what they bring to their studies and where those studies are taking them" (Laurillard, 2012, 44). In the experience with schools, the title assigned to an annual course is a crucial factor and takes into account not only the subject content, but also the educational purposes. It provides the sense of the pathway. In the lesson / session level the activities have a central role - as well as the central role of icons, symbolising the activity and allowing students to understand what they are going to do and to assume the right attitude.

## 4.1 The GRAPHIC organiser

The Graphic Organizer is a logical – cognitive structure, able to support the abstract thinking (Starling, 2017) through the visualisation of the connections and the articulations of the paths, both linear and reticular.

The literature review concerning GO addresses important questions about graphic organizers that are relevant to classroom practice, including whether graphic organizers are beneficial to students with disabilities and what instructional context makes them most effective.

Barton-Arwood, S. M., & Little, M. A. (2013). Using graphic organizers to access the general curriculum at the secondary level. *Intervention in School and Clinic*, *49*(1), 6-13.

Bonaiuti, G. (2011). Organizzatori grafici e apprendimento. In A. Calvani (ed.), Principi di comunicazione visiva e multimediale. Fare didattica con le immagini (pp.75-128). Roma: Carocci.

Clark, R.C., & Lyons, C. (2010). Graphics for learning: proven guidelines for Planning, designing, and evaluating visuals in training materials. San Francisco, CA: Pfeiffer.

Dexter, D.D., & Huges, C.A. (2011). Graphic Organizers and students with learning disabilities: meta-analysis. Learning Disability Quaterly, 34(1), 51-72.

Starling, J. M. (2017). The effects of graphic organizers on the comprehension of expository text: examining individual differences for the multimedia principle based on visuospatial abilities. Muncie: Ball State University.

Strangman, N., Vue, G., Hall, T., & Meyer, A. (2004). *Graphic Organizers and Implications for Universal Design for Learning*. Wakefield, MA: National Center on Accessing the General

## 4.2. Visible design and inclusion

Both macro and micro design studies and the concepts of alignment and transposed curriculum (Joannert, 2011) as well as the concept of visible design, become particularly useful in relation to the need of inclusion within the classroom and to a more general inclusive culture of the whole school institute. As stated by Dovigo (2008), it is recommendable not to aim exclusively at the design of special programs to foster inclusive processes, but to widen and diversify the "common curriculum" by making it more suitable to the needs of everybody. Such presupposition implies a shift of the focus on

the design dimension. Nowadays the complexity of the classrooms in Italy (presence of students with disabilities, with specific learning disorders, or immigrant students) requires a specific competence in the design of learning disciplinary paths that take into account in a deep way the different students' needs. Starting from Law 170/2010 and the following norms the teacher is expected to set not only different kind of design documents (the Individualized Educational Plan for students with disabilities and the Personalized Educational Plan for students with specific learning disorders) but in order to make them embrace the inclusive approach the teacher needs to connect them to the design process within the school. In such perspective, the methodologies to design the teacher activates should let all students, independently from their functioning (according to the ICF rationale), to access the different disciplinary content and the related learning processes.

An investigation run with Italian teachers (Giaconi, 2013) has highlighted, among the different obstacles, the difficulty in setting a dialogue, a connection between the individualized/personalized paths and the common class curriculum. The main issue is to combine different paths in the design of every lesson. (Giaconi, 2016).

The concept of alignment (Laurillard, 2012, Rossi, 2011, Giaconi, 2015) become of primary importance to design with an inclusive perspective since, as stated by Rossi and Giaconi (2016), it includes different level of actions. The alignment is set between macro and micro design, between class paths and personalized/individualized paths, between disciplinary objective, quality of life domains and identification of actions in an inclusive approach (Giaconi, 2015, p.87). The management and the integration of different levels in the design process can be handled with the key notion of visible design.

A visual organizer, like a map, that makes it clear the sequence of the proposed activities in class can offer a vision of the whole learning path and results very useful for students with learning and attention difficulties since the organizer let them orientate in a better way during the class development and follow the teacher's explanation when the attention problems can occur. The literature is rich in terms of studies about the effectiveness of the use of maps and graphical organizers for the learning/elaboration processes of information and in the acquisition of a method of study by students with specific learning disorders (Dexter, 2010; Dexter & Hughes, 2011; Kim et.al., 2004; Bos & Vaughn, 2002; Rivera & Smith, 1997) or with Autism Spectrum Disorder (Connelly, 2016; Zakas et al., 2013; Bethune et al., 2013).

The visual organizer has also an anticipatory function that let teachers structure the timetable by making it more suitable to students' needs.

Finally, thanks to a lesson-map the teacher has the opportunity to design different personalized/individualized activities and paths. In the first case the teacher can keep the common path and suggest several ways to access with the use of mediators chosen for specific students with difficulties. In the second case the teacher creates connection points with the activities proposed for the whole class and provides different modalities to access the content and assignments for students with disabilities.

Bos, C. S., & Vaughn, S. (2002). Strategies for teaching students with learning and behavior problems (5th ed.). Boston: Allyn & Bacon.

Clark, J. M., Paivio A., (1991). Dual Coding Theory and ducation. Educational Psychology Review, 3 (3), 149-170.

Dexter, D. D. (2010). Graphic organizers and their effectiveness for students with learning disabilities. Thalamus 26, 51–67.

Dexter, D. D., & Hughes, C. A. (2011). Graphic organizers and students with learning disabilities: A meta-analysis. Learning Disability Quarterly 34, 51–72.

Dovigo, F. (2008). L'Index per l'inclusione. Promuovere l'apprendimento e la partecipazione nella scuola, Trento: Erickson.

Giaconi, C. (2013). Elementos de didática inclusiva em classes com alunos com Dislexia (400-419). In S.A. Capellini, Dislexia, Brazil: WAK EDITORA.

Giaconi, C. (2015). Qualità della vita e adulti con disabilità. Milano: Franco Angeli.

Giaconi, C. (2016). Una via per l'inclusione: il Progetto PROPIT tra allineamento e sostenibilità (39-49). In. P.G. Rossi & C. Giaconi, Micro-progettazione: pratiche a confronto. Propit, Eas, Flip. Milano: Franco Angeli.

Connelly, J. (2016). Effect of Wh-Question Graphic Organizer on Reading Comprehension in Students with Autism Spectrum Disorders. Marshall University, Marshall Digital Schola.

Keri, S., Bethune, C. & Wood, L. (2013). Effects of Wh-Question Graphic Organizers on Reading Comprehension Skills of Students with Autism Spectrum Disorders. Education and Training in Autism and Developmental Disabilities, 48(2), 236–244.

Kim, A. H., Vaughn, S., Wanzek, J., & Wei, S. (2004). Graphic Organizers and Their Effects on the Reading Comprehension of Students with LD: A Synthesis of Research. *Journal of learning disabilities*, *37*(2), 105-118.

Hyerle, D. (1996). Visual Tools for Constructing Knowledge. Alexandria, VA: Association for Curriculum and Development.

Lyons, C.A. (2003). Teaching Struggling Readers: How to Use Brain-Based Research to Maximize Learning. Portsmouth: Heinemann.

Paivio, A. (2006). Dual Coding Theory And Education. Ontario: University of Western Ontario.

Paivio, A. (1991). Dual Coding Theory: Retrospect and current status. Canadian Journal of Psychology, 45(3), 255-287.

Paivio, A. (1986). Mental Representations: A Dual-Coding Approach. New York: Oxford University Press.

Rivera, D. P., & Smith, D. (1997). Teaching students with learning and behavior problems (3rd Ed.). Boston: Allyn & Bacon.

Rossi, P.G. & Giaconi, C. (2016). Micro-progettazione: pratiche a confronto. Propit, Eas, Flip. Milano: Franco Angeli.

Zakas, T.L., Browder, D.M., Ahlgrim-Delzell, L.A. & Heafner, T.L. (2013). Teaching social studies content to students with autism using a graphic organizer intervention. Research in Autism Spectrum Disorders 7(9), 1075–1086.

## 5. The technology role

If it is true that technology offers a variety of opportunities in terms of information creation, reuse and sharing the way we organize such knowledge in a structured way in any formal educational system requires a solid reflection on what comprehensiveness and comprehension in a curriculum mean for today's students. Petrina (2004, 2007) underlines how curriculum theorists have been working since late 1970s to integrate the vision of the curriculum with an ecological approach rather than conceiving it as a mere "technical procedure of writing objectives, choosing activities, content and methods and modes of assessment" (Petrina, 2007, p. 255).

When we refer to technology in the educational context, thus, we can discriminate between two macro levels: technology in terms of "power of action" offered to students and teachers by user-friendly applications, services, software, and technology in terms of "exploitation" of that power of action. The gap between the results of the action and its proper exploitation in terms of quality can be covered by school.

A curriculum planning in which technology is not also included, but can support the co-construction of the learning paths for learners can help answering the current open questions about the effectiveness of technology at school.Teachers can direct the students' power of action, daily and informally experienced through digital technology, into opportunity of self-regulation in the identification, assessment and use of information (information literacy). On the other hand technology, in terms of digital tools and environments, facilitate the creation of co-constructed learning paths where, for example, the design process is shared with students through digital organizers (like maps) and in which the curriculum becomes a dynamic process.

Mor, Y., & Winters, N. (2007). Design approaches in technology-enhanced learning. *Interactive Learning Environments*, 15(1), 61–75.

Olofsson, A., & Lindberg, J. (2012). *Informed Design of Educational Technologies in Higher Education: Enhanced Learning and Teaching*. Hershey, PA: IGI Global.

Petrina, S. (2007). *Advanced Teaching Methods for the Technology Classroom* Hershey, PA: IGI Global.

Reiser, R. Dempsey, J. V. (2006).Trends and issues in instructional design and technology. NJ: Prentice-Hall.

Sugar, W., Martindale, T., Kester, D., & Sheerer, M. (2004). Perspectives on the Role of an Instructional Design and Technology Program Within a College of Education: Professor, Department Chair, Dean. *Educational Technology, 44*(4), 50-54. Retrieved from http://www.jstor.org/stable/44428925.

Summerville, J. and Reid-Griffin, A. (2008). Technology Integration and Instructional Design,*TechTrends*, 52 (5), pp 45–51.

Van den Akker, J.,Gravemeijer, K.,  McKenney, S.,  Nieveen, N. (eds) (2007). *Design Research.* New York: Routledge.

## 6. How to validate

The problem of how to validate the use of design artifacts is the task of the next meeting.
Validation must be addressed in two directions. The two research questions could be:
- which impact on teachers' professionalism?
- which impact on students' learning?
- And in each case what kinds of qualitative and quantitative evidence can be collected by (a) teachers, (b) researchers? And to what extent can each be validated?

How to exchange and build knowledge of and access to validated learning designs?

## 7. Conclusion and final considerations

We should include analysis of the logic of a curriculum structure, depending on the nature of the learning outcome. It could be a **sequence of instantiations of a main concept** (e.g. 'that the state exerts force on its citizens, i.e. one concept, multiple examples); **a historical narrative** of changing ideas (e.g. the nature of scientific method could begin with traditional methods of problem-solving and show the progression towards scientific approaches to problem-solving); a **cumulative hierarchy** (e.g. the component concepts that contribute to a series of subconcepts that together combine to form a higher concept (e.g. molecular theory, autism); a **collection of insights** (e.g. genres in painting, a typology for life-forms, linguistic structures); a progressive development of an increasingly complex concept (e.g. the theory of supply and demand, theory of atomic structures), and more.

The course map might show the 'what' of the curriculum content and structure (nodes and relational links) which is then *transposed* to the 'how' of the pedagogy (an overlay that expresses how the content of a node would be learned, and how its place in the relational structure would be learned). The overlay is then decomposed into a sequence of sessions, each relating to an outcome, and the sequence of sessions relating to how it builds towards the overall outcome, depending on the logic of the curriculum structure. This resulting learning design product is what the learner uses.

# National survey on the annual and daily planning of educational activities

## ITALY

1. **National directions of 2012 (Ministerial Decree n° 254 of 16th November 2012 in G.U. n° 30 of 5th February 2013)**
2. **National directions of 2010 (Decree of the President of the Republic, 15th March 2010, registered at the State Auditors' Department on 1st June 2010)**

The Document of the *National Directions for the Syllabus of the nursery school and the first cycle of education* of 4th September 2012 is the landmark for each school Institution related to the first education cycle (students from 3 to 14 years of age). It states a vertical direction, inclusive of the vertical direction, inclusive of the vertical direction, inclusive of the first school cycle, so that all the teachers can accomplish some syllabuses in continuity in a concrete and collective way, in the observance of the different subject peculiarities.

It seems that in this document, the areas or school aggregations which were previously present (for a subdivision in subjects), are now completely vanished. Actually, teachers are given the freedom to locate a subdivision or a subject aggregation through the individuation of the epistemological foundations of connections among the knowledges, such as for the transversal use of codes and languages too.

In the articulation of the targets and their competence goals, in the document there are the operational advice for an open interpretation of the subject contents, to give concrete form to the teaching moments without any boundaries and to arrange some learning settings in which the students can get used to reasoning about the knowledges critically and to comparing them.

In the realization of the vertical syllabus, the Institutions will refer to the Continuity and Orientation as conjunction elements among the different school degrees, so that it will be possible to fix some subject routes more and more complex related to the targets that are established by the National directions.

At the end of the nursery, primary and Junior High Schools, the goals of the competence development concerning the fields of experience and the subjects are fixed.

The learning objectives, in the National Directions, are the means through which a teacher can and has to realize his/her learning planning to make his students reach the competence targets. They determine the knowledges and the abilities which are necessary to reach the targets for the development of the competences. They are used by schools and teachers in their activities of learning planning, with a great care on the learning conditions, by aiming at a rich and successful teaching.

The objectives are organized in thematic groups and are fixed in long learning periods: the whole three-year period of the nursery school, the whole five-year period of the elementary school and the whole three-year period of the junior High School. In order to guarantee a more successful progression of the learnings in the elementary school, the learning goals of Italian, English and Second foreign language, history, geography and science are also pointed out at the end of the third class (according to the National Directions).

The ICT subject as a language and instrument for the interpretation of reality is essential; for this reason, it is said that it is important to learn not to be dominated by technology, but to interpret it in a critical way. The digital competence increases through the right use of technology but above all, through the information retrieval and assessment.

Topics like ICT and citizenship education are now considered crossing subjects, needing to be involved in the learning process of a large number of other items. According to the ministerial directions, Citizenship education has to be dealt in subjects like foreign languages, art and P.E. expecially; whereas ICT learning keeps its specific aims.

The Department for Education defines the school curriculum and its aims, the subjects and their specific objectives, the total amount of compulsory hours of school, the quality standards and the evaluation processes and regulate adult education.

Secondary school system (for pupils from 14 to 19 years old) is disciplined by the document *Regolamenti di riordino dei licei, degli istituti tecnici e degli istituti professionali – issued on 15th March 2010 from the President of the Republic.* The guidelines for high school underline the importance of the cultural context, the competencies and specific aims. Technical and professional insitutes are disciplined only for the fist two years, while are missing the other three years.

Every Educational Institute has to draw a three-year plan up. Starting from the National Directions the Schools has to define its personal curriculum, the extracurricular activities, set the general goals. This is possible thanks to the indipendence every Institute benefits. In line with the general aims fixed in the National Guidelines, the PTOF also mirrors the local community with its cultural, social and economic needs, enriching this school doc.
In a circular way, after the planning every school has to carry out the fixed aims, then check the PTOF, drafting a RAV *(Rapporto di Auto Valutazione* – Self Assessment Report). Starting from the faults revealed from the RAV document a new PTOF is written, fixing new aims to improve the school system.

The teachers team of each Educational Institute (consisting of nursery school, elementary school and Junior High school) deals with the vertical curriculum, putting into effect the aims established in the National directions. The teachers has to design their classes, following the vertical curriculum and considering the pupils capabilities, but for Special Educational Needs and disabled children they have to plan activities fine-tuned on their capabilty.

Design in Nursery School follows 5 experience fields (me and the other; body and movement; pictures, coloures and sounds; speeches and words; world knowledge) fixed in the National directions. For each field are declined the competences and the aims to achieve during the three years school attendance.

The elementary school teachers organize the yearly design deducing aims and final competences to achieve from the National directions and Educational Institute documents. The teachers have also to define the context, the activities, the metodologies the time and set the evaluation processes.

In the first level secondary school, always starting from the National directions, each teacher is required to draw up an annual planning in which the topics to be addressed during the school year for each class in which it teaches must be explained, the methodologies used, strategies for recovery and evaluation.

In secondary school, in addition to these documents, each teacher is required to draw up an annual project in which the topics to be addressed during the school year for each class in which they teach, the methodologies used, the strategies must be explained. for recovery and evaluation.

Regarding the daily programming, each teacher is free to identify the activities or paths that he / she considers most suitable for the final achievement of the competency goals defined in the National directions and adopted in the documents of the school to which they belong.

<p style="text-align:center">**Kindergarten (Scuola dell'infanzia)**</p>

**The 2012 National directions (Ministerial Decree n° 254 of 16th November 2012 in G.U. No. 30 of 5th February 2013)**

The National directions are intended to set the general objectives, learning objectives and related goals for the development of the skills of children and young people for each discipline or field of experience. (from 3-14 years)

**OTHER DOCUMENTS THAT REFER TO THE SCHOOL OF CHILDHOOD.**

● DECREE OF THE PRESIDENT OF THE REPUBLIC 20th March 2009 n° 81.
● DECREE OF THE PRESIDENT OF THE REPUBLIC 20th March 2009, n° 89.
● Legislative Decree n° 59 of 2004, Definition of the general rules relating to kindergarten and the first cycle of education
● D.D. n° 205 of 27th March 2017
● Unified Conference, 30th July 2015.
● Unified Conference on 1st August 2013, rep. acts n° 83 CU.

**PROGRAMMING EXAMPLES**

- Azzano X:
https://drive.google.com/open?id=1TbSO2gvG8BMMpJNs6DJcDd2ixct1Tax
- IC "Leopardi" Grottammare:
https://drive.google.com/open?id=1FUQ4g05pLvEsoEVdrUdGBL4IlDBAUe9l
- IC Monteprandone:
https://drive.google.com/open?id=1homQInn5u8c0_xRdeYnXY63ukFT5jb9q
- IC "Rotella": https://drive.google.com/open?id=1whiixgHFr4KAYOR80PwclBbwBSeyHYEQ
- IC "Centro" San Benedetto del Tronto:
https://drive.google.com/open?id=1nxGgK9ux6_3rsMkgwgmMVlOMuFnGLeaR
- IC "Torre":
https://drive.google.com/open?id=1k4Ywe_6D4tdDBm-F2M-NQu9LC7NNIVaM
-
In the kindergarten, the curriculum is defined on the basis of the National Curriculum Guidelines applied from the 2012/2013 school year and which replace the National Guidelines for the personalized plans of the educational activities of 2004 and the Guidelines for the 2007 curriculum.
The New Guidelines (Nuove Indicazioni) assign the school the general purpose of the harmonic and complete development of the person, within the principles of the Italian Constitution and of European cultural tradition in the promotion of knowledge, in the respect and enhancement of individual variety, with the active involvement of the students and their families.
Particularly, the nursery school aims to promote in the children the development of identity, independence, competence and citizenship.
There are five fields of experience, each of which offers a set of objects, situations, images and languages, referring to the symbolic systems of our culture, capable of evoking, stimulating and accompanying progressively safer learning: the self and the other; the body and movement; images, sounds, colours; speeches and words; the knowledge of the world.
For each field of experience the goals set for the development of skills, which are inescapable references for teachers, indicate cultural and educational tracks to be followed and help to finalise the educational action to the full development of the student.
Since the school year 2010/2011 the teaching "Citizenship and Constitution" has become an indispensable goal that all schools must consider in their Educational Policy Plan (POF). This is not a subject in itself and its contents are developed through educational paths designed by each single school.
Regarding the teaching of the Catholic religion, the learning objectives are defined in agreement with the Italian Episcopal Conference (CEI).

Teaching methods and materials

Teachers are free when choosing teaching methods. However, the National Guidelines for the curriculum indicate some general criteria for organising the learning environment.

In nursery schools, assessment assumes the character of interpretation rather than measurement and classification based on levels of learning. The main tool is therefore the occasional and systematic observation of children in order to understand and evaluate their needs and gradually rebalance the educational proposals to be shared with the families.

In fact, the task of the nursery school is to identify open processes to be promoted, supported and strengthened in order to allow each student to give the best of his/her abilities.

The assessment of the levels of development includes:

an initial period, aimed at outlining the abilities possessed when accessing the nursery school;

specific moments inside the various didactic sequences, which allow to adjust and individualise the educational proposals and learning paths,

and final evaluation to verify the educational outcomes, the quality of the educational and didactic activity and the overall meaning of the school experience.

The practice of documentation makes it possible to produce traces, memory and reflection, in adults and children, making the training methods and paths visible and allowing to appreciate the progress of individual and group learning.

---

## PRIMARY SCHOOL

**The 2012 National Guidelines (Indicazioni Nazionali) (D. M. 254 of 16 November 2012 in G. U. No. 30 of 5 February 2013)**

The National Guidelines are aimed at setting the general objectives, learning objectives and related goals for the development of the skills of children and young people for each discipline or field of experience. (from 3 to 14 years)

**Other documents referring to the primary school:**

● DECRETO DEL PRESIDENTE DELLA REPUBBLICA 22 giugno 2009, n.122
● DECRETO DEL PRESIDENTE DELLA REPUBBLICA 21 marzo 2009, n.81
● LEGGE 30 ottobre 2008 N. 169.
● DECRETO DEL PRESIDENTE DELLA REPUBBLICA 20 marzo 2009, n. 89.
● Decreto legislativo 297 del 1994.
● LEGGE 28 marzo 2003, n. 53.

**PROGRAMMING EXAMPLES**

- Azzano X:
https://drive.google.com/open?id=12j9YL5oXRVwA0tumKCep3lxLxsC9LeT2
- IC "Leopardi" Grottammare:
https://drive.google.com/open?id=1FUQ4g05pLvEsoEVdrUdGBL4IlDBAUe9l
- IC Monteprandone:
https://drive.google.com/open?id=1homQInn5u8c0_xRdeYnXY63ukFT5jb9q
- IC "Rotella":
https://drive.google.com/open?id=1whiixgHFr4KAYOR80PwclBbwBSeyHYEQ
- IC "Centro" San Benedetto del Tronto:
https://drive.google.com/open?id=1nxGgK9ux6_3rsMkgwgmMVlOMuFnGLeaR
- IC "Torre":
https://drive.google.com/open?id=1k4Ywe_6D4tdDBm-F2M-NQu9LC7NNIVaM

Primary school is part of first grade of education, divided into two school stages, consecutive and compulsory. primary school, which lasts five years, and secondary school of first grade, which lasts three years.

-it promotes the development of personality, respecting individual differences
-it promotes the acquisition and development of knowledge and fundamental abilities of logic and critical thinking
-it facilitates learning to communicate in a basic knowledge of a significant language of the European Union other than Italian (ie English)
-it lays the basics for using scientific methodologies in the study of natural world, of its phenomena and of its laws
-it develops an individual's skills in spatial awareness of space and time
-it trains young citizens in the fundamental principles of living together in civil society (law 53/2003)
The transition from primary school at the end of fifth class to the first year of high school no longer requires an examination.
The President's Decree 89 of 2009 has amended the rules to reform the first grade (of primary school) and nursery school.
The President's Decree (122 of 2009) has provided for the coordination of rules for the evaluation of pupils.
In primary school the curriculum is established in accordance with the national directions for the curriculum, applied since the school year 2012/2013. The specific aims of primary school are to acquire the knowledge and the fundamental abilities to develop basic cultural competencies.
The branches of study established by the new directions for the five years of primary school are:
Italian (language), English (language), History, Geography, Maths, Science, Information and Communication Technology (ICT) Music, Art and Painting, Physical Education, Technology.
To these subjects will be added "Citizenship (Nationality) and Constitution", which is not a separate subject and will be developed through teaching stages decided by each school.
The approach taken for teaching this new mandatory aspect of the curriculum will be determined at a local level by each school.
All schools plan for each subject the targets for the development of abilities at the end of primary school, that must be reached and the learning purposes, that are of a minimum standard to achieve competency. As regards the nursery school, the program for Catholic Religion is fixed in agreement with Cei.
Only for English Language and Catholic Religion will there be a strict timetable: for the first one there is one hour in first class, two in second and three in third, fourth and fifth class for the total minimum compulsory of 396 hours during the entire primary school.
Two hours per week are fixed for Catholic Religion or alternative activities for pupils who decide not to study Catholic Religion.
Freedom of teaching is a principle fixed by Italian Constitution (art. 33) and from this comes the freedom of methodological choice of teachers. The choice and utilization of methods and teaching equipment must respect the Pof of the school, which in its turn must be planned according with the educational purposes fixed by each course and level of study, at a national level. With the universal acceptance of teacher and school autonomy in teaching, the national indications for curriculum of 2012 (see "Curriculum, subjects and number of hours" in 3.2) point out some leading methodological programs, as, for example, the value given to experience and knowledge of pupils, the promotion of activities of exploration and discovery, the encouragement of the cooperative learning, the development of awareness of individual learning styles, carrying out stages of laboratory work.
Ongoing evaluation is undertaken at the end of each term (three or four months) , according to the subdivision of the school year of each Institute. The final evaluation takes place at the end of each school year. No exams are undertaken by students upon their completion of primary schooling. The periodic and final evaluation of pupils is undertaken by the teacher or teachers of each class, in relation to the learning process, the behaviour and the school performance on the whole. These evaluations must agree with the learning purposes outlined in the Pof where the teaching body fixes also the formalities and the principles to guarantee that the evaluation is homogeneous, evident and fair.
Teachers must also certify the competencies achieved by pupils at the end of primary school.

## MIDDLE SCHOOL – LOWER SECONDARY SCHOOL

## (SCUOLA SECONDARIA DI PRIMO GRADO)

**The 2012 National Guidelines (D.M. 254, 16 November 2012 in G.U. No. 30, 5 February 2013)**

The national guidelines are intended to set the general objectives, learning objectives and related goals for the development of the skills of children and young people for each discipline or field of experience (from 3-14 years)

**OTHER DOCUMENTS THAT REFER TO THE LOWER SECONDARY SCHOOL (MIDDLE SCHOOL).**

- DM 254_2012.
- DECRETO DEL PRESIDENTE DELLA REPUBBLICA 22 giugno 2009, n. 122 .
- DECRETO DEL PRESIDENTE DELLA REPUBBLICA 20 marzo 2009 N. 81.
- LEGGE 30 ottobre 2008 N. 169.
- DECRETO DEL PRESIDENTE DELLA REPUBBLICA 20 marzo 2009, n. 89.
- Decreto legislativo 297 del 1994
- Decreto legislativo 59 del 2004, Definizione delle norme generali relative alla scuola dell'infanzia e al primo ciclo dell'istruzione.

**PROGRAMMING EXAMPLES**

- Azzano X:  https://drive.google.com/open?id=1g6Y620V1t3VwK5YVqcxRaERxqm0ppUWo
- IC "Leopardi" Grottammare:
   https://drive.google.com/open?id=1FUQ4g05pLvEsoEVdrUdGBL4IlDBAUe9l
- IC Monteprandone:  https://drive.google.com/open?id=1homQInn5u8c0_xRdeYnXY63ukFT5jb9q
- IC "Rotella":  https://drive.google.com/open?id=1whiixgHFr4KAYOR80PwclBbwBSeyHYEQ
- IC "Centro" San Benedetto del Tronto:
   https://drive.google.com/open?id=1nxGgK9ux6_3rsMkgwgmMVlOMuFnGLeaR
- IC "Torre": https://drive.google.com/open?id=1k4Ywe_6D4tdDBm-F2M-NQu9LC7NNIVaM

The secondary school is part of the first cycle of education, divided into two consecutive and compulsory school courses: primary school that lasts five years, and lower secondary school (middle school) that lasts three years.
The middle school, through the disciplines,
- stimulates the growth of autonomous study and social interaction skills
- organizes and increases knowledge and skills, also in relation to the cultural tradition and to the social, cultural and scientific evolution of contemporary reality
- progressively develops the competences and skills of choice corresponding to the attitudes and vocations of the students
- provides appropriate tools for the continuation of education and training activities
- introduces the study of a second language of the European Union
- helps to orient oneself for the subsequent choice of education and training (Law 53 of 2003).

The Decree of the President of the Republic 89 of 2009 regulated the reorganization of the first cycle (and of the kindergarten).
The Decree of the President of the Republic 122 of 2009 regulated the coordination of the rules for the evaluation of the pupils.

The Decree of the President of the Republic 89 of 2009 (article 5) has identified the teaching time for each discipline or groups of disciplines, both for ordinary and long-term classes.

For foreign students of recent immigration, the hours dedicated to teaching the second community language can be dedicated to teaching Italian.

*Sections to musical address*

Music courses (activated by Ministerial Decree of 6 August 1999) provide for the study of musical instruments and musical practice.

The teaching hours are intended for individual instrumental practice and / or for small groups, for participatory listening, for ensemble music activities, as well as for the theory and reading of music: the latter teaching - one hour per class per week - can be given also for instrumental groups.

The teaching staff chooses the instrumental specialties to be taught among those indicated in the programs annexed in the Ministerial Decree of 6 August 1999, taking into account the significant educational and didactic meaning of the ensemble music.

The final state examination of the first cycle of education verifies, in the context of the multidisciplinary interview, also the musical competence achieved both for the executive practice, individual and / or ensemble, and for the theory. (source Miur)

As for primary school, in the first level of secondary school the curriculum is defined on the basis of the new national guidelines for the 2012 curriculum. Specific purpose of the first level secondary school is the acquisition of the knowledge and basic skills to develop the skills cultural activities. In particular, at this stage of the scholastic path, access to the disciplines is realized as points of view on reality and as a modality of knowledge, interpretation and representation of the world. The disciplines foreseen by the new indications for the three years of secondary school are: Italian, English and second community language, history, geography, mathematics, science, music, art and image, physical education, technology. For each discipline are set the goals for the development of skills at the end of primary school, which are prescriptive, and learning objectives, which identify fields of knowledge, knowledge and skills deemed indispensable in order to achieve the goals for the development of skills. Even at the secondary school level of the first degree, as regards the teaching of the Catholic religion, the learning objectives are defined in agreement with the CEI. With the new national guidelines for the curriculum, the experimental phase of the teaching "Citizenship and Constitution" is confirmed, specifying that the first cycle school includes in its curriculum the first knowledge of the Constitution of the Italian Republic, and that essential objectives of the Citizenship education is the construction of a sense of legality and the development of an ethic of responsibility, in order to choose and act in a conscious way and to commit oneself to elaborate ideas and to promote actions aimed at the continuous improvement of one's own life context.

## SECOND GRADE OF SECONDARY SCHOOL

**National indications 2010 (decree of the President of the Republic March 15, 2010, Register to the Court of Auditors on June 1, 2010).**

The national guidelines for high schools were summarized, highlighting the cultural context, the specific competences and learning objectives. The Guidelines for technical and vocational institutes refer to the first two-year period only, because those for the second biennium and the fifth year have not yet been published. The knowledge and skills are matched and labeled with a title to capture the topics at a glance.

**OTHER DOCUMENTS THAT REFER TO THE SECONDARY SCHOOL.**
- Decreto legislativo 17 ottobre 2005, n.226 e successive modificazioni;
- Articolo 2 della legge 28 marzo 2003, n.53;

- Articolo 64, comma 4, del decreto legge 25 giugno 2008, n.112, convertito, con modificazioni, dalla legge 6 agosto 2008, n.133;
- Decreto del Ministro della pubblica istruzione 13 giugno 2006, n.47

**PROGRAMMING EXAMPLES**

- Liceo "Torricelli": https://drive.google.com/open?id=1iuac44J0iwZRLNpsDpO5r_fo_09PC8qu

After completing the first cycle of education, students must enter the second cycle of the education and training system. In fact, education is compulsory up to 16 years of age and also covers the first two years of the second cycle. At this level, students can choose between the general and professional paths offered in secondary level secondary education of state competence, and the three-year and four-year vocational education and training courses (IFP) of regional competence.

Second-level general-type secondary education, which lasts five years, takes place in six types of high schools; second-level secondary education is organized at technical institutes and vocational schools. The courses of study have a total duration of five years.

In general, the didactic planning includes a work at departmental level, to define the disciplinary objectives related to the various years in each discipline, or disciplinary area, and at the level of the class council to define the transversal objectives. As far as teaching is concerned, in the last decade some attentions have been developed: to the prevention and contrast of the dispersion, to the study method, to the enhancement and to the recovery, just as the use of information and communication technologies has increased. Schools are generally equipped with a gym, library, scientific and computer labs, as well as other laboratories depending on the specificity of the study paths of the individual schools.

### HIGH SCHOOLS (LICEI)

The high schools are aimed at obtaining a diploma of upper secondary education and are part of the upper secondary education system as a part of the second cycle of the education and training system referred to in Article 1 of Legislative Decree 17 October 2005, n . 226, and subsequent modifications. The high schools adopt the educational, cultural and professional profile of the student at the end of the second cycle of the educational system of education and training.
The learner paths provide the student with the cultural and methodological tools for a thorough understanding of reality, so that he can put himself, with a rational, creative, planning and critical attitude, facing situations, phenomena and problems, and acquires knowledge, skills and skills consistent with personal abilities and choices and appropriate for the pursuit of higher education, for inclusion in social life and in the world of work. There are 6 high school courses:
1. Art high school
2. Literary high school
3. Linguistic high school
4. Musical and coreutic high school
5. Scientific high school with applied sciences curriculum
6. High school of human sciences economic-social curriculum

The high school paths last five years divided in two biennial periods and in a fifth year that completes the disciplinary course. The first two years of the second cycle of education and training are mandatory. Consequently, in order to ensure training equivalent to all educational pathways, the knowledge and skills that all students must have acquired at the end of compulsory education beyond the specific programs for the various educational pathways have been defined.
These skills and competences are organized in reference to four cultural axes: languages, mathematics, science-technology, historical-social.
As in previous levels of education, the teaching "Citizenship and Constitution" has become an indispensable goal that all schools must consider in their own plan of training, The contents of this

teaching are developed through educational paths designed by the single school in area of historical-geographical and historical-social area.

*TECHNICAL INSTITUTES*

Technical institutes form not only from a technical point of view but also from a practical one, enabling the student to realize what he has studied. With the laboratories and the opportunity to experience internships in the company, technical institutes prepare the best for the labour market. They offer 11 courses divided into two sectors, the economic sector and the technology sector, also designed for employability, and provide for the possibility of customizing the disciplines of the 30% address area in the second two-year period and 35% in the fifth year.

- ECONOMIC SECTOR

1. Administration, Finance and Marketing
2. Tourism

- TECHNOLOGICAL SECTOR

1. Mechanics, Mechatronics and Energy
2. Transportation and Logistics
3. Electronics and Electrical Engineering
4. Information technology and telecommunications
5. Graphics and Communication
6. Chemistry, Materials and Biotechnology
7. Fashion System
8. Agriculture, Agri-food and Agribusiness
9. Construction, Environment and Territory


*PROFESSIONAL INSTITUTES*

Professional institutes develops the students not only from a technical point of view but also from a practical one. They allow to immediately enter the labor market, to continue with university studies, to choose a path in the system of higher education and technical training. They offer six addresses divided into two sectors, service sector and industry sector and crafts also designed for employability and provide the ability to customize the disciplines of the area of 25% address in the first two years, 35% in the second two years and 40% the fifth year also to respond to the attitudes of individuals.

- SERVICES SECTOR

1. Services for agriculture and rural development
2. Social and health services
3. Services for food and wine and hotel hospitality
4. Commercial services

- INDUSTRY AND CRAFTS INDUSTRY

1. Artisanal and industrial productions
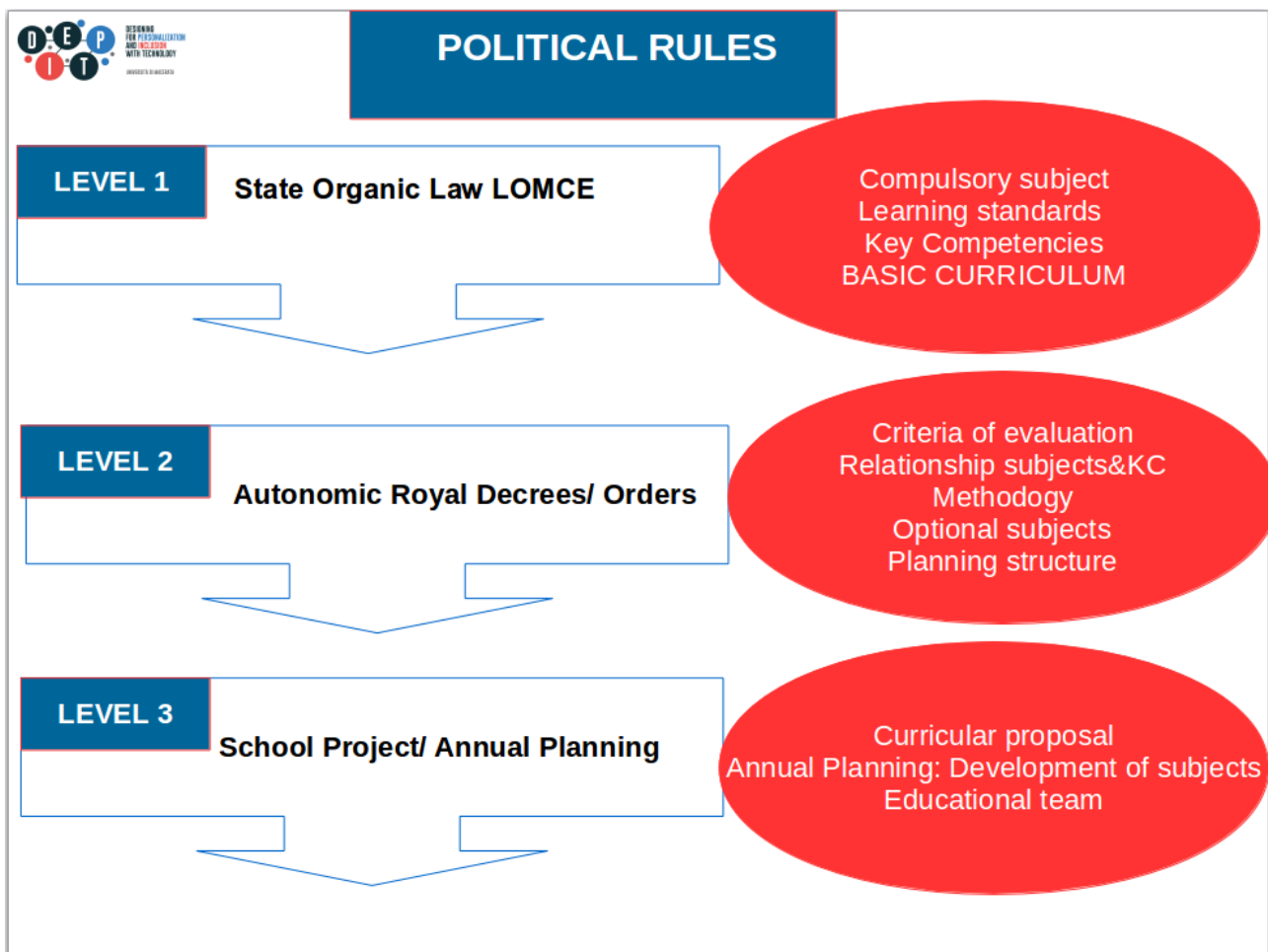2. Maintenance and technical assistance


**Examples of scenarios from schools will be available upon request**

# SPAIN

**1.Indicate the law or the document / decree of reference for the organization of teaching.**

The Spanish Educational system is organized with a State Organic Law LOMCE and an autonomic Royal Decree that is the one that the professor handles, It Royal Decree must respect the state law. Depending on the normative framework that we have as reference for the realization of our didactic and classroom schedules, these will develop some sections or others. In the case of Andalusia, the sections that have to conform a didactic schedule are regulated by Decree 328/10 in the case of Primary Education and by Decree 327/10 for Secondary Education.

It is important to highlight that the autonomic one for the first time establishes the relation between the different elements of the curriculum starting from the criteria of evaluation and not of the contents as they had been done traditionally.



## POLITICAL RULES

**LEVEL 1** — State Organic Law LOMCE
Compulsory subject
Learning standards
Key Competencies
BASIC CURRICULUM

**LEVEL 2** — Autonomic Royal Decrees/ Orders
Criteria of evaluation
Relationship subjects&KC
Methodogy
Optional subjects
Planning structure

**LEVEL 3** — School Project/ Annual Planning
Curricular proposal
Annual Planning: Development of subjects
Educational team

**LEVEL 1 - LOMCE**
LOMCE establishes the compulsory subjects, the levels, the learning standards (final objectives of the educational stage) and the criteria for student promotion and the Key Competencies according to the educational European Framework.

The Government will be responsible for the design of the basic curriculum in order to ensure common training and the official nature and validity throughout the national territory of the degrees.

**LEVEL 2 - ROYAL DECREES/ORDERS**
Respecting the LOMCE, develop and concrete the criteria of evaluation by educational levels, the subjects and their relationship with the key competences.

These propose methodological aspects appropriate to each subject. And They also propose within a margin some optional subjects.

## LEVEL3 - SCHOOL EDUCATIONAL PROJECT

Based on the curricular planning established by the Administration, each center will prepare a curricular proposal adapted to its own objectives and context.It will include the Annual planning for each subject.

## LEVEL 4 - ANNUAL DIDACTIC PROGRAM

The didactic programs are specific instruments for planning, development and evaluation of each subject, module or, where appropriate, scope of the curriculum established by current regulations. The general criteria included in the educational project will be taken into account the needs and characteristics of the students. They will be prepared by the didactic coordination departments, in accordance with the guidelines of the areas of competence, their approval will correspond to the faculty of teachers and may be updated or modified, where appropriate, after the self-assessment processes referred to in article 28.

## LEVEL 5 - DIDACTIC PROGRAM ( DAILY PLANNING)

It is a document that each teacher has to elaborate but they not have to show it officially unless Educational Inspection require. The teacher will have autonomy in the organization of the contents and to select the activities, the methodology and the resources. The autonomic law propose this structure for each lesson:
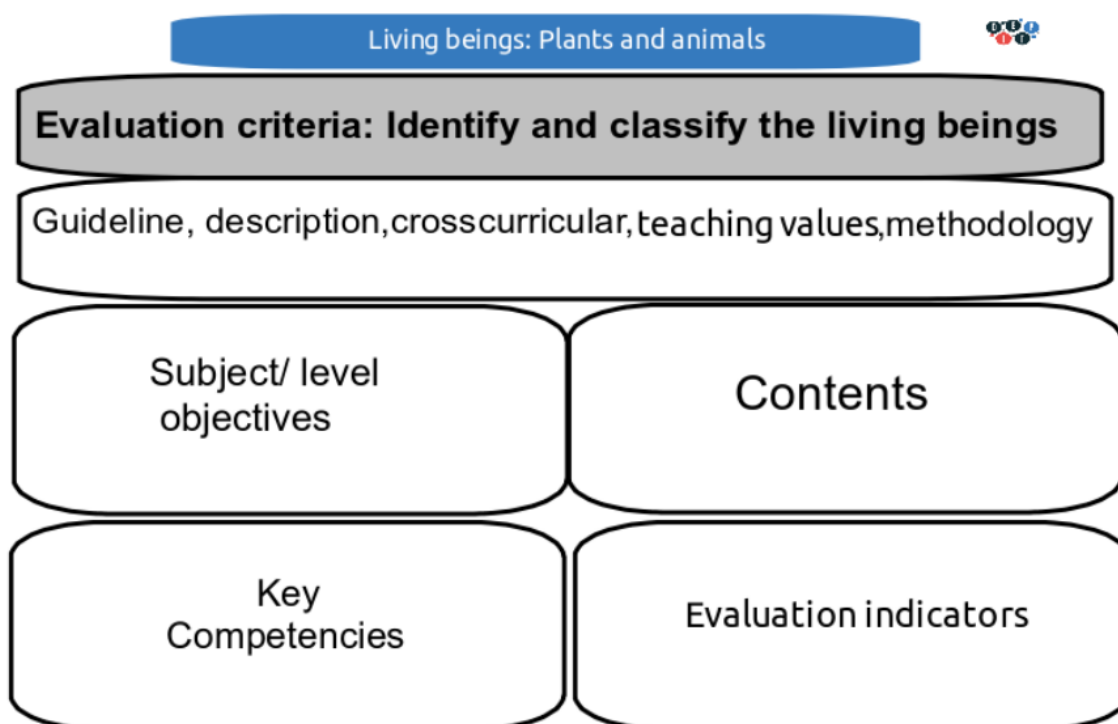
**2 .Please describe the main content of the law/decree:**

**a. Indicate some general guidelines related to:**

**Competencies**

The competences are the capacities to apply the integrated contents of each teaching and educational stage in an integrated manner, in order to achieve the adequate realization of activities and the effective resolution of complex problems. The key competences of the curriculum are the following (Article 2 LOMCE):
Linguistic communication
Mathematical competence and basic competences in science and technology.
Digital competence
Learn to learn.
Social and civic competences.
Sense of initiative and entrepreneurial spirit.
Awareness and cultural expressions

**Contents**
The contents are the set of knowledge, abilities, skills and attitudes that contribute to the achievement of the objectives of each teaching and educational stage and to the acquisition of competences. The contents are arranged in subjects, and classified as conceptual, procedural and attitudinal:
   i.
**Objectives**
The objectives are understood as referring to the achievements that the student must reach at the end of the educational process as a result of the teaching and learning experiences intentionally planned for that purpose.
That is, the objectives are the goals or purposes to be achieved, and can be:
General (as the stage objectives) or concrete (as the objectives of each teaching unit).
Operational / closed (indicate fixed actions, always the same and in the same order, are univocal interpretation and require the same results to all students) or open (refer to tasks whose actions vary from one to another, do not behave the same order and its achievement does not bring the same results to everyone, but different and unique results).
Common (whose achievement is necessary for all students) or individual (those that, without being necessary for all, mark different possibilities depending on the different conditions of each student)

The autonomic law propose an structure for the dailing planning/lesson/didactic unit:

**b. It provides in detail what has to be done and achieved in terms of:**

Competencies
Contents
Objectives
Strategies
Estándares de evaluación

LOMCE and autonomic orders and decrees  explain  in detail each element. Competencies, contents, objectives and evaluation criteria are compulsory.

The autonomic law

As about strategies and methodologies is concerned  the autonomic law propose this **Methodological guidelines:**

•         Prioritize students reflection and critical thinking

•         Proposal of different situations of learning

•         Contextualize  learning

•         Use of different methodological   approaches and strategies. There is no a single methodology to develop the key competences but different methodological approaches that can be adequate: Problem based learning,Project    based learning,Collaborative/ cooperative learning, Flipped classroom, Traditional, Socio-cognitive Processes of Learning, bi-directional learning

•         Alternation of different types of actions, activities and situations Learning.

•         Enhancement of a research methodology.

•         Empowerment of reading and the treatment of information

•         Promotion of a school climate of mutual acceptance and cooperation.

•         Search, selection and elaboration of diverse curricular materials.

•         Diversification of situations and evaluation instruments.

**c. It provides a structured program with mandatory items (all or only the minimum required)**

> Activities on a daily basis
> Activities on a weekly basis
> Activities on a monthly basis

The number of hours of each subjects it is regulated. According to the activities, The teacher has autonomy to select them. In primary school there is only a compulsory activity common in all the subject:  Reading. It is also advisable to have a diversity of activities that work  the different   cognitive processes.
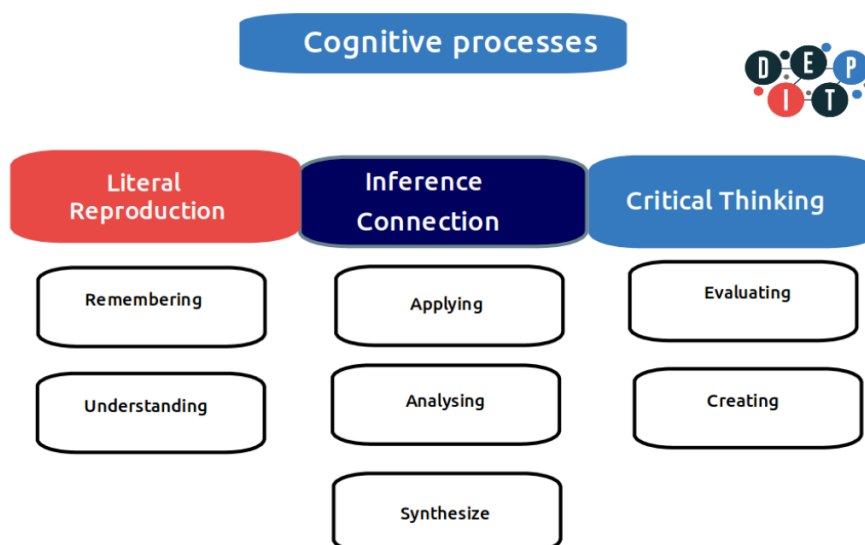
The teacher must provide the students with activities that take into account the different learning styles



### d. What documents does the school have to provide yearly? Which level of communication?

1. **Educational School Project:** Signs of identity and general curricular decisions. It is revised every year and is specified in:
2. **Annual center plan**: This includes subject, department and classroom daily plan(these are not mandatory but may be required)

### e. Beside this document any teacher must:
Produce lessons planning and daily planning.

### 1.Please specify the rate of autonomy any teacher has regarding the annual and daily planning:
a. Regarding the annual planning:
Partial autonomy: The objectives, competencies, content and evaluation criteria and subject can't be modify, the school can organize the evaluation criteria, contents, competencies and objects in the different levels or cycles.
b. Regarding the daily planning:
No autonomy, as competencies, objectives, and evaluation criteria are provided at national / regional level and time organization of contents are decided in a school team.
The teacher has Partial autonomy: the teacher has autonomy to choose the activities, methodologies and resourses respecting the autonomic law guidelines and time organization of contents and strategies).
The teacher has autonomy to choose the activities, methodologies and resources respecting the autonomic law guidelines and as long as they respect the criteria for evaluating the level.

### Please indicate if there are where to find models, structured lessons, materials to refer (also indicate the percentage weight):
At national or regional level (models, structured lessons, materials)
There are a lot of Educational portals in which you can find resources, activities, Lesson examples, Training courses...etc

At school level (models, structured lessons, materials) There are many activities for best practices exchanges, There is also a virtual community for teachers collaboration from publishers dealing with the handbooks, editorials.

**law/ decrees of reference /orders**

**PRIMARY AND SECONDARY EDUCATION**
LOMCE Organic Law 8/2013, of December 9, for the improvement of quality educational
**PRIMARY EDUCATION**
**The basics:**
ROYAL DECREE 126/2014, of February 28, which establishes the basic curriculum of Primary Education (BOE 01-03-2014). For the first time, discursive contents are very useful for establishing functional contents in programming.
DECREE 97/2015, of March 3, which establishes the ordination and curriculum of Primary Education in the Autonomous Community of Andalusia (BOJA 03-13-2015). Realization of the Royal Decree.
ORDER 17 MARCH 2015, which develops the curriculum for Primary Education in Andalusia (BOJA 27-03-2015). Basis for teaching units and programming.
CORRECTION of errors of the Order of March 17, 2015, (only affects the area of mathematics)
ORDER ECD / 65/2015, of January 21, which describes the relationships between competencies, content and evaluation criteria of primary education, compulsory secondary education and high school (BOE 01-29-2015) .

**The complementary:**

Instruction 4/2016, of May 16, of the General Directorate of Educational Planning, for the realization of the final individualized evaluation of Primary Education in the course 2015/16. Basically, it gives guidelines for the sixth final evaluation, it does not specify that there must be proof, but that the evolution of the student in the subject is evaluated at a continuous level.

ROYAL DECREE 1058/2015, of November 20, which regulates the general characteristics of the tests of the final evaluation of Primary Education established in the Organic Law 2/2006, of May 3, of Education (BOE 28-11 -2015). General framework of the previous instructions on evaluation.

ORDER of November 4, 2015, which establishes the organization of the evaluation of the learning process of Primary Education students in the Autonomous Community of Andalusia (BOJA 26-11-2015).

**SECONDARY EDUCATION**

Royal Decree 1105/2014, of December 26, which establishes the basic curriculum of Compulsory Secondary Education and the Baccalaureate.

*Examples of scenarios from schools will be available upon request*

# BELGIUM

**Introduction**

**Belgium is a trilingual country.**

In Belgium the Communities  (Flemish, French and German-speaking) are responsible for education, with the exception of three competences which remained a federal matter:

1. the determination of the beginning and the end of compulsory education,
2. the minimum requirements for the issuing of diplomas,
3. the regulation of retirement for employees in the educational system.

Instruction in each community is provided in the language of the community in question. Brussels lives a particular situation as it is an autonomous region but, being bilingual (Francophone and Flemish), it is "under the influence" of the  two (Francophone and Flemish) communities.

Education in Belgium is compulsory from 6 until 18. Compulsory education however does not equal the duty to attend school. Parents may choose home schooling for their children.

Home schooling  can be organised in two ways:
1. Individual home teaching: As a parent you can teach your children yourself or you appoint a private tutor.
2. Collective home teaching: You send your children to a private school or you organise home teaching for your children together with a number of other parents.

In Belgium freedom of education is a constitutional right. Every (legal) person may organise education and establish schools to that aim. The government has the duty to organise undenominational education.

The constitution also guarantees a freedom of school choice for the parents. Parents and children must have access to a school of their choice within reasonable distance of their residence.

In Belgium education is organised in various networks.
- Education and training organised by the government is called official education (officieel onderwijs)
- Education and training organised by a private person or organisation is known as free education (vrij onderwijs) (Government-aided private education).
A small number of schools are not recognised by the government. These private schools do not receive funding from the government.

The scholastic path in Belgium is divided into the followings phases:
- Elementary education comprises both pre-school education  and primary education. When successfully completing primary education children are granted a certificate.

- Secondary education  is organised for youngsters from 12 to 18. Fulltime secondary education contains three stages and various types of education. A pupil chooses a course of study within one of the following types of education:

1. General secondary education (gse), which focuses on broad general education. It does not prepare pupils for a specific profession, but rather lays a firm foundation for higher education.
2. In technical secondary education (tse) attention goes in particular to general and technical-theoretical subjects. After tse a youngster may practice a profession or transfer to higher education. This type of education also contains practical training.
3. Secondary education in the arts combines a broad general education with an active practice of art. After secondary education in the arts a youngster may practice a profession or transfer to higher education.
4. Vocational secondary education (vse) is a practically-oriented type of education in which the

youngster receives general education but where the focus primarily lies on learning a specific profession.

In Belgium, a certificate of upper secondary education grants unrestricted access to higher education.

- Higher education contains programmes which result in the degree of bachelor, master and doctor.

**French Community**

The documents specific to each body representing and coordinating the organizing powers (network) and to each organizing authority are:

The educational project defines the set of values, social choices and references from which an organizing authority (P.O.) or an organ of representation and coordination of the organizing powers defines its educational objectives (Article 63 of the Missions Decree);

The pedagogical project defines the pedagogical aims and the methodological choices that allow an organizing authority (P.O.) or an organ of representation and coordination of the organizing powers to implement its educational project (Article 64 of the Missions Decree);

The school project defines all the pedagogical choices and specific concrete actions that the educational team of the school intends to implement in collaboration with all the actors and partners of the school to carry out the educational projects. and pedagogical power of the organizing power (Article 67 of the Missions Decree).

It is a tool to achieve the general objectives and the specific objectives of the Missions decree as well as the skills and knowledge required.

The school project is developed taking into account:

- the students enrolled in the institution, their cultural and social characteristics, their needs and their resources in the processes of acquiring skills and knowledge;
- the aspirations of students and their parents in terms of career plans and further studies;
- the social, cultural and economic environment of the school; the natural environment, the neighborhood, the city, the village in which the school is located.


In the French Community, there are three educational networks:
- Public education is the official education organised by the French Community. It is subject to respect the philosophical and religious views of all parents;
- Government-aided public education run by the municipal or provincial authorities;
- Government-aided private education is organised by a private person or organisation. The network consists primarily of catholic schools. Next to denominational schools it includes schools not linked to a religion, e.g. alternative schools (on the basis of the ideas of Freinet, Montessori or Steiner) which apply specific teaching methods.

**Flemish Community**

In Flanders school governing boards hold the responsibility over one or more schools. They have a wide autonomy and can decide freely on their:

- teaching methods
- philosophy of life
- curricula
- timetables
- staff appointments

The government sets conditions only for the recognition of a school and granting financing.

In Flanders there are three educational networks:

1. GO! Education is the official education organised by the Flemish Community. The constitution prescribes a duty of neutrality for GO! Education.
2. Government-aided public education comprises schools run by the municipal or provincial authorities.
3. Government-aided private education is organised by a private person or organisation. The network consists primarily of catholic schools. Next to denominational schools it includes schools not linked to a religion, e.g. alternative schools (on the basis of the ideas of Freinet, Montessori or Steiner) which apply specific teaching methods.

**German-speaking Community (GC)**

The skill guides (Rahmenpläne), drawn up by the Ministry of the GC, are the main instruments for planning, realization and evaluation of lessons in all schools, at all levels and for different subjects.

The skill guides contain the objectives to be reached by the pupils (competence expectations), the essential skills (core competencies) and the content, broken down on the different levels. They can help as well in the didactic-methodical realization. The skill guides are the basic for the creation of curricula (written by educational networks) and in-school plans (written by teacher teams). The teachers are required to carry out their pedagogic work on the basis of the skill guides

The education system in the German-speaking Community of Belgium is divided into three school networks:

- Community education system: is the official education organised and financed by the German-speaking Community.
- Government-aided public education: which is organised by municipal authorities and subsidised by the German-speaking Community.
- Government-aided private education: which is organised by grant-aided private bodies and subsidised by

For the last two networks (education only financed by the German-speaking Community), controlling authorities enjoy fairly extensive autonomy, particularly with regard to methods of education and assessment. With the condition that they comply with laws, decrees and orders.

# GUIDE TO EXISTING LEARNING DESIGN ARTEFACTS (UK)

## Introduction

This is a guide to a collection of existing examples of documents that teachers use for planning their curriculum and the teaching and learning activities (TLAs) for their learners.

It links each one to the relevant requirements statements agreed or proposed during the 01 Dec 2017 meeting.

## International Frameworks

### Blueprint for TET-SAT

TET-SAT is the new online 'Technology-Enhanced Teaching Self-Assessment Tool', from the EU MENTEP project (Mentoring Technology Enhanced Pedagogy). The framework of digital competences aims to empower teachers to progress in their Technology-Enhanced Teaching competence at their own pace.

The partner countries are Belgium, France, Cyprus, Greece, Italy, Czech Republic, Finland, Portugal, Estonia, Spain, Norway, Denmark, Lithuania, Slovenia.

The hyperlink enables you to register and explore the tool as it is designed to work.

The Blueprint is a text version that allows you to browse it more easily. The document includes an introduction, and account of the development process, an Annex that briefly defines the levels of competence, and one that lists existing self-assessment tools. It could suggest some of the important ways in which teaching is changing, and the kinds of blended learning activities teachers need to design for their learners. In this way it could guide some of our thinking about the nature of the tool we are designing.

The tool has been tested extensively, and will be fully launched in Spring 2018. The project has also run a MOOC on 'Progressing Technology Enhanced Teaching' to introduce the tool to teachers, and begin to build an online professional community around the use of the tool.

### For DEPIT

If the tool becomes popular among EU teachers, it could link to the DEPIT tool, as a way of enabling professional development that would help teachers improve their competence level. There could be many synergies between the two projects.

The final page expects the teacher to return to the design to reflect on how well it went, and what might be changed next time.

### For DEPIT

This and other examples will provide a checklist of the kinds of elements teachers expect to be able to use in a design tool.

## National Curriculum documents

### Primary National Curriculum – Mathematics

This is an example of how the Primary curriculum (Key Stages 1 and 2) for a subject is defined at national level for England and Wales. This for ages 5 to 11.

### Secondary National Curriculum- Mathematics

This is an example of how the Secondary curriculum (Key Stage 3) for a subject is defined at national level for England and Wales. This is for ages 11 to 14.

Key Stage 4, for ages 15-16 defines the curriculum for the national qualification General Certificate of Secondary Education, and is not included here.

### For DEPIT

These documents, along with similar documents from other countries, will contribute to an analysis of the elements of teacher control and government control, respectively, over both the curriculum and the pedagogy practised or expected in schools.


## UCL learning design practices

### PGCE Lesson plan pro forma

This is one example of a pro forma for creating a lesson plan. It is used for the courses preparing students for the initial teacher training PGCE qualification.

It makes reference to the specific National Curriculum scheme of work, i.e. the particular activity needed for that Key Stage and week.

It also expects the activities for both teachers and students to be defined, with timings, and the related learning outcomes.

### ABC workshop poster

This poster advertises a workshop for teachers at UCL, designed to help them plan their programmes, courses, and modules.

### ABC workshop leaflet

The leaflet outlines how the workshop runs, as a group activity for a course team planning a curriculum change, a new module, and new teaching and learning approaches.

### ABC cards learning types – UCL

The slides show the design for the cards used in the workshop to prompt teachers to think about the kind of learning they want to elicit.

### Learning design workshop template

This is what we use to plan a short course, such as a MOOC. We could use a version of this to plan the DEPIT MOOC for teachers.

The template enables the group of teacher-designers to organise and record their discussions about the structure and purpose of the course.

It can also be used for planning a module for any type of course.

Each activity can be categorised using the drop-down menu in the final column M.

### ABC workshop design PeriOpMed

This is an example of how the template was completed for the UCL MOOC 'Perioperative Medicine in Action'.

Inevitably, the initial design often changes when taken to the next stage of implementation.

The 'ABC' workshops are run within UCL for teachers planning new modules, courses and curricula.

### For DEPIT

These workshops and resources offer starting points for planning our project design activities, such as initial workshops to elicit teacher requirements, and the DEPIT MOOC for teachers.

### The Learning Designer User Guide

The Learning Designer is a prototype produced from a research project to build a 'Learning Design Support Environment' for teachers in all sectors.

The Learning Designer tool has been used by teachers in schools, vocational education, and higher education. It is currently being further developed by a team in the UCL Information Services Division as an enterprise tool for UCL staff, mainly academics.

It has been used by thousands of teachers, from different sectors, often through activities designed into MOOCs on Coursera, FutureLearn, and EU Schoolnet. Usage is around 30,000 users per month.

The User Guide enables the user to see what can be done with the tool, and how it can be used as the basis for developing a learning design community among teachers in different sectors and different national systems. The Annexes explain and illustrate the six learning types.

### UCL guide to criteria for a good learning design

When the tool is embedded into a MOOC it is possible to run a peer review activity that orchestrates the exchange, peer review, and redesign of a learning design submitted to the website. The guide to criteria is what we use to help both designers and reviewers with the process, similar to the review process for an academic journal.

In this way, the community in able to build knowledge about what counts as good learning designs. The 'curated' designs in the Browser, are those that came through this process for the first time we tried this.

### DEPIT – the background to learning design

This selection of slides, some with animation, and most with notes of explanation in the Notes, outlines some of the background to learning design, including the Conversational Framework, the basis of the Learning Designer, and its embedding in MOOCs for teacher engagement. It is best run in 'Presenter mode', so that you can read the notes while using the animation.

### For DEPIT

The Learning Designer tool, YouTube videos (see user guide), and resources offer the project the possibility of a shared understanding about an existing design tool, that teachers in all sectors find easy to use, and that has had positive evaluation, and long usage. It also offers some ways of enabling teachers to share and build on each other's work.

It does *not* provide a runnable design for the classroom because the export to Moodle does not work properly. This feature is being worked on again in the new UCL project.

# Survey on the teacher's planning process
## Analysis of the questionnaires from Italy and Spain

### Introduction

The questionnaire aims to have feedback from a sufficiently high number of teachers with respect to their planning methods, both relative to the annual planning and to the preparation of a single lesson or work session. The purpose is to track the current situation in order to start an observation of the needs and habits of the teachers, that makes the implementation of the DEPIT app as much aligned as possible with the work needs of teachers.
The questionnaire consists of 16 questions divided into three thematic areas: the sample profiling, the planning of the annual course, the planning of the single lesson or teaching session.

### The questionnaires from Italy: analysis

The teachers who answered the questionnaire were 289, territorially distributed in 16 Italian regions, with a certain preponderance for the Marche and Friuli Venezia Giulia, sites of the networks of schools that participate as partners in the DEPIT project.

The overall profile of the participants broadly reflects the demographic situation of the Italian teaching population: 89% of the responses come from women and only 11% from men, the average age is 47 years: more specifically, only 18 teachers are under 30, 45 are between 31 and 40, 116 between 41 and 50 and 110 are over 50 years old. *In the graphic the women group is in red, the men in blue*:
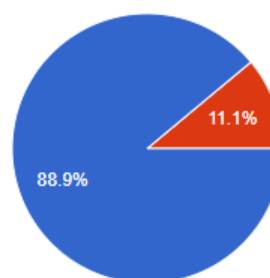


Regarding the type of school typology, there is a clear prevalence of primary school teachers, who represent 52% of the sample. Secondary school follows, with 23%, then the kindergarten, with 16%. The comprehensive institutions therefore represent the majority segment, while only 9% of the sample comes from higher institutes, of which only 2% from the two-year period.
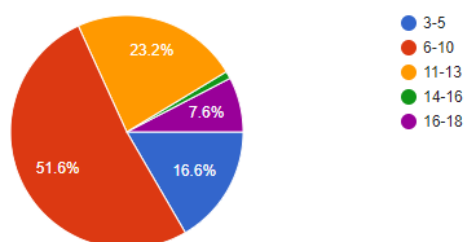


It is complex to define and outline the range of the disciplines taught, which is composed by different groupings according to the internal organizations of the individual schools. In any case the teachers of the literary and historical-social group are very much represented, and the special education teachers follow.
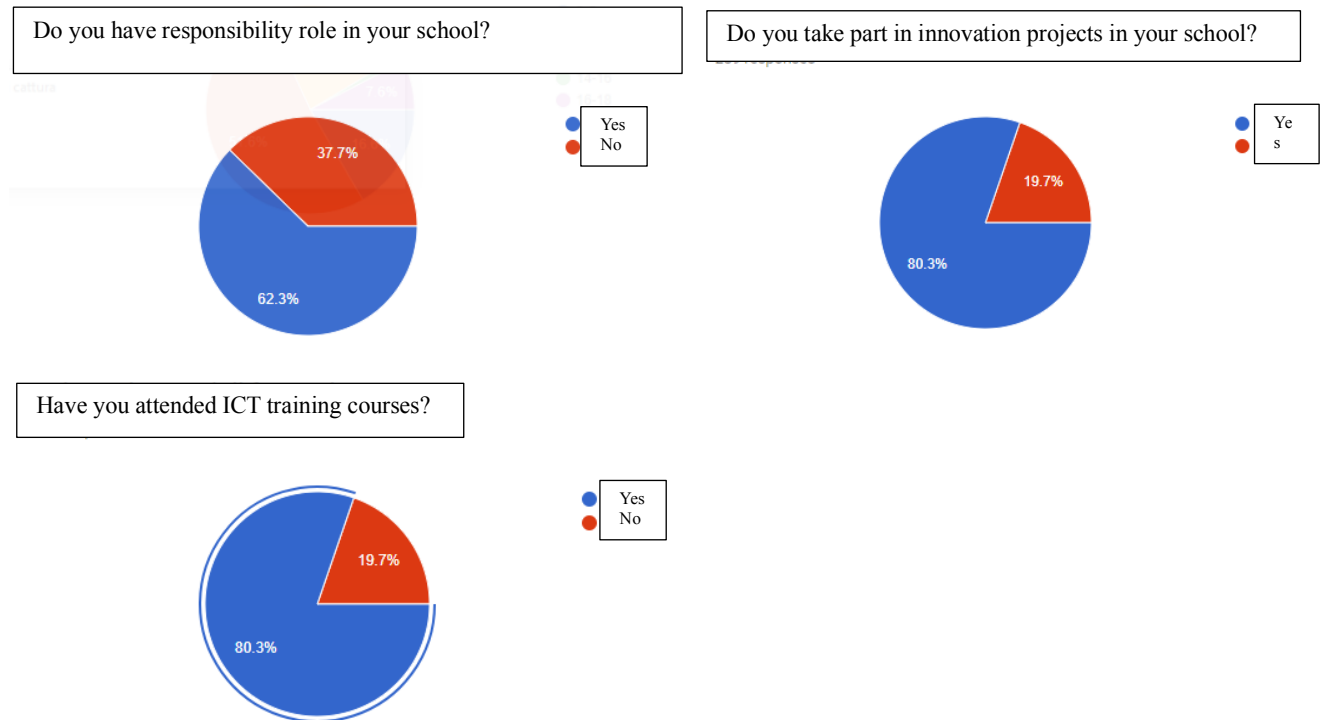From the point of view of seniority, it is a sample of experienced teachers, as more than one third claims to have more than ten years of experience.
The situation of working habits with digital technologies and ICT tools is different: 10% of them declare not to use the technologies, however more than 40% have used them for at least 5 years and almost 20% more than 10 years.

It is also a population of selected teachers: 62% of them, in addition to teaching, are responsible for the functions of responsibility and representation within their school (instrumental functions, collaborators, coordinators, etc.), 80% participates in projects aimed at introducing elements of

innovation within the educational and training processes of its institute and the same percentage has specific ICT training.

| Do you have responsibility role in your school? | Do you take part in innovation projects in your school? |



| Have you attended ICT training courses? |



**ANNUAL PLANNING METHODS**

As for the design methods of the teachers interviewed, these are analyzed under different points of view, which concern the properly operational aspects, the authorial and collaborative dimension of the process, the relationship with other national or institutional documents and with the external and internal transposition and the relative degree of autonomy.

The question concerning the elements considered as a guide for the annual planning sees a great dominance of the National Indications and jointly the shared programming at the school level. This shows a substantial agreement between emerging needs within the institution and the requirements deriving from the decision makers. Going in detail with regard to the sharing of the design process, we note a prevalence of team work, but mainly conducted with colleagues belonging to parallel classes and only secondly with all the colleagues of the institute. Few teachers prefer an individual design. By matching the demoscopic data with the answers related to the design habits, it seems that secondary school teachers (both I and II degree) and special teachers work individually, the latter for obvious need for customization. In the open part of the question different interviewees mention the mode of comparison with colleagues, after having realized their own design, that is more aligned on their class.

The design autonomy is declined in a different way according to the proposed indicators: the majority of teachers are free in the methodological choices and subsequently in the organization of teaching time. Objectives, skills and evaluation respond to a lower autonomy of the individual, agreed at the level of the team or of the teaching staff.

In terms of formalization, almost all teachers prefer a tabular or graphical form to explain their design. Very few still rely on a narrative design and almost none on screenplay. In the same way the most used tool is the word processor, which allows to elaborate simple diagrams or tables, while only 11 professors claim to use only paper and pen to design.

The re-use of materials already produced is present but only as a re-elaboration of own designs. The majority in fact declares to replace and renew what has already been done. 15 teachers say they reuse the previous designs of their school, only 4 recycle materials from other schools. Regarding the public

33

dimension of design, in most cases it can be called a semi-public document, shared mainly with colleagues and parents. Almost no one considers it a private work tool.


**DAILY DESIGN METHODS**

The daily planning has peculiar meanings and modalities, starting from the less structured modality with respect to the annual one. In fact, most of the teachers make it in the form of a draft or of notes, as a trace of their own work. While avoiding excessive formalization, however, few are those who claim not to produce anything and to keep only a mental trace.

Also in this case the sharing with colleagues is predominant, fairly evenly divided between those who use dedicated spaces within their working hours and those who work beside the time and outside school areas: they are at home with their colleagues.

The scheme or map is the most used product, in line with the draft mode or notes, once again processed with a simple word processor.

Despite being informal productions, such schedules appear very rich: they include above all the activities to be realized and the contents to be taught, but also the objectives or the competences to be reached, the methodologies and, to a lesser extent, the time of realization.


## The questionnaire from Spain: analysis

The teachers who answered the questionnaire were 129, almost all located in the Seville area. The overall profile of the participants sees a preponderance of women (66%), the average age is 46 years.
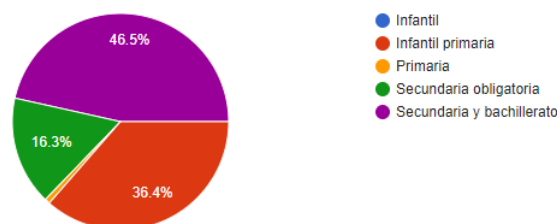
**Sexo**
129 responses



- Mujer
- Hombre

34.1%
65.9%
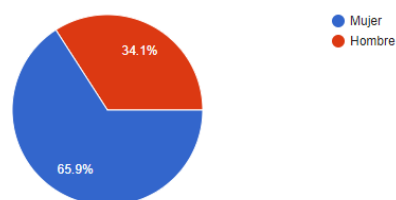
As for the type of school, secondary school teachers and "bachillerato" (16-18 years old) prevail, accounting for 46.5% of the sample. The pre-primary school follows, with 36%, then the compulsory secondary school (13-16 years), with 16%. No response from teachers of child education and only a response from primary school teachers.

**Tipo de centro**
129 responses



- Infantil
- Infantil primaria
- Primaria
- Secundaria obligatoria
- Secundaria y bachillerato

46.5%
16.3%
36.4%

The sample is representative of a wide range of disciplines: teachers representing the linguistic field are very representative. From the point of view of service seniority, the sample is composed by very experienced teachers, the average is 20 years of career. They are also quite used to the use of technologies, with an average of 10 years of use.

58% of the sample deals with responsibility and representation functions within their own school, 55% participate in projects aimed at introducing innovative elements within the educational and training processes of their own institute and 84.5% has specific ICT training.
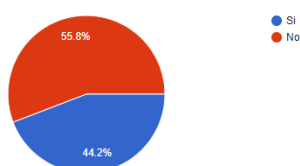
Co-funded by the
Erasmus+ Programme
of the European Union

DEPIT

¿Ha ocupado puestos de responsabilidad en el Centro Escolar?

129 responses
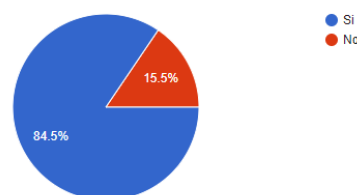


- Si
- No

41.9%
58.1%
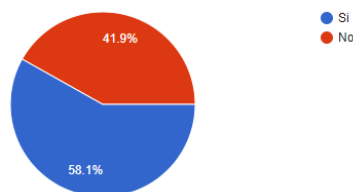
¿Participa actualmente en algún proyecto de innovación en su Centro?

129 responses



- Si
- No

55.8%
44.2%

¿Ha realizado algún curso de formación en TIC?

129 responses



- Si
- No

15.5%
84.5%

## ANNUAL DESIGN METHODS

With regard to the design modalities of the teachers interviewed, the majority of them follow the ministerial guidelines and adopt an annual school plan. Very few follow the textbook. A type of collaborative design prevails, shared with the colleagues of the institute.

Compared to autonomy in educational choices, the areas in which teachers have the greatest impact on decision-making are those related to methodologies and activities.

The design structure is mainly narrative or organized in the form of a table, through a word processing program. Many teachers resume the programming of previous years, adapting and modifying it according to new needs. The situation regarding the dissemination of the annual design is varied, in some cases it is completely public, in others it is only available to insiders.

## DAILY DESIGN METHODS

The daily design is more diversified and has a high degree of customization. It is mostly carried out in an individual form, outside the school context and with very different types of structuring, realized through a word processing program.

It seems to be quite detailed as it explicitly contains the objectives, the contents, and the description of the activities, the methodologies and the working time. The prevailing starting point is represented by the activities considered significant by the teacher, secondly starting from the objectives or needs of the class.

The difficulty most expressed is to find ways and times to work in groups and to share planning with colleagues. It is not complicated to find materials or activities already prepared to be proposed in the classroom.

## COMPARING THE TWO COUNTRIES

1. The sample: there are similarities in the sample compared to sex (female prevalence), age and length of service (both high) of the teachers. For the Italian school, mainly teachers of primary school respond, for Spain teachers of secondary school. In both countries these are specialized

teachers who are strongly involved in the various processes of the educational reference system. At the local level, the Italian sample is more significant because it is more heterogeneous.

2. Annual design: similarities are found both in terms of content and design methods. Both the design bases (national indications and indications inside the school), and the spaces of autonomy intended for individual teachers are very similar. Spanish teachers in part prefer a form of narrative design, while Italians use graphic or tabular forms. The substantial difference lies in the use of the textbook as a design track, present in Italy, actually absent in Spain.

3. Daily planning: in this case there are differences in the degree of explanation. Spanish always design implicitly and with a high degree of structuring, Italians have more varied styles, often using notes, sometimes they rely on mental traces. Another difference lies in sharing: Italian teachers use the collaborative form also for the daily planning, which instead for the Spanish is an individual type activity.

4. The problems encountered: both the samples wish for greater sharing and collegiality in the design, for which they would like moments and dedicated spaces.